Memory, Phantasia, and the Perception of Time: A Commentary on Aristotle's De Memoria Et Reminiscentia

Evan Strevell

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MEMORY, PHANTASIA, AND THE PERCEPTION OF TIME:
A COMMENTARY ON ARISTOTLE’S DE MEMORIA ET REMINISCENTIA

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Submitted to the McAnulty College and Graduate School of Liberal Arts

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By
Evan Robert Strevell

December 2016
MEMORY, PHANTASIA, AND THE PERCEPTION OF TIME:
A COMMENTARY ON ARISTOTLE’S DE MEMORIA ET REMINISCENTIA

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ABSTRACT

MEMORY, PHANTASIA, AND THE PERCEPTION OF TIME:
A COMMENTARY ON ARISTOTLE’S DE MEMORIA ET REMINISCENTIA

By
Evan Robert Strevell
December 2016

Dissertation supervised by Dr. Ronald Polansky

My dissertation is a commentary on Aristotle’s treatment of memory and remembering in Aristotle’s *De memoria* that concentrates on four central issues. First, what is the proper object of memory? There is a general consensus that Aristotle restricts memory to the past, but there is disagreement over what this means. I argue that the proper object of memory is the remembering subject’s own past activity on the grounds that unless what is remembered is perceived as connected to the subject’s prior cognition, what is remembered will not be conceived as having happened before. By rejecting as memorable in a governing sense any object that does not include the remembering subject’s past activity, Aristotle is able to allow for lesser ways of speaking about memory, thereby allowing for a comprehensive account. Second, because memory is of the absent past, Aristotle is committed to the position that a present affection must serve
as a proxy. I explain how the etiology of the present proxy gives the proxy the causal power to represent the remembering subject’s absent past anew. Because the remembering subject is aware of a present proxy, I argue that Aristotle is committed to a form of indirect perception in the case of memory, but one that preserves realism (that what is remembered is precisely one’s past activity) in virtue of the causal powers of the proxy. The third central issue concerns how remembering is possible. Because remembering is by means of a present proxy, an impasse arises. How by attending to a present proxy does one remember the absent past? Even if the present proxy is a copy of the absent past, it is unclear why the remembering subject should perceive the present proxy as a copy. Heretofore, commentary has universally suggested that because the present proxy is a likeness to the absent past, the remembering subject is able to perceive the proxy as being a copy. Such an interpretation fails to solve the impasse, for it does not explain why the remembering subject should become aware of the proxy as a copy. I argue that Aristotle models remembering on sense perception. The sense power of the remembering subject is assimilated to the activity of the memory proxy, thereby becoming aware of the proxy as a copy. Finally, there has been confusion over what memory is. Aristotle defines memory as a *hexis*, but what this means has been under appreciated. I argue that *hexis* is ambiguous between a disposition (first actuality) and an activity (second actuality) which captures memory in both its applications as retention and remembering. The categorization of memory as a *hexis* has been under appreciated insofar as a *hexis* indicates not only retention and remembering, but a disposition in virtue of which a remembering subject is disposed well or poorly toward its past. The categorization of memory as a *hexis* nicely allows for idiosyncrasy pertaining to memory.
DEDICATION

For Dad, who always urged of me: *fingas dum vincas.*
ACKNOWLEDGEMENTS

I am thankful for the direction and support of my director, Ronald Polansky. Our conversations, your encouragement, advice and comments were tremendously helpful in the course of my writing. Thanks also to Lanei Rodemeyer and Patrick Miller for reading the dissertation with such care and providing such valuable criticism. Many thanks to George Shea, whose dissertation misery was the best company I could possibly have had. I am grateful for the support and encouragement I have received from the Department of Philosophy at Xavier University, in particular from Tim Quinn, Richard Polt, Timothy Brownlee, James Wood, but especially from Gabriel Gottlieb whose advice and comments helped shape the dissertation on many points. Many thanks also to Kristen Renzi for her constant encouragement and help. Finally, thank you to Stephanie Findlay. For your love, for your sacrifice, and for your refusal to let me fail, I can never be grateful enough.
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Introduction

This dissertation is a commentary on Aristotle’s treatment of memory in *De memoria et reminiscentia* (*On Memory and Recollection*). The terms for that which Aristotle examines comprehensively in *De memoria* are μνήμη, τὸ μνημονεύειν, and τὸ ἀναμμηνήσκεσθαι, respectively, memory, remembrance, and recollection. My dissertation primarily engages with Aristotle on the topic of memory and remembrance.

Memory was of much interest to Aristotle’s predecessors and his contemporaries. Before the dawn of literacy in Greece circa 8th century BC, culture and thought could be preserved only through memory and subsequent oral transmission from one generation to the next. Hesiod cites Mnemosyne (Memory, Μνημοσυνή) as the mother of the nine muses, divine patrons of poetry, song, history, and astronomy, making memory the source for the arts and learning. Hesiod and Homer both begin their works by appealing to the muses to speak and sing through them. Lacking technology for easy storage of information, the classical age unsurprisingly saw the development and refinement of an art of memory. Memory and recollection were essential for the mastery and delivery of rhetorical displays. In *Republic* vi, 486c7-d2, Socrates mentions good memory among the qualities without which no one will be naturally suited for philosophy (the forgetful learn and progress slowly). Reading the opening lines of the *Republic*, we cannot fail to

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1 See Francis A. Yates (1966), the standard for all subsequent scholarship on the *ars memoria*. The origin story goes that the classical poet Simonides was performing a recital at the banquet of a miserly host who refused to pay the poet his full fee. Simonides was called outside to meet with someone who would speak with him, but when he got outside, no one was there. Before reentering his host’s hall, the roof collapsed, crushing everyone attending to death, disfiguring the bodies beyond identification. Simonides subsequently realized that he could remember everyone’s identity by their place at the banquet table; the art of organizing and storing memories according to place was discovered. Aristotle refers to this method in *De memoria*. 

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notice the kind of memory with which Plato equips his philosophical hero. In the 
*Phaedrus*, Socrates famously warns against the loss of excellence in memory that follows literacy and the loss of intellectual self-reliance that the loss of memory entails (274c5-75b2). Aristotle echoes the point of intellectual self-reliance in *Topics* viii 14, urging that excellence in memory for arguments, principles, and associated prominent premises increases dialectical skill and reasoning by ensuring that all the crucial points needed for dialectical debate will be familiar and ready at hand to the mind.

Despite the important role of memory in Greek intellectual and cultural life, memory seems not to have much occupied Presocratic thinkers, whose collective gaze was focused more on the cosmos than the *anthropos*. Plato famously treats of recollection mythically in the *Meno* and the *Phaedo*. The *Philebus* and *Theaetetus* both examine memory, but not comprehensively and only in relation to other concerns. *De memoria* is the first philosophical inquiry devoted singularly to the topic of memory. Because memory and recollection are affections common to both the soul and the body, the study of memory falls within the study of physics. Aristotle explains memory and recollection in terms of the four causes for which the natural philosopher must account in the explanation of natural phenomena. Aristotle articulates what each is (form), the part of the animal to which they belong (matter and substratum), the moving causes on account of which memory and remembering occur (sense perception and *phantasia*), and that for the sake of which they arise. There is also an examination of the primary impasses concerning how memory and recollection are possible. The articulation of memory and recollection in terms of the four causes and the examination of the impasses
concerning their possibility furnishes the first comprehensive explanation of the subject matter.

*De memoria* is of great interest due to the crucial role memory plays in learning and the formation of character. Memory allows for a continuum between present and past cognition without which there could be no awareness beyond the specious present. Memory allows an animal to inhabit a world beyond the immediate particulars of sense perception. The ability to return to past cognitive activity allows for a richer set of desires and moving causes of animal locomotion regarding pursuit and avoidance. Retention of past cognition in humans allows for the storage of a vast array of particulars which allows for the abstraction of universals from which arises productive, practical, and contemplative science. In *Metaphysics* i 1 and *Posterior Analytics* ii 19, we see how sense perception gives rise to memory, memory to experience, and experience to knowledge, i.e., the arts and sciences. Memory also enters into the formation of character. Retention of what is pleasant and painful informs voluntary choice of action, pursuit, and avoidance.

Memory is also of great interest in its own right due to the enigmatic nature of the subject matter. We might wonder whether memory is a capacity in its own right or merely an application of another faculty. For instance, we speak often of remembering what we know and if we remember something, we may speak as though what is remembered is known (“I know that it was her with whom I spoke last week”). What memory concerns is also a matter for wonder. We speak often of remembering things past, but also of things that do not have past aspect. For example, we speak of remembering facts (the capital of Norway), or how to do something (how to play tennis)
and these are not necessarily things past. But whether memory concerns both the past
and the present, we speak of memory at least as concerning the past and this gives rise to
difficult philosophical questions. Is memory limited to the past activity of the
remembering subject or does it include past things in general? And how is memory of
the past possible? Remembering takes place in the present and the past is gone and
absent. How can present cognition be of what is past? How is it possible to travel back
in time through an act of cognition? What distinguishes true remembering from false
remembering?

We may be ready to accept that Aristotle has a plausible view of what memory is
and what characterizes the act of remembering and its intentional objects. Aristotle had
access to the experience of memory and remembering in the same way that we do:
through the consciousness of his own acts of remembering and the opinions of others
about their experience with their memory. Yet, we may well wonder whether there is
much to learn from Aristotle regarding the causes in virtue of which memory and
remembering occur. Aristotle had no access to magnetic resonance imaging. It is now
possible to correlate brain activity with the exercise of the various psychological
capacities examined in the *De anima* and *Parva Naturalia*. Recent advances in
neurobiology suggest that remembering variously defined has much to do with
electrochemical signaling between neurons. Instead of neural systems in the brain,
Aristotle speaks of motions (*kinêseis*) in the seat of perception, of which some are sense-
like presentations (*phantasmata*) derived from and similar to prior cognition, while others
are motions proportionate to passage of time. If we are skeptical of Aristotle’s
physiological commitments, *De memoria* is still worth careful study for its account of
what memory is and what cognitive acts it encompasses. But we should see that *De memoria*’s account of the causes of memory are also worthy of serious consideration. The retained *phantasma* is not conceptually in contradiction with the memory traces (“engrams”) posited in neurobiology. And neural activity is certainly a kind of motion. Hence, if nothing else, how *De memoria* models memory and remembering is worthy of serious consideration; if we wish to cite neural activity rather than *phantasmata* in motion in actuality, still, Aristotle’s conception of the role of *phantasmata* in memory is suggestive for what neural activity must accomplish in order to bring about remembering. Although situated within the study of physics broadly, *De memoria* contains no explicit appeal to principles of his physics or zoology. Only the principles secured about the soul in *De anima* are explicitly assumed (see DS 436a5) and in the main *De memoria* appeals only to those principles that concern the imagination. *De memoria* is remarkably self-contained and should be judged on its own merits.

**Chapter synopses**

Chapter one explains the place of *De memoria* within Aristotle’s philosophy generally and, more particularly, within the *Parva Naturalia*. Memory (and recollection) is the second topic in the *Parva Naturalia*, ‘little physical treatises’ that investigate prominent vital animal affections common to both the soul and the body. Hence, memory belongs broadly to the study of physics, but more narrowly straddles psychology and animal physiology. Chapter one examines the subject matter, organization, and aim of the *Parva Naturalia*, as well as the method of inquiry and the questions that must be answered in an investigation of affections common to the soul and the body. The
examination explains why Aristotle asks what he does of memory and why those questions are appropriate. Chapter one also explores the relative importance memory has within Aristotle’s philosophy.

Chapter two engages Aristotle’s initial characterization of memory and remembering. This chapter examines how Aristotle distinguishes memory and remembering from sense perception, opinion, and knowledge, and analyzes the initial definition of memory. How to distinguish memory from other forms of cognition is of great interest. We may see that in our normal manner of speaking we do not much distinguish between memory, remembering, and recollecting. We use verbs of recalling, remembering, and recollecting in much the same way and in reference to the same objects. First, we might wonder how to distinguish memory from other acts of cognition for taxonomical purposes. We often speak of remembering in ways that suggest it is a function of other sorts of cognition. For example, we speak of remembering things that we know (demonstration of geometrical proofs), how to do things that involve skill (build a house or play an instrument), and we speak of remembering facts and states of affairs (that Socrates lived in Athens and died in 499 BC). Does remembering overlap with knowing or opining?

Second, we might wonder what are the proper objects of memory. Do we remember anything that was previously acquired even if this is not meant as something past or do we remember only our own prior activity? Do we remember things that are past only or also things not past? We often say that we remember what we did previously, but also often say that we remember things that do not have past aspect, such as how to bisect a given rectilinear angle. The ambiguity of the object of memory as
between something past and something present was present in Greek expressions as well. Egbert Bakker notes instances in Homer where μιμνήσκω (remember, recall) refers to cognition of present events such as when warriors are urged or reported to remember battle in the *Iliad*.² Hektor, rallying warriors in midst of an Achaean attack, exhorts, “Friends be you men, and remember (μνήσασθε) ferocious courage” (*Il*. 6.112). Having been rallied by Agamemnon and a sign of favor from Zeus when in danger of having their ships set alight by Hektor, the Achaeans, “with much force rushed upon the Trojans and remembered (μνήσαντο) battle” (*Il*. 8.252).

In *De memoria*, we see Aristotle trying to give probably the first comprehensive explanation of what memory is. Because memory seemingly enters into much cognition, it is of great interest properly to distinguish memory from other forms of cognition so that scientific and philosophical investigations into psychology do not muddle and mistake the functions of the various forms of cognition for others. Following the model for articulating capacities for activities in *De anima*, Aristotle first identifies the object of remembering and how remembering relates to its object. Chapter two argues that the genus of the proper memory object (τὸ μνημονευτόν) is ‘what is past’ (τὸ γενόμενον) and that ‘prior (πρότερον) cognition of the remembering subject’ supplies the *differentia*. The reason why is that objects must be attached to the remembering subject’s prior cognitive activity in order to have past aspect in the relevant sense. Remembering is a perception of a sort by the animal of its past cognitive activity that includes the awareness that what appears is the animal’s own activity and that it is prior.

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After securing the proper object of memory and articulating how remembering relates to the object of memory, Aristotle initially articulates memory as a *hexis* or affection of some mode of sense perception or supposition, after time has passed. There has been some confusion over how to read *hexis*. David Bloch argues that *hexis* only means attending to a memory as second actuality. Bloch denies that there is such a thing as a memory disposition and capacity for entering into remembrance. I argue, citing *Meta* v 20 and Plato’s *Theaetetus*, that memory is ambiguous between disposition (first actuality) and activity (second actuality). Memory (μνήμη) may refer to a retention of memories that disposes to enter into acts of remembering, to the activity of being aware of memories retained, and to a memory that is retained.

Chapter three has two primary aims, both related to memory in its application as retention. First, chapter three furnishes an account of the vehicle for memory content, what Aristotle calls a *phantasma*. The *phantasma* is a moving cause and *explanans* of how memory arises in both its applications as retention and as remembering. Because Aristotle is committed to the view that memory concerns the remembering subject’s own past activity, an impasse arises. What appears to the remembering animal is a present affection. How by attending to a present affection (appearance) does the remembering animal attend to its absent past? Aristotle posits that the present affection is a *phantasma* retained and derived from prior cognitive activity that serves as a proxy for the animal’s past activity. Chapter three argues that Aristotle is committed to a form of what I term “indirect perception” in the case of memory. The absent past is perceived indirectly through a *phantasma* that functions as a proxy for the absent past. Chapter three

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examines the nature of the *phantasma* and considers the etiology in virtue of which the *phantasma* is able to serve as a proxy for absent, past cognition. The memory *phantasma* is derived from what Aristotle calls the *asithêma*, which is present in acts of perception. Aristotle nowhere defines what an *asithêma* is and there is much dispute over its status. The third chapter presents a comprehensive analysis of Aristotle’s use of *aisthêma* and shows how derivation from the *aisthêma* enables the memory *phantasma* to serve as a present proxy for past cognitive activity. The second aim of chapter three is to supply an account of the underlying physiological conditions of retention. The account of the physiology that enters into retention supplies the material cause of memory and lays the groundwork for understanding memory as a *hexis* that disposes us well or poorly toward our past activity much as character disposes us well or poorly toward pleasures and pains.

Chapter four is devoted to a decisive impasse concerning how memory in its application as remembering is possible. The seed for my motivation to write a dissertation on Aristotle’s treatment of memory was initially planted in a seminar on Husserl’s phenomenology of time consciousness concerning the very impasse Aristotle raises and to which his theory of indirect perception in the case of memory commits him. In the course of his thinking on time consciousness, Husserl eventually came to reject and attack the conception of memory as some version of what Husserl sometimes calls pictorial or image consciousness.\(^4\)

It is fundamentally wrongheaded to argue: How, in the now, can I know of a not-now, since I cannot compare the not-now—which, of course, no longer exists—with the now (namely, with the now in the memory image that I have on hand in the now). As if it belonged to the essence of memory that <I> take an image on hand in the now for another thing similar to it, and that I could and must compare them as I do in the case of pictorial representation. *Memory* is not image-consciousness but something totally different…A comparing of what is no longer perceived but merely remembered with something

\(^4\) For an excellent overview of the evolution of Husserl’s thinking concerning memory and remembering, see John Brough (1975) 40-62.
beyond it makes no sense.\textsuperscript{5}

All variations of an image theory of memory share a problem: how by perceiving what is meant as a present image will one remember one’s absent past? The image is present, but memory should be of the past. By having the one who remembers mean the object of memory as a present image, the image theory seems to trap the remembering subject in the present. For even if the image is a replica or representation of the absent past, it is unclear why the one who remembers should mean what is present to be the appearance of what has occurred previously. Further, Husserl wonders how the one remembering will mean the present appearance as an image of the absent affair. Because the affair of which the image is supposed to be the image is absent, how will the one who remembers take the present image to be an image of the absent affair? The absent affair is not available for comparison, so why should the one who remembers suppose the present image is a representation of that absent affair?

Aristotle raises practically the same impasse as Husserl.\textsuperscript{6} Unlike Husserl, who takes the impasse as insoluble and, hence, as evidence that a theory that makes remembering a kind of indirect perception of the past by way of present images must fail,

\textsuperscript{5} Husserliana X, 316; John Brough (1991) 328.

\textsuperscript{6} But if such is what occurs regarding memory, which of the two does one remember, this affection [the present \textit{phantasma}] or that from which the affection came about [past cognition of X]? For if it this affection, we would remember none of the absent matters [past cognitions of X]. But if it is that absent matter, how by perceiving this present affection do we remember that which we do not perceive? Even if there is something like an impression or picture in us, on account of what would perception of this be memory of the other rather than perception of this very thing? For the one in actuality with memory beholds this affection and perceives this. Therefore, how will one remember what is not present? Or is it somehow possible for this to occur? (\textit{ἀλλ’} εἰ δὴ τοιοῦτόν ἐστί τὸ συμβαίνον περὶ τὴν μνήμην, πότερον τοῦτο μνημονεύει τὸ πάθος, ἢ ἐκεῖνο ἄρ’ οὐ ἔγένετο; εἰ μὲν γὰρ τοῦτο, τὸν ἀπόλυτον οὐδὲν ἄν μνημονεύομεν εἰ δὲ ἐκεῖνο, πῶς αἰσθανόμενοι τοῦτο μνημονεύομεν οὐ μὴ αἰσθανόμεθα, τὸ ἀπόλ.; εἰ τ’ ἐστὶν ὃμοιον ὃσπερ τύπος ἢ γραφή ἢ ἡμῖν, ἢ τοῦτον αἰσθήσεως διὰ τί ἀν εἰπὶ μνήμη ἔταρκον, ἀλλ’ οὐκ αὕτοι τοῦτον; ὁ γὰρ ἐνεργῶν τῇ μνήμῃ θεωρεῖ τὸ πάθος τούτου καὶ αἰσθάνεται τούτου. πῶς οὖν τὸ μὴ παρόν μνημονεύσει; εἰ δὴ γὰρ ἄν καὶ ὁρὰν τὸ μὴ παρόν καὶ άκοινον. ἢ ἐστιν ὃς ἐνδέχεται καὶ συμβαίνειν τοῦτο, 450b11-20.)
Aristotle apparently thinks that the impasse has a solution and that he has it. In my survey of the secondary literature, I was disappointed by the interpretations of Aristotle’s solution to the impasse. The existing commentary has Aristotle say merely (1) that the present memory proxy is a likeness of the remembering subject’s past cognitive activity and (2) that because of (1), the soul can take the *phantasma* as a likeness to its past cognitive activity. If this is all that Aristotle says, then he fails to meet his own challenge! For even if there is a present proxy in the remembering subject that is factually a likeness to some past cognitive activity, why should the animal perceive the present proxy (that is in fact a likeness) to be the appearance of its past? I wanted to see whether Aristotle supplies an answer more intellectually satisfying than those with which commentators have heretofore attributed to him. I think he does.

Chapter four argues that Aristotle models memory on perception. Aristotle crucially has remembrance analogous not to judging X as such and such, but to sense perception. Sense perception is not in actuality in virtue of itself, but in virtue of its sensible object. When acted upon, the sense power becomes such as its sensible object is in actuality. My thesis is that the sense power has a capacity to assimilate to the activity of a *phantasma* actualized as a copy of past cognition and a motion proportionate to past time. When the sense power is assimilated to this activity, the soul becomes such as the copy is and perceives it with a sense of time. Hence, remembering occurs when a *phantasma* in actuality as a copy and a motion proportionate to past time act on the sense power. Remembering is *phantasia* combined with a sense of time. I make my case in three stages. First, I establish that awareness of memory *phantasmata* is a kind of

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perceiving. Second, I provide a brief overview of how the sense power relates to its objects. This provides the foundation for the third stage where I argue that remembering according to actuality is an assimilation to memory *phantasmata*. In addition to providing a satisfactory way through the impasse, chapter four also establishes the part of the soul to which memory belongs, the perceptive part, and explains why memory must belong to the perceptive part.

The fifth and concluding chapter has three aims. First, I explain how the final, considered definition of memory articulates memory in its applications as both dispositional retention (first actuality) and remembering (second actuality) in terms of the four causes. Second, I explore the rationale and appropriateness of categorizing memory as a *hexis*. Third, I survey some recent philosophical conceptions that define memory much more broadly than the restrictive governing sense favored by Aristotle. I argue for the appropriateness of Aristotle’s view of the primary sense of memory, but also show how he allows for our looser way of speaking about memory. Because *De memoria* at once provides a strict taxonomical definition of memory in the primary sense and allows for looser ways of speaking, Aristotle’s account of memory is comprehensive in its explanation.
Chapter One: The place of *De memoria* within the *Parva Naturalia* and Aristotle’s philosophy.

Memory (and recollection) is the second topic in the *Parva Naturalia*, the ‘little physical treatises’.\(^8\) Other topics include senses and their sensible objects, sleep and waking, dreams (and prophecy through dreams), length of life, youth and old age, life and death, and inhalation and exhalation.\(^9\) The subject matter, organization, and aim of the *PN* is set out at the beginning of *De sensu*, the first of the inquiries. What binds the diverse subject matter of the investigations together is that all are “actions (πράξεις) shared by both the soul and the body” (436a6-8). These actions involve body, but are due to soul. Lacking choice, plants and beasts do not act in any practical sense (see *NE* iii 2), but Aristotle uses πράξεις in various works on physics for anything done in the service of some end.\(^10\) Among the actions listed are sense perception, but also spiritedness and pleasure and pain; these encompass a broad variety of affections that a natural being is organized to do or undergo. Of the actions common to body and to soul some are primary, i.e., sense perception, while others follow as a result of the presence of sense perception. The aim of the *PN* is to consider what each (τί ἕκαστον, 436a16) of the affections common to soul and body is and on account of what causes they occur (διὰ τίνας αἰτίας συμβαίνει, a16-17). ‘What each is’ refers to essence or form, while ‘causes

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\(^8\) The title *Parva Naturalia* dates to the latter 13\(^{th}\) century, but it is not of Aristotelian provenance. See W.D. Ross (1955) 1.

\(^9\) Quite possibly the progressive motion in animals should be included, i.e., *De motu animalium*. See my discussion of the categorization of the nine topics dealt with in the *Parva Naturalia* below.

\(^10\) In *GA* 731a24-26 Aristotle refers to the πράξεις of plants as the production of seed. In the context of physical investigations, πράξεις is sometimes used as a synonym for function or natural end. Such usage is illustrated at *PA* 645b14-17 where Aristotle urges that natural bodies are organized for the sake of complex actions.
on account of which’ the affections arise indicates the material (i.e., the substrate), moving, and final causes where relevant. We expect special emphasis on material causes because the body’s role in vital actions is to be examined. The treatises are organized around (1) the primary action that involves the soul and the body, namely, sense perception, and prominent vital actions that follow due to the presence of sense perception (e.g., memory and dreams), and (2) four prominent pairs of affections common to the soul and the body to which Aristotle gives special prominence: waking and sleeping, youth and old age, inhalation and exhalation, and life and death.

I will now examine more closely how Aristotle sets things up. The PN follows on principles concerning the soul secured in *De anima*. The purpose of the PN is to extend the investigation into the principles of living nature to the role the body plays in activities due to soul. The PN also takes up actions dependent upon the soul and the body that follow from the primary vital operations of sense perception and nutritive activity. The opening lines of *De sensu* set out the dependency of the investigations to come on *De anima*.

Because the soul has been demarcated previously by itself (καθ’ αὐτήν) and in terms of the capacities that belong to each of its parts, what follows is to make an investigation into animals and all beings possessing life, what actions by them are unique and what actions are common. The things said about the soul are to be assumed…¹¹ (436a1-5)

The *De anima* determines (1) what the soul is, (2) what attributes it has by itself, and (3) what attributes belong to the composite living being due to the soul (*DA*, 402a7-10). The only operation attributable to soul by itself is intellect, which cannot possess an organ

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¹¹ Ἐπεὶ δὲ περὶ ψυχῆς καθ’ αὐτήν διώρισται πρότερον καὶ περὶ τῶν δυνάμεων ἐκάστης κατὰ μόριον αὐτῆς, ἐξόμενόν ἐστι ποιήσασθαι τὴν ἐπίσκεψιν περὶ τῶν ζῴων καὶ τῶν ζωῆς ἐχόντων ἀπάντων, τίνες εἰσίν ἵδια καὶ τίνες κοιναὶ πράξεις αὐτῶν. τὰ μὲν οὖν εἰρημένα περὶ ψυχῆς ὑποκείσθω…
(429a24-27). Other primary operations of soul (nutrition, sense perception, and movement according to place) belong to the living soul-body composite, but are due to soul. Soul by itself (καθ’ αὐτός) may mean that the De anima takes up features without which no soul can be the sort of soul it is (i.e., nutritive soul, sense perception, or intellect) or that it takes up those operations attributable only to ensouled beings. While the intellect is bodiless, other functions of soul that require an organ for their operation are still operations in virtue of the soul because they do not arise in inanimate beings, i.e., such operations occur in virtue of being ensouled and not in virtue of being a body. In De anima ii 1, Aristotle argues for the existence of soul as other than body (though not separable) on the grounds that not all natural bodies exhibit self-nutritive activity; merely being a natural, organized body does not account for nutritive function. Hence, the natural body is not the source of life, but the underlying subject for such a source and this is nutritive soul. Because certain vital operations are present in soul alone (the activity of intellect) or are not present without soul (nutritive and perceptual activity), such operations occur in virtue of soul. Because the soul is the actuality of a natural body possessing life in potency (i.e., of natural bodies that do not possess life in virtue of being a body), Aristotle cannot avoid speaking of the body in De anima. Although the soul is not defined without reference to the body, it is distinguished from the body as actuality and form are distinguished from potentiality and material. Because the living body is the instrument without which nutritive and perceptive soul cannot be realized, Aristotle speaks of the body in De anima, but only as much as is necessary to arrive at the needed

12 Although the intellect cannot have an organ (a material of certain sort would impede the reception of certain forms), thinking still has a necessary relation to the body because there is no thinking without phantasmata (see DA 431a16-17 and DM 449b30-50a1) and phantasmata are embodied in the organs of sense and the blood.
explanations of the soul and its capacities. If the body is organized for the sake of realizing vital capacities that are due to soul, it is appropriate to treat of the soul as the primary source of these capacities first and independently as possible from the body.

After accounting for the primary, basic operations of the soul in *De anima*, it is appropriate more fully to discuss the role of the body in those primary operations and to investigate prominent actions dependent on the primary operations. The examination moves from what concerns the soul by itself to examine “animals and all beings possessing life, what actions belonging to them are unique and what actions are common” (*DS* 436a2-5); the focus moves from the soul by itself to the role of the soul-body composite in vital operations. *De sensu* revisits and expands on the account of sensation provided in the *De anima*, emphasizing the material composition of the sense organs, media, and objects. *De longitudine vitae, De juventute, De vita*, and *De respiratione* all take up various actions that follow from the nutritive activity of plants and animals, particularly the physiological relation to heat in the preservation of life.

The other principal matter of concern in the *PN* is an examination of some of the prominent vital actions that follow from the primary soul capacity of sense perception. Some actions are common to all living creatures generally (length of life, life and death), while others have a restricted range (respiration, memory). The inquiry deals with actions common and peculiar to all beings possessing life (436a11-12), so both plants and beasts are indicated, although the inclusion of sense perception and the parade of dependent affections indicates that special prominence is given to actions crucial for animal life. Exclusive to animal life are memory (recollection is limited to humans), waking and sleeping, dreams, and respiration. All living things partake of life and death.
because these follow from nutritive activity. Plants, possessing only nutritive capacity, lack a rich set of secondary operations dependent on the primary operation of nutrition, which includes metabolism (of food and regulation of heat and moisture), growth, and reproduction. Due to the presence of sense perception, animal life can support a rich cast of secondary actions: memory, spiritedness, appetite, desire (which in humans includes wish in addition to appetite), and pleasure and pain.

The actions that remain to be investigated after those pertaining to soul by itself are said to be primary (πρῶτον, a6) and the most important things (τὰ μέγιστα, a7) to examine. These actions are (1) common to the soul and the body and (2) are present in nearly all animals.

Clearly the most important features, both those common and those unique among animals, are the features common both to the soul and to the body, such as sense perception, memory, spiritedness, appetite, and desire generally, and in addition to these also pleasure and pain; for these are present nearly in all animals.13 (436a6-11)

The most important features that belong to animals are the actions common to the soul and the body (κοινὰ τῆς ἐπὶ ψυχῆς ὄντα καὶ τοῦ σώματος). The soul is the source of the movements and actions that an animal possesses in virtue of itself. Hence, the soul is most determinative of animal nature, both the activities an animal engages in and the organization of the animal body. The actions that belong jointly to soul and to body are the most important to examine because these indicate actions proper to and not incidental to an animal’s nature. Whereas De anima can be said to be the examination of the source most responsible for the nature of living beings, the Parva Naturalia is an examination of the soul-body composite, a kind of psycho-physiology of vital operations. Sense

13 φαίνεται δὲ τὰ μέγιστα, καὶ τὰ κοινὰ καὶ τὰ ἰδία τῶν ζῴων, κοινὰ τῆς τε ψυχῆς ὄντα καὶ τοῦ σώματος, οἷον αἴσθησις καὶ μνήμη καὶ θυμός καὶ ἐπιθυμία καὶ ἀλώς ὀρεξίς, καὶ πρὸς τούτων ἥδονη καὶ λύπη· καὶ γὰρ ταῦτα σχέδον ὑπάρχει πάσι τοῖς ζῴοις.
perception is the primary activity in which an animal engages in virtue of being an animal. The various affections and dispositions that can issue from sense perception are not present for all animals and thus differentiate the diverse kinds of animal life. Such actions are first in importance because they belong to the animal in virtue of itself and comprise its very nature. While not an exhaustive list, the features mentioned (memory, spiritedness, appetite, desire, and pleasure and pain) have primary relevance among the natural, vital animal actions. These functions are the work for which the animal body generally is organized (generally, because the features mentioned apply nearly, but not to all animals). The animal features cited in 436a8-10 are not supposed to constitute a complete catalogue of the important attributes common to the soul and the body. “For example” (ο郤ο郤, 436a8) indicates that the list is illustrative rather than exhaustive. For instance, Aristotle does not mention imagination, perhaps the most significant attribute that follows from sense perception. However, the inclusion of desire and memory in the list of features provided indicates that imagination is already assumed (imagination and some of its physical conditions are discussed in the examination of memory, sleep, and dreams). And of the features mentioned at a8-10, only sense perception, pleasure and pain, and memory are examined in the PN.

In addition to the animal attributes mentioned in 436a8-10, Aristotle examines four pairs that limit and mark off the investigations in the PN: waking and sleep, youth and old age (the length of life), inhalation and exhalation, and life and death. These four pairs are the most important of the features common to the soul and to the body to investigate, probably because they encompass all that is decisive in animal and plant life (a11-14). Length of life and life and death belong to all ensouled beings because these
enter nutritive activity. Preservation of life depends on proper regulation of heat and moisture, which enters into the examinations into length of life, death, and respiration. Waking and sleep extend to all animals because these occur as result of sense perception. Waking and sleep are among the most important topics because these intersect with nutritive function and the preservation of animal life. The senses have being as potencies and so cannot always be at work. Sleep is crucial for animal life because it prepares the senses for being at work. Finally, inhalation and exhalation belong to a restricted range of animal life that regulates heat through respiration, again connecting to life and death.

The topics in the PN fall into two main categories. The first consists of sense perception and some dependent affections. The second group consists of a cohesive and continuous examination (see 467b10-13) of physiological causes pertaining to the preservation and loss of life centered on the regulation of heat and moisture in ensouled beings. Order of the topics is as follows: (1) sense perception, sense objects and sense media, (2) memory, (3) sleeping and waking, (4) dreams, (5) divination of dreams, (6) length of life (7) youth and old age, (8) life and death, and (9) respiration. 

14 We may wonder at the order of presentation. In De anima, Aristotle sets down the principle that higher-order psychical operations are dependent upon and do not appear without the
lower. The nutritive can be separated from the perceptive and intellect, and sense
perception from intellect, but sense perception and intellect cannot be separated from the
nutritive nor the intellect from sense perception (DA, 415a1-3). Hence, the De anima
takes up the nutritive soul first, followed by sense perception, and then the intellect. Yet,
in De sensu, Aristotle emphasizes that all of the attributes mentioned (πάντα τὰ λεχθέντα
κοινὰ, 436b2), i.e., 1-9 as well as health and disease (436a17), depend on sense
perception.

That all the common things mentioned belong to both the soul and the body is not unclear. For all
those mentioned occur with sense perception or on account of sense perception, some of them
happening to be affections of sense perception, others dispositions, but others guards and preservers of
it, and others the destruction and deprivation of it.\(^{15}\) (436b1-6)

The argument is that all the affections mentioned are common to both the soul and body
on the grounds that all connect to sense perception, which belongs to both the soul and
body. Waking, sleep, memory, desire, pleasure and pain all occur as affections arising
from sense perception. Respiration arises only in animals, connecting it to sense
perception. We might see that youth and old age (length of life), and life and death are
not restricted to animal life (see DR xviii), but extend to all living things. And health and
disease seem more primarily predicated upon life simply (nutritive activity) than sense
perception (οὔτε γὰρ ήγείαν οὔτε νόσον οἶν τε γίνεσθαι τοῖς ἐστερημένοις ζωῆς,
436a18-19). But Aristotle need mean only that because sense perception already implies
nutritive activity, an animal life \textit{ipso facto} already includes nutritive activity and all the
affections that follow. So while 1-4 (p.19) arise from sense perception (δι’ αἰσθήσεως),
6-9 occur along with sense perception (μετ’ αἰσθήσεως) due to the necessary nutritive

\(^{15}\) ὅτι δὲ πάντα τὰ λεχθέντα κοινὰ τῆς τε ψυχῆς ἐστὶ καὶ τοῦ σώματος, οὐκ ἁδηλον. πάντα γὰρ τὰ μὲν μετ’
αἰσθήσεως συμβαίνει, τὰ δὲ δι’ αἰσθήσεως, ἐνα δὲ τὰ μὲν πάθη ταύτης ὄντα τυχάναι, τὰ δ’ ἔξεις, τὰ δὲ
φυλακαί καὶ σωτηρία, τὰ δὲ φθοράι καὶ στερήσεις.
capacity required to sustain animal life. The ordering of the topics to be examined reflects this distinction between what arises from sense perception (1-6) and what comes along with sense perception (6-9).

Aristotle proceeds from the more complex and higher to the lower, probably because the topics taken up in 6-9 are much more physiological in nature. The \( PN \) develops a neat, linear progression from \textit{De anima}. The \textit{De anima} presents a study of the soul by itself, \( PN \) topics 1-4 next examine the vital operation of sense perception and some secondary affections with special consideration given to the body’s role, and then \( PN \) topics 6-9 take up the physiological processes due to and affecting nutritive activity that are necessary to support life. Thus, the \( PN \) effectively ends full circle where the investigation into soul powers began in \textit{De anima} book ii 3, focused on the nutritive conditions for life. But while the \textit{De anima} focuses on nutritive activity of the soul alone as much as possible, looking at life from the ‘top-down’, the \( PN \) ends by emphasizing the physiological conditions maintained by the work of the nutritive soul and the physical conditions required by the nutritive soul to continue its work, looking at life from the ‘bottom-up’.

Memory is the second topic in the \( PN \), following the account of sense, sensible objects, and sensible media. Memory numbers among the affections that arise due to sense perception and \textit{phantasia} (imagination). Because the \( PN \) takes up only those features crucial for life and animal life, memory must hold a special place, appearing second following sense perception. Although imagination arises due to sense perception—it is not a separate faculty, lacking proper objects that raise it to actuality—imagination belongs in \textit{De anima} given the crucial role it plays in animal motion and in
bridging sense perception and intellect. And sense perception and *phantasia* give rise to desire and appetite that in turn cause progressive motion. Because sense perception, imagination, and desire are all taken up in the *De anima*, we are to see that after sense perception, imagination, and appetite, memory holds pride of place in animal life.

The importance of memory is emphasized in the famous opening passage of the *Metaphysics*. Aristotle states that humans pursue knowledge as a natural end. The passage contains some revealing remarks about animal intelligence. The senses are by nature and we love the senses for their own sake and not just their utility. And the senses discriminate and pick out differences among things, providing the basis for science. Love of the senses is thus love of discrimination among things for its own sake. Initially, to know (*eidenai*, 980a21) appears to include sensory discrimination. Some confirmation of the extension to sensory discrimination for *eidenai* is perhaps provided by Aristotle’s attribution of intelligence (*phronimos*, b21-22) to animal life in general rather than to humans alone (Aristotle references animal intelligence throughout the *History of Animals*, primarily in terms of behavior beneficial for the individual, the young, or the group).16

By nature, animals come into being possessing sense perception, but in some of these, memory does not come about while for others it does. And for this reason these latter animals are more intelligent and able to learn than the former that lack the capacity to remember; on the one hand, as many are intelligent without learning as lack the capacity to hear sounds (for example, the bee and if there is any other similar genus of animal), while on the other hand, as many learn as have this sense [for hearing sounds] in addition to memory.17 (*Meta* 980a21-b25)

Animal life is defined by sense perception. Because sense perception discriminates

16 Regarding attribution of *phronimos* to animals, see *HA*, 611a15-21 (care and protection of young), 12a1-8 (care of self when ill), 12a34-b2 (skill in killing prey), 14b18-26 (organized group cooperation against danger), 18a25-30 (care of young, action in accordance with ability).

17 φύσει μὲν οὖν ἄσθενιν ἔχοντα γίγνεται τὰ ἐνά, ἐκ δὲ ταύτης τοῖς μὲν αὐτῶν οὐκ ἐγγίγνεται μνήμη, τοῖς δ’ ἐγγίγνεται, καὶ διὰ τοῦτο ταύτα φρονιμώτερα καὶ μαθητικώτερα τῶν μὴ δυναμένων μνημονεύειν ἐστὶ, φρώνιμα μὲν ἄνω τοῦ μανθάνειν ὅσα μὴ δύναται τῶν ψόφων ὁκούσειν (οἷον μὲλήτα κἂν ἢ τι τοιοῦτον ἄλλο γένος ἐκεῖ ἐστι), μανθάνει δ’ ὅσα πρὸς τῇ μνήμῃ καὶ ταύτην ἔχει τὴν ἀσθεσίν.
(κρίνει) among its objects and picks out differences among them (e.g., *DA* 418a11-16 and 424a2-6), animals already have a small purchase on intelligence to the extent that they may pick out differences among sensibles. Animals that have memory (*mnêmê*) are more intelligent (*phronimos*) and better equipped to learn (*mathêtikos*), if they have hearing, than those animals who do not. Beasts with memory are more intelligent because they retain previous sense perceptions and the discriminations these yield. Learning in this context may refer to the retention of correlations. Hearing suggests that correlative learning pertains especially to human commands (cf. *HA* ix 1, 608a13-20). The source of greater intelligence is the small share of experience memory allows an animal to possess. Animals without memory must live in the present alone, without any linkage between present and past discriminations. An animal with memory has a richer palette of expectations (desires and aversions) and can be moved to engage in a richer set of actions as a result. Beasts lacking memory have appetite that connects only to present sense perception and *phantasia*. In the next lines, Aristotle continues to fill in the link between memory, experience, and intelligence.

Now the other animals live by means of imagination and memory, but have a small share of experience. But the human kind lives also by means of art and reasoning. With humans, experience comes about from memory, for many memories of the same matter of concern bring to completion capacity for a single experience.\(^{18}\) (980b25-81a1)

While not all animals have memory, all perhaps live by imagination to some extent, even those that live in the present only.\(^{19}\) Beasts that possess memory in addition to

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\(^{18}\) τὰ μὲν οὖν ἄλλα ταῖς φαντασίαις ζῆ καὶ ταῖς μνήμαις, ἐμπειρίας δὲ μετέχει μικρῶν· τὸ δὲ τῶν ἄνθρώπων γένος καὶ τέχνη καὶ λογισμὸς, γένεται δ’ ἐκ τῆς μνήμης ἐμπειρία τοῖς ἄνθρώποις· αἰ γὰρ πολλαὶ μνήμαι τοῦ αὐτοῦ πράγματος μιᾶς ἐμπειρίας δύναμιν ἀποτελοῦσιν.

\(^{19}\) In *DA* ii 3, Aristotle urges that desire follows upon sense perception, of which all animals possess at least the power of touch for feeding. Pain and pleasure follow as a consequence of sense perception and desire follows as a consequence of pleasure and pain. We may see that imagination is a necessary corollary of desire. In order to desire or have an aversion to something, the animal must in some minimal sense envision itself in a relationship with the object of desire or aversion. Desire is for entering into some relationship with some object and the relationship must be envisioned.
imagination have a small share of experience. Memory, imagination, desire, and sense perception in conjunction allow for animals to act based on more than what affects them in the present moment. Experience is generated out of many memories of some same and single class of beings or events. Memory gets many instances of the same kind into the soul, where imagination can “play” with these. Experience forms from the retention of many different instances of a kind when an animal discerns some feature that belongs in common to all the instances (experience is made of many memories of the same pragma). For the beasts, discernment of what is common is probably an intelligence for association, but not for picking out universal attributes or principles or essences, which would require reason. If an animal has memory, it can retain the conjunctions between events. Conjunctions can be between sounds and behavior (e.g., a fellow beast of the same species cries out in a certain way followed by the presence of danger or prey) or one event and another (e.g., the sound of the can opening is followed by food being placed on a plate and then on the ground). This kind of intelligence ‘puts two and two together’ and grasps basic correlations. So the beasts have a kind of correlative intelligence for grasping and learning connections that does not require judgment or speech, yet there is no grasping of middle terms or reasons or universals. It is a very modest experience. All that is needed is for relevant memories to join with current perceptions. Let us see if Aristotle will allow such an interpretation.

And it seems that scientific knowledge (ἐπιστήμη) and art (τέχνη) are right next to experience, and, for human beings, knowledge and art arise as a result of experience: for, as Polus claims, experience makes art, but lack of experience makes chance. And art comes into being when out of many reflections over experience a single universal conception comes about regarding the similar features. For to have the conception that this thing was beneficial for Callias suffering from this illness and for Socrates and for many each in this way, it is from experience. On the other hand, to have the conception that this thing was beneficial for all of a certain sort having been marked out as a single form suffering with this disease, that this thing was beneficial, for example, beneficial for
Art (τέχνη) and demonstrative knowledge (ἐπιστήμη) are nearly the same (σχεδὸν ὁμοίον) as experience in that all three require a grasping and conception of some universal feature common to many different instances belonging to a single kind (cf. PA ii 19) and all three have memory as their foundation. We may see that recognition of something that is the same among many different instances is a genus into which experience, art, and knowledge fit. Experience looks to be both simple conjunction between two events or objects and a recognition of something common among many different particulars. For human beings, the common amounts to a universal, what is said of many particulars, but we cannot extend recognition of universals to animals that lack speech (cf. NE 1147b3-5). Due to lack of reason, the beasts “possess a small amount of experience” (ἐμπειρίας δὲ μετέχει μικρόν, 980a26-7). Without reason, beasts are limited to correlation concerning perceptible particulars, primarily concerned with pleasure and pain. Human beings, however, through the conjunction of reason with memory and imagination are capable of realizing a much richer sort of experience resulting in practical concern for the good and the advantageous, productive arts concerned with bringing into being those things whose source of genesis is external to themselves, and contemplative pursuits concerned with truth and understanding for its own sake, such as the *Metaphysics*.

Aristotle provides an example of recognizing that some single drug is beneficial

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20 καὶ δοκεῖ σχεδὸν ἐπιστήμη καὶ τέχνη ὅμοιον εἶναι καὶ ἐμπειρία, ὀποθετεὶ δ’ ἐπιστήμη καὶ τέχνη διὰ τῆς ἐμπειρίας τοῖς ἀνθρώποις· ή μὲν γὰρ ἐμπειρία τέχνην ἐποίησεν, ὡς φησὶ Πιθολός, ἡ δ’ ἐμπειρία τύχην. γίγνεται δὲ τέχνη ὅταν ἐκ πολλῶν τῆς ἐμπειρίας ἐννοημάτων μία καθόλου γένηται περὶ τῶν ὁμοίων ὑπόλογως. τὸ μὲν γὰρ ἔχειν ὑπόλογην ὅτι Καλλία κάμνοντι τηνὶ τὴν νόσον τοῖς ἐμπειρίας καὶ καθ’ ἐκατὸν οὔτε πολλοῖς, ἐμπειρίας ἐστίν· το δ’ ὅτι πάσι τοῖς τοιούθεν κατ’ εἶδος ἐν ἀφορισθεῖσι, κάμνοντι τηνὶ τὴν νόσον, συνήνεγκεν, οἷον τοῖς φλεγματώδεσιν ἢ χολώδεσιν ἢ πυρέττουσι καύσῳ, τέχνης.
for several different folks who are ill. Here experience amounts to the recognition that
one thing has for the most part been followed by another: B has usually followed A in
this circumstance. In Aristotle’s example, relief follows some treatment or drug for
certain human beings. Such and such tends to provide relief for the bilious for such and
such reasons, but not the phlegmatic, while such and such provides relief for the
phlegmatic, but not the bilious. Art differs from experience because art grasps the cause
(middle term) through which the result usually follows for some members of some kind.
Grasp of kinds and articulation of causes indicates that reason enters into recognition, and
so human experience and art surpasses the correlative intelligence possible for beasts.
The difference between contemplative science and experience is the same except that
contemplative science aims at articulation and demonstration of causation of being for its
own sake.

The opening line of thought in the *Metaphysics* indicates the importance of
memory for animal and human intelligence. Without memory, animals cannot live much
beyond the present moment and humans could not recognize the universals or middle
terms necessary for the various sciences. But memory is important not just for allowing
beasts and humans to live beyond the present or for humans to engage in art and
contemplative science. Memory also plays a crucial role in practical life, allowing for
retention of the pleasant and the painful. The ability to return over and over again to
what one remembers as pleasant enters into character development and moral virtue.
Because memory allows for the recognition of universals and the retention of particulars,
memory is a necessary condition of prudence, which must grasp what is good to do and
refrain from doing and apply it to the particular situation. And because it concerns
actions, prudence is concerned with particulars even more so than with universals. Hence, a good memory that preserves a broad and rich experience will be a necessary condition of prudence (one must also be skilled in deliberation and astute). We might see that the wise have more experience because they look into everything and also that the wise have especially good memories: seeking wisdom, they look into everything and retain it. Memory is not only a necessary condition for cognizance beyond the immediate present and intelligence of correlations in beasts, allowing for a richer array of actions and desires, but memory is also a necessary condition for contemplative, practical, and productive sciences for human beings.

Having surveyed the crucial role that memory plays in animal intelligence and human life, we can now see the logic behind the ordering of the investigation in the *PN* into the attributes that arise due to sense perception (δι’ αἰσθήσεως), namely, memory and recollection, sleeping and waking, and dreams. Sense perception is the primary operation on which the other attributes depend. Why memory comes second before waking and sleeping is that waking and sleeping are for the sake of sense perception and its attendant actions and affections. Waking is nothing other than the activity of sense perception and its dependent affections, e.g., memory (see 454a1-11). Sleep readies the animal to enter into perception and any attendant affections of the sense power. Because sleep is for the sake of these activities, the activities are more primary and ends, and therefore they come first in order of investigation. The inquiry into dreams follows sleep because dreams arise only along with sleep, when perceiving no longer overpowers residual *phantasmata* that become noticeable in sleep.
Chapter Two: The initial characterization of the objects of memory, the act of remembrance, and memory.

*De memoria et reminiscentia* begins with an announcement of the aim of the treatment that recalls the general aims of the *PN*.

About memory and recollection, one ought to say what it is, through what cause it comes about and to which of the parts of the soul this affection, and recollecting, happens to belong.\(^{21}\) (449b4-6)

Aristotle announces three aims. First, the treatment is to articulate the being (τί ἐστι) of memory and recollection. The inquiry supplies a definition for the being of each, supplying a genus and species difference for both. Echoing the opening lines of *De sensu*, Aristotle mentions that memory and recollection are affections of soul, thereby marking off the broader genus in which the subject matter is to be located. Memory belongs to the proximate genus ‘*hexis* of a *phantasma*’, which memory shares with other kinds of *phantasia*; the *differentia* for memory is a *phantasma* that functions as a copy of actual, prior cognition (451a14-16).\(^{22}\) Recollection belongs to the proximate genus ‘to take up again or anew that which a memory is about’. Because it is possible to relearn acquired knowledge subsequently lost and to reestablish lost memories through new perception of the subject matter, Aristotle attaches to recollection the *differentia* and requirement that we reestablish the lost memory anew from a source within ourselves and

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\(^{21}\) Περὶ μνήμης καὶ τοῦ μνημονεύειν λεκτέον τι ἐστι καὶ διὰ τίν’ αἰτίαν γίνεται καὶ τίνι τῶν τῆς ψυχῆς μορίων συμβαίνει τόστα τό πάθος καὶ τὸ ἀναμνήσκεσθαι·

\(^{22}\) *Hexis* (ἕξις) may refer to first actuality, a disposition for entering into an activity, or to second actuality, an activity that arises in virtue of the disposition (see *Metaphysics* v 20). The final, considered definition of memory (451a14-17) categorizes memory (μνήμη) and remembering (τὸ μνημονεύειν) as a *hexis* so *hexis* covers memory in its application as dispositional storage of memories and in its application as the activity of remembering the past. In order to avoid artificially pigeonholing memory *hexis* exclusively as a first actuality (disposition) or a second actuality (activity), I have adopted the practice of transliterating the term. I have pointed out where Aristotle seems to employ *hexis* in an unambiguous fashion as either disposition or activity.
by our own power (451b9), rather than through an external source, e.g., a book or teacher for relearning the knowledge lost or another encounter with the relevant perceptible object. Because memory and recollection belong to some part of the soul, we expect their being to be either a capacity or affection of some faculty of the soul (πάθος, b5, is sometimes used by Aristotle to refer to faculties of soul; see DA 403a3-10). Neither memory nor recollection turns out to be a separate faculty with its own proper objects. Memory is an affection that arises due to sense perception, while recollection is a sort of reasoning (συλλογισμός τις, 453a10) predicated on the deliberative power (τὸ βουλευτικόν, a13) of intellect and on movements of phantasia. Recollection connects to deliberative imagination, present only in those with power to reason things out (see DA 434a5-10).^{23}

The second aim is to articulate the causes through which memory and recollection occur. These causes are material, efficient, and final. For instance, recollection takes place for the sake of uncovering a memory or piece of knowledge that is not directly or immediately accessible, and remembering is for the sake of perceiving the past (that for the sake of which there is retention of past cognition is to remember it). Memory and recollection both depend on physiological conditions, such as density and fluidity and moistness and dryness of the body, and quasi-physical motions present in the blood or organs of sense (450a27-b11). Remembering is initiated due to the association of present perception, passion, desire, thought, phantasia, or remembering with relevant motions (phantasmata) in the soul-body composite. The relevant motions (phantasmata) serve as

\[^{23}\text{Joe Sachs (2001) 180, f. 14, points out the implicit link between recollection and deliberative imagination mentioned in DA iii 11. Recollection is a sort of reasoning that utilizes and sets in motions images of phantasia.}\]
the vehicles for memories. Sense perception is the ultimate moving cause of memory as retention (storage of memories).\textsuperscript{24}

The third aim is to establish to what part of the soul and the body memory and recollection belong. Remembering involves the awareness of phantasmata that function as likenesses of prior cognition. Such awareness points to phantasia and the primary perceptive faculty of the soul in virtue of which there is awareness of phantasmata. Remembering also involves a sense of past time in connection to what the memory phantasmata represent. Time follows motion and motion is a common sensible of which the primary sense power is again responsible for discriminating and perceiving.

Retention involves the reception into the seat of perception (the heart) the phantasmata that enter into remembrance. Physiological conditions impact greatly on the quality of retention and the phantasmata retained. Aside from a sense of past time, the primary mechanism through which memory occurs is phantasia that preserves a likenesses of past cognition. The phantasia motions retained are sometimes compared to pictures. The pictorial language indicates that memory phantasmata have a cognitive dimension. Other times Aristotle emphasizes that the phantasmata are motions and moved movers retained in the soul-body composite. The emphasis on motion indicates that phantasmata are embodied affections common both to the body and the soul.

\textbf{449b6-9 That memory and recollection are different.}

After articulating the aims of the inquiry, the first order of business is to

\textsuperscript{24} Aristotle initially mentions that μνήμη is a pathos and hexis of sense perception. As a capacity for storage, it is a hexis of sense perception. As an object stored, i.e., a memory, it is a pathos arising from the activity of sense perception and occurring in the primary organ of sense. As an activity, i.e., as remembering, it is an affection that happens to the power of sense perception.
distinguish memory from recollection. It is hardly self-evident that there is more than one kind of cognition of the past, i.e., hardly clear that there is a distinction between memory and recollection. English terms for memory and recollection are used interchangeably. “I remember him leaving around 11 pm,” and “My recollection is that he left around 11 pm” do not obviously name different cognitive operations. But we have some sense that there are different sorts of cognition of the past. On the one hand, we can remember something from our past straightaway without difficulty. On the other hand, sometimes we struggle to recollect or recall something we cannot quite put our finger on (e.g., where one put one’s keys). Further, we speak of remembering things obviously past (e.g., what one did two days ago) as well as things without past aspect (e.g., that 3 x 11 is 33). Memory terms in ancient Greek suffer from similar ambiguity. Recollection (ἀναμιμήσκεσθαι) and remembrance (μνημονεύειν) are used interchangeably to mean ‘recall’ or ‘call to mind’. Plato uses ἀνάμνησις in the Philebus to refer to simple remembrance of past perceptions and things learned as well as the recovery of lost memories (34a10–c2).

Given the ambiguity and interchangeable usage of different memory terms, Aristotle is probably attempting for the first time both to establish precise nominal definitions and real distinctions between the affections of memory, remembrance, and recollection. Aristotle tells us that those who excel at memory and those who excel at recollection are not the same people.

For those who are good with memory and good with recollection are not the same, but for the most part those better at remembering are the slow while those better at recollecting are the quick and good learners.25 (449b6-8)

25 οὐ γὰρ οἱ αὐτοὶ εἰς μνημονικοὶ καὶ ἀναμιμηστικοὶ, ἀλλ’ ὡς ἐπὶ τὸ πολὺ μνημονικότεροι μὲν οἱ βραδεῖς, ἀναμιμηστικότεροι δὲ οἱ ταχεῖς καὶ εὔμαθεῖς.
For (γάρ, b6) introduces the justification for the claim that there are two separate affections of soul to be examined, memory (and its correlative activity of remembrance) and recollection. The argument for two separate affections to study is that people who excel with memory are different from those who excel with recollection: the quick are better with recollection, the slow with memory. Surely slowness and quickness refer to human cognition as recollection is limited to human beings. The first order of business is to identify more precisely of what slowness and quickness are the attributes. Aristotle later correlates slowness and quickness with fluid and sclerotic physiological conditions, respectively (450b7-11). Those who are quick are fluid in nature and too much fluidity prevents long term retention of phantasmata in the physical seat of perception. Those who are slow are sclerotic and much density or hardness makes retention difficult, but quite lasting once established. Fluidity aids recollection because it allows for easy and rapid movement among retained phantasmata, while rigidity aids in the stable and long-term retention of phantasmata that serve as the vehicles for memories. Yet, at the outset, Aristotle cannot rely on later passages that deal with the physiological conditions of memory and recollection in order to argue that memory and recollection are different. First, there is no mention of physiology in 449b6-8. Second, the reader can hardly be expected to have these later passages in mind. Aristotle would be guilty of sneaking in assumptions that have been neither explained nor justified. Third, claims about the linkage between certain physiologies and being good with memory or recollection already assume that memory and recollection are different; but that there are two sorts of cognition that concern the past to be studied is precisely what 449b6-8 is supposed to establish. The slow may be better with memory and the quick better with recollection
due to differences in physiology, but the initial argument that memory is something
different from recollection has nothing to do with physiology.  

Still, the later passages on physiology are important for getting a sensible
interpretation out of 449b6-8. The impact of sclerotic and fluid physiologies on facility
with memory articulated by Aristotle is directly inspired by Plato’s treatment of memory
in the *Theaetetus* in which the terms for quick and slow learners feature prominently.
The context of the passages that contain these terms in the *Theaetetus* is an inquiry into
how false judgment is possible. Socrates suggests that in the soul there is something like
a waxen block that receives impressions of sense perceptions and thoughts. Whatever is
impressed into the wax is known and may be remembered for as long as it is retained
(191c-e). The wax differs in quality in different persons and this helps to explain
differences in ability to learn and to remember. False judgment may arise in various
cases where one misapplies a memory (knowledge) imprint to things presently perceived
(Socrates shows that false judgment can arise through misapplication of memory imprints
to present perceptions, but does not give an account of why the misapplication should
occur). The consistency of the wax impacts greatly on the quality of the impressions and
the speed and accuracy with which one is able to learn and apply impressions to present
perceptions.

Socrates: In some men, the wax in the soul is deep and abundant, smooth and worked to the proper
consistency; and when the things that come through the senses are imprinted upon this ‘heart’ of the
soul—as Homer calls it, hinting at the likeness to the wax—the signs that are made in it are lasting,
because they are clear and have sufficient depth. Men with such souls learn easily (εὐμαθεῖς) and
remember (μνήμονες) what they learn; they do not get the signs out of line with the perceptions, but
judge truly. As the signs are distinct and there is plenty of room for them, they quickly (ταχύ) assign
each thing to its own impress in the wax—the things in question being, of course, what we call the
things that are and these people being the ones we call wise. Or do you feel any doubts about this? —
Theaetetus: No, I find it extraordinarily convincing. — Socrates: But it is a different matter when a

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26 Richard Sorabji (2004) 64-65 and Thomas Aquinas (*De memoria*, 302) both argue that 449b6-8 is based
on the physiological commitments that only receive articulation later in the treatise.
Those who have abundant wax that is neither too hard nor too soft learn easily (ευμαθείς) and remember (μνήμονες) well (194d3). Quickness (ταχεῖα) and slowness (βραδεῖα) refer to making connections between things presently sensed and memories of things previously sensed or thought; quickness and slowness are attributes of the ability to make connections between present and past perceptions. Those with deep (βαθός, 194d1), abundant wax learn easily and remember well what they learn. Socrates does not say why deep and abundant wax gives rise to facility with learning. Learning requires the assimilation of principles and ability to make the right connections between things.

Deep, abundant wax of the right consistency allows for accurate and long memory, but why such qualities cause accurate, good inferences is not obvious. Accurate

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ΣΩ. Ταῦτα τοῖνος φασίν ἑνθέλιον γίγνεσθαι, ὅταν μὲν ὁ κηρὸς τοῦ ἐν τῇ ψυχῇ βαθὸς τε καὶ πολύς καὶ λεῖος καὶ μετρίας ὀργασμένος ἢ, τὰ ῥάντα διὰ τῶν αἰσθητῶν, ἐνσημαίνομεν εἰς τούτο τὸ τῆς ψυχῆς “κέαρ,” ὃ ἐρή Ομηρὸς αἰνητόμονος τὴν τοῦ κηροῦ ὡμοιότητα, τότε μὲν καὶ τούτοις καθαρὰ τὰ σημεῖα ἐγγίγνομεν καὶ ἰκανός τοῦ βάθους ἔχοντα πολυχρόνια τε γίγνεται καὶ εἰσὶν οἱ τοιοῦτοι πρῶτον μὲν εὐμαθεῖς, ἑπεὶ ταῦτα μνήμονες, εἰτὰ οὐ παραλλάττουσι τόν αἰσθητούς τὰ σημεῖα ἄλλα δοξάζουσιν ἄληθεν. σαφῆ γάρ καὶ ἐν εὐρυχεία ὄντα ταῦτα διανέμουσιν ἐπὶ τὰ αὐτῶν ἐκατὰ ἐκμαγεία, δὲ ὃ ὅσπερ καλεῖται, καὶ σοφοὶ δὲ οὕτως καλοῦνται, ἢ οὐ δοκεῖ σοι; ΘΕΑΙ. Ὄταν τοῖνος λάσιον τοῦ τί κέαρ ἢ, δὲ ἐπιτίθεσιν ὁ πάσος σωματικός, ἢ ὃταν κυκρώδες καὶ μη καθαρὸν τοῦ κηροῦ, ἢ ὑγρὸν σφόδρα ἢ σκληρὸν, ὀν μὲν ὑγρὸν εὐμαθεῖς μὲν, ἐνσημαίνομεν δὲ γίγνονται, ὁν δὲ σκληρόν, τάναντα. οὶ δὲ δὴ κέαρ καὶ τραχὺ λιθώδες τι ἢ γῆς ἢ κόπρου συμμειγνὸς ἐμφάνει περὶ τούτου ἐσχάτη τὰ ἐκμαγεία ἐγγίγνοι. ἀσαφῇ δὲ καὶ οἱ τὰ σκληρὰ βάθος ὕπο ὅνι. ἀσαφῆ δὲ καὶ οἱ τὰ ψυχρὰ· ὑπὸ γὰρ τοῦ συγχείσαν ταχὺ γίγνεται ἡμιδρα. ἐὰν δὲ πρὸς πάσι τοῦτοι ἐπὶ ἀλλήλων συμπεπτοκότα ἢ ὑπὸ συνεχορίας, ἐὰν τοῦ σμικροῦ τοῦ ὑπὸ συγχρίσαν, ἐπὶ ἀσαφέστερα ἐκείνων. πάντες οὖν αὐτοὶ γίγνονται οἷοι δοξάζουσιν γενεῖ, ὅταν γάρ τι ἀρκεῖ ἢ ἀκούσσων ἢ ἐπινόσσων, ἐκατὰ ἀπόστασιν ταχὺ ἐκάστοις οὐ δυνάμενοι βραδεῖς τί εἰσι καὶ ἀλητρονομοῦσιν παραφέσι τε καὶ παρακοὸσι καὶ παρανοοῦσι πιέντα, καὶ καλοῦνται οὐ δικῶς ἐνευσμένοι τε δὴ τῶν ὄντων καὶ ἀμαθέσει.
retention of information is a necessary, but not sufficient condition for learning. Socrates seems to equate learning with taking in and retaining information rather than understanding it. Soon the wax imagery is discounted for its failure to account for false opinion concerning imperceptible being, specifically mathematics. Socrates says somewhat ironically that the wise are those who are able quickly to assign present perceptions to impressions of previous perceptions of the same thing or type. The wise have abundant room in their souls and so the impressions are not crowded and muddled together; memories are distinct and accurate. Could wisdom really be the matching up correctly of present perceptions with memories of perceptions of the same thing? When we see a tiger, perhaps we recognize that the tiger presently seen is an instance of the type we have called tiger in the past. But it could imply other kinds of identification. For instance, having memorized algebraic formulas, one can subsequently match problems to the correct, required formula (“when you see a problem of type X, carry out operation Y”). Or having once done something in a situation that worked, one can match future similar situations to the procedure that worked in the past. But surely this falls short of understanding why an algebraic formula works or is true or why certain actions produce certain results. Socrates’ wise man could be a master of correlations. These know what has worked, but not why. Setting aside just how serious Socrates may be, those with the right sort of wax are very quick and good at making connections between present and past cognition.

Those who have exceedingly soft wax learn easily (ἔμαθείς, 194e3), but also quickly forget because the impressions do not hold. Those with wax exceedingly hard learn with difficulty because the impressions do not easily take, but owing to the hardness
of the wax, those impressions that do take are not easily rubbed out. Additionally, those with exceedingly hard wax have only vague impressions; the hard surface is not suited for receiving impressions. Similarly, the impressions stamped into exceedingly soft wax are indistinct because they run together and easily blur (before soft wax allowed for easy learning, but now it is said that soft wax does not receive impressions well—the same condition gives rise to opposite results!). Owing to their indistinct impressions, those possessing exceedingly shallow, soft, or hard wax are slow (βραδεῖς) to match present perceptions to corresponding memory impressions and are apt to misapply present perceptions to the wrong memory impression. Again, slowness is in reference to making connections between present and past cognition.

Because the quick and the slow are in reference to making connections between past and present cognition, the quick and the slow pertain primarily to making connections. Those who are good at learning (εὐμαθῆς) make the right connections quickly and easily. Speaking of the qualities that must combine in those who would be philosopher kings, Socrates groups together being good at learning (εὐμαθῆς), having good memory (μνήμων), being quick to grasp reasons (ἀγχίνοος), and being keen in insight (ὀξύς) (503c2). In Posterior Analytics i 34, 89b10-20, Aristotle speaks of angchinoia (ἀγχίνοια), literally “near to thinking,” as a skill for hitting upon the reason (the middle term) for the connection between things quickly (ταχύ). Those who make connections quickly may be skilled at guessing, rather than understanding causal connections. Quickness can be overvalued if this means hitting on the right reason without understanding. So the quick refer to quick and accurate reasoners (who because they reason quickly and accurately learn easily) while the slow are those who do not
reason and make connections quickly.

Now that I have discussed the slow and the quick, I will turn to Aristotle’s argument concerning the distinction between memory and recollection. Aristotle cannot argue that memory is other than recollection by appealing to their respective distribution among animals and humans or by appealing to the dependency of recollection on memory. Either appeal would rely too much on understanding already what memory and recollection are, thereby presupposing their difference. Hence, Aristotle resorts to a “different folks, different strokes” argument: varying qualities determine varying ability with respect to different functions.28 The argument contains the following considerations.

(1) The slow and the quick differ in facility with making connections. (Different sorts of people are good at different activities.)
(2) The slow and the quick differ in ability for memory and recollection. (The slow are good with memory whereas the quick tend to be good with recollection.)
(3) Therefore, memory and recollection are different faculties.

(3) follows from (2) because of (1). People who possess different sorts of qualities will be good at different kinds of actions. In the background is the relation of virtue and function. Virtue enables function to be performed well and different functions require different kinds of virtue. People of different sorts possess different qualities that enable good performance of actions regarding which their qualities are the virtues (or vices). If two people vary in quality and, hence, are good at two different actions, then there must be two separate actions that are distinguishable from each other. Aristotle applies the general rule to a particular case: different sorts are good at different activities, the quick to learn and slow to learn are of different sorts, and therefore the quick and slow are good

28 If my reading of Aristotle is right and Aristotle is right, we should see that women for the most part will have better memory while men for the most part will be better at recollecting.
at different kinds of cognition, among which are memory and recollection. Because memory is something the slow tend to be good at, but not the quick, and because recollection is something the quick tend to be good at, but not the slow, memory and recollection must be two different kinds of cognition. What secures the distinction between memory and recollection is that the good performance of each depends on possession of different qualities.

The general rule that different qualities correlate with good performance at different functions must be unpacked for the particular case of memory and recollection and slowness and quickness. The quick and the slow differ in quality (facility with reasoning), but we are not told why being quick should cause one to be better with recollection than memory and why being slow should cause one to excel more at memory than with recollection. Therefore, the truth of the assertion in 449b6-8 centers on why (2) should follow from (1) because no term connecting the quick and the slow to excellence with recollection and memory is provided. The connecting term must be supplied either by observation or from some theoretical commitment or a combination of observation and theory. The term cannot be supplied by theory for no theory is mentioned. That leaves observation: experience must tell that those who reason quickly excel with cognition of the past that differs in kind from the kind of cognition of the past at which the slow excel. Because memory and recollection are both cognitions of past things, their difference may not be very evident. But the quick and the slow, who are easily distinguishable, seem to differ in the sort of past cognition each excels at. And so Aristotle relies on a “different folks, different strokes argument”: different sorts of people are good at different sorts of cognition.
Probably Aristotle requires that his readers recognize from experience that the slow and the quick do not excel at relating to the past in the same manner. Aristotle hardly needs to demonstrate that we relate to the past: the proof is that we do it. But not everyone may be good at relating to the past in the same way. Yet, who has sufficient experience with the slow and the quick so as to recognize that these excel in relating to the past in different ways? Perhaps teachers like Aristotle? The implicit appeal to the reader’s experience requires the reader to perform what the distinction concerns: the reader must remember or recollect her or his experience with the slow and the quick. The target audience of Aristotle’s argument is not just anyone, but members of the Lyceum or others interested in philosophical inquiry. Such people are more likely to be quick and possess good memory: they will excel at recollection. Aristotle’s reader will either immediately remember her or his experience with the slow and the quick or will have to search and recollect for it. Further, the reader will do either one of these (remember or recollect) well or with difficulty. Surely the reader is meant to engage in self-inspection, also. The reader is to recognize that he or she is better at one sort of cognition of the past than another, thereby confirming the distinction: if one excels more at one of two sorts of cognition of the past, then there surely must be past cognition of two sorts. We might find that we can remember very well many things, but have trouble recalling quickly what few things we do not well remember. Or we may find that we are very good recalling things that we cannot initially recall, i.e., that we are very good at recollection, but that our need to recall often suggests that we are not as good with memory. This self-appraisal does not require that we already know what memory and recollection are, but only that we recognize two different kinds of cognitive access to the past. Having
secured recognition of two differing abilities, Aristotle can take up a discussion of what
the faculties are, their objects, and their causes.

449b9-23 Nature of the memorable object.

Having secured that memory and recollection are different, Aristotle takes up what memory is. There are two reasons memory receives treatment prior to recollection. First, memory is the more widely distributed of the two. Any beast with a sense of time may possess memory, but only humans recollect. Second, memory is more primary than recollection. Memory is present without recollection, but recollection is not present without memory. Recollection is the ability to initiate through wish or choice a search for a memory that is not immediately accessible. Successful recollection ends in the retrieval of something retained, but inaccessible prior to the attempt to recollect. If what is sought is no longer retained, there is no ability to retrieve it and recollection cannot occur.

Aristotle looks to the objects that memory concerns to define memory. What the memorable objects (to mnêmonueton, 449b9) are is hardly self-evident and Aristotle warns that people are often deceived about the objects of memory (b9-10). First, the range of temporal aspect memory concerns is unclear. Is memory only of what belongs to the past or is there memory of objects that belong to the present or even the future? Is there memory of atemporal objects, e.g., that triangles have three sides? Can there be memory of the present location of an object, e.g., that my car is parked in the driveway? Second, the range of objects that memory concerns is unclear. Do we remember past objects or past cognitions of objects or both? Does memory coincide with the exercise of
knowledge and skill or is memory limited to personal experience? For instance, is how to
derive an equilateral triangle from a given radius an object of memory and knowledge or
only knowledge? Similarly, when building a table, is the carpenter remembering how to
do this or exercising knowledge of how to build it or both? The ambiguity concerning
memory objects and the possibility for deception that follows makes Aristotle’s treatment
of the objects of memory of genuine interest. Aristotle nails down what memory is by
determining the sort of objects that memory concerns. Memory concerns only the past
cognitive activity of the one who remembers, what we call episodic memory of
autobiographical events. We might be suspicious that memory should be so narrowly
limited, but, as we shall see, in order for an object to be conceived as past and as having a
connection to the remembering subject, the object must concern the remembering
subject’s own past cognitive activity.

_De memoria_ follows the pattern of investigation into soul faculties in _De anima_ ii
4. Objects of operations reveal the nature of the operations, and the nature of operations
reveals the capacity for the operation. Getting the memory object right is crucial for
understanding the capacity for the operation. If one is mistaken about the object, one will
misconstrue the activity and the ability.

But if it is necessary to say what each [of the capacities of soul is], for example the intellectual power,
the power of perception, the nutritive power, one must say first what it is to think and what it is to
perceive; for the actualities and actions are prior to the capacities in account. But if this is so, it is
necessary to have considered the correlative objects of the activity prior to the activities, having need
on account of the same cause first to make distinctions about those objects, for example what concerns
nourishment and the thing perceived and the thing thought.²⁹ (415a16-22)

There is a three-tiered prescription for the investigation into soul faculties descending

²⁹ εἰ δὲ χρὴ λέγειν τί ἔκαστον αὐτῶν, οἶον τί τὸ νοητικόν ἢ τὸ αἰσθητικόν ἢ τὸ ἑρεπτικόν, πρότερον ἔτι
λεκτέον τί τὸ νοεῖν καὶ τί τὸ αἰσθάνεσθαι: πρότεραι γὰρ εἰς τῶν δυνάμεων αἱ ἐνέργειαι καὶ αἱ πράξεις
κατὰ τὸν λόγον. εἰ δ’ οὕτως, τοῦτον δ’ ἔτι πρότερα τὰ ἀντικείμενα δεὶ τεθεωρηκέναι, περὶ ἐκείνων πρῶτον
ἂν δείπις διορίσαι διὰ τὴν αὐτὴν αἰτίαν, οἶον περὶ τροφῆς καὶ αἰσθητοῦ καὶ νοητοῦ.
from actuality to potentiality: first, articulate the object of the operation; second, articulate the operation in terms of how the operation relates to its objects; finally, articulate the capacity as the potentiality for the operation. Why articulation of the objects of operations comes first is because operations are understood as activities for engaging with certain objects in some characteristic manner. The object has priority because engagement with the object is the end and that for the sake of which the operation exists. Operations are defined in terms of their respective objects because the characteristic manner in which an operation deals with its objects constitutes the operation’s end. Engagement with an object is not merely instrumental and there need be no end for an operation beyond its dealing with its object.\(^\text{30}\) Sight is for the sake of perceiving the visible world and thinking activity is for the sake of knowing the intelligible world. And plant life that engages only in metabolic activity has such activity as its end.\(^\text{31}\) Once the operation is defined in terms of how it relates to its object, the capacity for entering into the operation can be articulated (as potentiality is understood in reference to actuality). Faculties of soul are understood as powers for entering into characteristic kinds of relations (activities) with different kinds of objects.

Because Aristotle announces a set of objects proper to memory (\textit{ta mnêmoneuta}, 449b9), it might seem that memory is an independent faculty of the soul with its own

\(^{30}\) See the opening lines of \textit{Meta} i 1 stressing that sense perception is loved for its own sake.

\(^{31}\) One might object that nutritive activity does seem to have as its end something beyond the nutriment it works on, namely, self-sustenance and reproduction. Surely nutritive activity works on food not merely for the sake of working on food, but for the sake of maintaining the organism. But because nutritive activity assimilates food to the sort of being the living body happens to be we can say by extension that dealing with food \textit{qua} assimilated is the end of nutritive activity. Digestion is a change from unlike to like. Food when taken in is unlike the organism, but once worked on and digested, food becomes assimilated to the being of the organism’s body. Thus, assimilation of food is, in a manner of speaking, an end in itself because assimilation of food is nothing other than the preservation of an organism’s being. And such preservation is not instrumental. See \textit{De anima} 416a19-b25 for Aristotle’s treatment of digestion.
proper objects, as food and things perceived and thought indicate distinct capacities of soul. Yet Aristotle consistently refers to memory as a *hexis* (449b25, 49a30, 51a16, a23, 51b3) or affection (*pathos*, 449b5, b25), but never as a faculty or capacity (*dunamis*).

Even so, *hexis* can mean a disposition and first actuality and so *hexis* need not differ from a capacity. Memory depends on *phantasia* for the preservation and presentation of previous cognition through a special class of memory *phantasmata* called mnêmoneumata (50b20-27; cf. 50a25-32) and the perception of *phantasmata* is an activity of the primary power of sense (450a25-30, 50b11-20, b27ff.). Also, memory discriminates past time and makes discriminations among things belonging to the past and time is a common sensible for which the primary sense power is responsible to discriminate (449b28-30, 50a19-22, 52b7-9). Insofar as memory discerns past temporal aspect from present aspect and differences among past things, it is discriminatory. To the extent that memory is a result of *phantasia*, it is presentative (it does not pick out or discriminate among external objects, but merely becomes aware of internal *phantasia* presentations). Discernment of an object (e.g., past from present time) need not indicate a distinct faculty. For instance, there is no separate sense faculty for common sensibles (*De anima* 425a13-27). Remembering discriminates past from present time, but discrimination of past from present aspect does not mean that there must be special faculty in its own right limited to the discernment of past from present time. The discernment of time in all its phases belongs to the primary sense power. Nonetheless, memory’s dependence on the primary sense power does not mean that memory is reducible to the activity sense perception and Aristotle takes care to distinguish memory

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32 On *hexis* as both activity and disposition for entering into an activity, see *Metaphysics* v 20.
and remembering in actuality from sense perception, opinion, knowledge, and supposition generally. Remembering is a perceiving, but it is a perceiving of a sort and memory objects are sensible, but in a peculiar way.

The preceding considerations indicate that memory is a capacity distinguishable in its own right, but which is one of many functions attributable to the primary sense power. Psychological faculties are separate only insofar as they appear separate from one another in different forms of life: plant life has only the nutritive capacity, animal life both nutritive and perceptive capacity, and human life has nutritive, perceptive, and intellectual capacities. Memory is an affection that follows from and is not present without sense perception. Because memory is a function of the perceptive part of the soul, Aristotle may emphasize memory as a *hexis* rather than a power (*dunamis*) in order to avoid giving the impression that memory is an independent faculty. Memory is an ability distinguishable in its own right, but falls short of being an independent faculty or part of the soul.

Aristotle begins the investigation into memory by asking what sort are the memorable objects (*ta mnêmoneuta*): “First, therefore, one must examine what sort are the memorable objects” (449b9). Following *De anima* ii 4, we expect memory to include a capacity for entering into an activity that deals with memorable objects in some characteristic way, namely, remembering (*to mnêmoneuein*). The account contained in 449b9-23 leaves little doubt that Aristotle’s first order of business is to give an explanation of the activity of remembering and the objects that remembering concerns.

In 449b9 Aristotle announces that he will explain what sort of things the memorables are.

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33 See *De anima* ii 3.
34 πρῶτον μὲν οὖν σκέπτεον ποιά ἐστι τὰ μνημονεύτα·
Aristotle then proceeds to speak of (1) the activity of remembering and (2) what remembering concerns, namely, the past (*to genomenon, proteron*). Immediately (b10) he turns his attention to what remembering concerns, the past, and contrasts what remembering takes up with that of perception, opinion and hope (b10-15). In b15 Aristotle tells us that, memory (*mnêmê*) is of the past, but straightaway explains memory in terms of the activity of remembering, rather than retention (storage): “No one would claim to remember (*mnêmoneuein*) what is present at the time when it is present” (b15-16). Continuing in 449b18-22, Aristotle explains what happens when one recalls (*memnêtai*, b20). And in b22-23, Aristotle emphasizes what happens when one remembers according to actuality (*hotan energei kata to mnêmoneuein*, b22). As a *hexis*, memory may refer to the capacity or to the activity, but we see Aristotle especially emphasize the activity in the opening account. In total, there are four references specifically to remembering (three infinitives and one verb) in 449b9-23, but only one to memory, indicating that initially the primary concern is with memory activity rather than with the capacity for entering into the activity. Final confirmation is provided by b24-25: “Therefore, memory (*mnêmê*) is neither perception nor supposition, but is a *hexis* or affection either one of these, whenever time has come to pass” (b24-25). Only after explaining remembering according to actuality and the object to which remembering relates, does Aristotle provide an initial definition of memory that covers both capacity and activity by referring to memory as a *hexis*.

In the initial definition (b24-25), memory is called a *hexis* or an affection (*pathos*) of prior sense perception or supposition. According to *Metaphysics* v 20, a *hexis* is

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35 ἔστι μὲν οὖν ἡ μνήμη οὔτε ἀίσθησις οὔτε ὑπόληψις, ὀλλὰ τούτων τινὸς ἔξις ἢ πάθος, ὅταν γένηται χρόνος.
ambiguous between (1) a shared activity of having between what has and what is had and (2) a disposition and first actuality for entering into an activity. Memory is ambiguous between the activity of engaging a memory (remembering in actuality) and the dispositional retention for entering into the activity. Aristotle has a special term for memory acts (remembrance, τὸ μνημονεύειν) but not for retention. Still, there is clear textual evidence that he has something in mind analogous to retention.

For clearly it is necessary to conceive the sort of thing that comes about due to perception in the soul and in the part of the body containing perception to be a life-drawing of a sort, the affection concerning which we call memory the hexis: for the motion arising from the sense-affection (αἴσθημα) imprints an impression of a sort, just like those do who affix seals with their signet rings.³⁶ (450a27-32)

Aristotle identifies memory as what holds on to and retains a likeness of past cognition (perception), indicating a storage function for memory. A motion derived from sense activity (aisthêma) in the percipient is imprinted into the organ of sense as a seal is imprinted into wax.³⁷ Aristotle begins his examination into memory with remembering and not with retention because retention is for the sake of remembering and a means is understood in reference to its end. Retention is conditionally necessary for remembering. Before a memory is formed and retained, there is only an undeveloped capacity (first potentiality) to remember something. Once retention is developed (first actuality), there arises the further ability to remember (second actuality) what is retained. While retention is a condition for remembering, retention and remembering are not the same. It is possible retain a likeness of past cognition without currently remembering it. Because

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³⁶ δήλων γάρ ὅτι δεῖ νοησάς τοιοῦτον τὸ γιγνόμενον διὰ τῆς αἴσθησεως ἐν τῇ ψυχῇ καὶ τῷ μορίῳ τοῦ σώματος τῷ ἐχοντι αὐτήν—οἷον ζωγράφημα τι [τὸ πάθος] οὐ φανεν τὴν ἐξ’ μνήμην εἶναι· ἡ γὰρ γιγνομένη κίνησις ἐνσημαίνεται οἷον τύπον τινά τοῦ αἴσθηματος, καθάπερ οἱ σφραγιζόμενοι τοῖς δακτυλίοις.

³⁷ The imagery of the seal being pushed into the wax not only recalls De anima ii 12, but indicates how the cognition is preserved without its actuality (449b19). In De anima ii 12, the form is received without matter. In De memoria the content of the cognition is received without the actuality: a likeness of actuality without the actuality.
there is retention without remembering, the latter is not reducible to the former or vice versa. Hence, memory (mnêmê) may refer to retention (the capacity for remembering past cognition) or to the activity of remembering (to mnêmoreuein) the past. Retention and remembering relate to one another as do first and second actuality and both retention and remembering relate to the same object, a phantasma that serves as a copy of past perception. Remembering is an indirect perception of a sort of past cognition. Through perception (of a sort) of a present proxy for past cognition, the soul remembers its past, absent cognitions (ta mnêmentea). Retention is the holding on to such proxies, in virtue of which remembering takes up past cognition indirectly.

The initial account of remembering in 449b9-23 is one of Aristotle’s characteristically cryptic and compact initial overviews of the subject matter he intends to explain: it summarizes all the central features of memory and remembering, but it is terse and explains little when taken in isolation. The rest of chapter one of De memoria is devoted to explaining, augmenting, and confirming the central features of memory and remembering that Aristotle lays out at the beginning of the treatment. 449b9-23 has several goals. (1) Identify the genus and differentia that pick out the object of remembering. (2) Separate memory from perception and thinking and supposition and in general (hupolépsis, b24). (3) Indicate what it means to possess the object of memory and gesture toward how it is possible to possesses it. (4) Explain what remembering consists of in terms of its object and the temporal aspect that is recognized. In this section, I argue that the genus of memory objects is ‘the thing that has happened’ (to genomenon, b15) and the differentia is past cognition (cognition without the activity, b19). To remember is to perceive the content of past cognition and to recognize (legein
tê psuchê, b22-3) that the content perceived has past aspect.

Aristotle works quickly to identify the memorables with what has come about (to genomenon, 449b14), i.e., what has occurred in the past.

First, therefore, one ought to examine what sort the memorables (ta mnêmoneuta) are: for this often deceives. For to remember (tó mnêmoneúō) what is to come (tó múllon) is not possible, but [what is to come] is opinable and expectable…nor is [remembering] of what is present (tó parón), but perception is: for through perception we recognize neither what is to come nor what has come about (tó genómenon), but only what is present. But memory (mnêmē) is of what has come about.38 (449b9-15)

The account assumes that there is a capacity for discriminating the past. Aristotle need not offer proof that there is discrimination of things past from things present. There is nothing more basic than the act of remembrance of the past from which remembrance of the past can be demonstrated.39 The proof that there is discrimination of what has occurred in the past is that we do it; the proof that there is discrimination of priority and posterity in a temporal continuum is that we make these distinctions.40 In De memoria, Aristotle nicely often employs εἰρηται or εἴπομεν (was said) to refer back to previous thought in De memoria or in De anima, requiring the reader to remember or to recollect and so perform what the treatise is about.41 Because discrimination of the past is evident, there must be a capacity for it. Hence, the question is not whether memory is, but

38 πρῶτον μὲν οὖν σκεπτέον ποιά ἦστι τὰ μνημονευτά· πολλάκις γὰρ ἐξαπατᾶ τοῦτο. οὔτε γὰρ τὸ μέλλον ἐνδέχεται μνημονεύειν, ἀλλ’ ἐστὶ δοξασθῆναι καὶ ἔλπιστον (ἐἰ δ’ ἂν καὶ ἔπιστήμη τις ἐλπιστική, καθάπερ τινὲς φασι τὴν μαντικήν), οὔτε τοῦ παρόντος, ἀλλ’ αἰσθητική· ταύτη γὰρ οὔτε τὸ μέλλον οὔτε τὸ γενόμενον γνωρίζομεν, ἀλλὰ τὸ παρὸν μόνον. ἢ δὲ μνήμη τοῦ γενομένου·
39 Cf. Physics ii 1, 193a3-8.
40 Consider Russell’s (1921) 159-160 five-minute hypothesis: “There is no logical impossibility in the hypothesis that the world sprang into existence five minutes ago, exactly as it then was, with a population that ‘remembered’ a wholly unreal past. There is no logically necessary connection between events at different times; therefore, nothing that is happening now or will happen in the future can disprove the hypothesis that the world began five minutes ago.” Because nothing a posteriori must be as it is, nothing rules out the possibility that everything remembered before five minutes ago is false. Perhaps, then, it is better to say that the proof that we experience ourselves remembering our actual past is that we have experience of doing so. But Aristotle rejects such extreme modesty, for he distinguishes actual remembering from false remembering (451a2-12, 452b23-29) in such a way as possibly to imply disjunctivism in the case of memory acts.
41 εἰρηται: 449b26, 30, 51a15, 51b4-5, 52a12, 53a5. εἴπομεν: 450a20, 51b25.
articulating accurately *what* it is and whether memory is something in its own right, distinguishable from other capacities, i.e., distinguishable from perception and supposition generally.

Aristotle distinguishes memory from opinion and sense perception by reference to the range of temporal aspect these concern. Opinion (*doxa*) concerns the future, perception the present, and memory the past. Memory does not cognize the future, but it is possible to opine or expect the future. But certainly opinion concerns what is present as well as what is past in addition to what is to come, so the argument must be that of the possible modes of cognition only opinion and expectation concern the future. Because remembering does not take up the future or the present, but only the past, remembering cannot be opinion. Sense perception is a passive faculty unable to put itself to work and is actualized by its objects.\(^42\) What has yet to occur, or what is absent because past, cannot raise sense perception to actuality and so perception must concern only what is present (b13-15). Hence, memory cannot be perception because memory deals with the past, or, as Aristotle puts it, what has come about (*to genomenon*).\(^43\) Memory is of the past (449b15, b27-28) and the memorable objects (*ta mnmemoneuta*) belong to the past, not the present or future. The one who remembers in actuality perceives that the object remembered is prior (*proteron*, 449b23, 50a21) to now and has already happened (*to genomenon*).

Aristotle claims repeatedly that memory concerns what has come about (*to

\(^{42}\) See *DA* ii 5, 416b33-17a20.

\(^{43}\) I translate *to genomenon* as “what has come about” or “the thing that has happened,” on the grounds that (1) the article indicates that *genomenon* is to be treated as a substantive and (2) Aristotle, as I will argue below, distinguishes between what is *to genomenon* and *proteron* (before, prior). Because what is past is prior and before, *to genomenon* indicates something more than the past.
genomenon, b15), and what is prior (proteron, b23), i.e., what occupies past temporal position. Unlike nutritive capacity, sense perception, and thought, all of which are defined in terms of their ability to relate to a particular class of objects, memory is defined in terms of its relation to what occupies a particular aspect of time, namely, to what occupies past temporal position. Why Aristotle approaches memory through past temporal aspect is because memory relates to all past cognition, and so it cannot be defined by any particular set of cognitive objects. The appropriate genus for memory objects is thus a temporal aspect. Aristotle’s articulation of memory by way of the temporal aspect attached to its objects is the first clue that memory is an affection of the sense power (450a12-14, 51a14-17). Sense perception discriminates among proper (restricted to a single type of sense), common (perceptible by all the senses), and incidental sensibles (the being to which sensible quality happens to be attached) (DA ii 6). Time is a common sensible following on motion. Memory discerns what occupies past time. Therefore, memory must be a function of the sense power. Consequently, the order of priority of sensible objects is reversed for memory. The individual sense powers are understood primarily in terms of their respective proper sensibles, whereas the common and incidental sensibles are perceived (secondarily) through the proper. As common to all the senses, the common sensibles do not mark out individual sense powers. Memory is an ability of the sense power that discriminates what belongs to past from present and future time. Because time is a common sensible, memory cannot be defined in terms of any particular kind of sensible object. The primary or proper object of memory is the common sensible of past time. And because human memory deals also

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44 449b15, b22-23, b27-28, 50a19-21, 51a2-5, a10-11.
with past thought, memory cannot be marked off by its dealing with any particular class of cognitional objects, either. Thus, what is decisive for memory is not that it relates to this or that kind of object, but that it relates to its objects as belonging to the past. Memory is directed to the past whether engaging with past sensibles or with past thought, and so we recognize that discrimination of past temporal aspect distinguishes memory more than a definite class of cognitional objects. Were memory to deal with a present object, either sensible or intelligible according to actuality (449b21), the remembering would be a perceiving or thinking.45

Having located the memorable objects in the temporal genus ‘what has come about’ (to genomenon), Aristotle provides a non-temporal differentia. As to genomenon indicates, memory is not just concerned with past temporal position (proteron), but also with what occupies a past temporal position, namely, the things that have already happened (ta genomena). But memory cannot concern all things past. Memory of what a penguin was doing on Antarctica five million years ago is impossible. There could be present evidence from which such past activity is inferred, but no memory because the activity of the person or animal that remembers must figure into the object of memory. The memorables are restricted to the past cognition of the remembering animal. “What has come about” is the genus of memory objects and “cognition without the activity” supplies the differentia.

But memory (μνήμη) concerns what has come about (τὸ γενόμενον). And no one would claim to remember the present thing when it is present, for example, this white thing here when one sees it, and not the contemplative object at the time when one happens to be contemplating or considering it. But whenever one has the knowledge and the perception without their activity (ἀνεν τῶν ἔργων σχῆ), in this way one recalls (μέμνηται) that one learned or contemplated the former, that one saw the latter or heard it or something similar. For always whenever one is in actuality regarding remembrance (τὸ

45 Cf. R. A. H. King (2009) 28-9. We may gather that so-called procedural and semantic memory need not be about anything meant as past. Aristotle reserves the term memory (mnēmē) in the governing sense for engaging one’s past.
The object of remembrance is not restricted to the *objects* of past cognition, but to the *past cognition of some object*, which Aristotle emphasizes repeatedly. One remembers not merely some object or event, but that one saw or heard or considered something. The implication of positing the remembering subject’s own past cognitive activity as the object of remembrance is that remembering takes up or somehow indicates the mode of cognition through which the one remembering formerly related to some object or event. Such indication may be quite minimal or, in the case of humans, quite maximal and rich, but whether minimal or rich, memory in the governing sense is episodic and autobiographical according to Aristotle. In the case of humans, memory can be richly episodic and autobiographical. Because the cognition remembered is past, it cannot be occurring in actuality. Yet, because past cognition is the object of remembrance, it must be present in some way. The past aspect of the memory object leads to the peculiar condition that remembering takes up cognition that lacks present actualization. To recall...
(μέμνηται) is “to have (σχη) the perception or knowledge without their acts (ἔργων).” ‘To possess X without the act’ is not a recurring formula in Aristotle’s writings. The phrase captures how remembrance is about what is past and absent, but requires a present object. The phrase is a prime example of one of Aristotle’s terse, but pregnant expressions and captures three essential features of remembering. (1) It provides a non-circular explanation of what it means to take up cognition as past. (2) It indicates that what the soul gets ahold of when taking up its past cognition is the content of past cognition without the actualization. (3) It shows that the activity of remembering is an indirect perception of past cognition.

First, we should see that possession of cognition without its exercise is (1) a non-circular way to answer the question of what it means to possess past cognition. Having (σχη) may mean retention of something or it may mean engagement with what one has. In either case, “without the act” indicates past aspect without including temporal aspect in the explanation. This is evident from the context. Aristotle moves from discussing actually occurrent, exercised perception or contemplation (b15-18) to possessing the perception or the knowledge without the activity when remembering (b19-20). Remembering cannot take up perception or contemplation that is in actuality because this would be to perceive or to contemplate, not to remember. Perception or knowledge without the act taken up in remembering cannot refer to cognition with a present aspect, that is, cognition currently actualized. Aristotle emphasizes that time must intervene between actually occurrent cognition and any subsequent memory of that cognition (449b25-26, 51a29-31). Nor can the perception and knowledge that remembrance concerns refer to any future cognition; because future cognition has not occurred, there is
none to take up. Cognition without the act indicates cognition that at some point was in actuality (e.g., perception of some white thing or contemplation of a triangle), but which when taken up in remembrance no longer possesses actuality. Such cognition is no longer actual, but once was. Hence, possession of cognition without the act rules out present and future cognition; only former cognition that is no longer active fits.

Eva Brann elegantly paraphrases cognition without the activity as “inactual” cognition. The privative prefix in/ captures ‘without’ while ‘actual’ obviously corresponds to ‘activity’. Following Brann’s lead, we can see that inactual is close to inoperative: what was operative, but which no longer possesses operability. We can compare inactual with the unactualized, where the prefix un- indicates unfulfilled potential yet to be actualized. Inactual cognition, in contrast, is cognition that has run its course. It has neither any potential for actualization left to fulfill nor any continuing purchase on actualization. From here on, I use Brann’s translation to refer to cognition without activity or exercise.

Possession of cognition as inactual answers the question of what it means to have cognition as past, but remaining is the question of (2) what precisely the soul gets ahold of by possessing inactual cognition. Clearly the soul does not take up its past cognition in the flesh, as it were, which Aristotle stresses when pointing out that the cognition taken up is without actuality. Not being actual, the cognition taken up is not simply the original, past cognition, although the past cognition is precisely what the memory is about. Aristotle summarizes the condition under which cognition is actualized in De anima iii 4.

If what it is to think is like what it is to perceive, it would be a certain way of being affected by the

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49 Eva Brann (1999) 52.
intelligible object or something similar. Therefore, it is necessary to be unaffected, but to be receptive of the form and in potency be such as this but not be this, and similarly, as perception relates to the sensibles, in this way the intellect relates to the intelligibles.\footnote{429a13-18}

Cognition is actualized when a faculty is moved by the activity of its correlative object. Sense perception is passive insofar as it requires the presence of an external sensible, but intellect can put itself to work after having acquired (i.e., learned) a universal. In either case, the operation of the faculty is dependent on the presence of its correlative object (whether the object is external to the soul in the case of perception or in the soul in the case of intellection). In the absence of its object, a faculty cannot be raised to actuality. To possess the perception of the white thing without the activity or the deduction from premises (if scientific knowledge is the reference in 449b18-19) must mean, first of all, that the correlative object of the faculty has departed or that the circumstances in which the correlative object affected the faculty have departed (e.g., the object remains, but I avert my attention to something else, occasioning a new perception). Second, Aristotle must mean that although the object or circumstances of the engagement with the object are departed, the animal or human still somehow possesses the cognition of the object and the object cognized. The meaning cannot be that the one remembering possesses perception or contemplation without a correlative object of the perception or thinking. Cognition without an object is impossible or amounts to cognition according to potentiality, but the possession of inactual cognition cannot mean that the remembering subject takes up some cognition of X in potentiality. Were remembrance the possession of some cognition merely in potentiality, memory would have no object at all. To
possess inactual cognition must mean to possess somehow the content of the past cognition separated from the original conditions and object that occasioned the actuality of the original cognition.

Aristotle does not mention in 449b9-23 how it is possible to possess cognition without the actuality. The goal is to give an initial explanation of what the objects of remembrance are and what remembrance and memory are, not how remembrance and memory are possible. Possession of inactual cognition turns out to be possession of a phantasma that functions as a likeness of former cognition (ζωγράφημα τοῦ αἰσθήματος, 450a29-32; εἰκόν, 450b25-27). The features that enable a phantasma to function as a likeness of past cognition are of great interest. “Having cognition without the activity” (449b19) should be compared to 450b16-20: “The one who is at work with memory beholds this [present] affection [i.e., a phantasma] and perceives this. So how thus does one remember what is not present? For such would be to see and hear what is not present.” To perceive what is not present is to have a hold of some cognition without the activity, for, as we have seen, without activity indicates that the objects and conditions necessary for the actualization of perception are not present. The phantasma is a vehicle by which a higher level reality (cognition according to actuality) appears to the one who remembers in a lower level of reality (the phantasma appearance that serves as the likeness of the former, actualized cognition).

Aristotle does not provide a detailed description of what inactual cognition contains (by contains, I mean the extent to which and how much of the original cognition

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51 Remembering is an indirect perception of the past by way of phantasmata.
52 οἱ γὰρ ἐνεργοὶ τῇ μνήμῃ θεωρεῖ τὸ πάθος τοῦτο καὶ αἰσθάνεται τοῦτον. πῶς οὖν τὸ μὴ παρόν μνημονεύσει; εἰ δὲ γὰρ ὁ παρὸν τὸ μὴ παρόν καὶ ἀκούειν.
is taken up: what features and how rich or how minimal). We are never given more than
the most minimal of descriptions of what it is like to remember. The one who remembers
in actuality asserts in soul that what is remembered was cognized before (449b22-23). Remembering is like seeing or hearing what is not present (450b19-20). Remembering is
like (ὁσπερ) viewing a painting as likeness of something previously seen (450b29-31).
Possession of inactual cognition is identified only generally with having remembered that
something was considered or perceived (449b20-23, 50a19-21, 51a30-31). Why
Aristotle says little is probably in order to allow for a broad range of memorable objects.
Remembering can be rich and “relive” the content of past cognitions in some detail. For
instance, one remembers seeing a particular scene from an act in a play, recalling seeing
the movements of the actors on stage and the backsides of heads in the audience from a
certain point of view. Or remembering can be quite minimal and merely of the fact
that such and such was cognized: “I was in the audience and saw the scene.” One remembers
the fact that one saw such and such a scene, but without recalling the speeches, and
movements, and colors, etc. If merely the fact of having seen or heard, then Aristotle can
account for memory that is focused more on objects and not so much on the cognition of
objects. Suppose one remembers the fact that the red bike was leaned on the side of the
house. The memory that the bike was red and that the bike was leaned on the side of the
house is necessarily a memory that the bike was seen as opposed to heard, but focus is on
the bike rather than the seeing.

Some will dispute my reading that the differentia marking out the memorable

53 The quote precedes Aristotle’s announcement that beasts with a sense of time remember in 449b28-30. After b28-30, Aristotle speaks of perceiving (rather than saying) that something was cognized before (450a19-21).
object from other species within the genus “what has come before” is restricted to past cognition of objects or events.\(^{54}\) Surely remembering is often primarily focused merely on X and not the mode of cognition through which X was previously encountered. Whether it is right to restrict the object of remembering to the past cognition of X, Aristotle’s considered view is that memory is never merely of a past object.\(^{55}\) Aristotle is committed to the view that all memory is in some way of past cognitive engagements with object or events. In other words, that which Aristotle calls mnêmê is episodic memory in the governing sense. I believe that 449b15-23 and the frequency of memory of past cognition of X talk versus memory of object X talk confirms that Aristotle’s considered view is that the governing sense of memory object is past cognition of X.

And no one would claim to remember what is present when it is present, for example, this white thing here when one sees it, and not the contemplative object at the time one happens to be contemplating or considering it. But whenever one has the knowledge and the perception without their activity, in this way one recalls that one learned or contemplated the one thing, but that one saw the latter or heard another thing or something similar. For always whenever one is in actuality regarding remembrance, in this way one says in soul that one heard, or perceived, or thought this before.\(^{56}\)

No one would claim to remember the white thing at hand or the object of contemplation at the time it is contemplated, but only to perceive and know these (449b15-17). Richard Sorabji (2002, 68) says that this leads us to expect an explanation of the conditions under which we remember the white thing or the thing learnt, but I do not see that this is the obvious inference and, as Sorabji himself notes, remembrance of thing X is not what


\(^{55}\) Aristotle does not emphasize a perception of time in connection to the objects of recollection (τὸ ἀναμνήσκεσθαι). If I can remember the first letter of someone’s name, time sense may not so much enter into the recollection of the rest of the name.

\(^{56}\) τὸ δὲ παρὸν ὅτε πάρεστι, οἷον τοῦτο τὸ λευκὸν ὅτε ὅρθη, οὕτως ἢ ἄν ψαίᾳ μνημονεύειν, οὐδὲ τὸ θεωρώμενον, ὅτε θεωρῶν τυγχάνει καὶ νοῦν, ἀλλὰ τὸ μὲν αἰσθάνεσθαι ὅσα, τὸ δὲ ἐπιστάσθαι μόνον· ὅταν δὲ ἄνευ τῶν ἔργων σχῆ τὴν ἐπιστήμην καὶ τὴν αἰσθήσιν, οὕτω μέμνηται [τὰς τοῦ τριγώνου ὅτι δύο ὀρθαίς ἱσθαί], τὸ μὲν ὅτε ἐμαθεῖ ή ἠθεώρησεν, τὸ δὲ ὅτι ἠκούσεν ἡ ἠδόν ἢ τι τουτοῦν· ἀεὶ γὰρ ὅταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἢ τῇ ψυχῇ λέγει, ὅτι πρῶτον τοῦτο ἠκούσεν ἢ ἤσθετο ἢ ἔνοικε.
Aristotle goes on to show. In 449b15-17, Aristotle is not providing a positive explanation of what the object of memory is, but a negative explanation of why the memory object is not a thing present at hand, i.e., not the thing perceived or contemplated, and, hence, explaining why remembering is not perception or knowledge. So 449b15-17 does not imply that remembrance is merely of object X; it only tells us that remembrance cannot be identified with perception or supposition. In b18 (“But whenever one has…”), where Aristotle begins to introduce what remembering according to actuality is, he does not say it involves the possession of object X without the act, but the possession of the cognition (knowledge or perception) of an object without the act. A prior thought or sense perception retained may be past only because it has been cognized before; without a sense that what is retained was cognized before, the matter retained will not be perceived as something past. Subsequently, Aristotle doubles (449b21-4) and triples down (450a19-22), repeating that one remembers a mode of cognizing some object or event and not merely some past object. All three instances (449b18, b21-4, 50a19-22) are temporal clauses that function effectively as present general conditionals that express a general rule (see ‘always’, aiei, in b21-4 and 50a19-22). Only once in the first chapter in which the focus is devoted to memory and remembrance does Aristotle mention memory merely of some object X where he mentions memory of the intelligibles (50a12,), but this is quickly qualified by 50a19-22. It is not until the second chapter of De memoria devoted to recollection (anamnesis) that Aristotle begins to mention with any frequency the recall of objects without connection to past cognition (e.g., a name, 52b5). Recollection need not involve such a strong connection to time. In the discussion devoted to memory and remembering, the emphasis is exclusively on past cognition, save for the lone mention of
memory of intelligibles in 50a12.

One reason why Aristotle limits memory objects to past cognition of objects is his commitment that beasts with a sense of time have memory. Were the beasts to remember objects too much divorced from the cognition through which they were cognized, the beasts might get dangerously close to having universals in their souls. If a lion remembers a gazelle, but not as something it saw or smelled or bit, then the lion may seem to retain certain features of a gazelle in its soul without any temporal location. If untethered to any prior cognition or sense of past time, the features retained lose much of their particularity and may get close to resembling a universal notion of a gazelle.

Another reason why Aristotle limits memory objects to past cognition of objects and events is because Aristotle understands memory to be a capacity for picking out what occupies a past temporal position (to genomenon). Recalling an object completely divorced from any mode of cognition through which the soul became acquainted with it fails to grasp any sense of past aspect. Suppose we recall or bring to mind a telephone number or a name. Surely we memorized the number or heard it or learned it or something of the like previously or else we would not have present retention of the number nor be able to call it to mind now. But suppose we just recall the number (for whatever reason) alone by itself, isolated from any cognition through which we were previously engaged with the number. For example, we recall our debit PIN at the grocery store in order to enter the number into the payment terminal. If the PIN is recalled as completely divorced from any past cognition of it, why is the recall in this instance an instance of remembering something past? The PIN number is at present still our pin

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57 Ronald Polansky pointed out this possibility to me, but the presentation is mine and I am responsible for any shortcomings that attend it.
number. It is not an old, disused PIN number. All we have done is to call to mind a number that we have retained. There is no past aspect attached to the PIN number when this is recalled without connection to any previous thinking of it. According to Aristotle, because the number as thought of is not perceived as a past object, it cannot serve as an object of memory. In my example, one calls something to mind, but is not remembering in the Aristotelian sense. It does not matter that the present calling to mind of the object is made possible due to past cognitive engagement with the object, for that past encounter is not what we call to mind when we call to mind the PIN number by itself, or the name by itself, or whatever object by itself. We simply call to mind the object. In contrast, if we call to mind a name or number or object with the awareness that we learned it previously, however minimal or rich be the awareness of the prior engagement may be, now, under this condition, there is awareness of past aspect attached to the object. (But suppose I recall that Caesar crossed the Rubicon in 49 BC. Certainly this thought is about an event that belongs to the past. But the thought is of an historical fact and the fact itself has no past aspect unless it is attached to my having learned it or thought it before, etc.)

Aristotle’s conception of time may also explain his commitment to including the remembering subject’s own past cognitive activity in the memorable object. Time is a number of the before and after connected to change (see Physics 219a34-b2). Where there is no perception of change, there is no perception time. Hence, in order for an object to be remembered as belonging to the rememberer’s past, the object must be conceived as attached to a continuum of motions and it is the rememberer’s past cognitive activity that supplies the needed motion. If an object of prior cognition is...
thought of by itself separately from any cognition through which it was engaged, the object will be temporally positionless. The object will not be conceived as belonging to any continuum of motions other than the present conception of it. It is our own cognitive activity that provides the motion to which objects of cognition can be in relation to before and after. Hence, memory merely of objects perceived rather than the perception of the object would rule out memory of things as past. We should see that objects or events are perceivable as possessing past aspect only when conjoined in awareness to some sense of the former cognition through which they were engaged. To sum up the argument:

P1  Objects or events cannot be perceived with past aspect unless perceived as attached to past cognition.
P2  Recognition of past aspect is a necessary condition of what Aristotle calls remembering.
∴ Therefore, objects thought of separated completely from past cognition cannot be objects of memory.

I think that these textual and argumentative points show that the burden falls harder on those who deny that Aristotle requires that past cognition be included in the memory object than those who affirm it.

Any nervousness occasioned by Aristotle’s commitment to the inclusion of a past cognition of X in memory objects should be assuaged by the realization that awareness of past cognitive encounters in memory need not be at all rich or robust. All Aristotle need be read as saying is that at least some awareness of a connection between past cognition and object is necessary. Probably anything more than complete unawareness of past cognition meets the requirement. When remembering, one remembers that (hoti, ὅτι) one cognized such and such (449b23; 50a21). Hoti may indicate the fact of having cognized X or a rich, detailed “replaying” or “reliving” of the past encounter of X, or anything between. Because Aristotle conceives of the thinking and perceiving of objects as occurring through the reception of the intelligible and perceptible forms of the object
cognized, it is not easy to untangle the form received (the object cognized) from the reception of the form (the cognition of the object). The activity of cognition and the activity of the form on the faculty of cognition are not separable (see *De anima* 425b25-26a9). For this reason, it will not be easy to untangle the remembrance of X from the remembrance of the cognition of X. Again, suppose a memory is of a red bicycle leaned against the house. Even if the past seeing is not thematized or the focus of the memory, remembering the *red* bicycle is obviously something that we remember, even if the seeing is not so much the focus of the memory. If *hoti* indicates minimally only the *fact* of having seen something previously, remembering *that* the bicycle was red is not easy to untangle from remembering the fact that the bicycle was obviously *seen*. Unless the former seeing is in the background, the needed past aspect will not enter in. Richness of memory depends on where our focus is directed, on the former cognition of X or on X formerly cognized.

The chapter devoted to recollection in *De memoria* goes beyond the aim of this dissertation, but it will be useful briefly to consider why examples seemingly devoted to remembering objects with less or no connection to past time are confined to the discussion of recollection. Recollection is a search initiated to call to mind a memory, especially when the memory is not immediately accessible for recall. Recollection is both the choice to recall something and the voluntary search initiated to uncover lost memories. If we cannot recall a number or a name, we can initiate a search to recapture the object we wish to bring to mind. Here the focus is exclusively on the object and not the cognition. For example, when trying to remember the name of a face we do remember seeing, we hunt for the associated name. In this case it looks as if the memory
we uncover is more so of the object than the cognition of it. But I hasten to point out that in this case recollection does not necessarily attempt to recall a lost name or number as something past and this is precisely because the focus is not on the past cognition, but just the object (so the successful recollection of X rather than the cognition of X ends in proposition memory). Of course, we can recollect things as past, such as where we put our car keys, where what is wished for is not the past cognition of the car keys, but the last place they occupied, which we cannot now remember. (Even here, there is subtle connection to cognition: we wish for the place where we put the keys and the putting surely has minimal connection to the most recent perception of the keys.)

While the focus of memory often emphasizes the past X more than the past cognition of X, we should see that the primary, governing object of memory is the past cognition of X because remembering is about the past. In a secondary, derivative way, we remember X as past because it was previously cognized, e.g., what someone’s name was, or a telephone number, or the view of the Matterhorn from the south, or that the bicycle against the house was red. Another way to view the emphasis on past cognition of objects rather than past objects is as a presentation of the primary governing instance of remembering, rather than a general definition meant to cover all remembering. Although the context is practical rather than natural, Aristotle’s treatment of courage in *Nicomachean Ethics* iii 5 is helpful. Courage in the most governing sense is facing a noble death on the battlefield. Courage can manifest itself in lesser arenas, but the genuine possession of courage is measured by the disposition one has toward death on the battlefield. If one is afraid to die on the battlefield, when dying on the battlefield would be a noble thing to do, then one does not have courage in the genuine sense, even if
disdainful of danger in other arenas. In a similar way, perhaps not all memory is thematically directed at the past mode of cognition through which an object was engaged, but if an animal lacks the ability to perceive a past object as the past object of its own cognition, then the animal will not be able to remember past objects either. The “governing arena” and standard of genuine memory is perception of past cognition, but memory is perhaps operable with more or less sense of past time.

Because Aristotle has the remembering subject’s past cognition as the object of memory, Aristotle is a realist when it comes to memory. Memory (and remembrance), in the genuine sense, gets at the remembering subject’s actual past. This fits with Aristotle’s realism concerning sense perception. Sense perception is a capacity for taking on the actuality of sensible objects insofar as they are sensible and memory is retention and perception of that past activity. There is false remembrance and misremembering (451a8-12, 52b23-29), but remembering according to actuality is an engagement with one’s past cognitive activity. If it was not thought or sensed, it cannot be remembered (memory arises only subsequent to sense perception or supposition of some sort).

**449b18-23 The initial account of remembering.**

I have argued that the memorable object is the remembering subject’s own past cognitive activity. Remembrance takes up past cognition indirectly through the possession of inactual cognition. Inactual cognition consists of the content of past cognition separated from the conditions that occasioned the actuality of the past cognition. How it is possible to have the content of previous cognition without the actuality is through the presence of *phantasmata* in the soul-body composite that function
as likenesses of past cognition. It is now possible to turn toward Aristotle’s initial account of remembering.

**Recall versus remembrance.**

Understanding Aristotle’s account of remembering is complicated by the appearance in *De memoria* of two different verbs related to memory, μεμνήσθαι (recall) and μνημονεύειν (remembrance). My position is that μεμνήσθαι and μνημονεύειν refer to distinguishable operations. Μέμνησθαι (recall) indicates the act of *bringing* to mind a memory in the sense of calling it to mind, as opposed to having in mind a memory as result of having already called it to mind. I argue that recall is the action in virtue of which there is a transition from remembering in potentiality to remembering in actuality.

David Bloch rightly observes that μέμνησθαι appears only once in the first chapter (449b20) in which μνήμη (memory) is the principle concern, while μνημονεύειν (to remember) appears twelve times.\(^{58}\) Except for the lone appearance of μέμνησθαι in 449b20, μνημονεύειν is used exclusively as the verb for remembering in chapter one and is the only verb that Aristotle explicitly connects to memory (μνήμη). Given the exclusive correspondence of the verb μνημονεύειν to memory, we may ask why Aristotle emphasizes that it is necessary to explain both memory and remembrance (μνήμη καὶ τὸ μνημονεύειν, 449b4, 50a14, 53b8-9) in *De memoria*. Aristotle uses both the articular infinitive and the noun interchangeably to refer to cognitive powers. For example, τὸ αἰσθάνεσθαι and αἴσθησις both refer to perception. However, τὸ αἰσθάνεσθαι (the articular infinitive) seems restricted to acts of perception, while αἴσθησις (the noun) has a

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\(^{58}\) David Bloch (2007) 94. The following analysis of the text is my own. For Bloch’s, see *op. cit.* 99-109.
broader range of usage. Depending on the context, perception (αἰσθησίς) may refer to the power, the act, the organ, or the organ-power composite. It is extremely rare for Aristotle to join the noun and the articular infinitive with the conjunctive (καὶ) in a single phrase when referring to a cognitive power as he does in the first line of De memoria (449b4) and in the final, considered definition of memory in 451a14-16. Generally, Aristotle picks either the noun or the articular infinitive. If the relation of τὸ αἰσθάνεσθαι to αἰσθησίς holds for μνήμη (memory) and τὸ μνημονεύειν (remembrance), then τὸ μνημονεύειν refers to memory acts, while μνήμη may refer to an act (‘in operation with memory’ [ἐνεργῇ τῇ μνήμῃ], 450a19), a disposition for entering into the operation (449b25, 50a30, 51a16), and possibly the bodily arrangement (disposition) that underlies the capacity for the act (450a27-b11). Yet, if the term μνήμη can mean the act of remembrance (as αἰσθησίς can mean the act of perception), it is unclear why Aristotle should stress that it is necessary to explain both memory and remembrance; furthermore, Aristotle says that both memory and remembrance are a hesis of the same thing, namely, a phantasma (451b14-16). Why Aristotle may feel the need to speak of memory and remembrance (μνήμη καὶ τὸ μνημονεύειν) is because, unlike with the noun αἰσθησίς, there are two verbs, not one, that correspond with the noun μνήμη: μνημονεύειν and μεμνῆσθαι. The usage of μεμνῆσθαι and μνημονεύειν overlaps to a tremendous extent. Both are used to mean to recall, to remember, to bring to mind, to call to mind, to remind, etc. Overlap in usage is not surprising because both terms are built from the root μνα/ that forms nouns, adjectives, and verbs of memory. Perhaps mindful of the overlap, Aristotle consistently emphasizes the correspondence of μνημονεύειν to memory

59 There are no occurrences in De anima or De sensu, for instance. For one example, see Meta 1074b31: τὸ νοεῖν καὶ ἢ νόησις.
(μνήμη), but never conjoins μέμνησθαι to memory. Another indication of a difference in meaning is that Aristotle goes out of his way to contrast recollection (ἀναμμηνήσκεσθαι) with remembrance (μνημονεύειν), but never directly contrasts recollection with μέμνησθαι. And whereas μέμνησθαι figures quite prominently into Aristotle’s explanation of the recollective process, μνημονεύειν is never invoked to explain how recollection works. Finally, the definition of memory (and remembrance) and μέμνησθαι appear to differ. Memory is a hexis of phantasmata that serve as likenesses of past cognition (451a14-16) while μέμνησθαι is an inner moving power (δύναμιν τῆν κινοῦσαν) of phantasmata (452a10-12). Still, because hexis can refer to a disposition (first actuality) in virtue of which its possessor enters into an activity (second actuality), the categorization of μέμνησθαι as capacity (dunamis) does not rule out its identification with memory.

Nevertheless, it looks like Aristotle intends a distinction between μεμνήσθαι and μνημονεύειν. Lexically, both μεμνήσθαι and μνημονεύειν can be used to indicate either (1) the act of calling to mind a memory so as to commence remembering it or (2) the engagement with a memory that results from having called it to mind. I find no evidence in chapter one of De memoria that Aristotle ever refers to memory or remembrance as an activity whereby a memory is brought to mind so as to be remembered in the first place. The entire focus is on how it is possible to relate to a phantasma as representing something past, not on how a phantasma is brought to presence. There is no discussion in chapter one of how a phantasma is brought to mind in the first place.60 Aristotle speaks

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60 Cf. David Bloch (2007) 96: “From a present-day point of view, bringing forward the images is also remembering (and this is true for ordinary Greek parlance), but from Aristotle’s point of view it is not, since the definition of remembering does not involve bringing forth the internal objects.” I concur with Bloch that for Aristotle remembrance (μνημονεύειν) does not include an activity of recalling something to
of remembrance and memory according to actuality (449b22, 50a19, 50b17-18, 52b26),
but the activity described is a kind of perceiving of a phantasma, not a process or action
in virtue of which the phantasma comes to be perceived. Remembrance (μνημονεύειν) is
used exclusively to indicate perception (of a sort) of a phantasma (450a21, b14-20, 28).
The nearest Aristotle comes to describing an activity of bringing a memory to mind in
chapter one is 450b27-51a2, but there the discussion concerns how it is possible for the
soul to relate to a phantasma as a presentation of the remembering subject’s past; it is not
a discussion of how the soul comes to have a memory phantasma in view in the first
place. Here is the passage in which Aristotle first introduces remembering according to
actuality and recall.

No one would claim to remember (μνημονεύειν) the present thing (τὸ παρόν) when it is present (ὅτε πάρεστιν), such as this white thing here when one sees it, and not the contemplative object when one happens to be contemplating and considering it; rather one claims only to perceive the former and to know the latter. But whenever one has the knowledge and the perception without their activity, then one recalls (μέμνηται), in the one case that one learned or contemplated, in the other case that one heard or saw or some such thing. For always whenever one is in actuality regarding remembrance (ἐνεργῇ κατὰ τὸ μνημονεύειν), then one says in soul that previously one heard or perceived or considered this. 61 (449b15-23)

No one would claim to remember a present thing when it is present. The present thing (τὸ παρόν) refers to whatever is present as a possible object of cognition. “When it is present” (ὅτε πάρεστιν) means that the thing present is present to cognition in actuality.

Why Aristotle qualifies “the present thing” (τὸ παρόν) with the temporal restriction “when it is present” (ὅτε πάρεστιν) is because a possible object of cognition may exist

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61 οὐ δὲ παρόν ὅτε πάρεστιν, οὐκ ἔχει τὸ λευκὰν ὅτε ὑδάς, οὐδεὶς ἐν φαίὴ μνημονεύειν, οὐδὲ τὸ θεωροῦμενον, ὅτε θεωρῶν τυγχάνει καὶ νοοῦ, ἀλλὰ τὸ μὲν αἰσθάνεσθαι ὦ, τὸ δ’ ἐπίστασθαι μόνον· ὅταν δ’ ἄνευ τῶν ἐργὼν σχῆ τὴν ἐπιστήμην καὶ τὴν αἴσθησιν, οὕτω μέμνηται [τὰς τοῦ τριγώνου ὅτι δύο ὀρθαὶς ἴσαι], τὸ μὲν ὅτι ἐμαθὲν ἢ θεωρήσας, τὸ δὲ ὅτι ἦκουσεν ἢ εἶδεν ἢ ὅτι τούτῳ· ἀεὶ γὰρ ὅταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἐν τῇ ψυχῇ λέγει, ὅτι πρῶτον τοῦτο ἦκουσεν ἢ ἦσθεν ἢ ἔνόησεν.
without being present for the faculty of cognition. An object may be sensible in potentiality, e.g., a white object is white whether perceived or not, but is sensible in actuality only while being perceived in actuality (see De anima iii 2, 426a20-27).

Because memory is about what is past (ἦ δὲ μνήμη τοῦ γενομένου, 449b15) and, hence, absent (τοῦ δὲ πράγματος ἀπόντος μνημονεύεται, 450a26-27), “the thing present when it is present” cannot be an object of remembrance. The point of the phrase “the thing present when it is present” cannot be merely that in remembrance one does not perceive the object remembered as being actually present at hand. When in actuality with phantasia, one does not perceive what the object of phantasia represents to be actually present at hand, either; in playful imagination, the imagining subject supposes that the act of imagining is real, but not what the act of imagining presents. Recognition that the object before the mind is not actually present does not distinguish remembrance from phantasia. Just as one perceiving or supposing X in actuality would not claim to be remembering X, so no one would claim to be remembering the object of fantasy at the time when one is fantasizing it. Rather, the point must be that in remembrance, one does not perceive what is remembered to be something that belongs to the present; thus, when active regarding remembrance one asserts in soul of the memorable object that one perceived or considered it before (πρῶτερον). In phantasia, the object fantasized is present and taken to belong to the present even if one does not treat what the fantasized object is about as something actually present. In remembrance, the memory is present,

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62 See De anima iii 3, 427b21-24: “Further, whenever we opine that something is terrible or frightful, straightaway we undergo the corresponding feeling, and it would be similar with something daring. But with phantasia we are in the same condition as if viewing terrible or daring things in a painting.” ἔτι δὲ ὅταν μὲν δοξάσωμεν δεινόν τι ἢ φοβερόν, εὐθὺς συμπάσχομεν, ὡμοίως δὲ κἂν θαρραλέον· κατὰ δὲ τὴν φαντασίαν ὡσαύτος ἔχομεν ὡσπερ ἄν εἰ θεώμενοι ἐν γραφῇ τὰ δεινὰ ἢ θαρραλέα.
but what the memory concerns is not considered to belong to the present nor actually to be present.

Having the knowledge or perception without the activity (ἀνευ τῶν ἐργῶν σχῆ τὴν ἐπιστήμην καὶ τὴν αἰσθησίν, 449b19) is in opposition to what is present when it is present (τὸ δὲ παρόν ὑπὲ πάρεστιν, 449b15). To have cognition without the activity may appear contradictory or paradoxical; for without actuality, there is no cognition to possess. But it will turn out that what one possesses is a phantasma that represents a former cognition (450a25-32). A phantasma is present to the one who remembers, but the subject matter that the phantasma represents is not present in actuality (rather, the subject matter is present, but in the form of a representation). Because the memory phantasma represents past cognition, the phantasma can move its possessor to be put in mind of the possessor’s absent past. Recall (μεμνῆσθαι) is a power to set in motion phantasmata such that one is subsequently moved by the phantasmata set in motion.

But whenever one has (σχῆ) the the knowledge and the perception without their activity, then one recalls (μέμνηται), in the one case that one learned or contemplated, in the other case that one heard or saw or some such thing. 63 (449b18-21)

For recall (τὸ μεμνῆσθαι) is the moving power present within, and this so as to be moved (κινηθῆναι) by oneself, namely, by those motions (κινήσεων) which one possesses (ἔχει), as was said. 64 (452a10-12)

In both passages, possession (ἔχει, 452a12; σχῆ, 449b19) of a phantasma is a condition for the realization of recall. In neither case is the meaning of “has” (ἔχει) spelled out. “Has” could indicate retention, the persistence of a phantasma in the soul-body composite. Alternately, “has” could mean some kind of active, cognitive relation with

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63 ὅταν δ’ ἀνευ τῶν ἐργῶν σχῆ τὴν ἐπιστήμην καὶ τὴν αἰσθησίν, ὡς τὴν μέμνηται [τὰς τοῦ τριγώνου ὡτὸ δὸν ὀρθαῖς ἔστει], τὸ μὲν ὅτι ἐμαθεν ἤθελωσεν, τὸ δὲ ὅτι ἔκκουσεν ἤ εἶδεν ἤ τι τοιοῦτον·
64 τὸ γὰρ μεμνῆσθαι ἐστὶ τὸ ἐνέχει δόμων τὴν κινήσειν· τοῦτο δὲ, ὅστ’ ἐξ αὐτοῦ καὶ ὧν κινήσεων κινηθῆναι, ὥσπερ εἰρήται. I read καὶ in the last sentence as epexegetical.
the *phantasma* that is retained. Regarding 452a10-12, it is possible to set in motion and in turn to be moved only by *phantasmata* that one retains. If there are no *phantasmata* persisting in the soul-body composite, there can be neither a setting in motion of them, nor any being moved by them.\(^{65}\) Alternately, it is when one is cognitively engaged with a *phantasma*, and not merely retaining it, that one will take up what the *phantasma* represents (as illustrated by 452a13-16) or be moved to take up a *phantasma* next in association with the *phantasma* currently engaged (as 451b25-30 explains).

The passage at 449b18-22 differs from 452a10-12 in two key aspects. First, an object of recall is given (one recalls that one learned or contemplated or heard or saw X), although the relation of recall and the object is not spelled out. Second, the ήταν (whenever) and οὕτω (then) in 449b18-22 effectively function as markers for the protasis and apodosis of a present general conditional.\(^{66}\) Whenever one has the knowledge and the perception without their activity, then (under this condition) one recalls that one learned or heard. Again, “has” could refer to retention or active engagement. Whenever one retains a *phantasma* of the knowledge or the perception, then (given that one retains such a *phantasma*) one recalls that one learned or heard. If retention (storage) is the right reading, then the sense of the conditional is that one recalls under the condition that one retains a *phantasma* that represents some former cognition (“whenever” would then mean something like, ‘for as long as’.) Because retention is different from the engagement of what is retained, the retention interpretation emphasizes a necessary condition for the possibility of recall. As a general truth, one recalls only those things of which one retains

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\(^{65}\) This is, I believe, the point of the statement in 452a6-7: if there is no *phantasma* representing the lost item one wishes to recollect, nor any succession of *phantasmata* in association with each other and the lost item, then one will no longer recall (οὐκέκτημενηται). Cf. J. J. Beare (1908) 451b5-10 n.1.

\(^{66}\) Observe that σχῇ must be a gnomic aorist, emphasizing a general truth.
a phantasma. Alternately, “has” could mean some kind of active engagement with the phantasma. If “has” means cognitive engagement with an object, then we are being told something about the activity of recall and not only a condition necessary for its possibility: if one engages somehow with former cognition without its activity, then under this condition one will be recalling in actuality what the phantasma represents.

Above I urge that 450a10-12 suggests that recall is a power to be put in mind of what a phantasma represents as a result of having set in motion other associated phantasmata. However, in 449b18-23, no mention is made of any associated phantasmata and this is one reason why it is difficult to see a difference in meaning between recall (μεμνῄσθαι) and remembrance (μνημονεύειν) in 449b18-23. The present general condition in b18-22 is followed by another present general condition in b22-23 that mentions remembrance (μνημονεύειν) rather than recall (μεμνῄσθαι).

But whenever one has the knowledge and the perception without their activity, then one recalls (μέμνηται), in the one case that one learned or contemplated, in the other case that one heard or saw or some such thing. For (γάρ) always whenever one is in actuality regarding remembrance (ἐνεργῇ κατὰ τὸ μνημονεύειν), then one says in soul that previously this (τοῦτο) one heard or perceived or considered.68 (449b18-23)

The second conditional (b22-23), as γάρ ("for") indicates, is introduced to justify something about the first (b18-22). That there is recall that one did X whenever one possesses X without the activity must be so because (γάρ) whenever one is remembering in actuality, then one recognizes (says in soul) that one previously perceived or considered this previously. What is the second conditional justifying or explaining about the first? The two conditionals combine to form the following argument. When one is

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67 For recall (τὸ μεμνῄσθαι) is the moving power present within, and this so as to be moved (κινηθήναι) by oneself, namely, by those motions (κινήσεων) which one possesses (ἐχει), as was said. (452a10-12)
68 ὅταν δὲ ἄνευ τῶν ἐργῶν σχῆ τὴν ἐπιστήμην καὶ τὴν αἰσθήσιν, οὔτω μέμνηται [τὰς τοῦ ἑργόνου ὑπὸ δύο ὀρθαῖς ἲσαι], τὸ μὲν ὅτι ἔμαθεν ἢ ἐθεώρησεν, τὸ δὲ ὅτι ἠκούσεν ἢ ἠδίκεν ἢ τι τοιοῦτον· ἀεὶ γὰρ ὅταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὔτως ἄν τῇ ψυχῇ ἵσει, ὅτι πρῶτον τούτῳ ἠκούσεν ἢ ἠθέτει ἢ ἐνόησεν.
remembering in actuality, then under this condition one recognizes that one previously cognized X. Because (γάρ) remembering includes a recognition of the prior cognition of X, it follows that whenever there is possession of cognition of X without the act, one recalls (μέμνηται) that one cognized X. That is, recall (μέμνηται) must be recall of some past cognition (“that one learned or contemplated in the one case, that one heard or saw in the other,” b20-21) because (γάρ) when remembering in actuality (ἐνεργῇ κατὰ τὸ μνημονεύειν) there is a recognition that one has cognized X previously.

We want to understand why the remarks on recall (b18-22) are necessary given what is posited about remembrance (b22-23). Aside from the different choice of memory verb, the second conditional regarding remembrance differs from the first regarding recall in two ways: (1) there is an explicit emphasis on actuality (ἐνεργῇ) that is not present in the previous conditional and (2) there is mention of a recognition of past aspect attached to what is remembered. The first difference is not particularly telling because the verb μέμνηται already suggests activity as opposed to a capacity for entering into an activity. Talk of remembering in actuality just reinforces that Aristotle’s current concern is to explain the act of memory. The second difference is more decisive. When one recalls, one recalls that one learned X or that one saw X. But Aristotle does not say that recall (of having cognized X) includes any recognition that one cognized X previously. Indeed, if recall that one had cognized X means that in recall one recognizes that one cognized X before, then Aristotle would seem to be guilty of a tautology in the second conditional. At any rate, he would seem to say the same thing twice. Furthermore, the conditional referencing remembrance would fail to justify or explain anything about the previous conditional referencing recall. The conclusion I draw is that recall (μεμνησθαι) does not
include recognition that one cognized X previously, although recall is concerned with prior cognition. Recall here probably means “to be put in mind of” or “be reminded” of prior cognition, with the result that one enters into the activity of remembering a prior cognition of X. If recall refers to the process whereby one is put in mind of or reminded of one’s absent cognition, this would explain how recall concerns past cognition, but without including any recognition that one previously cognized such and such. Recall is not the activity of remembering prior cognition, but the action by which one transitions from remembering in potentiality to remembering in actuality.

If my reading of the distinction between recall and remembrance is correct, then we can see 449b18-23 as a teleological account in which μεμνῆσθαι (recall) is an action that results in and is for the sake of remembrance (μνημονεύειν). We are not always remembering our past in actuality (i.e., we are not always ἐνεργεῖ κατὰ τὸ μνημονεύειν). There must be an act or cause in virtue of which there is a transition from remembering in potentiality to remembering in actuality. If my interpretation is right, recall (μεμνῆσθαι) looks to fill the role of the action in virtue of which one is put in mind of the absent past. Recall is for the sake of (or, at any rate, results in) remembrance. Remembrance is a particular way of relating to phantasma, namely, relating in such a way that one recognizes that what the phantasma represents is something that one has cognized previously. Recall is the process whereby one is put in mind of a phantasma that represents the past cognition of the one who recalls. If recall is understood as an instrumental action that results in remembrance, then we can understand how the second conditional (449b22-23) pertaining to remembrance acts as a justification for the first conditional (449b18-22) pertaining to recall. Because remembrance is an activity in
which the one who remembers relates to a *phantasma* as a representation of one’s past cognition, then recall as the action through which one enters into the act of remembrance must also take up the *phantasma* that represents past cognition. Recall is to be understood as the action of calling to mind or being put in mind of the *phantasma* that remembrance takes up.69 Again, if recall is the action whereby the one who remembers is put in mind of some memory currently absent to mind, this would explain why recalling that one learned or saw X is not the same things as a recognition in soul that one learned or saw X before. Finally, memory (μνήμη) turns out to be a *hexis* concerning a *phantasma* that represents previous cognition (451a14-17). In the first conditional (449b18-22), Aristotle gives as the condition of recall the possession (σχῇ) of the knowledge of X or the perception of X without the activity (i.e., the possession of a *phantasma* that represents prior cognition). Has (σχῇ) can mean (1) to retain cognition of X so as to have it in mind in potentiality or (2) to have cognition of X in mind in actuality. When one has *phantasmata* that represent previous cognition, then under this condition of retention one recalls, i.e., one can be put in mind of these *phantasmata* and being put in mind of such *phantasmata* results in remembrance. Recall is the action that functions as a transition from a state of retention to a state of remembering what is retained.

Aristotle makes good taxonomical use of the two memory verbs available to him by reserving for each a different role in memory. The English term ‘remember’ can mean either: (1) to have in one’s mind an awareness of something that happened in one’s past or (2) the action of bringing to mind something that happened in one’s past. (2) results in

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69 Recall (μεμνησθαι) is middle-passive in voice: one can call something to mind for oneself or be put in mind of something (reminded).
(1). In nontechnical Attic Greek, both (1) and (2) may be expressed by both μνημονεύειν and μεμνήσθαι. On my reading, Aristotle disambiguates (1) and (2) by μεμνήσθαι to (2) and μνημονεύειν to (1). We are not always remembering (actively relating to what a phantasma represents as a representation of the past). Remembrance requires the presence of a phantasma acting on the subject who possesses it. Therefore, something has to set the phantasma in motion so that the phantasma in turn moves its possessor to remember (see 450b27-50a2). The requirement that a phantasma be in motion affecting its possessor motivates the need for introducing recall into De memoria. There must be a transition or shift from having a memory in mind in potentiality (= retention, ἔξις φαντασμάτων) to having a memory before one’s mind in actuality (= remembrance, ἐνέργεια κατὰ τὸ μνημονεύειν). Aristotle has reserved the term recall (μεμνήσθαι) for the activity in virtue of which there is a transition from having a memory in mind in potentiality to having a memory before the mind in actuality.70

A final word about how recall looks to differ from remembrance will be helpful. Aristotle emphasizes remembrance (τὸ μνημονεύειν) as an operation rather than a capacity; remembrance is something with which one is in actuality (ἐνέργεια, 449b22, 50a19-20, 51b17-18, 52b24, b26). In contrast, Aristotle never refers to recall (μεμνήσθαι) as something with which one is in actuality, although the verbal form indicates some sort of action. Because recall has a cognitive dimension, recall must be an activity in some sense; it is a moving power of phantasmata and, as quasi-perceptible, phantasmata have a cognitive dimension. Whereas remembrance is to be counted among

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70 I think that my analysis of the consecutive conditionals shows that recall and remembering are different operations. However, if the reader wishes to see further textual evidence, I have attached an appendix to the end of the dissertation, “Recall (τὸ μεμνήσθαι) versus remembrance (τὸ μνημονεύειν),” that explores more fully the role of recall in the second chapter of De memoria.
the psychological activities, recall is more motion-like.

Let us consider motion (κίνησις) and activity (ἐνέργεια) for Aristotle, briefly. Motion is an actuality of a potentiality as such, that is, an actuality of a being in potentiality insofar as it is a potentiality (Physics iii 1, 201a9-11). What Aristotle’s difficult phrasing tries to capture is the active transition from one form to another without including any terms of motion in the definition (such as transition). Potentiality is here the potentiality to take on a form in some category of being (let’s call this a potential to be enformed). What the actuality of potentiality as such expresses cannot be only that something actually has the potential to be enformed in some way merely as a property of its nature. A glass sitting motionless on a table possesses the potential to be broken. Nor can the actuality of potentiality as such refer to the material substrate. Matter is to form as potentiality is to actuality. Matter *qua* matter is only potentially this or that sort of being without form. The underlying matter of a fully enformed bronze statue is a statue in potency only, but there is no motion. If there is no more potentiality to be enformed left to be actualized, then the motion is over and the form has been fully realized. The actuality of potentiality as such must refer to the action of taking on a form; motion ends when there is no more potential left to be enformed in some way. The result of all this is that motion (1) has an end beyond itself. Because motion ends when form is fully realized, the form at which motion aims is beyond the motion itself. Thus, motion does not contain its end within itself. (2) Because motion is for the sake of something beyond itself and ceases to be upon the realization of the end toward which it goes, motion tends toward its own destruction. (3) Finally, because the end of motion is beyond the motion
itself and is realized only upon completion of the motion, motion must take time.\textsuperscript{71}

In contrast to motion, an activity is its own end, as perception or thinking are for their own sake. Because an activity is its own end, it is already complete at every moment: the realization of an activity does not take time and so it is complete at every moment. The possible objection that certain objects of perception are too large to take in at once and take time fully to take in (e.g., the entirety of a mountain range or a tall building from top to bottom) does not disprove the rule. The activity of perceiving any given section does not take time to fill in or come to completion. Similarly, a temporarily extended object cannot be taken in all at once (e.g., a movie), but the perception of the current moment is always fully complete. Containing its own end and complete at every moment, an activity is in principle infinitely continuable because an activity does not aim at its own negation as is the case with motion. For example, perception is continuable until fatigue, sleep, or disease intervenes.

I have interpreted recall as an act in virtue of which there is a transition from having a memory before one’s mind in potentiality to having a memory in mind in actuality. Recall works through the association that \textit{phantasmata} have with each other and thought and sense perception. When a \textit{phantasma} is set in motion so that it comes before the mind, this is recall. I think we must stop short of categorizing recall as a motion simply. For one, recall involves movement among \textit{phantasmata} and \textit{phantasmata} are possible objects of cognition because they are, in a qualified sense, perceivable \textit{(450b11-51a2)}. Also, because recall is an action whereby a memory comes before the mind in actuality, recall is in some respects cognitive and cognition is an activity, not a

\textsuperscript{71} See \textit{Metaphysics} ix 6, 1048b18-36. Myles Burnyeat (2008) 219-291 disputes the authenticity of the passage on the grounds that it is missing from the best manuscripts.
motion. But recall is dubiously complete at every moment, dubiously continuable, and does not contain its end within its operation. We can see from linguistic consideration that recall does not contain its end as we cannot be said to be recalling and at the same time be said to have recalled. For to have recalled is to have before one’s mind in actuality some memory, whereas the act of recall is the action that leads to having a memory in mind in actuality. Once a memory is before the mind in actuality, then we can be said to have recalled, but once a memory is before the mind in actuality, we are no longer said to be recalling a memory to mind; rather than recalling or calling a memory to mind that is not yet before the mind in actuality (but is only before the mind in potentiality), we now have it before the mind.

Thus, recall is not continuable, but self-terminating insofar as it has as its end something beyond itself. Recall is similar to other motion-like cognition: one cannot be (with respect to the same thing and at the same time) in a state of learning and simultaneously in a state of having learned, for the latter is the completion and the former is on the way to completion.72 So with recall, one cannot be (with respect to the same memory) in a state of calling X before the mind that is not yet in mind and in state of having already called X to mind. In contrast, it is possible to know and at the same time be in state of having known (e.g., having known the principle on which an equilateral triangle is derivable from a radius and at the same time actively contemplating that same principle and demonstration).

In contrast to recall, remembrance (μνημονεύειν) understood as the perception of one’s past is fully an activity, a status that Aristotle emphasizes by referring often to

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72 Aristotle gives understanding as an example of an activity and learning as an example of a motion in *Metaphysics* ix 7.
remembrance and memory as something with which a subject is in actuality (ἐνεργεῖ, 449b22, 50a19-20, b17-18, 52b24, b27). Motion also is a kind of actuality, but remembrance does not have the motion-like characteristics of recall. The status of remembrance as activity is hardly surprising. Remembrance is an affection (πάθος) that follows upon sense perception (449b24-25) and remembrance according to actuality is itself a kind of quasi-perception (450a19-21; 50b11-20; b27-51a2). In the course of any remembering, one remembers X and at the same time one is in the state of having remembered this very thing. That the present tense and perfect tenses can be conjoined and attributed to the same act of remembrance is suggestive that remembrance is an activity that contains or is its own end: as complete at every moment, there is no difference in the course of active remembrance. In a single act of remembering X (however long it may be), remembrance of X at time \( t^1 \) and \( t^2 \) does not differ in terms of completeness. The reason why is because remembrance is the perception of what a phantasma represents as a likeness of something the remembering subject did in the past. Either the subject perceives what a phantasma represents as a presentation of subject’s past or not. Completeness at every moment is especially obvious in the case where remembrance is minimal and is merely that (i.e., of the fact that) one did or cognized X

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73 David Bloch (2007) 96-99 argues that the phrase ἐνεργεῖ κατὰ τὸ μνημονεύειν / τῇ μνήμῃ is a special phrasing for μεμνῆσθαι and means to actualize memory in the sense of “moving towards remembering.” He argues for this transitional reading of ἐνεργεῖ based on a dubious interpretation of De motu animalium 701a29-30 that makes ἐνεργεῖ a “goal-directed” action. Even were Bloch’s interpretation of De motu 701a29-30 accepted, there is no reason to suppose that ἐνεργεῖ always signifies a striving toward realizing a telos. First, this would destroy the distinction between motion and activity because on Bloch’s reading, anything in energēia would be on the way to a goal rather than already fully realized. Second, Magna Moralia ii 6, 1201b11ff. uses the same phrasing (ἐνεργεῖ τῇ X) Bloch cites from De motu, but it obviously contradicts Bloch’s assertion that to be ἐνεργεῖν is to be on the way to a goal (in Magna Moralia ἐνεργεῖν is contrasted with potentially knowing in such a way that actual knowing must be the sense). Finally, and most problematic for Bloch, when one is ἐνεργεῖ κατὰ τὸ μνημονεύειν, one recognizes that what the phantasma presents belongs to one’s past. But that is not a being on the way to remembering. That is precisely what it is to remember.
previously. Just as with perception of temporally extended events, rich remembrance in which one “relives” in some fashion a former cognition of X where the presentation of the former cognition of X unfolds over time, still, in this rich case, the state of remembrance is fully realized at every moment; remembrance does not require that the rich memory of X be fully unfolded before there is a fully realized state of remembrance any more than sense perception requires a temporally extended object to be fully unfolded before perception is fully realized. No matter what point in reliving the memory the one who remembers happens to be in, there is fully realized remembrance at all points just as perception is fully realized at every point when taking in a mountain range too large to behold in a single gaze or a movie that is extended over a time period.

In what sense should we say that remembrance is its own end? Why do beasts and humans remember? One possible answer is supplied by Aristotle: because we perceive and have a sense of time. Remembrance is a hexis and an affection (πάθος) that follows upon sense perception (449b24-25). Perception contains its end in its operation and remembrance follows upon perception. As the preservation of sense perception that is complete and containing its own end, remembrance in operation looks to be a kind of reiteration of the previous activity containing its own end. Further, cognition generally is an activity and remembrance is a quasi-kind of perception and supposition (i.e., remembrance is cognition of former cognition). Remembrance can serve ends beyond itself (e.g., learning, deliberation concerning right action), but certainly remembering is for its own sake, too. Often nothing results from remembering but the remembering itself: a memory “pops” into mind, it is attended to for whatever length of time, and then it is let go. In contrast, recall is not something complete at every moment; it is only a
process that leads into remembering. The status of remembrance as activity that contains its end may be one reason why Aristotle reserves his discussion of recall until after memory and remembrance have been discussed. As end, memory and remembrance must be discussed prior to recall and recollection that is for the sake of memory and remembrance because the lower and the means are not understood except in reference to the higher and the end.

The initial articulation of remembering according to actuality.

The way is prepared to devote full attention to the initial account of remembrance according to actuality. Aristotle carefully identifies remembering as an activity in which the subject is aware of its own past cognitive activity.

For always whenever one is in actuality according to remembrance, then [under the condition that one is remembering in actuality] in the soul one says that one previously heard or perceived or considered X (τοῦτο). 449b22-23

Aristotle does not give an explanation for how remembering is possible or how it works; the initial aim is to articulate what remembering is. Three features are of primary interest. First, it is the subject who remembers that is in actuality, not memory. Second, the subject who remembers recognizes (says in soul, 449b22-23) some cognition both as past and as the subject’s own. Third, the subject who remembers recognizes that there is past aspect attached to the memorable object. The inclusion of recognition of past aspect is especially important because it will help secure a distinction between remembrance (second actuality) and retention (first actuality) of memorable objects.

First, Aristotle carefully notes that memory and remembrance do not themselves

74 ἀεὶ γὰρ ὅταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἐν τῇ ψυχῇ λέγει, ὅτι πρότερον τοῦτο ἢκουσεν ἢ ἰσθητο ἢ ἐνώπισεν.
enter into second actuality; rather a human or beast is in actuality according to memory or remembrance. Aristotle’s careful phrasing reflects the principle secured in *De anima* 408a34-b18 that the soul is not the subject to which activities are attributed, but the principle and cause of the activity in which the ensouled being engages.

To assert that the soul angers is like if someone would say that the soul weaves or builds a house: it is better perhaps to say not that the soul pities or learns or thinks over something, but rather that the human in virtue of the soul [does these things], and this not as of motion being in the soul, but at times motion goes up to the soul, at other times from the soul. For example, perception is from the things before one, but recollection is from the soul to the motions or the things abiding in the sense organs.75

The plant or the beast or the human engages in activity (metabolizing, growing, perceiving, or thinking) due to soul, but it is not the soul that undergoes the activity. The concern is that were the soul to serve as subject rather than cause of activities, the soul might look to be in motion, which Aristotle wishes to avoid.76 Motions terminate at the soul, as with perception (reception of sensible form), or can proceed from soul and on account of soul, as with recollection where the wish to search out a missing item sets *phantasmata* in motion. Remembrance is a kind of mirror image of perception; in remembrance the motion of *phantasmata* retained in the soul-body composite terminate at the soul, i.e., in remembrance, the soul “perceives” a *phantasma*. Aristotle’s claim that the soul perceives memory *phantasmata* (450b28) should not be taken flatly; it is a way to announce that the perception is not of the normal variety. It is the human or beast, as

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75 τὸ δὲ λέγειν ὀργίζεσθαι τὴν ψυχὴν ὑμιῶν κἂν εἴ τις λέγῃ τὴν ψυχὴν ὑφαίνειν ἢ οἰκοδομεῖν· βέλτιον γὰρ ἵνα μὴ λέγειν τὴν ψυχὴν ἑλέειν ἢ μανθάνειν ἢ διανοεῖσθαι, ἀλλὰ τὸν ἄνθρωπον τῇ ψυχῇ τοῦτο δὲ μὴ ὡς ἐν ἐκείνῃ τῆς κινήσεως ὁδής, ἀλλ’ ὅτε μὲν μέχρι ἐκείνης, ὅτε δ’ ἀπ’ ἐκείνης, οἷον ἢ μὲν αἰσθήσεις ἀπὸ τοιοῦτο, ἢ δ’ ἀνάμνησις ἢ ἀπ’ ἐκείνης ἐπὶ τὰς ἐν τοῖς αἰσθητήριοις κινήσεις ἢ μονὰς.

76 Aristotle’s predecessors argue that there is soul on the grounds that some beings clearly move themselves and such motion needs a principle. The predecessors, however, suppose that the soul is a moved mover, a mover of the body in virtue of being in motion itself. If soul moves by being in motion, the soul looks to be a body because only body can be in motion in a strict sense. So the soul might be fire or air or some other highly mobile source that could be throughout the body. Aristotle argues that the soul cannot be a body and therefore cannot be in motion. Soul is doubtfully body on the grounds that bodily motion by itself has a difficult time accounting for all operations.
Aristotle repeatedly emphasizes, that is at work with memory perceiving a *phantasma*, not the soul.

How does the soul serve as the motionless principle in virtue of which the ensouled remembering subject is at work with memory? Perception is due to soul and memory follows on perception. Also, probably we are to see that an animal enters into acts of remembrance due to retention that is not itself at work or in motion. Memory (μνήμη) is a *hexis* (ἕξις) of perception and supposition (449b24-25). Remembrance of past cognitive activity is predicated upon the development in the remembering subject of a dispositional retention (*hexis*) of a likeness (*phantasma*) of the past cognitive activity remembered. Retention is not just a state of holding onto (*hexis*) *phantasmata*, but is also a disposition that has its possessor relate to the *phantasma* in accordance with the manner of the disposition possessed. For instance, there can be long-lasting or brief retention, retention of *phantasma* that is accurate or inaccurate, retention that is detailed or vague, and retention that tends toward holding onto some things, but not others. The remembering subject can be moved to perceive the *phantasma* retained, much like an artist enters into artistic activity due to the knowledge in the soul. Similarly, retention of *phantasmata* serves as an unmoved mover of remembrance for the ensouled being. Also, the perceptions, desires, and (if human) thoughts that are due to soul may trigger remembrance due to association with *phantasmata*. Character provides another kind of analogue. Character is a disposition of soul concerning passions and desires in virtue of which the human enters into actions indicative of the character disposition. Courage is not itself in motion, but it is a principle of action in virtue of which the one who possesses it reacts in various ways and chooses to do various things in response to the
circumstances at hand. Likewise, due to the sort of memory *hexis* a subject develops, the subject may tend to retain certain things more than others or tend to remember certain memories in response to certain situations.

The second feature emphasized in 449b22-23 is a recognition of self in the object remembered. The remembering subject is featured in the past cognition that is remembered. The subject who is in actuality according to remembrance says in soul that the subject heard or perceived or considered X before (the verb for actuality in the *protasis* is in the third person singular, as are the verbs of cognition that follow in the *apodosis*). The remembering subject recognizes some instance of the subject’s past cognitive activity and recognizes that the past cognitive activity is the subject’s own. Why the subject who remembers recognizes a personal connection to the past cognition is of great interest, for besides a recognition of past aspect, the kind of personal connection recognized in the memorable object is a crucial difference between *phantasia* and remembrance. In acts of imagination, at least for humans that do not so much treat their imaginings as perceptions, imagination is always a kind of “as if” perceiving. But in remembrance, the one remembering does not perceive what is remembered “as if” it happened. Rather, the remembering subject perceives a real personal connection with what is remembered: “I did or experienced this.” The remembering subject perceives and recognizes its cognitive history and engagements as its own; the soul perceives its past self in relation to the object remembered, e.g., seeing the object from whatever point of view or feeling some passion in relation to some event. How perception of the self in

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77 Cf. *De anima* 427b21-24. The human who is in actuality according to constructive *phantasia* looks upon frightening things as one looks upon frightening things in a painting. Kenneth Turnbull (1994) 321 observes that *phantasia* “pictures what is sensed by putting a frame around it” such that it renders what is pictured as “unconvincing.”
inactual cognition is possible is perhaps because we perceive that we perceive (De anima, 425b12-13). If some trace of the self-awareness that is built into cognition according to actuality is retained by the memory phantasma, then this self-awareness may somehow be indicated by the phantasma so that humans and certain animals can return to this self-awareness in memory.78

Third, the subject who remembers recognizes that what is remembered belongs to the remembering subject’s past. Recognition of past aspect is intimately connected to the recognition that memory is of the remembering subject’s own cognitive activity. Suppose that before a subject’s mind is a presentation of some instance of the subject’s past cognitive activity. Now suppose that the subject perceives no past aspect attached to what presents itself before the subject’s mind. What will the subject make of the intended object in such a case? Rather than remembering, something like daydreaming would result. If we exclude cases of hallucination where phantasmata are perceived as if they are proper sensibles, the presentations of daydreaming and inventive fantasy are not perceived by the subject of these acts to be actual perceptions belonging to the subject. In remembering, however, the subject perceives that some cognition is an instance of the subject’s own past cognitive activity.

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78 How the self is recognized in a memory is a real puzzle. Self-awareness belongs on the noetic side of things, not the noematic. How would a phantasma that lies on the noematic side indicate self-awareness to the remembering subject? Phantasmata are presentations of phantasia. So phantasmata are analogous to aisthêmata or noêmata insofar as the phantasmata serve as the correlative objects of a cognitive activity, phantasia. If phantasmata are presentations that appear in virtue of phantasia, then there is phantasia occurring whenever phantasmata appear before the mind. Perhaps we are to see that the indication of self-awareness belongs to the phantasia activity that is similar to sense perception according to actuality. If phantasia is similar to sense perception and the latter includes self-awareness, then phantasia may contain some resemblance of the self-awareness built into the sense perception from which it derives. Tony Roark (2011) 167 asserts of the memory phantasma that it “retains an assertoric character” in “virtue of its causal history”; as derived from perceptions that contain an assertoric character, the memory phantasma also will possess an assertoric character.
That there is a relationship between the recognition of past aspect and the recognition that the cognition to which the past aspect is attached is clear, but the nature of that relationship is not; and Aristotle hardly spells it out. Recognition of past aspect is not a sufficient condition for remembrance. We realize that all sorts of things have past aspect, but we do not for that reason suppose they belong to our own cognitive history.

To return to a previous example, we might think that Caesar crossed the Rubicon in 49 BC. The recognition that Caesar’s crossing took place in the past is not accompanied by any realization that the crossing belongs to our own perceptual history, but we do take the referent of our thought (Caesar’s actions) to have past aspect. Aristotle speaks to the relationship between recognition of past aspect and the cognition remembered only twice. Interestingly, the perception of past cognitive activity is not the same as the perception that the past cognitive activity has past aspect.

For always whenever one is in actuality regarding remembrance, in this way one says in soul that one heard, or perceived, or thought this before.\(^{79}\) (449b22-23)

For always whenever one is in actuality with memory, just as was also said before [viz. 449b22-23], that one saw this or heard or learned, one perceives-in-addition (προσαισθάνεται) that [it was] before.\(^{80}\) (450a19-21)

In the initial articulation of remembrance (449b22-23), we are told only that when remembering one recognizes (says in soul) that one cognized something previously. The remembered object and the past aspect attached to it are not distinguished, but they are separated in the second articulation of remembrance (450a19-21). The key term is perceives-in-addition (προσαισθάνεται), which makes its sole appearance in the Aristotelian corpus here and is probably an Aristotelian neologism coined for making the

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\(^{79}\) ἀεὶ γὰρ ὅταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἐν τῇ ψυχῇ λέγει, ὅτι πρότερον τοῦτο ἦκουσεν ἢ ἦσθεν ἢ ἐνόησεν.

\(^{80}\) ἀεὶ γὰρ ὅταν ἐνεργῇ τῇ μνήμῃ, καθάπερ καὶ πρότερον εἶπομεν, ὅτι εἴδε τοῦτο ἢ ἦκουσεν ἢ ἐμαθε, προσαισθάνεται ὅτι πρότερον.
desired point in 450a19-21. The subject in actuality with memory not only perceives an instance of the subject’s cognitive history, but perceives-in-addition that the instance belongs to the subject’s past. On the one hand, there is the perception of a phantasma that resembles a cognition (e.g., seeing, hearing, learning, or opining of X). On the other hand, there is a perception of the past temporal aspect attached to the cognition that serves as the memorable object. The implication of the term “perceives-in-addition” is not altogether clear. Does Aristotle mean that there are two separate perceptions that arise and converge in remembrance or only that perception of past cognitive activity includes an awareness of the temporal aspect? We might wonder how perception of past aspect can be in addition to and not the same as the perception of an instance of one’s past cognitive activity. For if one perceives an instance of one’s past cognitive history, it might seem to follow that one must perceive that this instance belongs to one’s past. If perception of past cognitive activity must include perception of the past temporal aspect, then the temporal location of the past cognition and what the past cognition consists of (by consists of, I mean whether the cognition is a seeing X, or hearing X or learning X, etc.) are inseparable; but this is not the position that Aristotle embraces.

An important passage confirms that Aristotle’s considered view is that the memory phantasma neither includes nor serves as a token for the past aspect perceived in remembrance.

Therefore, whenever the motion [the phantasma] regarding the deed (πράγματος) and the motion regarding the time arise together, then one is in actuality with memory (τῇ μνήμῃ ἐνεργεῖ). But if one supposes [so] without doing it, one supposes one remembers (μνημονεύειν). For nothing prevents one from being mistaken somehow and seeming to remember while not remembering (μνημονεύειν μὴ μνημονεύοντα). But not to suppose [so] while one is at work with memory (ἔνεργον κα τῇ μνήμῃ), but rather to fail to notice when being put in mind (μεμνημένον) is not possible: for recall (μεμνῆσθαι)

81 Perceives-in-addition (προσαίσθησθαι) does not appear in any extant text prior to Aristotle and appears only four times after: twice in Sophonias’ paraphrase of De memoria and twice in the paraphrase of Michael of Ephesus, both of whom merely repeat Aristotle’s own usage.
is this very thing. But if the motion of the deed arises separately from the motion of the time, or the latter separately from the former, then one does not recall.\(^{82}\) (452b23-29)

Aristotle posits two kinds of motion that must arise together for remembrance to occur, a phantasma that represents or signals a past cognition and a motion that indicates the temporal location of what the phantasma represents. (The announcement of a motion pertaining to time in addition to a motion pertaining to the memorable object follows a complicated and disputed passage concerning how relative temporal distance among memorable objects is judged.\(^{83}\)) Evidently, the presence of a phantasma before the mind in actuality is not enough to secure perception of the temporal aspect that belongs to what the phantasma represents; an additional motion indicating the time is needed. Were the phantasma on its own enough, there would be no need to bring in a time motion. Further, it would be better (less complicated and more economical) were the phantasma on its own good enough to indicate past aspect; the positing of an additional motion requires a coordination of motions that wants an explanation, which explanation would be unnecessary were the temporal aspect accountable in virtue of the phantasma by itself.\(^{84}\)

\(^{82}\) ὅταν όὖν ἂμα ἢ τε τοῦ πράγματος γέγονεται κίνησις καὶ ἢ τοῦ χρόνου, τότε τῇ μνήμῃ ἐνεργεῖ. ἂν δ’ ἦν ἂμα μὴ ποιῶν, οὗται μνημονεύειν· οὕτων γὰρ καλῶς διασκεδάζηται τινα καὶ δοκεῖ μὴ μνημονεύοντα. ἐνεργοῦντα δὲ τῇ μνήμῃ μὴ οἴσεθαι ἀλλὰ λανθάνειν μεμνημένον οὐκ ἔστιν· τοῦτο γὰρ ἢν αὐτὸ τὸ μεμνημέναι. ἀλλ᾽ ἢν ἢ τοῦ πράγματος γένηται χωρὶς τῆς τοῦ χρόνου ἢ αὐτὴ ἑκεῖνης, οὐ μέμνηται.

\(^{83}\) It is important that Aristotle speaks of “judging” (κρίνει, 452b8) temporal distances because this allows for intellectual, but also perceptual discernment of temporal distances. Were estimation of location in past time limited to intellectual activity alone, the beasts would be afforded no ability to order events, but the beasts must be able in some minimal capacity to judge that the content represented in their memory phantasma is before the present moment.

\(^{84}\) Tony Roark (2011) 147 agrees that Aristotle’s vehicle for past aspect differs from the memory phantasma. Roark criticizes Julia Annas (1992, 305) for attributing to the phantasma the power to represent past temporal aspect. Roark argues that the introduction of the phantasma “concerning time would be utterly redundant if the phantasm representing the event itself possessed representational content that is temporal in character” (147). In Annas’ defense, she claims only that a “representational image” represents “my past seeing,” which need not mean that the phantasma represents to the soul the past temporal aspect of the past seeing. Because the phantasma is a likeness of the original act of cognition that occurred earlier, then by definition the phantasm represents the past cognition because that of which the phantasma is a likeness occurred in the past. Still, Roark is quite right concerning how we ought to read Aristotle: the memory phantasma does not appear to contain past temporal aspect.
Why does Aristotle posit a vehicle for indicating past aspect (the motion of time) different from the vehicle that represents the past cognition (the phantasma)? Aristotle gives no reason, but it is probably due to Aristotle’s understanding of how memory works. Memory is possible because phantasmata are established in the soul-body composite that are likenesses of some original sense activity (450a25-32). Although Aristotle does not say it, as likenesses of original sense activity, these phantasmata would doubtfully contain an indication of the past temporal aspect attached to past cognition they represent. If the memory phantasma includes any marker for temporal aspect, the phantasma would represent the sort of temporal aspect present in the original act from which the phantasma is derived. Because the original perception contained a present temporal aspect and the memory phantasma is a likeness of the original perception, it is unclear how the phantasma through its own powers, representational or otherwise, should indicate anything about the temporal location of what it represents. The memory phantasma should represent something with present, not past aspect. Hence, the perception that what the phantasma represents belongs to past time must arise from something other than the memory phantasma.

Returning to 452b23-29, when the motion that represents past cognition and the motion that serves as the indication of the past temporal location of the past cognition represented arise together, then under this condition is one in actuality with memory (τῇ μνήμῃ ἐνεργεῖ, 452b24). Talk of motion of the thing remembered and of the time indicate that the one who remembers is acted on by what is in motion, where acted on means to perceive and to be aware. To be in actuality with memory is to perceive what a memory phantasma represents and to have a sense of the past temporal location of what
the phantasma represents. Aristotle claims that, “when one is in actuality with memory…that one saw this, or heard or learned it, one perceives-in-addition that it [one’s cognition of X] was before (πρότερον): and the before and after (ὑστερον) are in time (χρόνῳ)” (450a19-22). Before means before now (see 449b25-26). The sense of time that enters is a discrimination by sense that the cognition of X indicated by the phantasma is prior to now, prior to the present remembering. The assertion that before and after are in time announces that the primary sense power discriminates the temporal location of memories. The primary sense power picks out and discriminates the temporal location of memories relative to the now and, in animals with more advanced phantasia, the temporal location of memories relative to each other. Aristotle posits in the soul motions of phantasia that are proportionate to actual passages of time that are indexed to various phantasmata of past cognition, e.g., motions proportionate to two weeks, three months, five years, etc. But all that is needed to remember (or misremember) is for the remembering subject to be moved by a motion indicating some time elapsed that is indexed to a phantasma that represents past cognition. (How and why movement of time and movement of phantasma come together is not said; Aristotle seems to treat their conjunction as something necessary to accept.)

The proportional movements of times elapsed can be present without the movement of the phantasma and vice versa. This explains how we may misremember: when one conjoins a movement of time lapse to a phantasma that does not represent an

85 ἀεὶ γὰρ ἔτων ἐνεργῇ τῇ μνήμῃ, καθάπερ καὶ πρότερον εἶπομεν, ὃτι εἰδε τοῦτο ἢ ἥκουσεν ἢ ἤμαθε, προσαισθάνεται ὃτι πρότερον· τὸ δὲ πρότερον καὶ ὕστερον ἐν χρόνῳ ἔστιν.
86 The discrimination of the temporal distance or a memory relative to the now and the relative temporal distance between memories is the subject of the difficult passage at 452b7-22. The best treatments of this difficult passage can be found in John Sisko (1997) and Tony Roark (2011, chapter nine). I have not yet worked out the details to my satisfaction.
actual past cognition, one supposes oneself to remember while not actually remembering (452b24-26). Aristotle mentions the delusional Antipheron who treats as presentations of past cognition *phantasmata* that do not represent any actual past cognition (451a8-12); past aspect is conjoined to a *phantasma* that is not a likeness or indicator of past cognition (unless past aspect is conjoined, what the *phantasma* represents cannot be perceived as a presentation of *past* cognition). If the motion of a *phantasma* arises without being conjoined to the relevant motion indicating past aspect, then one will suppose oneself merely to be day dreaming or imagining something. Alternately, if the motion of a time lapse comes about divorced from any *phantasma*, then we think about a certain previous point in time, e.g., last autumn, but not what we happened to be doing during that time (452b28-29).

The account of misremembering and appearance before the mind of the *phantasma* or the motion that indicates past aspect in isolation from the other includes some important details about the sort of self-awareness that figures into acts of remembrance. To remember is to be aware that one is remembering.

But not to suppose [so] while being in actuality with memory (ἐνεργοῦντα τῇ μνήμῃ), but rather to fail to notice when being put in mind (μεμνημένον) is not possible: for recall (μεμνήσθαι) is this very thing.87 (452b26-28)

To recall something is to become aware of what is recalled. Hence, it is not possible to be at work with memory and not suppose oneself to be remembering. That we perceive that we perceive seems to be an indemonstrable principle for Aristotle (see the first lines of *De anima* iii 2). Likewise, there cannot be remembrance without an awareness that one is remembering. Aristotle has said previously that the one who remembers says in

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87 ἐνεργοῦντα δὲ τῇ μνήμῃ μὴ οἴσεσθαι ἀλλὰ λανθάνειν μεμνημένον οὐκ ἔστιν· τοῦτο γὰρ ἦν αὐτὸ τὸ μεμνήσθαι.
soul that one cognized such and such before (449b22-23). We may see that “says in soul” is an affirmation that one is remembering; what is said must be in reference to something of which the speaker has become aware. The beasts do not say things in their souls but because perceiving has perceiving of the perceiving built in, the more complex beasts may perceive that they remember. It is not possible for a phantasma to be before the mind in actuality without awareness of what the phantasma represents. However, if a phantasma that represents a past cognition presents itself before the mind without the subject being aware that what the phantasma represents is an instance of the subject’s past cognitive activity, then remembrance cannot result. Remembrance is the unification of a representation of past cognition (phantasia) with some sense of past aspect (time sense). Unless one perceives (or says in soul) that there is such a union between a sense of past aspect and a cognition presented before the mind, remembrance cannot result. Hence, one cannot fail to be aware that one remembers and self-awareness must be built into remembrance.

It is possible also to suppose oneself to be remembering when really one does not. Genuine remembering means that the one who remembers joins a phantasma that actually represents a past cognition to a sense of past aspect. But nothing prevents the conjoining of a motion representing time elapsed to a phantasma that does not represent a past cognition, resulting in an awareness that one is remembering (452b25-29). It is possible to be unaware that one remembers falsely, but it is not possible to be unaware that one remembers genuinely or to be unaware that one seems to oneself to be remembering genuinely. Self-awareness that one is remembering does not imply that one
remembers truthfully. Should we be troubled that it is possible to suppose oneself to remember when really one does not? Yet, misremembering is notoriously ubiquitous. In both remembering and misremembering something now appears before the mind, seeming to present the subject’s past cognitive activity. Remembrance is self-discriminating; it picks out from among things past what belongs to the subject’s own cognitive history. However, unlike discrimination of proper sensibles by the senses, it is possible to misremember. The reason why is that remembrance involves a conjunction of two separate terms (time sense and a phantasia presentation) and these may be combined inappropriately.

Before turning to the initial definition of memory, I want to address a tension some see between Aristotle’s comment that when remembering one says in soul that one cognized such and such previously (449b22-3) and the comment that animals with a sense of time possess memory (b28-30). Because the beasts do not possess speech, attributing asserting things in soul to them is problematic. The tension is readily resolvable and there is no reason to read “says” as meaning anything other than “being aware.” First, 449b22-3 precedes Aristotle’s announcement that beasts with time awareness are able to remember (b28-30). As is his usual way, Aristotle starts with what is more familiar and proceeds to the less familiar but more explanatory and more embracing. Naturally, Aristotle begins by speaking about what the reader is most familiar with, the reader’s own human memory. The mention of saying in soul follows

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88 It is unclear whether Aristotle embraces disjunctivism in the case of remembering and false remembering. The cognitive process is the same and indistinguishable for both insofar as the remembering subject attaches past aspect to a phantasma in either case. Aristotle would maintain that remembering and false remembering differ insofar as remembering involves a phantasma that is a copy of past cognition, whereas false remembering involves a phantasma that is not a copy. Also, Aristotle seems committed to the idea that through introspection it is possible to determine whether a phantasma presents genuine memory content (see 451a2-8). Cf. Kourken Michaelian (2016) 63-64.
on Aristotle’s appeal to the way we humans speak (b16, 18) about memory and remembering. It may be that memory according to actuality in *humans* is always accompanied by or can be accompanied by assertion, but that does not mean that human memory is intrinsically doxic or propositional. Richard Sorabji (2004) 9-10 reads “says in soul” as indicating judgment, lamenting that it is difficult for Aristotle to square attribution of memory to beasts with the requirement that memory must include a judgment in soul. Tony Roark (2011) 167-8 suggests that memory, in part, includes “assent or belief” about phantasmata and is “formally a judgment,” also looking to 449b19ff. Roark is led to this position not only because of Aristotle’s talk of saying things in soul, but also because Roark sees hōti (ὅτι, ‘that’) in b23 as indicating that all memory contains propositional content (145).89

Two considerations tell against reading Aristotle as categorizing memory as essentially (and not incidentally) doxic. First, he treats remembrance as a sort of perception. Second, Aristotle flatly denies that memory is a form of supposition. After announcing that beasts with time sense can remember, Aristotle exchanges “says in soul” for “perceives-in-addition.”

For always whenever one is in actuality regarding remembrance, in this way one says (λέγει) in soul that one heard, or perceived, or thought this before. (449b22-23)

For always whenever in actuality with memory, just as was also said before, that one saw this or heard or learned, one perceives-in-addition (προσαισθάνεται) that it was before. (450a19-21)

The parallel construction between 449b22-23 and 450a19-21 shows that 450a19-21

89 In correspondence, Tony Roark has clarified that he does not think that Aristotle regards memory as being an intrinsically doxic state, so beasts can remember. However, Roark has urged me to consider that remembering when something occurred in a precise sense (with mētro, 452b29-53a4) is doxic on the grounds that such an act requires deliberative phantasía, which is absent in beasts, but present in human beings. The presence of deliberative phantasía in humans, as well as the capacity for humans to remember with precision, moves Roark to posit that memory in humans either is or is accompanied by a doxic state. I would protest that because Aristotle allows for remembrance without a precise measure of time (453a2-4), remembrance, even in humans, need not be doxic.
echoes 449b22-23 (no similar phrasing appears between the two passages). After announcing that beasts remember, Aristotle appropriately substitutes perceiving that such and such a cognition occurred before for “saying in soul” because the beasts cannot do any speaking. The perception of previous cognition covers both humans and beasts because the examples of previous cognition perceived include learning, but also seeing and hearing. Animals that perceive time are able to remember and “they do so through that by which they perceive” (449b28-30). The claim is not limited to beasts, but includes all animals that perceive time, among which are humans. Further, Aristotle straightaway asserts that memory is neither perception nor supposition following 449b22-23.

For always whenever one is in actuality regarding remembrance, in this way one says (λέγει) in soul that one heard, or perceived, or thought this before. Therefore, memory is neither perception nor supposition (ὑπόληψις), but a hexis or affection of one of these. (449b22-25)

Supposition (hupolēpsis) includes knowledge (epistêmê), opinion (doxa), and practical judgment (phronêsis) (see DA, iii 3, 427b24-6). Were “saying in soul” meant to indicate that remembering is intrinsically doxic, Aristotle would not go on immediately to posit that memory is not supposition. Also, if human remembering involves a saying in soul that such and such was cognized previously, this saying must be founded on a more primary perception of the past aspect and the past cognition indicated by a phantasma. Opinion about the past must be predicated on access to the past. Finally, and most problematic for reading into Aristotle a necessary doxic condition of memory, is the rather strong claim that memory belongs to the primary sense power (450a12-14).

90 ὡσθ᾽ ὧσα χρόνου αἰσθάνεται, τάτα μόνα τῶν ἡμῶν μνημονεύει, καὶ τούτῳ ὃ αἰσθάνεται.
91 ἀεὶ γὰρ ὅταν ἔνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἐν τῇ ψυχῇ λέγει, ὅτι πρῶτον τοῦτο ἠκούσεν ἢ ἠσθετο ἢ ἐνόησεν. ἔστι μὲν οὖν ἢ μνήμη οὕτε αἰσθήσεως οὕτε ὑπόληψις, ἀλλὰ τούτων τινὸς ἔξις ἢ πάθος.
Remembrance requires a sense of time and time is perceived by the same faculty that perceives magnitude and motion, namely, the sense power. The discrimination of past, present, and future time is an act of perception, even if remembering temporal location with precision requires recollection and deliberation. Further, remembrance involves the awareness of *phantasmata* that are affections of the sense power (450a13-14). Aristotle flatly claims that memory connects to intellect incidentally, but in its own right, memory belongs to the primary sense power (450a13-14). Hence, opinion can accompany memory in humans, but memory is not a power of supposition. Saying in soul that something has been previously perceived is only an allusion to the human self-awareness built into remembering.

A lot of ground has been covered and it is good to pause here and to list the main points secured about remembrance. (1) Remembrance (μνημονεύειν) refers only to the cognitive engagement with a memory in actuality. Recall (μεμνῆσθαι) is reserved to designate the action by which a memory appears before the mind and in virtue of which there is a transition from remembering in potentiality to remembering in actuality. (2) It is not memory that enters into activity but the subject who has memory remembers in virtue of the memory that the subject possesses. (3) To be in actuality with memory or remembrance is for a subject to perceive a presentation or indication of the subject’s own past cognition as the subject’s own and to perceive in addition that the cognition indicated belongs to the subject’s past.

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92 ὡστε τοῦ νοῦ μὲν κατὰ συμβεβηκός ἐν εἴπῃ, καθ’ αὐτὸ δὲ τῶν πρῶτον αἰσθητικοῦ.
93 The view that memory is not a kind of supposition (449b24) and that remembering is through the power of perception (b30) creates a problem: if remembering is a power of perception, how are human beings able to remember past intellectual cognition? This is what motivates the discussion contained by 449b30-50a25: there is no thinking without *phantasmata* but because memory operates by means of *phantasia* in conjunction with the primary power of perception, there is incidentally memory of thought (50a23-25).
449b24-28 The initial definition of memory.

The memorable object (to mnêmoneuton) in the governing sense is the remembering subject’s own past cognitive activity. Remembering (μνημονεύειν) is the activity in virtue of which there is an awareness of one’s past cognitive activity, both as one’s own and as past. The awareness of past cognitive activity as one’s own and as past occurs through the perception of a phantasma that functions as a copy of the past cognition from which it derives and through the simultaneous perception of a motion representing the temporal location of what the phantasma represents.\textsuperscript{94} Having articulated the memorable object and the corresponding memory activity, Aristotle turns to an initial characterization of the memory as a hexis or affection (pathos) of sense perception and cognition. Hexis may refer to memory according to first actuality (retention) or second actuality (remembering).

Therefore, memory is neither perception nor supposition, but concerning a certain mode of one of these a hexis or an affection, whenever time happens. But there is no memory of the now in the now, just as was said before, but perception concerns the present, expectation concerns the future, and memory is of the past.\textsuperscript{95} (449b24-28)

Memory cannot be perception because perception is restricted to the present alone, whereas memory concerns only the past. Memory differs from supposition because memory deals only with the past. Unlike perception, it would seem that supposition can deal with the present and the past (we have belief about the past, present, and future). If memory is other than supposition because memory deals with the past, this must be because memory deals only with the past and in a way in which supposition cannot.

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\textsuperscript{94} The function of the motion proportionate to the time is more fully explored in chapter four.

\textsuperscript{95} ἡ μνήμη ἡ μνήμη ὡς ἀλλήσεις ὡς ὑπόλειμνης, ἀλλὰ τοῦτον τινὸς ἐξίς ἢ πάθος, ὅταν γίνεται χρόνος, τὸ δὲ γὰρ ἐν τῷ γὰρ σῶμα ἡ ἀλλήσεις, καθάπερ εἶρηται [καὶ πρῶτον], ἀλλὰ τοῦ μὲν παρόντος ἀλλήσεις, τὸ δὲ μέλλοντος ἀλλήσεις, τοῦ δὲ γενομένου μνήμης.
Supposition (ὑπόληψις) includes demonstrative knowledge (ἐπιστήμη), practical judgment (φρόνησις), and opinion (δόξα) (see DA 427b24-26). Demonstrative or, perhaps more broadly, contemplative knowledge concerns unchanging objects that lie outside of time. These objects are principles that are atemporal, necessary and incapable of being otherwise (for example, the properties of a triangle) or which hold for the most part (essential features of natural beings; e.g., dogs have four legs for the most part unless something interferes). Being necessary and unchanging, contemplative truths are not in time (see Physics 221b3-7 and NE 1139b18-24). Aristotle has already pointed to the manner in which the contemplative object is present; the act of contemplation relates to its object as something in actuality and extant, whereas remembrance takes up its object as something inactive and past. Practical judgment also concerns present and future circumstances, even if these are judged in light of past circumstances. Memory is of the past alone.

Opinion is the most problematic form of supposition to disentangle from memory. The future is opined, whereas memory is of the past alone (44910-15), but the argument cannot be that opinion does not consider the past. Rather, the claim must be that while opinion can concern the future, memory is limited to the past alone and because opinion is not so limited, opinion and memory must be different. For example, one can have the opinion that the person one saw was this or that friend. Further, much of human remembering will include at least some implicit doxic state concerning the authenticity of the remembering, whether the remembering is actually authentic or not. The presence of belief (doxa) about the authenticity of remembering is, I suppose, not only the point of Aristotle’s remark that saying in soul that one cognized such and such before features in
human remembering (449b22-23), but also the point of Aristotle’s remark that it is not possible to suppose (οἴσεσθαι) one is not remembering while engaged in the act of remembering (452b26-28). Why Aristotle claims that the future is opinable and expectable (οὔτε γὰρ τὸ μέλλον ἐνδέχεται μνημονεύειν, ἀλλὰ ἐστὶ δοξάστων καὶ ἑλπιστῶν, 449b10-11) is probably because if one truly expects that X will happen, one necessarily believes that X will come to pass. Likewise, if one remembers that one cognized X, there is some implicit belief that one formerly cognized or did X. Still, memory is not reducible to opinion for one primary reason: opinion is always about something supplied by a more primary act of cognition. It is possible to opine or hold beliefs about one’s past, but only under the condition that the past is made available for doxic consideration in the first place—namely, made available through memory. Likewise, there is opinion about the present, but, again, only under the condition that something present has been furnished for doxic consideration—namely, furnished by perception or thought. And without memory of what has occurred in the past, there can be no basis for inference or opinion about what will occur in the future concerning similar things. Thus, we can see why Aristotle would keep memory separate from supposition for reasons beyond his commitment to memory in beasts (which cannot have opinions).

The initial definition for memory provides a genus and a difference. The broader genus into which memory falls is “hexis or affection” (ἕξις ἢ πάθος, 449b25). The disjunction (hexis or affection) is surely inclusive, but also fitting because the definition is preliminary. The proximate genus is “hexis or an affection concerning some mode of sense perception or supposition” (ἔστι μὲν οὖν ἢ μνήμη οὔτε αἴσθησις οὔτε ύπόληψις, ἀλλὰ τούτων τινὸς ἕξις ἢ πάθος, b24-25). Because memory deals with the past, memory
cannot be a *hexis* or affection belonging to sense perception or supposition according to actuality, as the remark about passage of time following perception or supposition emphasizes (ὅταν γένηται χρόνος, b25). Memory is a *hexis* or affection concerning sense perception and supposition that arises only after time has occurred since the cessation of the cognition the memory concerns. Hence, we must read “of a certain mode of one of these [sense perception or supposition]” (τούτων τινός, 449b24-25) as a genitive of source or relation and not a genitive of possession. Memory cannot belong to, relate to, or hold onto ongoing, cognition currently in actuality. Because memory cannot be of sense perception or supposition according to actuality, it must be some kind of *hexis* in relation to and derived from past, completed cognition. Thus, the difference (within the genus “*hexis* or affection of cognition”) is supplied by “whenever time arises” (ὅταν γένηται χρόνος, 449b25), meaning whenever time has come about since the cognition which memory concerns has ceased to be in actuality.

Because memory follows from the activity of sense perception and supposition, it is fitting to call memory an affection of perception or supposition. Memory can refer (1) to the capacity for remembering, (2) to the act of remembering, or (3) to a memory that is retained or remembered. Memory in all its senses is an affection (*pathos*) that arises due to sense perception or supposition. As a result of sense perception, *phantasmata* are

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96 The *phantasmata* that serve as the vehicle for memories are affections from sense perception that are concurrent to sense perception in actuality, but memory of sense perception cannot develop until after the act of sense perception has ended. *Phantasmata* do not become memory *phantasmata* until the perception from which they arise has ended. There is not memory of sense perception that is ongoing.

97 There is no explicit mention of time in the final, considered definition in 451a14-17, but we may see that it’s inclusion of the phrase “*phantasma* as a copy” indicates that the cognition of which the *phantasma* is a copy is complete so that the *phantasma* can be a copy of it.

98 Aristotle occasionally speaks of the *phantasmata* motions derived from sense perception as memories. See 451a2-5 where Aristotle describes how it is possible to be unsure whether a motion (*phantasma*) persisting in us is a *mnêmê*.

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produced that may be retained. From the dispositional retention of *phantasmata* one is moved to enter into acts of remembrance of those things for which the *phantasmata* retained serve as copies. The memory *hexis* that arises is an affection due to the activity of previous sense perception. The *phantasma* (that serves as the vehicle for memories) of which the subject who remembers is aware is an affection generated by the past activity of sense perception. Another reason for referring to memory as *hexis* or affection may be found in *Categories* viii. Discussion of affections (*pathê*) in the *Categories* figures into an account of qualities. Qualities in the governing sense are changed with difficulty and stable (*dyskinêtos kai paramonimos, 9b20-1*). Affections in a strict sense are fleeting and short-lived. Something is not said to be of a certain sort in a primary sense due to a fleeting affection.

But as many [occurrences] as come about from affections easily dispersed and that return swiftly are called affections: for we are not said to be of a certain sort according to these things. For neither is the one who reddens on account of shame said to be ruddy, nor the one who goes pale from fear said to be fair-skinned, but rather [one is said] to have suffered something. For this reason such things are called affections (*πάθη*), but not qualities (*ποιότητες*).\(^9\) (9b28-33)

Someone is said to be ruddy in one of two senses, either as a stable or a temporary condition. Only those affections that “are not easily removed or even endure throughout life” (b25-7) are qualities in a primary sense. Affections that are fleeting do not qualify their subject and are mere affections. One who takes on a ruddy hue from embarrassment is said to be ruddy at the time, but is not said to be a ruddy sort on the grounds that the ruddiness is from fleeting embarrassment and not complexion. The distinction between stable affections that qualify their subject and fleeting affections that do not fits well with memory in its application as the retention of *phantasmata*. Retention can be long-term

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\(^9\) ὅσα δὲ ἀπὸ ῥάδιος διαλυομένου καὶ ταχὺ ἄποκαθισταμένου γίγνεται πάθη λέγεται· οὐ γὰρ λέγονται ποιοὶ τινες κατὰ ταῦτα· οὔτε γὰρ ὁ ἔρυθρων διὰ τὸ αἰσχρόν οἴον ἐρυθρίας λέγεται, οὔτε ὁ χρίων διὰ τὸ φοβεῖσθαι ώχριας, ἀλλὰ μάλλον πεπονθέναι τι· ὅστε πάθη μὲν τὰ τοιαῦτα λέγεται, ποιότητες δὲ οὐ.
and stable or short-term and fleeting.  

Because Aristotle drops affection (πάθος) from the final considered definition of memory and remembrance (451a14-17), the governing genus of memory is hexis. I have transliterated hexis to retain the ambiguity between disposition (first actuality) and activity (second actuality). The standard translations of hexis as condition, disposition, or state is misleading because these all suggest first actuality exclusively. Aristotle articulates the ambiguity hexis has between first and second actuality in Metaphysics v 20. While the Metaphysics deals with first philosophy and (ultimately) motionless being rather than natural being in motion and the principles of motion, Aristotle uses an example of health to illustrate the explanation of hexis and so we may be confident that the explanation is not restricted to first philosophy.

A hexis (ἕξις) means in one way a certain actuality (ἐνέργεια) of what has and of what is had, just like a certain action or motion (for whenever one thing acts and another is acted on, there is a doing between: in this way also there is a hexis between the one having on clothes and the clothes being had on).  

In one sense, a hexis is the shared actuality between what has and what is had. When clothes are on in actuality, there is the having-on of the clothes that belongs to the wearer and the being-had that belongs to the clothes. In Theaetetus 197B-C, Socrates distinguishes between the kind of actuality that belongs hexis from that which belongs to ktêsis (ownership). One can possess (ktêsis) a cloak without having (hexis) it on in actuality. Similarly, someone can possess (ktêsis) knowledge without having (hexis) the knowledge in mind in actuality (here the distinction is between possessing knowledge

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100 Thomas Aquinas (Sententia de memoria, 309) sees a correspondence between short-lived retention and pathos on the one hand and long-term retention and hexis on the other.

101 Ἕξις δὲ λέγεται ἕνα μὲν τρόπον οὗν ἐνέργεια τις τοῦ ἔχοντος καὶ ἔχομένου, ὀσμέν πραξίς τις ἢ κίνησις (ὅταν γὰρ τὸ μὲν ποιή τὸ δὲ ποιήσαι, ἔστι ποιήσεως μεταξύ· οὕτω καὶ τοῦ ἔχοντος ἔσθητα καὶ τῆς ἔχομένης ἔσθητος ἔστι μεταξύ ἔξις).
and using the knowledge one possesses). Action and motion in actuality might be kinds of *hexis* or merely similar to *hexis* depending on how ὡσπερ (just as) is taken. Action is shared by the agent that does the action and the patient that receives it. Likewise, motion is shared by mover and the moved where mover is cause and the moved is that which receives the motion. The implication of memory as a *hexis* that is a second actuality shared between what has and what is had is that memory may refer to the capacity or to the act of remembering. The remembering subject holds a *phantasma* in awareness in actuality rather than in potentiality. One might object that the initial definition of memory dubiously covers the remembering activity on the grounds that there is no direct mention of a sense of time. Memory in its application as retention does not require time sense, but neither memory in its application as retention nor as the act of remembering occurs until after time has passed since the cessation of the cognition which the retention or remembrance concerns. The final, considered definition (451a14-17), in any case, is less ambiguous: memory and remembrance both are a *hexis*. Hence, even if the initial definition is primarily focused on memory in its application as retention and capacity, the dual sense of *hexis* as a capacity and an activity is confirmed in the final, considered definition.

The *Metaphysics* further articulates *hexis* as first actuality that disposes its possessor well or poorly toward a class of objects.

But another way *hexis* is meant is as a disposition (διάθεσις) in virtue of which what is disposed is disposed well or badly, either in relation to itself or in relation to another; for example, health is a certain *hexis*, for it is such a condition. Furthermore, *hexis* is meant if a portion of such a disposition is meant. Hence, the excellence of the parts is also a certain disposition.102 (1022b10-14).

102 ἄλλον δὲ τρόπον ἐξις λέγεται διάθεσις καθ’ ἣν ἢ ἐν ἢ κακᾶς διάκειται τὸ διακείμενον, καὶ ἢ καθ’ αὐτό ἢ πρὸς ἄλλο, ὅπως ἐγὺς ἐξις τις· διάθεσις γὰρ ἔστι τοιαύτη. ἐτι ἐξις λέγεται ἃν ἢ μόριον διαθέσεως τοιαύτης· διὸ καὶ ἢ τὸν μερᾶν ἀρετή ἐξις τις ἐστιν.
Hexis is a disposition in virtue of which what possesses it is well or poorly disposed, either in relation to some aspect of itself or in relation to other things. Aristotle uses health as an example. For the ancient Greeks, health is the proper arrangement or ordering (diathesis) of the body. If the body’s parts and humors are in proper proportion and arrangement, then the body relates well to itself and to outside influences, i.e., the body is not easily affected by cold or heat or dryness or moistness or other affections that could give rise to sickness. Courage is a hexis that disposes its possessor well toward confidence and fear-inspiring things and temperance is a hexis that disposes its possessor well toward pleasures of touch and contact. Intriguingly, memory as a good or bad disposition toward memorable objects fits well with De memoria. First, Aristotle mentions that it is not the same sort who is good at memory and good at recollection (449b6-8). The sort good at recollection and the sort good with memory do not relate equally well to memorable objects in the same way. Second, those with bodily conditions too fluid (the young) or too sclerotic (those quite advanced in age) or too dense (dwarf-like builds) do not retain well the phantasmata needed for remembering the absent, past memorable objects (450a32-b11; 53a31-b7). Those with the appropriate sort of bodily condition are better disposed toward retention of phantasmata. Third, it is possible to improve memory with repeated exercises, which suggests that with practice it is possible to alter one’s relation to memorable objects for the better (451a12-14). These passages suggest that memory in one of its applications is a disposition in virtue of which the possessor both has and is well or poorly disposed toward a certain class of affections (pathê), namely, the reception, retention, and engagement with phantasmata that serve as the vehicle for the memorable objects (past cognition). Due to the retention of
phantasmata (first actuality) the subject who has memory is moved by the phantasma retained into acts of remembering what the phantasmata represent (second actuality) in better or worse ways depending on the quality of the retention. Hence, as hexis, memory refers both to dispositional retention and to the act of remembering.

Because there are various hexeis and affections concerning sense perception and supposition (the genus), it is necessary to supply a species difference peculiar to memory. What separates memory from other hexeis or affections of cognition is that memory is a hexis derived from cognition, but which holds on to (retention) and beholds (remembrance) the very cognition from which it is derived, although in a modified form. Seeing X may be accompanied by the affection of fright or the condition of near or farsightedness in vision or the seeing may be accompanied by phantasia, but memory is a hexis concerned with the act of seeing X after this act is no longer actual. The phrase “whenever time comes about” (ὅταν γένηται χρόνος, 449b25) supplies the difference separating memory from other hexeis and attributes of sense perception and supposition. Memory arises only when time arises following the sense perception or supposition that memory concerns (phantasia is produced and concurrent with perception in actuality and may persist after, but memory only arises after the perception of which it is the memory has ceased). Therefore, memory is a hexis for retaining and relating to sense perception or supposition that is no longer active.

The phrase “time comes about” (γένηται χρόνος, 449b25) also enters Aristotle’s understanding of how time is generated in the Physics.

But certainly we recognize even time whenever we mark out the motion, by means of marking out the before and after: then we claim that time has come to be (γεγονέναι χρόνον), when we take up perception of the before and after in the motion. And we distinguish them [the before and after] by grasping one and another and something other between them. For whenever we conceive the extremes are other than the middle and the soul says the nows are two, the one prior and the other posterior, then
also we say this is time.\textsuperscript{103} (219a22-29)

The before and after in motion give rise to before and after in time. Motions are distinguished by perception of the before and after in motion. The before and after are not distinguishable from one another when each is considered in isolation from the other. Both the before and after are each a now that is either before or after relative to another now. What marks off priority and posteriority in motion is a difference in nows and time arises due to the perception of the before and after in motion. A difference in nows is generated by the realization of form in some category of being. Nows are distinguished through cognizance of their respective differences in distance from privation of form or acquisition of form. For example, in locomotion from point A to point B, nows are distinguished by their relative distance from A to B or their priority and posteriority to being at A or B. In this case, one now differs from another now in motion in relation to privation or acquisition of form according to place. Time arises from the difference (perceived) in nows generated by motions. Where there is no perceived distinction among nows, no time seems to arise for the percipient. When Aristotle speaks of memory as a *hexis* or affection of cognition whenever time has come about, he means that the cognition regarding which memory is the *hexis* has ceased. The time that comes about is relative to the cognition that memory concerns and for time to come about there must be distinction between nows that is generated by motions or cognition subsequent to the earlier cognition a memory concerns. Hence, time having come about means that the

\textsuperscript{103} ἀλλὰ μὴν καὶ τὸν χρόνον γε γνωρίζομεν ὅταν ὁρίζωμεν τὴν κίνησιν, τῷ πρότερον καὶ ὑστερον ὁρίζοντες· καὶ τότε φαμέν γεγονέναι χρόνον, ὅταν τὸν προτέρον καὶ ὑστερον ἐν τῇ κίνησις ἀσθήσιν λάβομεν. ὁρίζομεν δὲ τῷ ἄλλῳ καὶ ἄλλῳ ὑπολαβεῖν αὐτά, καὶ μεταξὺ τι αὐτῶν ἔτερον· ὅταν γὰρ ἐτερα τὰ ἁκρα τοῦ μέσου νοῆσομεν, καὶ δίο εἶπῃ ἡ ψυχὴ τὰ νῦν, τὸ μὲν πρότερον τὸ δ’ ὑστερον, τότε καὶ τοιτὸ φαμέν εἶναι χρόνον.
cognition of which memory is the *hexis* has ended. Of the now in the now there is no memory, so memory only concerns former cognition and in order for cognition to be former, it can no longer be occurent. As soon as cognition ceases, time occurs insofar as the old cognition is replaced by new cognition or some other motion that follows it. Time must follow the cognition memory concerns prior to memory of the cognition arising or else there can be no prior cognition for memory to take up.

Additional details are provided in chapter two of *De memoria* that are helpful for fleshing out the implications that follow from memory being a *hexis* or affection of sense perception or supposition once time has come about. Here is Aristotle’s initial argumentation in the second chapter of *De memoria*.

Of memory, recollection is neither the taking hold again (ἀνάληψις) nor the taking hold (λήψις). For whenever one learns or undergoes [something] in the first place, neither does one seize again any memory (because there is no memory preceding [προγέγονε])... 104 (451a20-23)

Recollection is not the taking hold again (recovery) of memory because whenever (ὅταν γάρ, a21) one learns or undergoes X initially, there is no preceding memory of X to take up. Recollection is said not to be the recovery of a memory of X on the grounds that there is no memory of X prior to learning or experiencing X initially. The implication of recollection not being the recovery of memory on the grounds that no memory preceded initial learning of X is that recollection is identified with learning. Recollection is not the recovery of a memory because learning is not the recovery of a memory. Aristotle is working against the mythical Platonic accounts of recollection in the *Meno* and *Phaedo*. Otherwise, it is unclear why what is true of learning in relation to memories should

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104 οὗτε γάρ μνήμης ἡ ἀνάληψις ἢ ἀνάμνησις οὗτε λήψις· ὅταν γάρ τὸ πρῶτον μάθη ἢ πάθη, οὗτ’ ἀναλαμβάνει μνήμην οὐδεμίαν (οὐδεμία γάρ προγέγονεν)...
explain what is true of recollection. Aristotle alludes to the question begging involved in recollection as learning: if all learning is recollection of previous knowledge, then how was the previous knowledge initially obtained? Initial learning or experiencing (πρῶτον μάθη ἢ πάθη, 451a21-22) cannot be the recovery of what was previously obtained because there is no memory of the thing learnt or experienced prior to the initial learning or experiencing of it.

Having denied that one recovers or takes up again a memory of X when one initially and first learns or experiences X, Aristotle next denies that one takes up a memory of X from the beginning when one first and initially learns.

Of memory, recollection is neither the taking hold again (ἀνάληψις) nor the taking hold (λήψις). For whenever one learns or undergoes something in the first place, neither does one seize again any memory (because there is no memory preceding [προγέγονε]) nor does one seize memory from the beginning: for whenever the hexis or the affection (πάθος) comes to be, at that time (τότε) there is memory, with the result that when the affection (πάθος) arises, the memory does not arise with [it].

When one first learns or experiences X, there is no taking hold of a memory of X from the start (thus, learning as recollection is not the establishment of memory). The reason why there can be no taking hold of a memory from the start is because a hexis or affection of what is learned or experienced must first arise and only then is there memory.

Richard Sorabji (2004) 89 insists that Aristotle is not concerned with distancing himself from Plato’s treatment of learning as recollection: “The word ‘for’ in 451a21 shows that what follows is meant to be relevant to the claim that recollection is not the recovery or acquisition of memory. This rules out the idea that Aristotle’s main purpose in 451a21-31 is to attack the theory of recollection of a former life in Plato’s Meno and Phaedo.” I do not see that Sorabji adequately secures his position. The ‘for’ certainly signals the start of the explanation for why recollection cannot be the recovery or acquisition of memory, but the explanation is given in terms of learning and not recollection itself. In short, recollection is not the recovery of memory because learning is not the recovery of memory. If recollection is not being identified with learning, then it is unclear why what is said of learning furnishes any kind of insight into recollection. Sorabji’s concern is that Plato treats learning as recollection as the recovery of knowledge, not memory. But Aristotle speaks of knowledge in the one who remembers and recollects at 451a26-27. It is not really knowledge, but a phantasma of our contemplating or learning some knowledge. G. R. T. Ross (1906) 259-260 reads it my way. But J. I. Beare (1908) is in agreement with Sorabji.

οὔτε γὰρ μνήμης ἐστὶν ἀνάληψις ἢ ἀνάμνησις οὔτε λήψις· ὅταν γὰρ τὸ πρῶτον μάθη ἢ πάθη, οὔτ' ἀναλαμβάνει μνήμην οὐδεμιᾶν (οὐδεμία γὰρ προγέγονεν) οὔτ' ἢ ἀρχής λαμβάνει· ὅταν γὰρ ἐγγένεται ἢ ἐξῆς ἢ τὸ πάθος, τότε μνήμη ἐστίν, ὡστε μετὰ τὸν πάθους ἐγγινομένου οὐκ ἐγγίνεται.
Memory of the experience does not arise together with the experience (μετὰ τοῦ πάθους ἐγγυμωμένου οὐκ ἐγγίνεται, 451a24-25). The claim that memory does not arise together with the experience that the memory concerns alludes to the initial definition of memory: memory is neither perception nor supposition, but is a hesis or affection that concerns some mode of one of these, whenever time has come about (449b24-25). Learning or undergoing something is not the initial taking up of memory, but it does give rise to a hesis or affection that is said to be memory. Because memory does not arise until a hesis or affection of the cognition with which the memory is concerned has been fully established, learning cannot be the initial taking up of memory or its recovery. Hence, if recollection is identified with learning, recollection cannot be the taking up of memory or its recovery.

Having established that memory does not arise until after a hesis or affection of the cognition memory concerns is established, Aristotle next argues that remembrance (τὸ μνημονεύειν) is subsequent to the formation of memory (μνήμη). From 451a20-25, memory is mentioned twice (a20, 22). A new argument is introduced (announced by ἔτι) from 451b25-31 in which only remembrance (τὸ μνημονεύειν, b28, 29, 30, 31) is mentioned. Here is the argument that concerns remembrance.

Further, when for the first time it [memory] has come about (ἐγγέγονε) in the indivisible and the ultimate thing, on the one hand, the affection (πάθος) is already present within the one who experienced it and the knowledge (if it is necessary to call the hesis or the affection knowledge; but nothing prevents incidentally also remembrance of some of the things of which we have knowledge): but, on the other hand, to remember in its own right is not present until time passes (πρὶν χρονισθῆναι). For one remembers presently what one saw or suffered before (πρότερον), but that which one just now suffered (ὃν ἔπαθε), one does not presently remember.  

107 ἔστι μὲν οὖν ἡ μνήμη οὔτε αἰσθήσις οὔτε ὑπόληψις, ἀλλὰ τούτων τινὸς ἔξος ἢ πάθος, ὅταν γένηται χρόνος.

108 ἔτι δ’ ὅτε τὸ πρῶτον ἐγγέγονε τῷ ἄτομῳ καὶ ἐσχάτῳ, τὸ μὲν πάθος ἐνυπάρχει ἢ ὅτε τὸ παθόντι καὶ ἡ ἐπιστήμη, εἰ δὲ καλεῖν ἐπιστήμην τὴν ἔξος ἢ τὸ πάθος (οὐδὲν δὲ κοιλεῖ κατὰ συμβεβηκὸς καὶ μνημονεύειν ἐνια ὀν ἐπιστήμην) - τὸ δὲ μνημονεύειν καθ’ ἀυτό οὐχ ὑπάρχει πρὶν χρονισθῆναι. μνημονεύει γὰρ νῦν ὃ εἶδεν ἢ ἔπαθε πρότερον, οὐχ ὃ νῦν ἔπαθε, νῦν μνημονεύει.
The passage contains some difficulty. First, the subject of ἐγγέγονε ("has come about") in 451a25 is unannounced. The two candidates: either memory or the experience (pathos) which the memory hexis concerns. J. I. Beare (1908) 451a25-30, Richard Sorabji (2004) 53, Joe Sachs (2001) 173, David Bloch (2007) 37, and R. A. H. King (2009) 75 all take pathos (the experience) in line a24 to be the subject. Only G. R. T. Ross (1906) 109 takes memory to be the subject. Both are grammatically permissible and probably they amount to the same thing if by memory one understands retention of phantasmata. Second, there is some dispute over whether the indivisible and ultimate thing (τῷ ἀτόμῳ καὶ ἔσχατῳ, 451a25-26) refers to the primary sense organ (the heart) or the ultimate instant of time at which retention is established or an experience is complete, but it does not much matter for my present concerns: whether the reference is to time or to the organ, the meaning is that something has become complete. If experience (pathos) is the subject of “has come about,” then we have:

When the experience has come about, then already the affection (pathos) and the knowledge are present in the one who has been affected.

If memory is the subject, then we have:

When memory has come about, then already the affection (pathos) and the knowledge are present in the one who has been affected.

I am inclined to side with G. R. T. Ross against the majority in taking memory as the subject for two reasons. First, memory is the last true nominative subject to appear prior to ἐγγέγονε (has come about). Aristotle gives no indication of a change in subject. Second, if the knowledge and the affection are already fully present in the subject, then there is retention (hexis) of them. But even if we take experience as the subject of ἐγγέγονε, the upshot is much the same: as soon as the experience is complete (has come about), already there is abiding in the subject the knowledge or affection from the
experience and such abiding is memory in its application as retention. Memory in its application as retention may develop immediately following cognition. The reason why is that *phantasia* is generated during cognition and as soon as the cognition is over the *phantasia* that is a likeness of the cognition is already present in the soul-body composite. If the *phantasia* is retained dispositionally and does not break up, the abiding *phantasia* can subsequently move the subject who retains it to remember the cognition of which the *phantasia* is a likeness and copy. (Aristotle hesitates to call knowledge a *hexis* or *pathos*. The knowledge in this context is really *phantasia* of having learned or contemplated X.) As soon as an act of perception is completed, the *phantasia* motion that has been accompanying the perception is now present in the soul-body composite so that retention is realized.

The possibility that the generation of retention follows contiguously on the completion of the cognition with which the retention is concerned does not contradict the assertion that memory (μνήμη) occurs only after time has occurred (ὅταν γένηται χρόνος, 449b25) since the cognition with which memory is concerned. J. I. Beare (1908) is the only translator that gives a robust commentary on 451a25-29. His analysis misses the mark, but the mistake is instructive. Here are Beare’s remarks.

When the once the πάθος or ἐπιστήμη has been perfectly engendered, thereupon or therein the foundation of memory—the immanence of the πάθος or ἐπιστήμη—has been laid. The πάθος or ἐπιστήμη does not pass away, but abides as ἀρχή in the mind, which is the force of ἐνυπάρχει. But memory itself is not there yet: time must first elapse” (451a25-30 f. 4).

Beare does not seem to realize that the abiding of the πάθος or ἐπιστήμη (ἐπιστήμη is soon clarified to be a *phantasma*) is a *hexis* and holding on to of the learning or perceiving just experienced. As soon as the perception or cognition is complete and a new act of cognition begins, already there is time generated.
In contrast to memory in its application as retention, memory in its application as remembrance (τὸ μνημονεύειν) does not occur until after some time has passed from the establishment of the \textit{hexis} or the affection of which retention consists. So memory in its application as an act of remembering looks to be subsequent to memory in its application as retention of \textit{phantasmata}. The reason why remembrance is subsequent upon retention is that there is no remembrance of what was suffered right before the present now (ὁ νῦν ἔπαθε, 451a31). Aristotle probably has in mind something like the specious present. Through \textit{phantasia}, an animal may hold onto what has just past and expect what is just to come. It is only after what has just been experienced is no longer a present object of cognition that remembrance of it may occur. This is because remembrance is of what is \textit{prior} to present cognition and the just past may still be present due to ongoing \textit{phantasia}. So there may be retention of past cognition that has not fully lost contact with present awareness. Once the cognition just past is no longer contained by present cognition, it can be something remembered and not only retained.

When Aristotle declares that all memory concerns time (449b28), memory may indicate memory according to retention or to remembrance of some memory or the declaration may refer to the temporal aspect of the memorable object. Memory as retention concerns past time because it holds on to something that belongs to the past. Memory and remembrance as activity concern time because a perception of past aspect is a necessary condition of the act.

But there is no memory of the now in the now, just as was said before, but perception concerns the present, expectation concerns the future and memory is of the past. Hence, all memory concerns time. So as many as perceive time, these alone among animals remember, and they do so by means of that by which they perceive.\footnote{τοῦ δὲ νῦν ἐν τῷ νῦν οὐκ ἔστι μνήμη, καθάπερ εἴρηται [καὶ πρότερον], ἀλλὰ τοῦ μὲν παρόντος αἰσθήσεις, τοῦ δὲ μέλλοντος ἔλπις, τοῦ δὲ γεγομένου μνήμη· διὸ μετὰ χρόνου πάσα μνήμη. οὖσθ᾽ ὅσα χρόνου αἰσθάνεται, ταῦτα μόνα τῶν ζῴων μνημονεύει, καὶ τούτῳ ὃς αἰσθάνεται.} (449b25-30)
Without a sense of past aspect in relation to what memory retains, remembrance would differ little or not at all from imagination: something would appear before the mind, but not as something that belongs to an animal’s past cognitive activity. Because remembering requires a recognition of past aspect attached the memorable object, only those animals that perceive time are able to remember. To remember is to be aware of something one has done previously along with a sense that it was done previously. Interestingly, Aristotle carefully notes that only animals with a sense of time remember (μνημονεύει), but he does not say that only animals with a sense of time have memory (μνήμη), although all memory concerns time. We might wonder whether some animals possess retention of past cognition and the ability to be affected by what is retained, but without the ability to recognize that the past cognition retained belongs to the past. Perhaps some animals have memories, but lack a robust enough sense of time to relate to their memories as memories. Some animals do have a sufficient perception of time and perceive past aspect attached to their memories. These alone of the animals remember. Remembrance (τὸ μνημονεύειν) means activity rather than dispositional storage. If the proper object of memory is the remembering subject’s own past cognition, then only animals capable of perceiving time (past aspect) can perceive presentations of their past cognitive activity as being past. Retention of past cognition cannot function as a disposition for remembrance unless the possessor of the retention is capable of relating to what is retained as belonging to its own cognitive past. The perception of memories as presenting cognition that belongs to the past rather than the present shows that remembrance is critical and discriminating. If attribution of a critical sense of past time to beasts bothers us, Aristotle emphasizes that remembrance does not require precise
discriminations. Human beings can measure time (count the befores and afters of motion) with standard units and thus measure events rather precisely. However, all that is needed for remembrance is some sense that the memory presents something that occurred before (see 452b29-53a4). All that is needed for time sense is the perception of motion. The beasts need not discriminate with much precision when something was perceived in the past relative to other past perceptions. All that is needed is the discrimination that the memory presents something prior to the present now.

Aristotle ends the first section of the treatise with the assertion that remembrance occurs through that by means of which one perceives (449b28-30); remembrance and memory belong to the perceptive power of the soul. Because Aristotle has marked out a proper set of objects for memory, it might seem that memory is an independent faculty in the soul, but Aristotle does not think so. Memory is a function of the sense power. One motivation for attributing memory to the perceptive power is so that beasts may have the ability to remember. Were memory too intellectual, beasts would be unable to remember. However, Aristotle cannot point to memory in beasts as proof that memory belongs to the perceptive power; one could always deny that beasts remember. Rather, beasts with a sense of time should be able to remember because memory is a function of the sense power. If memory is a function of the sense power and all beasts possess the power of sense, then some beasts will be able to remember.110 We may see that memory has already been implicitly tied to the sense power. Motion is a common sensible (see DA

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110 As we will see in chapter four, if memory is a kind of opinion or judgment, a possibly insurmountable impasse arises. The one who remembers relates to a phantasma as a presentation of its past activity. If the remembering subject must judge that its phantasma is an appearance of its past, it is unclear why the subject should do so. Further, under this condition, any phantasma appearance becomes a memory so long as it is judged to be so: memory becomes completely arbitrary.
418a16-20) and time is the before and after counted of motion (see Phys. 219a34-b8). Time is a number of motion and because number is included among the common sensibles, time is probably a common sensible. We need not assume that beasts count before and after of motion; all that is needed is cognizance of a multiplicity of different nows. If cognizance of time is by means of motion and all memory and remembrance requires a sense of time, then memory and remembrance must belong to the sense power. The key ingredient in memory other than a sense of time is phantasia, also due to the sense power.

Aristotle has explained that (1) the proper object of memory is the animal’s own past cognitive activity, that (2) the one remembering in actuality is cognizant of a presentation or indication of an instance of the rememberer’s own past cognition along with a sense that what is presented or indicated is the rememberer’s own cognition and that it occurred before, that (3) memory is a hexis concerned with prior cognition or an affection derived from prior cognition after time has passed since the cessation of the cognition which memory concerns, and that (4) because awareness of time and phantasia are affections of the primary sense power and because memory requires a sense of time and phantasia to preserve past cognition, memory must belong to the primary sense power. Having laid out the initial articulation of what memory is and the part of the soul to which memory belongs, Aristotle turns to the causes of memory.
Chapter Three: Memory as retention of *phantasmata* and remembrance as indirect perception.

The account of the causes of memory and remembrance centers around two impasses that arise from Aristotle’s own commitments. First, Aristotle insists that the object of memory is the rememberer’s own past cognition. Remembrance, like all cognition, takes up some present, intentional object. The question arises how remembrance can have past cognition as its object when the object it engages is present. Aristotle’s solution is to argue that remembrance is a kind of indirect perception: past X is remembered by means of the perception of a present *phantasma* Y because Y is a likeness to X. I use the phrase ‘indirect perception’ to stick to Aristotle’s language of perception, but it is clear that Aristotle advocates a form of representational or indirect realism regarding remembrance: genuine remembering gets at the remembering subject’s actual past, but not directly. A present affection stands in for and represents the absent, past cognition and serves as a present proxy. The proxy is a likeness, but not an exact, isomorphic copy; the one remembering does not mistake the proxy for an actual, present act of sense perception or supposition. The solution to the first impasse explains how memory arises in its application as retention (storage) of past cognition.

The commitment to indirect perception in the case of memory leads to a second, related impasse that goes to the heart of Aristotle’s theory of remembrance. Even granting that there is something like a present proxy for past cognition, what causes the remembering subject to perceive the present proxy as presenting or indicating the rememberer’s past cognition? The proxy appears in the present, so even if the proxy is in
fact a likeness of former cognition, why is it perceived as such a likeness? I argue that Aristotle’s solution is to model remembrance on sense perception. Aristotle is a proponent of direct realism: sense perception gets at the sensible features in things directly and without representation. Aristotle conceives of remembering as analogous to sense perception. Sense perception is not at work in virtue of itself, but must be raised to activity by a sensible object. When acted upon, the sense becomes such as its sensible object is in actuality. The sense faculty has also a capacity to assimilate to the activity of a phantasma actualized as a likeness of some past perception. When the sense faculty is assimilated to this actuality, the sense faculty becomes such as the likeness is. The soul thus perceives its past by means of a present phantasma and remembers. The solution to the second impasse explains how memory in its application as remembrance of past cognitive activity arises.

Above I said that Aristotle puts forward a form of representational or indirect realism in the case of memory; remembrance works through the cognizance of a present proxy that represents or indicates the remembering subject’s past. However, this does not mean that the remembering subject experiences her or his perception of the past as something indirect. Although Aristotle invokes an analogy of looking at a painting that serves as a likeness of an acquaintance and then thinking of the time one saw an acquaintance, this is only an analogy (450b29-51a2). Aristotle never suggests that the remembering subject looks upon the present proxy for past cognition as anything other than a presentation of her or his past cognitive activity. The argument is not that the remembering subject first perceives an inner proxy and is then subsequently put in mind of its past cognition in addition to the proxy. Aristotle’s account is that the perception of
the present proxy along with a sense of the time is itself remembrance. There need be no
second step, no judging or inferring from or interpreting of the proxy and in the case of
 beasts there cannot be. The mechanism for remembrance is indirect, but the experience
of remembering is a direct engagement with the past. The one who is at work
remembering does not “say in soul” (449b22-23) that a proxy X before the mind
represents something else Y to which the rememberer’s mind is subsequently directed.
Rather, one at work with remembrance says in soul of what presents itself “that before
one heard or perceived or considered this,” where “this” is whatever the proxy presents or
indicates. Aristotle’s theory is that the present proxy is not treated as a reminder, but a
direct presentation of the remembering subject’s past.

Regarding sense perception, Aristotle argues forcefully for a form of direct
realism and Aristotle appears to desire realism in the same spirit in the case of memory.
The object of remembrance is said not to be the present phantasma (the vehicle for
memory content, mnêmoneuma), but the past cognition (the memorable object,
mnêmoneuton). It would be misleading to characterize Aristotle’s theory of memory as a
form of indirect realism in which the perceiver is cognizant of an internal object that is
called by an external object but where the internal object need not or little resembles the
external object (e.g., Descartes has the heat that occurs to us have little to do with the
properties inherent in fire). Aristotle wishes to maintain that the proper object of memory
(τὸ μνημονευτόν, the memorable object) is not an internal image or idea, but the
rememberer’s own past cognition. In order to argue for direct realism in sense
perception, Aristotle has the sense power become such as its sensible object is qua
sensible. However, the sensible object sensible in actuality is something present to the
percipient; Aristotle cannot appeal to the presence of the memorable object, for in order to be memorable, the object of concern must be absent because it is past. Something other than the memorable object must be present, but which possesses properties such that remembrance can be about the absent memorable object. In effect, Aristotle argues that remembrance is directed at the past cognitive activity of the remembering subject by way of an internal likeness of that past cognition. Aristotle does not distinguish between outer primary qualities and internal secondary qualities that may or may not bear much resemblance to their cause. Although not an isomorphic copy, the likeness that figures in memory and remembrance shares features with and resembles the former cognition; we might say that the memory *phantasma* has sufficient enough likeness to its cause such that that being directed at the likeness is the functional equivalent of being cognizant of the original, former cognition. The likeness turns out to be a kind of image in the water, as it were, of the original cognition.

450a25-32 The first impasse: how is it possible for memory to concern the past?

Aristotle insists that the proper object of memory is the remembering subject’s own past cognitive activity. This realist approach to memory raises a problem. If memory takes up past cognition, how is past cognition accessed? The act of remembrance occurs in the present and takes up a present, intentional object. How can memory be about past cognition when the object that remembrance engages is something present?

And one might be at a loss over how one remembers what is not present (τὸ μὴ παρόν) because the affection is present (τοῦ πάθους παρόντος), but the deed is absent (τοῦ πράγματος ἄπόντος).111

111 ἀπορήσεις δέ ὅτι τις πῶς ποτὲ τὸ μὲν πάθους παρόντος τοῦ δὲ πράγματος ἄπόντος μνημονεύεται τὸ μὴ παρόν.
The deed (pragma) is the remembering subject’s past cognitive activity. Past cognition is absent, but not in respect of location. What is past is absent from the present and such absence is more absolute than spatial absence. If something exists some place, one can, in principle, go to it. But those things that have slipped into the past cannot be got back in the flesh. The object of memory is something absent, both spatially and temporally, but is nonetheless something of which the remembering subject is cognizant. The present affection refers to the correlative object of remembrance, but what is meant by object of remembrance must be understood carefully. Phantasmata are set up directly by sense perception, and memory arises from the phantasma previously set up. It is by perceiving the present phantasma, previously set up by past sense perception, that the remembering subject is directed to its past perception. Is the object of memory the present phantasma or what the present phantasma represents? Memory should look through the present phantasma to the absent past that the phantasma represents.

In 449b19, Aristotle argues that recall and remembrance follow upon the possession of previous sense perception or supposition without the actuality and says of memory in b24-25 that it is the hexis or affection of perception or supposition after the passage of time. The affection turns out to be a phantasma that arises due to sense perception in actuality. Aristotle has argued that memory requires a sense of time (449b28-30) and that time is perceived by that in virtue of which magnitude and motion are perceived, namely, by the primary power of sense (450a9-12). Thus, the sense of time that enters into remembrance is a function of the sense power. Further, memory

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112 Deed (pragma) further emphasizes that memory concerns past cognition of objects rather than past objects of cognition.
cannot be without *phantasmata*, which are affections of the common sense power (a12-13). Why there can be no memory without *phantasmata* is revealed in 450a25-32: a present proxy is needed to stand in for the absent past. The assertion in 450a27-32 that the present affection arises due to sense perception and in the part of the body that contains it is a reminder that all memory involves *phantasia*. The affection that constitutes memory turns out to be a *phantasma* that serves as a likeness of previous cognition.

In 450a25-32, Aristotle begins to discuss some of the features of memory as an affection of sense perception or supposition, i.e., of memory as a *phantasma*. Because the affection that remembrance deals with has present aspect, it is unclear how remembrance can be about past, absent cognition. Because the past, absent cognition cannot be had in the flesh, Aristotle must embrace a form of indirect realism: remembrance is about the rememberer’s past, but a present affection must stand in for the absent past.

And one might be at a loss over how one remembers what is not present because the affection is present, but the deed is absent. For clearly it is necessary to conceive the sort of thing that comes about due to perception in the soul and in the part of the body containing perception to be a sort of life-drawing, the affection concerning which we call memory the *hexis*: for the motion arising from the sense-affection stamps in a sort of impression, just like those do who affix seals with their signet rings.113 (450a25-30)

It is necessary to conceive of an affection as functionally analogous to a life-drawing of the sense activity from which it derives precisely because the past cognition memory concerns cannot itself be present. Because the cognition of concern to memory cannot

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113 ἀπορήσεις δ’ ἢν τις πώς ποτε τοῦ μὲν πάθους παρόντος τοῦ δὲ πράγματος ἀπόντος μνημονεύεται τὸ μὴ παρὰν. δήλων γὰρ ὅτι δεὶ νοῆσαι τοιούτων τὸ γινόμενον διὰ τῆς αἰσθήσεως ἐν τῇ ψυχῇ καὶ τῷ μορίῳ τοῦ σώματος τῷ ἔχοντι αὐτήν—οἷον ζωγράφημα τι [τὸ πάθος] ὁ ἄλογος αὐτῆς ἐν τῇ ψυχῇ καὶ τῷ μορίῳ τοῦ σώματος τῷ ἔχοντι αὐτήν—οἷον ζωγράφημα τι [τὸ πάθος] ὁ ἄλογος αὐτῆς ἐν τῇ ψυχῇ καὶ τῷ μορίῳ τοῦ σώματος τῷ ἔχοντι αὐτήν.
persist in the present, it is necessary to posit something abiding and present that stands in for the absent past cognition. Further, whatever the act of remembrance engages with must be something that persists in the present. If remembrance relies on and engages with a present affection rather than directly with the absent past, how is any realism in memory maintained? Aristotle says that the affection is a sort of life-drawing (ζωγράφημα τι) and an impression of a sort (οἶον τύπον τινα) of the sense-affection (τοῦ αἰσθήματος) from which it derives of which memory is the hexis. (The sense-affection is the action of the sensible object on the percipient.) The present affection is a phantasma and likeness derived from the activity of the very cognition of which it is the likeness.

Why the affection is a likeness of the sense activity is because the sense activity is what gives rise to it and the affection must resemble its cause in certain respects. In De anima iii 3, Aristotle observes that it is necessary for phantasia to resemble sense perception because phantasia arises as a result of sense perception according to actuality. Hence, memory phantasmata will resemble the cognitive act from which they derive and not just the object formerly cognized. Because the affection with which remembrance engages is a likeness of the past cognition from which it derives, remembrance can be about the rememberer’s past cognition indirectly. Realism is maintained to the extent that the present proxy is both dependent upon and derived from some past cognition and because the proxy is like the cognition from which it derives. The abiding, present affection is caused by the perception or cognition at which the act of remembrance is directed and the affection is like the cognition that gave rise to it. Thus, when the remembering subject engages with the present affection with an awareness (aisthēsis) that what the affection presents belongs to the rememberer’s past, then there is an indirect perception of the past
cognition. The affection is like the past cognition from which it is derived and the awareness that what is presented belongs to the past allows the present affection to stand in for the absent past cognition of which it is a likeness. (Likeness does not mean strict structural isomorphism, but there must be enough relevant similarity so that cognizance of the affection functions as remembrance of the past cognition when combined with a sense of past time).

Why it is useful to call memory an affection (449b24-25) is now clearer: memory as an affection is a *phantasma* that represents or indicates former cognition. Memory *phantasmata* function as the correlative corresponding objects of acts of remembrance; memory *phantasmata* function as memories. As a sort of “life-drawing” and “impression” of absent, former cognitive activity, the memory *phantasma* answers the question of how it is possible to possess former perception or supposition of X without the activity. The *phantasma* that enters into memory is a likeness. Aristotle refers to the memory *phantasma* as a thing remembered (μνημόνευμα, see 450b25-27 and b30-51a2). How memory is a *hexis* concerning sense perception or supposition after the passage of time also is now explained. Memory is a *hexis* of former cognition because memory preserves a likeness derived from the former cognition. Memory as a *hexis* includes retention. As in 449b24-25, there is no mention in 450a25-30 of any sense of time in the articulation of memory. The considerations that follow 450a25-30 concern the condition of the body and how bodily condition affects the quality and preservation of the memory *phantasma*. The absence of any mention of time sense combined with the attention Aristotle gives to the conditions affecting the preservation of the memory *phantasma* suggest strongly that memory has an application as storage and retention. Memory is the
dispositional retention of *phantasmata* that function as proxies for former cognition.

Aristotle invokes a rich set of metaphors in order to stress what sort of resemblance the *phantasma* has with its cause. Later Aristotle will explain that the memory *phantasma* is a likeness (450b20-51a2), but it is only in 450a27-32 that Aristotle explains what sort of likeness the memory *phantasma* is. Aristotle is cautious and reserved in his employment of metaphors. Each metaphor is conjoined with an indefinite adjective (ζωγράφημα τι, τύπον τινα), indicating that we are not to take the metaphors literally or flatly. The account of the memory *phantasma* concentrates on its *function*; memory *phantasma* have a function analogous to paintings, but we are not to suppose that there are tiny pictures impressed into the primary sense organ.

All *phantasia* resembles sense perception, but not all *phantasia* will furnish memory *phantasmata*. Aristotle nicely refers to the memory *phantasma* as a life-drawing of a sort (ζωγράφημα τι). The noun ζωγράφημα is from ζωγραφεῖν, to paint from life. Just as *phantasia* resembles sense perception according to actuality, a life-drawing captures a particular living thing and presents it in a lower form of reality. The comparison of a memory *phantasma* to a life-drawing shows that the memory *phantasma* does not merely resemble sense perception according to actuality, but resembles some particular, previous sense activity. Much *phantasia* is false and need not resemble any actual prior sense activity, although all *phantasia* resembles sense activity. *Phantasia* is set up by sense perception in actuality and resembles perception as a result, but not all *phantasia* will be of the sort that is present in genuine remembrance. I can have *phantasia* of a purple fire-breathing elephant that chews gum while riding a unicycle in Topeka, Kansas, but such *phantasia* cannot be a likeness to any actual, prior cognition.
Crazies, like Antipheron of Oreus (451a8-12), may end up having their fire-breathing elephant *phantasia* conjoined to a sense of past time and so seem to themselves to remember seeing a fire-breathing pachyderm (see 451a8-12 and 52b23-29). Hence, saying of the memory *phantasma* that it is a sort of life-drawing supplies an implicit *differentia* for the memory *phantasma*. All *phantasmata* are *phantasia* presentations of sense-like activity and are causally derived from past acts of perceiving, but only memory *phantasmata* both arise due to sense activity and resemble the sense activity from which they derive. (We should not be misled by Aristotle’s comparison of the memory *phantasmata* to a sort of life-drawing into supposing that all memory *phantasmata* and *phantasia* presentations generally are pictorial or imagistic.\(^{114}\) Probably this is one reason why Aristotle is careful to say that memory *phantasmata* are a life-drawing *of a sort.*

In what sense do memory *phantasmata* resemble the sense activity from which they derive? Aristotle analogizes the memory *phantasma* to a life-drawing and then provides an explanation for why the comparison is suitable. Aristotle employs sigillary metaphors that recall both Plato’s treatment of memory in the *Theaetetus* and Aristotle’s own treatment of sense perception in *De anima* ii 12.

For the emergent motion (ἡ γὰρ γιγνομένη κίνησις) marks in as a seal (ἐνσημαίνεται) an imprint of a sort of the sense-affection (αἰσθήμα), just as those who affix seals with their signet rings do.\(^{115}\)

The emergent motion (ἡ γιγνομένη κίνησις) is probably a reference to what emerges in the percipient in sense perception due to the action of the external sensible object on the

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\(^{114}\) Richard Sorabji (2004) xi-xix and David Bloch (2007) 67-70 in particular are too much influenced by Aristotle’s use of picture imagery in *De memoria*. Memory can be of things heard or smelled and a picture can hardly be like something smelled or heard. In any case, *phantasia* resembles sense perception according to actuality, not sight according to actuality.

\(^{115}\) ἡ γὰρ γιγνομένη κίνησις ἐνσημαίνεται οἷον τύπον τῶν αἰσθημάτων, καθάπερ οἱ σφραγιζόμενοι τοῖς δακτυλίοις.
percipient. The *aisthêma* (sense-affection) is whatever motion arises in the percipient due to the action of the sensible and this motion produces a kind of imprint of the *aisthêma* into the physiological seat of perception. The ‘for’ (γάρ) signals the introduction of an explanation of how the affection (viz. the life-drawing) of which memory is the *hexis* arises. The imprint of a sort (οἷον τύπον τινά) is in apposition to the affection (life-drawing). It is the affection that functions as a life-drawing and imprint of a particular act of sense perception that solves the impasse raised in 450a25-27 over how remembrance can be about the absent past by dealing with a present affection. The affection, life-drawing, and imprint all refer to the memory *phantasma* that functions as a likeness of the remembering subject’s prior cognitive activity (450b20-51a2).

Because the imprint is a *phantasma*, the emergent motion that stamps in the phantasma could refer either to *phantasia* or to the *aisthêma*. The identification of the emergent motion with the *aisthêma* makes more sense. In *De anima*, *phantasia* is said to be “that in virtue of which a phantasma arises for us” (428a1-2)\(^\text{116}\) and “seems to be a motion of a sort” arising from the sense perception according to actuality and, hence, “it is necessary for this [phantasia] to be similar to perception” (*DA* 428b11-14).\(^\text{117}\) *Phantasia* is a motion of a sort similar to sense perception according to actuality in virtue of which a *phantasma* arises for us. *Phantasia* and its *phantasmata* presentations cannot be motions simply because the presentation of *phantasmata* is an activity involving soul. The one who engages in *phantasia* does not undergo alteration, but realizes a capacity.

\(^{116}\) εἴ δὴ ἔστιν ἡ φαντασία καθ’ ἣν λέγομεν φάντασμα τι ἢμιν γένεσθαι καὶ μὴ εἰ τι κατὰ μεταφορὰν λέγομεν…

\(^{117}\) ἢ δὲ φαντασία κίνησις τις δοκεῖ εἶναι καὶ οὐκ ἄνευ αἰσθήσεως γίνεσθαι ἀλλ’ αἰσθανομένοις καὶ ὁν αἰσθήσεις ἔστιν, ἐστὶ δὲ γίνεσθαι κίνησιν ὑπὸ τῆς ἐνεργείας τῆς αἰσθήσεως, καὶ ταύτην ὑμοίοις ἀνάγκη εἶναι τῇ αἰσθήσει.
Still, the treatment of *phantasia* and *phantasmata* as motions that are moved movers is quite useful for Aristotle: sense perception sets in motion *phantasmata* that can in turn affect (i.e., “move”) their possessor in ways similar to sense perception (428b30-29a8). Memory *phantasmata* are motions which when actualized can move the animal to perceive them (*DM* 450b26-51a2). The activity of recollection (restricted to humans) involves setting in motion associated *phantasmata* until the recollecting subject is moved by a *phantasma* that stands in an ultimate association with the wished-for missing term.

*Phantasma* covers a broad range of appearances. Because Aristotle distinguishes *phantasia* from supposition and sense perception (see *DA* iii 3), *phantasmata* do not refer to the becoming apparent of proper sensible objects or thoughts for us. On the one hand, the *phantasma* is a perceptual-like presentation as with dream images, perhaps afterimages, memory of perceptions, and playful imagination. Such *phantasmata* are quasi-perceptual presentations that can appear before the mind in the absence of sense perception according to actuality. On the other hand, the *phantasma* is an appearance separate from things sensed, but which accompanies the perception of a sensible object. These *phantasmata* are the way sensible objects appear. An example for which Aristotle has some fondness is how the sun appears to be a foot wide (*DA* 428b3-4, *De insomn.* 460b16-20). Such *phantasia* or *phantasmata* may refer to illusory appearances (reason says that the sun is bigger than the known world) or mistaken appearances as when the bush appears to be a human being from some distance in the dark. The metaphorical sense of *phantasia* probably refers to the application of language describing appearing where something does not literally appear to us. For example, we say that an argument appears sound, but the soundness of an argument is not something that literally appears
before us; soundness is not a physical attribute. We should see that all phantasmata are related to sense.

The memory phantasma that is like a life-drawing of a sort or an imprint (of a sort) of the aisthêma belongs to the kind of phantasmata that can appear in the absence of sense perception according to actuality. Aristotle argues that phantasia is not a critical power that discriminates among a class of cognitive objects; phantasia is not sense perception and not any form of supposition (opinion, knowledge, or thinking things through). If phantasia is not critical, but is that in virtue of which a phantasma arises for us, phantasia must be a presentative faculty of appearances. Whereas a sense power discriminates among its objects in virtue of being a mean condition in relation to its sensible objects and whereas thinking and knowing pick out what something is, phantasia is a power that presents phantasmata.

There is perhaps some corroboration of this reading of phantasia as a presentational power rather than a critical faculty from terminological considerations. In Aristotle’s writings, the nouns aisthêma, noêma and mnêmoneuma are the technical correlates of the verbal adjectives aisthêton (the sensible object), noêton (the intelligible object), and mnêmoneuton (the memorable object). However, there is no verbal adjective phantaston (the “imageable” object) that serves as the correlate to the noun phantasma. The verbal adjectives appear to signify cognitive objects external to the percipient, whereas the nouns signify how the external cognitive objects affect or act on the percipient. Grasping what is intelligible of some intelligible object results in thoughts (noêmata) and universals (ta katholou) forming in the soul. The form is in the thing, but the thought or universal is in the soul. The external sensible object acts on the sense
medium and the percipient’s organ of sense and the aisthêma is the action of the external sensible object in the perceiver (the external sensible object “moves” the perceiver and the aisthêma is the “motion” that takes place in the perceiver).

If my interpretation of the –ton and –ma endings is correct, the mnêmoneuton (the memorable object, 449b9, 50a24) is the former cognition (perception or supposition) that produces in the subject a mnêmoneuma (450b25-27, 51a2), a memory phantasma of the former cognition. The mnêmoneuton is “external” to the remembering subject because it is past and absent, but the memory impression derived from it persists, “in relation to which memory (μνήμη) is the hexis” (450a30). There is no verbal adjective phantaston (“the imageable” object) that corresponds to the noun phantasma.118 Sense perception and intellect discriminate among objects external to the soul.119 Memory (as remembrance) picks out and discriminates cognition that is past (and so “external”) from what is present for the remembering subject. In all these cases the external object of cognition is referenced by the verbal adjective with the –ton ending. Were phantasia discriminatory, we should expect some verbal adjective that references that at which phantasia aims as with the other critical capacities.

Further, the -ton verbal adjectives refer to the external object that acts on the subject so that discrimination of the external object results: the sensible object (aisthêton) acts on the percipient where the action is the aisthêma whereby sense perception occurs; the intelligible object (noêton) affects the thinker such that a noêma of the intelligible object is formed in the soul; the original cognition (mnêmoneuton) gives rise to a memory presentation (mnêmoneuma) in the soul. We should see that sense perception and mind

118 But see phantasta (φάνταστα) in MS E 450a24.
119 Intellect picks out the essence of external things.
are put to work by the objects which they discriminate. *Phantasia* lacks a class of external objects for which it is a discriminating power: it has no external *phantaston*, but only internal *phantasmata*. This makes sense if *phantasia* is not critical and is only presentative.

Finally, we should see that the –*ton* verbal adjectives give rise to the –*ma* nouns in the subject that the former affect. Because *phantasia* is caused by the activity of sense perception, *phantasia* is not put to work by its own special, external object even if it is that in virtue of which a *phantasma* occurs to us. Rather, *phantasia* is set up by sense perception. Hence, the ultimate efficient cause of *phantasmata* is the activity of sense perception. Why *phantasia* is presentational rather than discriminatory is because it is a motion derivative of the activity of sense perception rather than a faculty put to work by a special class of objects. Unlike sense perception that is put to work by a sensible object, *phantasia* is not raised to actuality by any external *phantaston*. It is a motion of a sort set up by sense perception that presents sense-like appearances (*phantasmata*).

Why *phantasia* is said to have an object (*phantasma*) correlative with the operation of *phantasia* is because *phantasia* is a sort of motion that presents something where *phantasmata* are the presentations “internal” to the subject who engages in *phantasia*. In this way *phantasmata* are analogous to the internal *aisthêmata* or *noêmata*. While *phantasia* is said to be a motion of a sort, it must be stressed that Aristotle is quite reserved and hesitant in his language: *phantasia* seems (*dokeî*) to be a motion of a sort (*tis*) (*DA* 428b11). Because *phantasia* has a cognitive dimension, it is not a motion or change in the regular sense; *phantasia* is an activity of soul. Aristotle stresses that

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120 For an alternative interpretation for why there is *phantaston* for *phantasia*, see Ronald Polansky (2007) 415.
phantasia is similar not to sensibles, but to sense perception (428b14, 29a5). Hence, phantasia is similar not to X perceived, but to the perception of X. How phantasia differs from sense perception is that unlike the latter, phantasia is neither discriminating of any class of objects nor is it raised to actuality by a special class of external objects. Phantasia gives rise to an awareness of X where X is whatever the phantasia motion presents. The motion of phantasia is an action in virtue of which some phantasma presents itself to the subject; phantasia is an “as-if” perceiving. In De memoria, Aristotle emphasizes that the soul perceives the memory phantasma (450b28). Strictly speaking, the soul does not perceive, but the ensouled animal perceives in virtue of the soul faculty for sense perception (see DA i 4, 408b13-18). Saying of the soul that it, and not the animal or human in virtue of it, perceives indicates that the perception being discussed is not of the standard, normal sort; rather, what is indicated is an awareness (i.e., something similar to perception of X) of a phantasma presentation, i.e., phantasia. This is Aristotle’s way of saying saying something appears before the mind in the way that we speak of mental images before the mind. Remembrance is a special case of the convergence of phantasia and perception of time. Insofar as remembrance involves the occurrence of phantasmata derived from sense perception to the remembering subject, remembrance is presentative and non-discriminating. A presentation of the remembering subject’s past cognitive activity appears to the remembering subject. Yet insofar as remembrance distinguishes the past temporal aspect attached to what is presented by the phantasma in memory from present time in which the act of remembrance and concomitant perceptions take place, remembrance is discriminating and perceptual.

Because the memory phantasma serves as the link to and the proxy for the past
and because the memory *phantasma* is derived from the *aisthêma* that enters perception, we must understand what the *aisthêma* is in order to understand how the *phantasma* is able to function as a likeness and proxy for past cognition. Aristotle leaves us mostly on our own to determine what the *aisthêma* is, but *De insomniis* suggests that the *aisthêma* is whatever motion with which the percipient is moved by the sensible object acting on the percipient.

What the dream is, and how it comes about, one may see especially from the things that happen along with sleep. For the sensibles (*tâ aisthêtá*) proper to each organ of sense produce sense perception in us, and the emergent affection (*páthos*) due to them [the sensibles] not only persist in the organs of sense when the perceptions are in actuality, but after they [the sensibles] depart. Dreams arise because affections from perception remain after perception has ceased and continue to affect their subject during sleep when the discriminating faculty is unable to oppose the appearance produced by the abiding affection. Affection (*páthos*) in the passage quoted could refer either to *aisthêmata* or to *phantasmata*. All Aristotle needs to do at the outset of his discussion on dreams is to secure *that* something resembling sense activity remains after sense perception has ceased in order to account for dreams. The succeeding passages (*459a28-60a32*) explain how there can be abiding resemblances of perception in the percipient and provide examples of abiding resemblances. After giving some examples of persisting perceptual resemblances and explaining how such resemblances may persist, Aristotle discusses more fully the affection mentioned in *459a24-28*. Having secured *how* and *that* there is a persisting affection from perception, Aristotle refers to the persisting affection more precisely as an *aisthêma*.

121 Τί δ’ ἐστι τὸ ἐνύπνιον, καὶ πῶς γίνεται, ἐκ τῶν περὶ τῶν ὑπὸν συμβαίνοντων μάλιστ’ ἂν θεωρήσαμεν. τὰ γὰρ αἰσθήτα καθ’ ἐκαστὸν αἰσθητήριον ἢμὲν ἐμποιοῦσιν αἰσθῆσιν, καὶ τὸ γινόμενον ὧ’ αὐτῶν πάθος οὐ μόνον ἐνυπάρχει ἐν τοῖς αἰσθητηρίοις ἐνεργουσίων τῶν αἰσθήσεων, ἀλλὰ καὶ ἀπελθουσίων.
The language here carefully recalls 459a24-8. “Even when the external sensible has departed,” indicates that the *aisthêma* is an affection present during sense perception in actuality, but which persists also after the external sensible object has departed and sense perception is no longer actual. The sense is in potency what the external sensible (quality) is when in actuality (*DA* ii 5, 418a36) and the action of the sense and that of the external sensible are one in number, but the action issues from the external sensible and takes place in that on which the sensible acts, namely, the sensible medium and the sense itself (*DA* iii 2, 425b25-a6). The action that emerges in the percipient as a result of being acted upon by the external sensible object is called an *aisthêma*, often translated as “sense-impression,” but is better translated as “sense-affection” to avoid contamination with thoughts of Hume or sense-data. Aristotle is clear that the object at which sense perception is directed and of which the perceiver is aware is the external sensible quality. Sense perception in general is the reception of the sensible form of the sensible object without the matter (*DA* ii 12, 424a16ff.), but an *aisthêma* remains after the sensible object departs and no longer acts upon the sense, hence, after the sense ceases to receive a sensible form in actuality.

The *aisthêma* cannot refer to the sensible form received. Perception is the reception of the sensible form of the external sensible object, but the *aisthêma* remains after perception of the external sensible object is over (when the sensible object has ceased to act on the sensible medium and percipient). If the *aisthêma* is identical with the sensible form and remains after the external sensible object departs, perception should...
continue in the absence of the external sensible object. Because perception does not continue in the absence of the external sensible object, the aisthêma cannot be identified with the sensible form received. Rather, the aisthêma must refer to whatever stimulations occur in the percipient due to the action of the sensible object on the percipient, which stimulations gives rise to the reception of sensible form and perception of the external sensible object. As De anima iii 2 indicates, the perceiver is moved with the activity of the external sensible object; the aisthêma refers to the motion from the external sensible object by which the percipient is moved that gives rise to perception of the external sensible object (i.e., that gives rise to reception of sensible form).

Some argue that perception of the external sensible object (aisthêton) is through awareness of the aisthêma, effectively saddling Aristotle with a kind of indirect realism. Stephen Everson (1997) 177 writes, “The external object acts on the sense organ so as to produce an aisthêma, which is then transmitted to the central organ. The subject perceives the external object because he is aware of that aisthêma.”123 Jessica Moss (2012) 51 urges that, “To become aware of the aisthêma is to exercise perception—to perceive the external object.” In a footnote, Moss, following Everson, adds, “to say that one is aware of the aisthêma is not to say that it is the object of one’s perception; rather, one perceives the external perceptible object by being aware of the aisthêma.”124 The position here is that the percipient experiences perceiving external object X in virtue of being aware of internal object Y that is produced by X. If perception of the external

123 Everson elaborates in footnote (loc. cit.): “Wedin (1988), 37, comments that ‘Ordinarily, I am not aware of the perceptual state, or aisthêma, but only of the truck.’ This, however, confuses what it is to be an object of awareness with what it is to be an object of perception. Ordinarily I will perceive the truck but will do so in virtue of being aware of the aisthêma. What is represented as being in front of me is the truck and that is indeed what I shall have beliefs about if I assent to the perception. This is quite consistent with the fact that it is the aisthêma which is the object of awareness.”
124 Loc. cit.
sensible is through awareness of the *aisthêma* produced by the external sensible object, then there is not direct perception of the external sensible object. Everson seems led to this position due to *De Insomn. 460b2-3*: “after the departure of the external sensible object, the *aisthêmata* remain within, being perceptible” (ὅτι καὶ ἀπελθόντος τοῦ θύραθεν αἰσθητοῦ ἐμένει τὰ αἰσθήματα αἰσθητὰ ὄντα).” Certainly Aristotle says that the *aisthêmata* are perceptible beings (αἰσθήματα αἰσθητὰ ὄντα). Everson’s point seems to be that when the external sensible object is presently affecting the percipient, the awareness of the affection constitutes perception of the external sensible object, but when the sensible departs, the affection remains as something perceptible, but in an altered form as a *phantasma*. Everson writes,

> The *aisthêma* is the affection of the *aisthêtikon* produced by the sense-object and it is this of which the subject is aware in perception. For such awareness to occur, it is not in fact necessary that the affection should be produced by an external object, although when it is not, it is a *phantasma* rather than an *aisthêma*. Indeed, it seems that when the affection is not due to the continued activity of the sense-object on the organs, it then becomes a *phantasma*.\(^\text{126}\)

**Pace** Everson, if the *aisthêma* remains and is perceptible after the departure of the sensible object and perception of the sensible object is due to awareness of the *aisthêma*, then why does not awareness of the *aisthêma* after the departure of the sensible object yield a continued perception of the now departed sensible object? For the *aisthêma* of which there can be perception remains (460b2-3), but the sensible object has departed. Aristotle plainly asserts that the *aisthêma* remains as an *aisthêma* after the departure of the sensible object. Sense perception in general is the reception of the sensible form and it is the sensible form of which the percipient becomes aware. If my argumentation is correct, the *aisthêma* cannot be identifiable with the sensible form because the *aisthêma*

\(^{125}\) Everson (1997) 177: “Aristotle takes the *aisthêmata* themselves to be *aisthêta*, objects of perception (460b2-3).”

\(^{126}\) Everson (1997) 175.
remains when the sensible object has ceased to act on the sense medium and sense organ. The sensible form is the *aisthêton* that is the sensible object in the governing sense, while the *aisthêma* is the affection occurring in the percipient such that the perception of the sensible object occurs. Generally, in sense perception it is the *aisthêton* that is perceived and of which the percipient is aware. In Everson’s defense, Aristotle also clearly affirms that the *aisthêma* is something perceptible, but when this occurs, probably it is an experience parasitic on perception, such as when we turn away from looking at something bright and “see” an afterimage for some little while (see *De insomn.* 459b7-20 for examples). The *aisthêma* can become perceptible under certain conditions, but it is when sense perception is disrupted. Under normal conditions, the *aisthêma* involved with the perception of the sensible object is obscured by the perception of the sensible object. It may be that the *aisthêma* alters upon the departure of the sensible object such that the *aisthêma* becomes a *phantasma*. But if awareness of the *aisthêma* is that in virtue of which one perceives external sensibles and the *aisthêma* remains unaltered and perceptible after the departure of the sensible, then perception of the *aisthêma* would yield perception of the departed sensible, which circumstance does not obtain for Aristotle. Even if Everson is granted his thesis (which I do not) that perception of the external sensible is obtained indirectly through an awareness of the internal *aisthêma*, the *aisthêma* and *phantasma* cannot be identified simply as one and the same on the grounds that awareness of *phantasmata* does not amount to perceiving.

Aristotle’s account in *De anima* iii 3 suggests that sense perception according to actuality, rather than an external *phantaston* (which does not exist in Aristotle’s writings), is responsible for the emergence of *phantasmata* in us. More precisely, in *De insomniis,*
Aristotle claims that *phantasmata* come about due to *aisthêma*. Robert Bolton (2005) 231-33, citing *De Insomniis* 461a18-19, urges that the *phantasma* is an element of the *aisthêma* on the grounds that the *aisthêma* is said to persist as a *phantasma*, but I do not read the passage on which Bolton relies the same way (the passage speaks of a persisting motion derived from the *aisthêma*; the passage does not say that the motion persisting is the same things as the *aisthêma*). There is no passage where Aristotle directly states that the *aisthêma* itself persists as a *phantasma*. It must be admitted that Aristotle never defines just what an *aisthêma* is. The fact that the *aisthêma* is said to remain after the departure of the sensible object certainly makes it sound as if the *aisthêma* and *phantasma* may be synonyms depending on the context. But it seems clear enough that however long *aisthêma* persist after the departure of the sensible object, *phantasmata* last longer. For instance, *phantasmata*, not *aisthêma*, are said to serve as the vehicle for memory content. Bolton reads the term *aisthêma* as referring broadly to a “perceptual state,” meaning, presumably, whatever goes on in the percipient during perception.\(^{127}\) Citing *De anima* 428b17-30, Bolton argues that because *phantasia* enters not only into the perception of common and incidental sensibles (regarding which falsehood and misperception is possible), but also is concomitant with the veridical perception of the proper sensibles, that *phantasia* is required for veridical perception, reading *phantasia* as a “presentation to me of the sensory appearance of something.”\(^{128}\) Hence, because *phantasia* accompanies sense perception according to actuality, *phantasmata* presentations of *phantasia* will be included in the *aisthêma* (the perceptual state). But just because *phantasia* is concomitant with veridical perception of proper


\(^{128}\) Ibid., 230-1.
sensibles need not imply that phantasia is an essential ingredient of the aisthêma that features in the perception of proper sensibles. The concomitant status of phantasia with sense perception is easily enough explained by Aristotle’s commitment to the necessity that what is in motion must be in contact with and moved by a mover. Sense perception as mover gives rise to phantasia as what is moved. Further, there are several passages in De Insomniis suggesting that the phantasmata are produced by and separate from the aisthêma.

From these things it is clear that not only are the motions that arise from (ἀπό) the aisthêmata…

(460b28-30)

So too in sleep the phantasmata and the other residual motions, the ones that arise from (ἀπό) the aisthêmata…

(461a18-19)

When the blood in the sanguineous has settled and separated off, the preserved motion of the aisthêma in each of the sense organs makes the dreams connect together.

(461a25-27)

Each of these [phantasmata], as has been mentioned, is a remnant of the aisthêma in actuality…

(461b21-22)

[The dream is] the phantasma, the one from (ἀπό) the motion of the aisthêma…

(462a29-30)

These passages suggest that phantasmata are derived from, but become separate from aisthêma. Aristotle’s use of apo (ἀπό) makes probable the reading that the phantasma is (at least eventually) separate from and not a property of the aisthêma. The reason why is that apo indicates not just a relation to something as a source and origin, but also separation and departure from the source (see Smyth §1684). Bolton rightly emphasizes

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129 Ἐκ δὴ τούτων φανερὸν ὅτι οὐ μόνον ἐγγεγραμμένοι αἱ κινήσεις αἱ ἀπὸ τῶν αἰσθημάτων γενόμεναι τῶν τε θύραθεν καὶ τῶν ἐκ τοῦ σώματος ἐγεγραμμένων, ἀλλὰ καὶ ὅταν γένηται τὸ πάθος τοῦτο ὃ καλεῖται ἄπνοι, καὶ μᾶλλον τότε φαίνονται.

130 οὕτω καὶ ἐν τῷ καθεύδειν τὰ φαντάσματα καὶ αἱ ὑπόλοιποι κινήσεις αἱ συμβαίνουσαι ἀπὸ τῶν αἰσθημάτων ὃ ὦν ἡμεῖς ἄνω τῆς εἰρημένης κινήσεως ἄφαντος τῶν τῶν καθεύδειν, ἀλλὰ τέλος ἂν οὕτως ἡ κίνησις ἀφ' ἕκαστου τῶν αἰσθητήρων εἰρήμενα τε ποιεῖ τὰ ἐνύπνια.

131 καθιστάμενον δὲ καὶ διακρινόμενον τῶν αἴματος ἐν τοῖς ἑναίμοις, σωζομένη τῶν αἰσθημάτων ἡ κίνησις ἄφ' ἕκαστου τῶν αἰσθητήρων εἰρήμενα τε ποιεῖ τὰ ἐνύπνια.

132 τούτων δὲ ἐκαστοῦ ἔστιν, ὀσπέρ εὑρίσκεται, ὑπόλειμμα τοῦ ἐν τῇ ἐνεργείᾳ αἰσθημάτως.

133 ἀλλὰ τὸ φάντασμα τὸ ἀπὸ τῆς κινήσεως τῶν αἰσθημάτων, ὅταν ἐν τῷ καθεύδειν ἢ καθεύδει, τούτ’ ἐστιν ἐνύπνιον.
that these passages do not mean that *phantasmata* are not present concomitantly with *aisthêmata*. But the concurrence of *phantasmata* with *aisthêmata* does not mean that *phantasmata* are not the result of and separate from *aisthêmata*. Once the effect (motion) has been produced by the cause (mover), cause (mover) and effect (the moved) can exist concomitantly as boiling water is separate from but exists concomitantly alongside the flame that moves the water with its heat. In *De anima* iii 3, Aristotle distinguishes *phantasia* from sense perception (which includes the *aisthêma*), but has *phantasia* present during sense perception according to actuality. *De insomniis* indicates more precisely that the aspect of sense perception according to actuality that is productive of *phantasia* presentations (*phantasmata*) is the *aisthêma*, the action of the sensible object on the percipient. *Phantasmata* are not modified *aisthêmata*, but rather *phantasia* presentations that are generated due to *aisthêmata*. The *aisthêma* is the action (whatever shaking or moving of the organ or afterimage that arises and lingers) that is produced in the perceiving subject due to the sensible object acting on the percipient. *Phantasmata* are sense-like presentations that arise due to the *aisthêma*. *Aisthêma* as the actions of perceiving in the percipient are not *phantasmata* inasmuch as *phantasmata* are not actions of perceiving in its own right, but sense-like presentations that arise in the percipient as a result of the activity of perceiving.135

The way is now prepared to appreciate better the extent to which memory *phantasmata* resemble the sense activity from which they arise. *De anima* provides

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134 Ibid., 233 f. 17
135 Ronald Polansky suggested to me the helpful distinction between an action of sense perception and a presentation of it. *De insomn.* 461a25-27 can be read to indicate the persistence of the motion that belongs to the *aisthêma* rather than a motion that persists from the *aisthêma* (the genitive is ambiguous). However, the subsequent passages, especially 461b21-22, suggest something that remains after the *aisthêma* has departed. See my commentary on *De anima* 432a7-10 in the next paragraph for corroborating evidence.
further evidence that the *aisthêma* and *phantasma* differ, while providing additional clues about their relation and similarity.

And on account of this the one who perceives nothing would not learn and not be aware of anything, and whenever one contemplates, it is necessary to contemplate some *phantasma*: for the *phantasmata* are just as the *aisthêmata*, except without the matter. 136 (432a7-10)

Because the intelligibility of things is in or with the perceptible forms (432a3-6), it is possible to learn about and gain knowledge only of that of which one has had perception. Aristotle is explaining how *phantasmata* figure into learning and contemplation of intelligible forms. If intelligibility is embedded in the sensible forms, then all thinking will be dependent on sense perception or a vehicle capable of presenting what has been sensed. *Phantasmata* are especially suitable for learning if *phantasmata* of what has been sensed are retained long after sense perception is over. *Phantasmata* differ from *aisthêmata* because the *phantasmata* are present without the matter, whereas *aisthêmata* are not. Without the matter cannot mean that *phantasmata* are immaterial or unenmattered. *De memoria* speaks of the *phantasma* as something impressed into the organ of sense (450a27-32), as affected by physiological conditions (a32-b11), and as things possessing something like motion according to place in the body (453a20 ff.). *De insomniis* indicates that *phantasmata* are in the sense organs (461a25-27, 62a8-11) and are carried around in the blood (461b10-15). Because the soul is cognizant of *phantasmata*, these cannot be normal sorts of motion, but the passages cited make it clear that *phantasmata* have a physiological location and are subject to physiological influences within the body. The *aisthêma* are also identified closely with the organs of sense (459a25-28, 59b6-7, possibly 61a25-27). Hence, *phantasmata* and *aisthêma* are

136 καὶ δία τοῦτο οὐχ ἡμι ἀισθανόμενος μηθὲν οὐθέν ἂν μάθωι οὐδὲ ἵνω λέγει, ὅταν τε θεωρῇ, ἀνάγκη ἃμα φάντασμα τι θεωρεῖν· τά γὰρ φαντάσματα ὅσπερ αἰσθήματά ἐστι, πλὴν ἄνευ ὠλῆς.
not distinguished by physiological dependence. Rather, the mention of matter must be a reference to the external, embodied sensible object that acts on the percipient.\(^{137}\) Whereas the \textit{aisthêma} is dependent on the presence of an external, sensible object, the \textit{phantasma} produced by the \textit{aisthêma} may persist long after the departure of the sensible object.

\textit{De insomniis} 460a32-b3 puts pressure on the reading that the \textit{aisthêma} is dependent on the presence of an external object because there it is said that \textit{aisthêmata} persist even after the departure of the external sensible. But we should see that the \textit{aisthêma} is the action of the sensible object on the perceptual system, that is, the motion in the percipient involved in the reception of the sensible form. The proximate cause of the \textit{phantasma} is the \textit{aisthêma} motion, whereas the proximate cause of the \textit{aisthêma} is the external sensible object. Even if the \textit{aisthêma} persists for some time, the \textit{aisthêma} does not re-actualize after the departure of the external sensible object or affect the percipient anew. Eventually, it fades away. \textit{Phantasmata}, especially memory \textit{phantasmata}, are retained and can affect their possessor in the absence of the external sensible object. Memory \textit{phantasmata} can affect their possessor over and over anew in the absence of the external sensible objects and \textit{aisthêmata} from which they originated. Caused by the \textit{aisthêma}, the \textit{phantasma} is similar to the \textit{aisthêsis} which the \textit{aisthêma} accompanied. The \textit{phantasma} affects the percipient in ways similar to the \textit{aisthêma} (“for the \textit{phantasmata} are just as the \textit{aisthêma}, except without the matter”). The persistence of \textit{phantasmata} in the absence of sensible objects is crucial for learning and thinking because the continued presence of \textit{phantasma} allows for sustained examination and contemplation things sensed. Were contemplation of the intelligible features of natural

\(^{137}\) In this conclusion, I am in agreement with Bolton 2005 (232 f. 16) and Ronald Polansky (2007) 498.
beings possible only during active perception, learning would be severely handicapped and practical deliberations would likewise suffer. Freedom from particular sensible objects enables *phantasmata* to allow for generalization in thought (the *phantasma* can be either a presentation of an actual particular instance of a kind previously sensed or it can be a presentation of a generic example of a kind). Being less tied to particular sensibles, *phantasmata* allow for thinking in universal as well as particular terms.

In *De anima* iii 7, *phantasma* and *aisthêma* are also compared where the context concerns practical thinking. For the power of the soul that thinks over things, the *phantasmata* are present in the way the *aisthêmata* are.

Being pleased and being pained is the actuality of the mean state in the sensitive power in relation to the good and the bad as such. And the actuality of pursuance and avoidance are the same thing, and neither is the pursuant power different from aversive power, neither from each other nor from the sensitive power: but they differ in being. And for the soul that thinks things over the *phantasmata* are present as are the *aisthêmata*. And whenever one affirms or denies good or bad, one avoids or pursues.\(^{138}\) (431a10-16)

When the sensitive power is affected by things good or bad, pleasure and pain arise. Aristotle cannot mean that whatever appears pleasant is good for the percipient because it appears pleasant. Rather, what is perceived as good is accompanied by pleasure. Aristotle’s thesis is that pleasure results from being acted on by what is good relative to the current condition the sensitive power happens to be in. For example, if the sense power is currently cold, heat is pleasant. If exceedingly hungry, any kind of food may be pleasant. The details, however, are not important for my present concerns. What we should see is that sense perception of objects as good and bad relative to the current state of the mean condition in the sensitive power gives rise to pleasure and pain. Talk of the

\(^{138}\) καὶ ἔστι τὸ ἠδόσθαι καὶ λυπεῖσθαι τὸ ἐνεργεῖν τῇ αἰσθητικῇ μεσότητι πρὸς τὸ ἀγαθὸν ἢ κακὸν, ἢ τοιαῦτα. καὶ ἡ φυγή δὲ καὶ ἡ ὀρεξὶς ταὐτό, ἢ κατ’ ἐνέργειαν, καὶ οὐκ ἔτερον τὸ ὀρεκτικὸν καὶ τὸ φευκτικὸν, οὐτ’ ἄλλ’ ὄστε τοῦ αἰσθητικοῦ. ἀλλ’ ἂν τὸ ἀνείπει, τῇ δὲ διανοητικῇ ψυχῇ τὰ φαντάσματα οἶον αἰσθήματα ὑπάρχει, ὅταν δὲ ἀγαθὸν ἢ κακὸν φήσῃ ἢ ἀποφήσῃ, φεύγει ἢ διώκει.
pursuant and aversive powers suggests that the pleasure and pain can be physiological or psychological. The crucial lines are, “And for the soul that thinks things over the phantasmata are present as are the aisthêmata. And whenever it affirms or denies as good or bad, one avoids or pursues” (τῇ δὲ διανοητικῇ ψυχῇ τὰ φαντάσματα οἶον αἰσθήματα ύπάρχει, ὅταν δὲ ἄγαθὸν ἢ κακὸν φήσῃ ἢ ἀποφήσῃ, φεύγει ἢ διώκει, 431a14-16). Phantasmata are necessary for thinking in general (see DA 431a16-17 and DM 449b31), but the emphasis here on pleasure and pain makes the context practical. The aisthêma is the affection produced in the percipient by the action of the external sensible object. If this affection is preservative or agreeable to the current mean condition of the sensitive power, there will be pleasure felt, but if destructive, pain will be felt. For the soul that thinks things through, the aisthêma that produces or is accompanied by pleasure or pain is the source of a decision to pursue or flee from the sensible object responsible for the aisthêma. Deliberation concerning a present aisthêma may be in reaction to present pleasure or pain, but may also involve anticipatory pleasures and pains, as when one judges from the perception of the movement of fire in the distance that this is the fire signal of the enemy approaching (431b5-6). Phantasmata are present to the dianoetic power in the same way that aisthêmata are for the sensitive or dianoetic power. Crucially, Aristotle notes,

For the noetic power thinks the forms in the phantasmata, and because the things of pursuit and avoidance are demarcated for the power in the phantasmata, and apart from sense perception, whenever the noetic power is [concentrating] on phantasmata, it is moved.¹³⁹ (431b2-4)

Here the reference to forms includes the intelligible and the sensible. Because the phantasma is a presentation of sensible forms even apart from sense perception, the

¹³⁹ τὰ μὲν οὖν εἶδό τὸ νοητικὸν ἐν τοῖς φαντάσμασι νοεῖ, καὶ ως ἐν ἐκείνοις ὄρισται αὐτῷ τὸ διωκτόν καὶ φευκτόν, καὶ ἐκτὸς τῆς αἰσθήσεως, ὅταν ἐπὶ τῶν φαντασμάτων ἕ, κινεῖται.
phantasma can move the soul in ways similar to sense perception. This means that phantasmata are productive of states similar to the aisthêma. Why the phantasmata is productive of similar states is because the phantasmata are caused by the aisthêma. Caused by an aisthêma, a phantasma will have features that necessarily resemble an aisthêma and the phantasma will be capable of affecting (moving) its possessor in similar ways. Hence, Aristotle claims that phantasmata are just like aisthêma, except without the matter (without the presence of the external sensible object). As similar to the aisthêma, the memory phantasma can return the remembering subject to the perception that produced the aisthêma.

Aristotle speaks very carefully in De memoria when he has the memory phantasma be a likeness of the aisthêma. Were the memory phantasma an impression merely of the object sensed (an impression of the sensible form received alone), then memory would be of objects perceived only. There is perhaps some textual corroboration in De memoria for the position that the memory phantasmata resemble former states of perception and not just sensible objects.

Sometimes when motions of this sort [memory phantasma] arise in the soul from prior sense perception (τὸ ἄιθεσθαι), we do not know whether the motions come about due to having sense perceived (τὸ ἴσθιθθαι), and we are in doubt whether it is a memory or not. The passage suggests that phantasmata come about due to the perception of the sensible objects. The cause of the memory phantasma is a prior perception brought about by an external sensible object. Were memory only of objects perceived rather than of the perception of objects, memory could not be of things as past because the cognition of time requires cognizance of before and after according to motion. In order for an object

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140 καὶ διὰ τῶν ἑνῶτο ἔνιοτον δίκαιον ἐν τῇ ἴσθηθα τοιοῦτων κινήσεων ἀπὸ τοῦ ἄιθεσθαι πρῶτους, εἰ κατὰ τὸ ἴσθηθαι συμβαίνει, καὶ εἰ ἔστι μνήμη ἢ οὐ, διστάζομεν.
to be remembered as past, the object must be conceived as attached to a motion and it is the rememberer’s past cognitive activity that supplies the needed motion. If an object of cognition is conceived separately from any former cognition of it, the object will be temporally positionless. The object will not be conceived as belonging to any continuum of motions. Hence, Aristotle carefully has the memory _phantasma_ as an impression of the _aisthêma_ of past perception; that is, the memory _phantasma_ is an impression of the action by which the sensible form is received. In this way the memory _phantasma_ resembles the perception of the sensible object and not just a likeness of the object perceived. I have stressed that the _aisthêma_ is the action whereby the sensible form is received by the sense power. If the _aisthêma_ consists of whatever action that features in perception of the sensible form, then the _phantasma_ that arises from this action will resemble it. Presumably, Aristotle allows for a range of resemblance. Some remembrance is merely _that_ one cognized X before, whereas at other times remembrance is quite rich and relives that past cognition in some detail. What is required of a memory _phantasma_ is that it indicate or resemble past cognition (i.e., that the memory _phantasma_ be a sort of life-drawing of previous cognition).

In _De memoria_, Aristotle compares the relation of the memory _phantasma_ and the _aisthêma_ from which it derives to the relation between a design pressed into wax from a ring with a design etched into it. The metaphor is taken directly from the treatment of memory in _Theaetetus_.

_Socrates_: Grant for me for the sake of the argument a block of wax in our souls, larger for some, smaller for others, and of purer wax for some, but dirtier for others, and of more sclerotic wax for some, of more fluid for others, but for some of due proportion. — _Theaetetus_: I grant it. — _Socrates_: We might see it to be a gift from the mother of the Muses, Mnemosyne, and into this [wax], of the things we have seen or heard or considered that we wish to remember, holding the wax under our perceptions and considerations, we stamp in an impression, just like we mark in a signet relief from rings: and that which is impressed, one remembers and knows so long as the image of it persists within. But that which gets wiped away or does not become impressed, one forgets and does not
Aristotle substitutes the physical seat of perception for wax, but otherwise keeps the imagery. Aristotle borrows the same verb for the stamping into the organ the *phantasma* impression of the *aisthêma* that Plato uses to describe the stamping in of a signet design: ἐνσημαίνεσθαι. Also borrowed from Plato is the reference to a *tupos* (τύπος), an impression or hollow mold (Plato speaks of the act stamping in an impression (ἀποτυποῦσθαι). The metaphor of impressing the design from a signet ring into wax recalls also the discussion of the reception of sensible form without the matter in *De anima* ii 12. As the wax receives the design of the signet without the matter of the signet, so the organ receives a *phantasma* of the *aisthêma* that features in an act of perception.

For the emergent motion (ἡ γὰρ γιγνομένη κίνησις) marks in (ἐνσημαίνεται) an imprint (τύπον) of a sort of the sense-affection (αἰσθήμα), just as those who affix seals with their signet rings do. If my reading is correct, the emergent motion refers to the *aisthêma*, the action of the sensible object on the perceptual system. Hence, the metaphor has the *aisthêma* stand in relation to the *phantasma* as the enmattered signet design stands in relation to the impression stamped into wax or some other suitable material fit to receive the impression. The metaphor is complicated. The reception of an impression of the signet design by a suitable substrate recalls *De anima* ii 12.

About all sense perception in general, it is necessary to grasp that the sense is receptive of the sensible form without the matter, just as the wax receives the design from the ring without the iron or the gold, and takes up the golden or bronze design, but not insofar as it is gold or

141 {ΣΩ.} Θές δή μοι λόγου ἐνεκα ἐν ταῖς ψυχαῖς ἡμῶν ἐνόν κήριν ἐκμαγείον, τῷ μὲν μείζον, τῷ δ’ ἐλαττόν, καὶ τῷ μὲν καθαροτέρου κηρῷ, τῷ δ’ ἀποκραυγατέρῳ, καὶ σκληροτέρου, ἐνίος δὲ ύγροτέρου, ἐστι δ’ οἷς μετρίως ἔχοντος. ΘΕΑΙ. Τίθημι. {ΣΩ.} Δῶρον τοῖνος αὐτὸ φόμεν εἶναι τῆς τῶν Μουσῶν μητρὸς Μνημοσύνης, καὶ εἰς τόσον ὅτι ἄν βουλήθημεν μνημονεύειν ἄν ἂν ἰδομέν ἄν ἀκούσομεν ἄν αὐτοὶ ἐννοήσωμεν, ὑπέχοντας αὐτὸ ταῖς αἰσθήσεις καὶ ἐννοίας, ἀποτυποῦσθαι, ὴσπερ δακτυλίων σημεία ἐννημανομένους· καὶ δ’ μὲν ἄν εἰκασθή· μνημονεύειν τε καὶ ἐπίστασθαι ἕως ἄν ἔνη το εἴδωλον αὐτοῦ· ὰδ’ ἄν εξαλειφθῇ· ἦ ν οὐδ’ τε τε τε γένηται εἰκασθήναι, ἐπιλελειπθάν τε καὶ μὴ ἐπίστασθαι.

142 ἡ γὰρ γιγνομένη κίνησις ἐνσημαίνεται οἷον τῶν τοῖν πινα τοι αἰσθήματος, καθάπερ οἱ σφραγιζόμενοι τοῖς δακτυλίοις.
bronze.143 (424a17-21)

Sense perception is the reception of the sensible form without the matter as the wax receives the design from the signet ring without the underlying material of the ring. Without the matter means that the sense does not take on the underlying matter of the sensible object and that the sense is not altered by the underlying matter of the sensible object; the sense is affected only by the sensible form. The sensible object acts on the sense medium and sense (the organ and the power) insofar as the sensible object is sensible and not as something enmattered. In one sense, the wax is necessarily acted on by the underlying matter of the signet design, showing the limits of the analogy. It is only because the design is enmattered that it can be pushed into the wax. But we are probably to see that the matter of the wax as waxen is not affected: the wax does not become gold or golden or iron or iron-like. The wax is only affected by the matter insofar as the matter enmatters a design. Further, even if the wax enmatters the design, the change is hardly irreversible or permanent. The wax can be melted down and impressed anew, all the while remaining wax. Were sense to enmatter the form in the organ literally, this would prevent the reception of other forms and would cause great difficulty for accounting for the simultaneous reception of many different sensible forms within the same genus, as when we discriminate among many different colors simultaneously in the field of vision.

This brief sketch of De anima 424a17ff. is hardly adequate, but only a crude grasp of the details is necessary for analyzing the metaphor as employed in De memoria. To

143 Καθόλου δὲ περὶ πάσης αἰσθήσεως δεῖ λαβεῖν ὅτι ή μὲν αἰσθήσεως ἐστι τὸ δεκτικὸν τῶν αἰσθητῶν εἰδῶν ἄνευ τῆς ὑλῆς, οἷον ὁ κηρὸς τοῦ δακτυλίου ἄνευ τοῦ σιδήρου καὶ τοῦ χρυσοῦ δέχεται τὸ σημεῖον, λαμβάνει δὲ τὸ χρυσοῦν ἢ τὸ χαλκοῦν σημεῖον, ἀλλ’ οὔτε ἢ χρυσὸς ἢ χαλκὸς·
set up retention of memories, the physical seat of perception receives an impression (tupos) of the aisthêma as wax receives the design of a signet ring without the underlying matter of the ring. The phantasma imprinted into the physical seat of the sense is “like a tupos of a sort of the aisthêma” (οἶον τόπον τινά τοῦ αἰσθήματος). The inclusion of both “like” (οἶον) and “of a sort” (τινά) shows that Aristotle’s hesitation to identify the phantasma too closely with a tupos is great. The comparison of the phantasma to a tupos is important because the tupos is supposed to explain how the phantasma relates to the sense organ and the aisthêma. In De anima ii 12, the signet metaphor is used to show that in perception there is no permanent change or alteration to the sense due to perceiving: as the wax receives the signet design without assimilating to the matter of the ring, so the sense receives the form of the sensible quality without permanently enmattering the form or assimilating to the matter of the sensible object. To set up retention, however, something like a tupos is impressed into the soul and the physical seat of perception and, depending on physiological conditions, is enmattered and persists.\footnote{Cf. R. A. H. King (2009) 70.}

Tupos has a wide range of meaning, but the signet ring metaphor narrows the possibilities: the tupos stamped in by a ring is an impression that serves as the matrix for a design. Ronald Polansky emphasizes the importance in De anima ii 12 of the inverse relation between the signet design and the impression it makes.\footnote{Ronald Polansky (2007) 342-5.} The design matrix was typically engraved (intaglio). This means that the wax does not literally enmatter the very design of the signet, but takes on the design inversely as a relief (en cameo), higher or lower depending on the depth of the engraving into the signet ring; inversion indicates
that the design is not literally enmattered. Thus, the *tupos* is the inverse or mirror matrix left by the ring in the wax into which the ring has been impressed (if the signet matrix is *intaglio*, the impression it makes will be a raised relief and *vice versa*).

Aristotle’s considerable hesitation in 450a31 (the *phantasma* is only like a *tupos* and a *tupos* of a sort at that) shows that the alteration the organ of sense undergoes by receiving the *phantasma* is not a crude, physical change, i.e., the organ is not taking on tiny little design matrices of *aisthêmata*. The alteration involved is some kind of qualitative change.

Although not explicitly mentioned, the presence of the signet ring analogy in *De memoria* implies that an analogue to the reception of form without matter discussed in *De anima* ii 12 is in play because the wax gets the form of the signet design without assimilating to the underlying material of the ring. The analogy is complex. The soul and the physical seat of perception correspond to wax (the *phantasma* comes about in the soul and the physical set of perception due to the activity of sense perception) (450a28-29); the *phantasma* corresponds to the design (*tupos*) as stamped into the wax without the matter of the signet ring; the *aisthêma* corresponds to the signet that is pressed into the wax. Intriguingly, Aristotle adds another layer to the analogy that is absent from *De anima* ii 12: those who set seals with their rings (οἱ σφραγιζόμενοι τοῖς δακτυλίοις, 450a32). The signet ring is mentioned in *DA* ii 12, but the owner or user of the ring is

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146 If Polansky is correct that the inversion is a critical feature of the metaphor in *De anima* ii 12, should we be troubled that the design taken on by the wax (relief) is not the isomorphic equivalent of the design on the signet (*intaglio*)? Is perception thus the reception of something slightly different from the sensible form itself? Is some realism in sense perception lost by too much emphasizing the inversion? But we should see that even if the analogy has the design matrix inversed when received by the wax, the *form* presented by the design does not differ: whether the matrix is *intaglio* or in relief, the form of what is depicted remains the same. Only the matrix changes.

147 Julia Annas (1992) 304 says that Aristotle’s talk of pictures is “crudely literal,” even while defending Aristotle’s theory, overlooking the heavy presence of indefinite articles and adverbs signaling comparison.
neither mentioned nor emphasized as in *De memoria*. The one who sets the seal is the mover of a signet ring, the efficient cause on account of which the ring is stamped into the wax. The signet design is used to authenticate that what it marks belongs to or comes from the hand of the one who owns the ring. Crucially, the signet design impressed into wax sealing a document grants the document the authority to speak on behalf of the absent owner of the ring. The signet design authenticates that what it marks issues from the owner of the ring. The mover of the *aisthêma* is either the external sensible object or the sense perception that belongs to the percipient as the action of the sensible object and that of sense perception is one in the same (see *De anima* iii 2, 425b25 ff.). Because the *aisthêma* is likened to the signet ring, Aristotle nicely has the memory *phantasma* function as the authenticating seal of the past, absent mover of the *aisthêma*, the sensible object and the sense perception of this (see 450a26-27 where Aristotle emphasizes that remembrance is of the absent affair): the memory *phantasma* has the authority to stand in for and serve as the absent perception. Likening the memory *phantasma* to a signet design surely puts pressure on any notion that the memory *phantasma* is just like any other *phantasma*. Only memory *phantasmata* have the authority to speak for past perceptions.

As the wax is receptive of the signet design without assimilating to the material of the ring, so is the soul and the physical seat of perception receptive of the *phantasma* of the *aisthêma* without the material of the *aisthêma*. A prominent hermeneutic challenge in

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148 Here I follow Ronald Polansky 2007 (341) in citing John Boardman (2001) 13: “The basic purpose of sealing is to secure and identify property by so marking the sealing material that, if it is broken, it can be replaced only with the use of the same signet with its distinctive device. As a result of such usage either the signet or its device may acquire a special significance as the identification of the owner, and by gift of a signet authority may be delegated to a steward, messenger or subordinate officer.”

149 *Pace* David Bloch (2007) 82.
dealing with the signet analogy in *De memoria* is to grasp what corresponds to the matter of the *aisthêma* and what to the form. Clearly the *phantasma* is the “form” of the *aisthêma* received without the matter, but what is the matter? Matter of the *aisthêma* may be read in two ways. First, the *phantasma* is just like the *aisthêma*, but without the matter (τὰ γὰρ φαντάσματα ὁσπέρ αἰσθήματά ἐστι, πλὴν ἀνευ ὕλης, *DA* 432a9-10). Because the *phantasma* and the *aisthêma* are both partly physiological affections, without the matter must refer the presence of the external, enmattered sensible quality that gives rise to the *aisthêma* in the percipient. Whereas the *phantasma* can persist in the absence of the external, enmattered sensible object, the *aisthêma* cannot (at least not for long).

Second, because the *aisthêma* is an affection of the perceptual system, the *aisthêma* is an affection of the physical sense organ. Because the sensible form is received without the matter of the external, sensible object, the *aisthêma* produced by the external sensible object is already in the percipient without the matter of the external sensible object. But the *aisthêma* is not immaterial because it is an affection of the sense organ. The *aisthêma* is enmattered for as long as the external sensible continues to act on the percipient. When the enmattered, sensible object departs, the *aisthêma* cannot persist in the perceptual system and begins to fade away. (Enmattered must here refer to a kind of non-permanent qualitative change in the organ.) For as long as the *aisthêma* remains in the perceptual system due to the presence of the sensible object, there is reception of sensible form and perception according to actuality. Without the matter of the *aisthêma* may mean without the presence of an external, enmattered sensible object producing the *aisthêma* or without the *aisthêma* at work in actuality in the perceptual

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system. Both senses of matter here are co-implicatory; the negation of one implies the negation of the other. Were the setup for retention the reception of the form of the *aisthêma* with the matter, this reception would be effectively a re-instantiation and continuation of the perceptual state; *phantasia* would be a kind of persistence of an act of perception rather than something similar to it. Without the matter must mean without the presence of the *aisthêma* in actuality in the perceptual system due to the sensible object. Hence, retention involves a kind transference of what the *aisthêma* is (the form) without its enmattered condition into the aspect of the soul and the part of the body responsible for sense perception.

Likened to the design (*tupos*) received from the signet, the *phantasma* is an analogue to the “form” of the *aisthêma*. The analogy expands on 449b18-20: “Whenever one has the knowledge and the perception without the activity (*ἀνευ τῶν ἔργων*), under this condition one recalls.” Without the activity, at least for perception, would mean without the action of the sensible object on the perceptual system that gives rise to reception of the sensible form. The action involved that gives rise to reception of the sensible form is the *aisthêma*. The *phantasma* is a *tupos* of the *aisthêma* without the enmattered state of the latter. To have perception without the act is to possess something that resembles the former perceptual state, which is precisely what Aristotle says of *phantasia* (*DA* 428b14, 29a5). Elsewhere, *phantasmata* are said to be as and to affect their possessor as do *aisthêmatata* (*DA* 431a14-15, 32a9-10). Why *phantasia* is similar to perception and why the subject that undergoes *phantasia* is affected in ways similar to how subjects are affected by perception is because the objects presented by *phantasia*, the *phantasmata*, are like the *aisthêmatata*. The *aisthêma* is the action in virtue of which there
is reception of sensible form and the *phantasma* is like the *aisthêma*. Crucially, the *phantasma* is similar to the action of the reception of the sensible form and not just similar to the sensible form and in virtue of its similarity to the action involved in the reception of sensible form, the *phantasma* mimics sense perception and not just sensible objects. Hence, the *phantasmata* present to their possessor something similar to what *aisthêmata* accomplish, which is the reception of a sensible form. As Victor Caston has forcefully argued, *phantasmata* can affect their possessor in ways that are similar to what happens when one undergoes an *aisthêma* only under the condition that the *phantasma* possesses causal powers similar to those included in an *aisthêma*. Because an *aisthêma* is an action produced in the percipient by an external sensible object and the *phantasma* is similar to the *aisthêma*, the *phantasma* must have the power to present something like a perceptual action, i.e., something similar to the action involved in the reception of a sensible form. Form without the matter in the case of *phantasmata* means the ability to present a state similar to that produced by the *aisthêma*, but without the presence of the external sensible object producing an *aisthêma* in the percipient.

Phenomenally, *phantasia* presentations that figure into remembering are not the same as acts of perception and this is one reason Aristotle is careful not to speak of the *phantasma* as the form of the *aisthêma* outright, but instead calls the *phantasma* a *tupos*. The only time *phantasia* is confused with the perception (at least) of proper

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152 My conclusion on what form without the matter means should be compared closely to Victor Caston (1998) 278: “A *phantasma*, then, has the same power to affect the central organ as the object would by being perceived. But that is just to say that the *phantasma* has causal powers exactly like a sensory stimulation produced by the object in those environmental conditions... *Phantasia* and thought have ‘the power of objects’ (τὴν τῶν πραγμάτων δύναμιν), because they have the ability to affect us the way the objects would if perceived. This, I would suggest, is precisely what it means to have the form of the objects ‘without the matter’: the forms involved in cognition are ‘similar’ to the objects represented because such cognition has similar causal powers and so can produce effects such as fear and trembling.” I think that
sensibles is when the discriminating faculty is impaired with disease or by sleep and dreams (see De insomn. 460b16 ff.). Phantasmata are not high-definition sensory presentations, but traces that possess similar causal powers to the sense perception that gives rise to them. Nevertheless, there is enough similarity between phantasmata and aisthêmata that phantasmata are capable of affecting the subject that possesses them in ways similar to how a subject is affected by perceiving something. And because the memory phantasma is a likeness to a previous aisthêma of an act of perception, the one who possesses a memory phantasma can return to that previous act of perception by standing in the right relation to the memory phantasma. Because the aisthêma is the action in virtue of which the sensible form is received, the memory phantasma that is a likeness to and derived from the aisthêma can return us not just to the object perceived, but to our perception of the object; and as a likeness of the action by which a sensible form was perceived, the memory phantasma allows for temporal placement along a continuum of motions. When the subject who possesses a memory phantasma is moved by this to focus on the past cognition the memory phantasma presents, then there is remembering.

Another detail of significance that 450a25-32 establishes is why Aristotle would

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Caston may push phantasia too close to perception and phantasmata too close to aisthêta (sensible objects). Phantasmata cannot have the same power as objects because then phantasmata would produce sense perception and not phantasia. Phantasmata can produce fright or anger (701b17-22), but phantasmata cannot produce perception of the objects that give rise to fright or anger. Contra Caston, phantasia is not phenomenally indistinguishable from perception (at least) of proper sensibles unless there is disease or the critical faculty is otherwise impaired as happens in sleep and dreams (see De insomn. 460b16 ff.). Caston is right that phantasia and phantasmata possess powers to effect states similar to those effected by sense perception because phantasmata arise from and must be similar to sense perception. Phantasmata can produce fear or anger because these can mimic the relevant aspects of sense perception of frightful or enraging objects. But the possession of form without the matter must be taken to mean different things in different contexts. The form without matter received in perception is not similar to the sensible object qua sensible, but is itself the sensible quality. Caston comes close to ruining Aristotle’s realism as well as collapsing phantasia into sense perception. For a similar caution, see Polansky (2007) 345 f. 14.
say of memory in the preliminary definition (449b24-25) that it is a pathos. As 450a25-32 makes clear, the pathos turns out to be a retained phantasma that is both derived from and a likeness of the aisthēma from previous cognition. Hence, the phantasma is a bearer of content that serves as a memory of which memory is the dispositional retention (hexis, 450a30). Aristotle soon will refer to the memory phantasma as a memory object (μνημόνευμα, 450b27, 51a2) and likeness (εἰκόν, 450b21-22, 27, 51a2): the memory phantasma is the stuff that serves as the content for memories because it is a likeness of past cognition (past cognition is the memorable object, τὸ μνημονευτόν). So memory (μνήμη) can refer both to a dispositional tendency, the operation, or a memory affection (μνημόνευμα). Aristotle elsewhere speaks of the memory phantasma as a memory (μνήμη).

And on account of this sometimes when motions of this sort [memory phantasma] arise in the soul from prior sense perception, we do not know whether the motions come about due to having sense perceived, and we are in doubt whether it is (ἔστι) a memory (μνήμη) or not.153 (451a2-5)

There is no doubt that the subject of ἔστι in 451a5 is the phantasma (the motion) with memory as its predicate nominative: we can be unsure whether the phantasma presentation is a memory or not, i.e., whether the phantasma is a presentation of a past cognition or not. Memory is a pathos when memory refers to a memory that one retains.

450a32-50b11 The physiological and psychological conditions of retention.

The explanation of how retention of a likeness of past cognition is set up (how memories are stored) supplies a solution to the first impasse concerning how memory of absent, past cognition is possible. One remembers the absent past by means of a present

153 καὶ διὰ τοῦτο ἐνίοτε οὐκ ἦμεν, ἐγγενομένων ἡμῖν ἐν τῇ ψυχῇ τοιούτων κινήσεων ἀπὸ τοῦ αἰσθέσθαι πρῶτον, εἰ κατὰ τὸ ἑσθήσαται συμβαίνει, καὶ εἰ ἔστι μνήμη ἢ οὔ, διστάζομεν.
phantasma that, due to its origins, contains the power to serve as a proxy for the absent past. Why remembrance of the absent past should occur through a present proxy must still be explained. Prior to providing the rest of his explanation, Aristotle first enters into a discussion of the physiological features that affect the quality and longevity of memory phantasmata. The discussion provides an account of the material causes of memory in its application as retention.

Hence, in those in whom there is much change (κινήσει) due to affection (πάθος) or age, memory (μνήμη) does not arise, just as if the motion and signet were to fall upon running water. But in others, on account of being worn down, just like the old parts of buildings, and on account of a sclerotic physiology of the part that receives the affection, the impression does not take. Hence, both the extremely young and the extremely old are without memory (ἀμνήμονες). The former are in flux because of growth, but the latter on account of decay.154 (450a32-b7)

Memory here may refer either to retention (hexis, 450a30) or to a memory stored. The young who are much in motion due to rapid growth cannot hold onto memory phantasmata. In one sense, motion refers to growth (450b7) and growth is an affection (πάθος) of youth. Running water suggests that Aristotle probably has in mind the very young that undergo rapid growth and development. Rapid growth causes too much change in physiology so that any memory phantasma stamped into the organ of sense is soon destroyed. But in another sense, motion may refer also to the condition of the souls of infants and toddlers due to their physiological condition. In Physics vii 3, 247b18-48a6,155 Aristotle speaks of disorder (ταραχή, which may refer to physiological or mental disturbances) and motion (κίνησις) in the souls of the young that prevent the sort of

154 διό καὶ τοῖς μὲν ἐν κινήσει πολλῇ διὰ πάθος ἢ δὲ ἡλικίαν οὖσιν οὐ γίγνεται μνήμη, καθάπερ ἂν εἰς ύδωρ ῥέον ἐμπιπτούσης τῆς κινήσεως καὶ τῆς σφραγίδος· τοῖς δὲ διὰ τὸ ψήκεσθαι, καθάπερ τὰ παλαιὰ τῶν οἰκοδομημάτων, καὶ διὰ σκληρότητα τοῦ δεχομένου τὸ πάθος οὐκ ἐγγίγνεται τὸ τύπος. διόπερ οἱ τοῦ σφόδρα νέοι καὶ οἱ γέροντες ἀμνήμονες εἶσιν· ἰσός γὰρ οἱ μὲν διὰ τὴν αὐξήσιν, οἱ δὲ διὰ τὴν φθίσιν.

155 διὸ καὶ τὰ παιδία οὐτε μανθάνειν οὐτε κατὰ τὰς αἰσθήσεις ὁμοίως κρίνειν τοῖς πρεσβυτέροις· πολλῇ γὰρ ἡ ταραχή καὶ ἡ κίνησις, καθίσταται δὲ καὶ ἢρεμίζεται πρὸς ἐνα μὲν ύπὸ τῆς φύσεως αὐτῆς, πρὸς ἐνα δὲ ὅπ' ἀλλ' ἄλλον, ἐν ἄμφοτέροις δὲ ἀλλιομεμένοις τινῶν τῶν ἐν τῷ σώματι, καθάπερ ἐπὶ τῆς χρῆσεως καὶ τῆς ἐνεργείας, οὕτως νὰ χρήσηται καὶ ἐγερθῆ.
learning and inference from sense perception of which adults are capable. Hence, the pathos producing motion may refer also to passions in the soul and the very young are especially dominated by passion.\textsuperscript{156} Just as passion may prevent the sort of condition suitable for optimal learning, passion may prevent ability to concentrate or focus well, preventing retention from taking: we fail to retain what we fail to notice or notice only poorly. (Conversely, while passion will prevent retention of some things, probably we should see that intense passion will help cement others, as with trauma.)

How young are those young in age? Aristotle does not discuss what extremely young (οἱ σφόδρα νέοι) means. Among infants and toddlers there is a rapid acquisition, expansion, and retention of language, even if not much spoken, but Aristotle would probably attribute language to nature or knowledge rather than memory disposition. Memory (μνήμη) for Aristotle means episodic memory (memory of past cognitive activity). We hold onto fewer episodes in infancy and this suggests that the extremely young are toddlers or younger. The elderly and those with a sclerotic physiology have the opposite problem: as the body dries out and becomes hardened, the organ of sense loses some ability to receive the memory imprint. Retention of new things becomes more difficult to take in. Hence, the old tell the same tales over and over to the same people. Retention of having already told them does not take, but those things already retained are kept until decay (450b7) and diminution from old age begin to destroy memory imprints. Aristotle says of both the extremely young and the extremely old that they are amnêmones (ἀμνῆμονες). The lexicon suggests that amnêmôn means ‘forgetful’ or ‘not mindful’.\textsuperscript{157} Amnêmôn is a compound of the adjective mnêmôn with an alpha privative.

\textsuperscript{156} Philip J. van der Eijk (2005) 228 translates pathos as ‘disease’.
\textsuperscript{157} LSJ (1996) 84-5.
Someone who is *mnêmôn* is said to be ‘mindful’ or ‘remembering’ of things. *Amnêmôn* may mean ‘unmindful’ or, more literally, ‘memory-less’ or ‘without memory’. Neither the extremely young nor the extremely elderly are able to develop well retention of memories and so are either forgetful and poor with memory or are without memory. Without retention of memory *phantasmata*, there cannot be good remembering of past cognitive activity.

Too much change in physiology, either from growth or decay, prevents good retention; the body must be in a stable condition to support good memory. But Aristotle also suggests that the quality of a stable physiological condition impacts retention. The extremely elderly are more sclerotic than is fitting for the function, while the young are too fluid, as the comparison to running water implies. Thus, a proper bodily condition is needed for memory: neither too hard nor too fluid.

Similarly, neither the exceedingly quick nor the exceedingly slow exhibit good memories: for the former are more fluid than what is wanted and the latter are too sclerotic: therefore, the *phantasma* does not remain in the souls for the former and does not fasten for the latter.\(^{158}\) (450b7-11)

Aristotle’s remarks provide some justification for 449b6-8: “Those who are good with memory and recollecting are not the same, but, for the most part, the slow are better with memory while those who are quick and for whom learning is easy are better with recollection.”\(^{159}\) Now Aristotle supplies the quality that connects slowness and quickness at reasoning to facility with memory and recollection, respectively. The quick are more fluid in physiology, while the slow are more sclerotic. Why hardness connects to slowness and fluidity to quickness in learning is probably because of the role that

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158 ὁμοίως δὲ καὶ οἱ λιγὰς ταχεῖς καὶ οἱ λιγὰς βραδεῖς οὐδέτεροι φαίνονται μνήμονες· οἱ μὲν γὰρ εἰσιν ὑγρότεροι τοῦ δεόντος, οἱ δὲ σκληρότεροι· τοῖς μὲν οὖν οὐ μένει τὸ φάντασμα ἐν τῇ ψυχῇ, τοῖς δὲ οὖχ ἀπετεῖ.

159 οὖ γὰρ οἱ αὐτοὶ εἰσὶ μνημονικοὶ καὶ ἀναμνηστικοὶ, ἀλλὰ ὡς ἐπὶ τὸ πολὺ μνημονικῶτεροι μὲν οἱ βραδεῖς, ἀναμνηστικῶτεροι δὲ οἱ ταχεῖς καὶ εὐμαθεῖς.
intellectual *phantasia* plays in thinking. Thinking of intelligibles is provoked by *phantasmata* (see *DA* 431a14-15, b2-5, 32a9-14 and *DM* 449b30-50a1). According to *PA* ii 19, learning involves the acquisition of universals in the soul. When there is a sufficient amount of *phantasmata* retained pertaining to some class of sensible objects, the soul is then able to pick out universal qualities or forms among the differences.

Because the *phantasmata* are in the blood and impressed into the organ of sense, thinking will be impacted by any condition of the body that impacts on *phantasmata*. Hardness and fluidity in physiology connects to efficacy in thought and learning for two reasons. First, concerning thinking things through, a too dense or too hard physiology may prevent easy actualization of the *phantasmata* needed to provoke thinking; also, if the *phantasmata* are embedded in an organ of sense that is sclerotic, easy movement through associated *phantasmata* will be frustrated, impeding the ability to make quick connections. In contrast, a fluid physiology would allow for rapid movement among associated *phantasmata* so that thinking things through and drawing inferences may happen more quickly. Second, the more sclerotic the physiology is, the more difficult it will be for the *phantasma* to get stamped into the organ of sense. Because learning occurs through the acquisition of experience from which notions of universals are established in the soul, the sclerotic will have more trouble and take longer to build up a sufficient stock of *phantasmata* from which universals may be inferred than will the more fluid. Those who are too fluid or too sclerotic will have trouble learning because both conditions will prevent retention of *phantasmata*.160

We may see that the slow are better with memory because of their sclerotic

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physiology, while the quick are better with recollection because of their fluidity. Once the sclerotic acquire a memory *phantasma*, they retain it well because their rigidity prevents the *phantasma* from being rubbed out. However, rigidity prevents excellence with recollection because this prevents easy cycling through associated *phantasmata* to which a lost memory is connected. In contrast, the fluid are more prone to lose memory *phantasmata* they acquire and so they do not retain their memories as well, but the more fluid are better at recollection due to the ease with which they can quickly cycle through *phantasmata* that are still retained.

Aristotle appears hesitant to link excellence at memory or recollection either with fluidity or rigidity simply. Too much rigidity or too much fluidity will ruin facility with memory (450b7-10). If the slow are better than the quick with memory due to rigidity of body, still, the slow cannot be too rigid or else the memory *phantasmata* will not take. Conversely, if the quick are better than the slow with recollection due to fluidity of body, still, the quick cannot be too fluid or else the memory *phantasmata* will quickly be deformed and destroyed. Hence, excellence with memory and recollection must depend on possessing an appropriate physiological mean between excess rigidity and fluidity. Those better with recollection than with memory are more fluid than rigid and while those better with memory are more rigid than fluid. But too much rigidity or fluidity will ruin facility with memory and recollection (450b7-11).

The realization that Aristotle argues for a mean range between excessive rigidity and fluidity necessary for memory answers the objections to Aristotle's account of the physiological conditions of memory proposed by Richard Sorabji. Sorabji observes that (1) because recollection ends in remembering, it is problematic to assert of the quick (and
fluid) that they are good at recollecting, but not with memory. Further, (2) the fluidity of
the quick impedes the retention of memory phantasma needed for recollection (Sorabji
cites 450b7-11); the very fluidity underlying excellence at recollection would seem to
impede excellence at recollection.\textsuperscript{161} Sorabji’s solution is to draw a distinction between
the physiological condition one receives by nature and the condition one is capable of
developing by practice and art. The naturally fluid are not naturally retentive, but
practice with mnemonic techniques and repeated engagement with a phantasma (451a12-
14) helps the fluid to preserve memories better.\textsuperscript{162} Recollection requires possession of
memories or else finding the memory that an act of recollection seeks would not be
possible. But Aristotle’s assertion that the slow possess more excellence of memory
(μνημονικός) than the quick need not mean that the quick are unable to remember or do
not possess memory. The naturally fluid will have memories unless they are excessively
fluid, in which case neither memory nor recollection will be possible. Because the quick
are better at recollection than the slow, and because recollection requires retention of
memories, the quick Aristotle speaks of at 449b6-8 cannot be the same as the excessively
fluid (ὑγρότεροι τοῦ δέοντος, 450b9). The naturally more fluid will not retain memories
as well as the naturally more rigid. But the more fluid will surpass the more rigid in
recollection of the memories that the more fluid happen to possess. Between the
excessively quick who are more fluid than is appropriate for memory storage and the
excessively slow who are more rigid than is appropriate (450b7) is a mean range of
physiological condition that allows for better and worse memory.\textsuperscript{163}

\textsuperscript{162} Loc. cit.
\textsuperscript{163} Aristotle’s treatment recalls the wax analogy in the Theaetetus. If the wax is too brittle or too soft, it
will not accept imprints of good or lasting quality (191C-E and 194C-195B).
The account of the impact of physiological condition on the retention of memory phantasmata indicates why it is useful for Aristotle to refer broadly to memory initially as a hexis or a pathos: memory can be stable and long-term or unstable and short-lived. According to Categories viii, a hexis refers to a stable disposition from out of which the possessor is not easily moved (9a4-10). Hexis in the sense of a stable disposition is a quality predicated of its possessor. In contrast, a pathos is short-lived. Being fleeting, a pathos is not something in virtue of which a subject is said to be qualified in some way, e.g., a person who becomes red through shame is not said to be ruddy (9b19-33). If retention of a memory phantasma is long-lasting and stable, it is a hexis (what we might call ‘long-term memory’), but if the memory is short-lived and we do not long hold onto it, then the retention of the memory phantasma is a pathos (what we might call ‘short-term’ memory).

Aristotle’s account of memory in its application as retention fits well with the categorization in Physics vii 3 of hexeis as relations (ta pros ti, things toward something). A hexis may be of the body (246b3-6) or of the soul (246b20-47a3).

Further, we say that all excellences consist in holding a certain relation (τῷ πρὸς τι πῶς ἔχειν). For those of the body, such as health and fitness, we place in the blending (κράσει) and due measure (συμμετρίᾳ) of the hot and the cold, either of themselves in relation to themselves in the things within, or in relation to their surroundings; and similarly with beauty and strength and the other excellences and defects. For each consists in holding a certain relation, and disposes the thing having it well or badly toward its [proper objects (οἰκεῖα)], proper being those by which [the excellence] by nature comes into being or is destroyed. Because, then, relations are not themselves alterations (ἀλλοίωσις), nor is there alteration of them, nor becoming, nor in general any change at all, it is clear that neither [dispositions (ἑξεῖς)] nor the losing or taking on of [dispositions] are alterations, though in order that they come into being (γίγνεσθαι) or be destroyed it is perhaps necessary that some things be altered, exactly as with form or with shape, such as the hot and the cold, or the dry and the moist, or those things in which these happen first to be present. For each defect or excellence is spoken of in relation to those things by which the thing having the [excellence or defect] is of such a nature as to be altered; for the excellence makes [its possessor] be either unaffected or subject to be affected in just a certain

164 Thomas Aquinas takes memory in 449b24-25 to refer to a relation to past cognition, either in the manner of a hexis if the memory is lasting (permanens) or in the manner of a pathos if it is a transient impression (impressio transiens). See Sententia de memoria, editio Leonina (1985, vol. XLV.2), 106b.
way, while the defect makes [its possessor] contrarily subject to be affected or unaffected.\(^{165}\) (246b3-20)

Health is the disposition (*hexis*) that arises from the relation between the hot and the cold within the body (hot and cold surely are examples of just one of the contraries that features in the relation that gives rise to health). If the relation between the hot and the cold is appropriate (in due measure), the subject possessing such a relation is well disposed toward elements external to the body, i.e., the healthy subject is not easily affected by elements external to the subject. Health as a disposition (*hexis*) of the body comes into being when the parts of the body alter, taking on the hot or the cold to some degree. A *hexis* disposes its possessor well or badly toward the proper objects of the *hexis*. The proper objects are those things by means of which the *hexis* is itself produced or destroyed. Health comes into being as a result of the due measure of the hot and the cold and the like in one’s surroundings that the one who possesses good health is well disposed. Because a relation is an arrangement between *relata*, the arrangement itself does not undergo alteration or motion in its own right, but only incidentally due to change that belongs to one (or more) of the *relata* in its own right.\(^{166}\) The relation comes into being due to alterations of the

\(^{165}\) Translation by Joe Sachs (1995) 179. Brackets and parentheses indicate my changes and insertions.

\(^{166}\) In *Physics* v 2, 225b11-13, Aristotle says that no relation as relation undergoes change in its own right: “Nor indeed is there [motion (κίνησις)] of relation: for it is possible when one of two things changes (μεταβάλλοντος) for the other of the two not to change, so that motion of relations is incidental.” In Plato’s *Theaetetus* 155b-c, Socrates without changing in his own right comes to be shorter than Theaetetus, who,
constituent *relata*; e.g., health arises when the underlying matter of the parts of the body become hot and cold in due measure.

Because it is cognitive, memory is not solely the product of relations among physiological elements as with health or strength. Further, memory is common to the body and to the soul. We should expect the relations of which memory consists to be quite complex as between physiological and psychological elements. Memory is said to be a *hexis* of memory *phantasmata* (450a27-30, 51a14-16) that come to be both in the soul and in the part of the body responsible for perception (“It is necessary to consider that what comes about in the soul due to perception and in the part of the body that contains perception to be a sort of life-painting, the affection regarding which we claim memory is the *hexis* is memory,” 450a27-30).

The memory *hexis* is in respect of a memory *phantasma* that is both physiological (in body) and psychological (in soul). The proper objects of memory are the memorable objects. Excellence of memory will have its possessor well-disposed both toward the storage of memories of past cognition (retention of memory *phantasmata*) and the remembrance of past cognition (through memory *phantasmata* and a sense of the past aspect attached to what these represent).

Like health, memory consists of a suitable relation or proportion among bodily qualities. The ability to retain *phantasmata* arises from a due proportion of rigidity and fluidity in the organ of sense. Actual retention, however, arises only when a *phantasma* is received into the organ. Hence, retention consists of a *relation of bodily qualities in growing*. 

growing, does undergo change. Socrates changes, but only incidentally because relatively to Theaetetus. Relative change is always incidental and due to some non-incidental change that belongs to one or more *relata* of the relation. Hence, relative change is not a change in its own right.

\[\delta\eta\lambda\nu\gamma\alpha\rho\omicron\delta\iota\iota\nu\delta\omicron\omicron\nu\delta\omicron\omicron\nu\delta\omicron\delta\omicron\nu\delta\omicron\omicron\nu\delta\omicron\omicron\nu\delta\omicron\delta\omicron\nu\delta\omicron\omicron\nu\delta\omicron\delta\omicron\nu\delta\omicron\omicron\nu\delta\omicron\delta\omicron\nu\delta\omicron\omicron\nu\delta\omicron\omicron\nu\delta\omicron\\]

167 δήλων γάρ ὅτι δει νοσητι τοιούτων τὸ γιγνόμενον διὰ τῆς αἰσθητής ἐν τῇ ψυχῇ καὶ τῷ μορίῳ τῶν σώματος τῷ ἔχοντι αὐτήν—οἷον ζωγράφημα τι [τὸ πάθος] οὐ φαίμεν τὴν ἔχειν μνήμην εἶναι.
relation to a phantasma. If the proportion of rigidity to fluidity is in a mean range, then the possessor of such a bodily condition is disposed to retain phantasmata, better disposed if the proportion is closer to the mean, worse disposed the more the proportion leans toward one or another of the extremes.\textsuperscript{168} Retention arises due to two sorts of alterations: first, when the organ of sense becomes suitably fluid or rigid and, second, when a phantasma that serves as a likeness of a past cognition is impressed into the organ. Strictly speaking, the formation and reception of phantasma in the organ of sense is not an alteration (phantasia is the realization of a nature, rather than an alteration), but it is analogous to the alterations in body that give rise to health. That the phantasma cannot be impressed into an organ too rigid in nature or remain in an organ too fluid in nature indicates that the phantasmata are somatic to some extent, but Aristotle says nothing directly on the subject, and accounts for phantasmata primarily in terms of function. Aristotle emphasizes that the phantasmata are moved movers in \textit{De insomniis} (459a28-b7), likened to qualitative changes that are passed along from one object to another as fire heats a pot and the pot the water. The analogy between phantasmata motions and qualitative change allows that the reception of phantasmata is a change (the organ of perception and the soul receive a phantasma that neither had previously), but not a standard alteration.

The psychological component of the relation that makes up retention is the soul’s relation to the memory phantasma. Aristotle says little of the soul’s involvement in storage of memory phantasma, yet retention is unlikely merely a physical state. Aristotle

\textsuperscript{168} Recalling that those more on the rigid side of the mean range will have more difficulty in developing retention of memory phantasmata, but will have better retention of what is developed, while those on the more fluid side will more easily develop retention, but also have more difficulty retaining what is developed.
claims of memory that it belongs to body and to soul. And the memory *phantasma* is retained both in the soul and in the body (450a27-30). Further, retention is too selective to be reduced to a physical condition. While bodily condition is determinative of general efficacy in retaining memories, the mere arrangement of body seems too crude to explain why we tend to retain some things, but not others. We tend to retain things that matter to us more or that strike us more strongly, and these considerations are hard to account for in terms of the body’s rigidity and fluidity. Rigidity or fluidity is unlikely to explain why someone tends to retain certain classes of things, but not others (e.g., why one might tend to retain things heard better than things read or *vice versa*). There is perhaps some allusion in *De memoria* ii to the psychological role in retention of finding something particularly striking.

But it happens that some [phantasmata] set in motion just once are habituated (ἐθησθήναι) more than others often set in motion. Hence, although having seen some things only once, we remember them more than others seen often.\(^{169}\) *(DM 451b14-16)*

Aristotle quite rightly realizes that some things encountered only once are better remembered than some things often encountered. The reference to habituation indicates that some *phantasmata* set up by an act of sense perception are from the start more disposed to be activated than others and, hence, to move their possessor to remember. Why some things seen only once are better remembered than some things often seen requires some explanation. Something seen often suggests repetition of the act of seeing, either the same thing at different times or different instances that belong to the same kind at different times. Seeing something over and over may dispose one to be easily moved into remembering perceptions of this (repetition leads to habituation). Here the idea is of

\(^{169}\) συμβαίνει δ’ ἕνιας ἄπαξ ἐθησθήναι μᾶλλον ή ἑτέρας πολλάκις κινουμένους· διὸ ἕνια ἄπαξ ἱδόντες μᾶλλον μνημονεύομεν ή ἑτέρα πολλάκις.

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a contrast between something seen only once that is more remembered (μᾶλλον μνημονεύομεν) than something seen often. Two possibilities suggest why something seen only once would give rise to a stronger disposition to remember than something seen often. First, the thing seen once may make a stronger impression on us and the resulting phantasma that is retained is much more easily activated. Such phantasmata will require less force of association to be triggered and a broader array of things will remind us, whereas phantasmata retained with less vigor might require more determinate associations to be triggered. For example, if someone suffered through a horrible collision, anything to do with cars may remind, whereas memory of a fender bender will require more specific items of association to be triggered. Alternately, Aristotle may mean that some things need only be seen once to set up a phantasma that will dispose its possessor to remember the act. Other things may require that we encounter them multiple times before retention of a phantasma of the encounter is established. Those things that are little noticed and not so much the focus of our attention are not easily retained. They do not strike us with enough force or make enough of an impression, even when the bodily setup is in the mean range of fluidity and rigidity. Other things may strike us enough so that they are retained, but for not very long. Surely character impacts much on the soul’s relation to memory phantasmata. The things that cause great pleasure or great pain are likely to make a much greater impression and so are more likely to be retained. Those things that make a stronger impression are more thoroughly stamped in and retained.
Chapter Four: The second impasse confronting the indirect perception model of remembrance and its solution.

Although the affection it takes up is present, remembrance nonetheless concerns the past because there is retention of a memory *phantasma* that serves as a proxy for the past absent cognition. Because the memory *phantasma* is an impression of the *aisthêma* generated in previous perception, the memory *phantasma* possesses causal powers similar to the *aisthêma* from which it derives. To engage the memory *phantasma* is to be affected in a manner similar to being affected by the past *aisthêma* from which the *phantasma* is derived. Hence, remembrance returns the remembering subject to its absent past indirectly through the memory *phantasma*. But why should the present *phantasma* return the remembering subject to its past and not just focus the remembering subject’s mind on the present *phantasma*? Hence, another impasse arises.

450b11-20 The second impasse: why does the remembering subject perceive the present *phantasma* to be a proxy for its past cognition?

The fact that the memory *phantasma* is an impression of a past cognition and affects its possessor in ways similar to the past cognition from which it derives does not explain why the remembering subject should perceive the memory *phantasma* as the proxy that it in fact happens to be.

But if such is what occurs regarding memory, which of the two does one remember, this affection [the present *phantasma*] or that from which the affection came about [the past cognition of X]? For if it this affection, we would remember none of the absent matters [past cognitions of X]. But if it is that absent matter, how by perceiving this present affection do we remember that which we do not perceive? Even if there is something like an impression or picture in us, on account of what would perception of this be memory of the other rather than perception of this very thing? For the one in actuality with memory beholds this affection and perceives this. Therefore, how will one remember what is not present? For it would be to see and to hear what is not present. Or is it somehow possible
Aristotle’s commitment to indirect realism in the case of memory has the subject remember its past by means of a retained, present *phantasma*. If remembering is an engagement with a preserved *phantasma*, an impasse arises: the object remembered should be a past act of perception, but, when remembering, the soul perceives a present *phantasma*. Aristotle raises a series of connected questions that require close attention.

But if such is what occurs regarding memory, which of the two does one remember, this affection [the present *phantasma*] or that from which the affection came about [the past cognition of X]? If memory is the retention of a present memory *phantasma* derived from a prior act of cognition, does the remembering subject take up the present memory *phantasma* itself as its intentional object or the past act of cognition from which the present memory *phantasma* derives? Aristotle next raises problems that arise from embracing either alternative.

For if it this affection [the present *phantasma*], we would remember none of the absent matters [the past cognitions of X]. But if it is that absent matter, how by perceiving this present affection do we remember that which we do not perceive?

The proper of object of remembrance (the memorable object) is supposed to be the remembering subject’s own past cognitive activity. If remembrance takes up the present memory *phantasma* itself, there is an engagement with a present *phantasma* and not with past cognitive activity. If, as Aristotle maintains, remembrance does in fact take up the remembering subject’s absent, past cognitive activity, it is unclear how this should happen. Because the remembering subject’s past cognitive activity is absent, something

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170 ὁλ' εἰ δὴ τοιοῦτον ἔστι τὸ συμμβαίνον περὶ τὴν μνήμην, πότερον τούτο μνημονεύει τὸ πάθος, ἢ ἔκεινο ἄρ' οὔ ἐγένετο; εἰ μὲν γὰρ τοῦτο, τῶν ἀπόστων οὐδέν ἐν μηνημονεύειν· εἰ δ' ἔκεινο, πῶς αἰσθανόμενοι τοῦτο μημονεύεσθαι οὐ μὴ αἰσθανοῦμεθα, τὸ ἄπον; εἰ τ' ἐστίν ὄμοιον ὅσπερ τὸ πάθος ἢ γραφη ἐν ἡμῖν, ἢ τοῦτο αἰσθησις διὰ τι ἀν εἰ μηνημε ἐπέρου, ἤλ' σοικ αὐτοῦ τοῦτοι; ὁ γὰρ ἐνεργην τῇ μημήθη θεωρεῖ τὸ πάθος τοῦτο καὶ αἰσθάνεται τοῦτοι. πῶς οὖν τὸ μὴ παρὸν μημονεύεσθαι; εἰ ἔγρα ἐν καὶ ὀρκὸν τὸ μὴ παρὸν καὶ ἄκοινειν ἢ ἐστιν ὡς ἐνδέχεται καὶ συμμβαίνειν τοῦτο;
else must stand in, namely, the present memory phantasma that is retained. But if remembrance is a perception of the present phantasma, then remembrance would have as its intentional object something present, not past. Hence, the memory phantasma insofar as it is a present affection cannot be the object of remembrance. The remembering subject must look through the present phantasma to the absent past it represents.

Nonetheless, remembrance does perceive the present phantasma because the phantasma is what appears to and moves the remembering subject in acts of remembrance. So the question arises why perception of something present amounts to perception of what is absent and past. The tempting answer is to say that the present phantasma is a representation of the absent past. This is the indirect realism model Aristotle has suggested. Now he raises an impasse the indirect model must surmount.

Even if there is something like an impression (tupos) or picture (graphê) in us, on account of what would perception of this be memory of the other rather than perception of this very thing? For the one in actuality with memory beholds this affection and perceives this.

Memory concerns past cognition, but this is absent. So something present must stand in for the absent past (= indirect realism). The problem of indirect realism in the case of memory is to understand how perception of something present should constitute remembrance of something absent and past. Because the phantasma is all that is present to the remembering subject, it must be the phantasma that enables the subject to remember. If the phantasma is viewed merely as a present phantasma (as with the objects of constructive imaginings), one will not remember any absent, past cognition. Aristotle reminds us that the present phantasma is like an impression of a sort and a painting of a sort that represents the previous cognition. Hence, the memory phantasma must provoke remembrance of the absent past by means of its representational powers, but how? What the memory phantasma represents runs off in the present for the
remembering subject, so why should perception of this be a perception of something past? The problem poses a major threat to the position of indirect realism in the case of memory. Unless a solution can be offered as to why engagement with a present *phantasma* gives rise to remembrance of one’s past cognition, Aristotle’s position is in real difficulty.

Therefore, how will one remember what is not present? For it would be to see and to hear what is not present. Or is it somehow possible for this to occur?

Aristotle mentions that because it takes up past, absent cognition, remembrance is like perceiving something that is not present (450b19-20). Remembrance is due to a *present* affection, the *phantasma*, but remembrance does not focus on the *phantasma* insofar as it is something present. Rather, remembrance perceives what the present *phantasma* presents as being a presentation of the rememberer’s absent past. The idea that remembrance is like a perception of what is absent is important because it tells us something about what Aristotle takes the experience of remembering to be like: the subject who remembers takes him or herself to be perceiving something that is not present in actuality precisely because what is presented is perceived as belonging to the past. So time sense must enter somehow.\(^{171}\) Talk of perceiving what is not present recalls 449b18-20: when one has the perception of X without the activity, then one is able to recall the past perception of X. Having the perception of X without the activity is in contrast to perception of something present when it is present: “but the present thing when it is present, such as the white thing when one sees it, no one would claim to remember” (449b15-16). In perception, one perceives an object that is both extant and present to the one who perceives it. In remembrance, one perceives something that is not present.

\(^{171}\) See 452b23-29.
actually present because it belongs to the past. Aristotle is using the notion of perception (aisthēsis) in a broad sense and not strictly as sense perception.\textsuperscript{172} One has the former perception and this means one has the former perception without its actuality; as former, it cannot be according to actuality. Rather, in remembrance one perceives a representation of one’s past cognition. The puzzle Aristotle must solve is how the present memory phantasma moves the remembering subject to perceive what the phantasma presents as presentation of the remembering subject’s absent past.

\textbf{450b20-27 Solution to the second impasse part one: the status of the memory phantasma both as by itself and as from another.}

Aristotle has previously referred to the memory phantasma as the perception without the activity (449b19), an affection of sense perception and supposition when time has passed (449b24-25), a painting of a sort (450a29-30, 50b16), and an impression of a sort of the aisthêma that emerges due to the action of the sensible object on the percipient (450a30-32, 50b16). Now Aristotle compares the phantasma to a figure drawn on a board that is at once a figure (ζῶον) and a copy (εἰκών) of some particular original (450b21-23).\textsuperscript{173} Because the phantasma is a copy, it is a mnêmoneuma (μνημόνευμα), a memory presentation. Because Aristotle has previously referred to the memory phantasma as a painting and impression of the prior cognition and raised an impasse concerning why the perception of a present phantasma that has the causal power to

\textsuperscript{172} In 450b28, Aristotle refers to the soul perceiving the phantasma. Strictly speaking, the soul is principle of perception in virtue of which the animal or the human perceives X. Talk of the soul perceiving tells that perception here is not normal sense perception.

\textsuperscript{173} Previously I have referred to the eikôn (εἰκών) as a likeness, but because both a figure and an eikôn are representations and resemblances of that of which they are the representations, I will in this section refer to the eikôn strictly as a copy rather than a likeness.
function as a painting of the past cognition, the account of the memory *phantasma* as a copy is supposed to add something new that solves the impasse.

For example, the figure drawn (γεγραμμένον) on a board (πίνακι) is both a figure (ζῷόν) and a copy (εἰκών), and one and the same thing is both, but the being is not the same for both, and it is possible to behold it both as a figure and as a copy; and in this manner it is necessary to grasp that the *phantasma* in us is both something by itself (καθ’ ἀυτό) and derived from another (ἄλλου). Insofar as it is something by itself, it is a thing beheld or a *phantasma*, but as from another, it is a certain copy and a memory impression (μνημόνευμα).\(^{174}\) 450b20-27

A πίναξ (board) served as a surface used both for painting and for etching figures; γράφειν primarily refers to writing and drawing, but may also indicate scratching or inscribing marks into a tablet. Hence, the figure may be something drawn, painted, or engraved into a tablet. Thus, the reference to a πίναξ and γράφειν allows for some continuity with the previous analogy between signet ring and wax on the one hand and *aisthêma* and *phantasma* on the other. The memory *phantasma* will now be compared to a figure painted onto a board, or possibly engraved.\(^{175}\)

The distinction between a figure and a copy is not immediately obvious. Both figure and copy serve as representations of something, as a painting depicts a human, but a copy depicts some actual (or once actual), particular original being. A figure need not be a copy and depiction of any actual, particular being, but just a generic token of a kind. The distinction between a copy of an original, actual, and particular instance of some kind and a representation of a generic token of a kind is indicated by Aristotle’s reference to a *phantasma* that is considered either as something by itself or as something of another (ἄλλου, 450b25). There is a dispute over how to read the distinction between ἣ καθ’ ἀυτόν γὰρ τὸ ἐν πίνακι γεγραμμένον ζῷον καὶ ζῷον ἐστὶ καὶ εἰκὼν, καὶ τὸ ἀυτό καὶ ἐν τούτῳ ἐστίν ἄμφω, τὸ μὲντοι ἐναι οὗ ταύτων ἄμφω, καὶ ἐστι θεωρεῖν καὶ ὡς ζῷον καὶ ὡς εἰκόνα, οὕτω καὶ τὸ ἐν ἡμῖν φάντασμα δεῖ υπολαβεῖν καὶ ἀυτὸ τι καθ’ αὐτό ἐστι καὶ ἄλλου [φάντασμα]. ἣ μὲν οὖν καθ’ αὐτό, θεώρημα ἢ φάντασμα ἐστίν, ἢ δ’ ἄλλου, οὐδενεκάκαι καὶ μνημόνευμα.

\(^{174}\) Although a board is surely rigid and excessive rigidity ruins memory, we may see that the board analogy is still fitting. A board too soft or brittle will not well retain what is etched into it and a board too hard will not easily accept any engraving.
αὐτό (as something by itself) and ᾧ ἄλλου (as of another). Some read ἄλλου as meaning being of (i.e., a representation of) something as a painting of a human is of a human, while others read ἄλλου as a genitive of source, meaning derived from another as a portrait of Coriscos is derived from Coriscos. I am convinced that the right reading is to take ἄλλου as a genitive of source. The reasons are as follows.

First, unless the figure is meant as an intersection of lines and colors abstracted from the picture-representation (which is unlikely), the figure is surely a representation of something. The most natural and immediate way to render ζῷόν is as a representational “figure,” which would not mean something like a Jackson Pollock or Rothko painting to a fourth century BCE Greek. A ζῷόν is not merely a collection of abstracted lines and colors, but a representation of something. Indeed, the term for figure is also the term for “animal” (ζῷόν). A picture or figure by definition (for the ancient Greek mind) represents something. The copy is also a representation of that of which it is the copy. Unless a copy is derived from some actual, particular individual, the copy will not differ from a figure that is a representation because both copy and figure are representations.

Second, the figure that is at once a figure and copy is introduced to deal with the impasse just raised concerning what remembrance takes up: either the phantasma itself as something presently occurrent or that from which the phantasma came about (ἀφ’ οὗ ἐγένετο, 450b13). The distinction between figure and copy on the one hand and the analogous distinction between phantasma by itself and phantasma as of another (ἄλλου)

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176 For those who take ἄλλου as meaning of or about another, see Richard Sorabji (2004) 51, 84, who, however, does distinguish between a picture that is a picture and a picture that is a copy, Joe Sachs (2001) 171, David Bloch (2007) 32 n. 17, 69-70, R. A. H. King (2009) 58. For those who take ἄλλου to mean being derived from another, see Michael Wedin (1988) 139-40, Stephen Everson (1988) 195-96 who translates ‘of something else’, but argues that both figure and copy, the phantasma by itself and as ‘of another’ are representational, i.e., about something), Victor Caston (1998) 281-82, 281 f. 80 who urges that we translate ἄλλου as genitive of source.
on the other hand are both in apposition to the distinction between the \textit{phantasma} itself as something presently occurrent and that from which the \textit{phantasma} came about. Aristotle introduces the notion of a copy and a \textit{phantasma} as from another (\textit{ἄλλου}) in order to show how being engaged with a present \textit{phantasma} can constitute an intention of the absent cognition from which the \textit{phantasma} came about. Hence, \textit{ἄλλου} in 450b25 is in apposition to \textit{ἀφ’ οὗ ἐγένετο} (that from which the \textit{phantasma} affection came about) back in 450b13.\footnote{See also 451a2-5.}

The being of figure and copy is the same inasmuch as both are representations of something; their being differs because the copy is derived from some actual, particular instance, whereas a figure need not be so derived. \textit{Not all figures are copies, but all copies are figures}. Failure to see the genus-species relation between figure and copy has led to some misunderstanding of Aristotle’s example. Aristotle says of the figure drawn on a board that it is both a figure and a copy. Thus, the example Aristotle uses of the figure drawn or etched onto a board that is at once both a figure and a copy must be in essence a copy. Only a copy can be both a figure (genus) and a copy (species) because not all figures are copies. Aristotle proceeds to discuss how a figure that is both a figure and a copy can be considered (\textit{θεωρεῖν}, 450b23) by the one who views it. The distinction between viewing the figure as a figure or as a copy is not, as one commentator has it, between that of viewing the figure merely as a collection of abstract lines and colors or viewing those lines and colors as a representation of something.\footnote{R. A. H. King (2009) 58.} Victor Caston (1998) 281 f. 80 sums up the decisive consideration nicely: “To consider [\textit{θεωρεῖν}] the picture [\textit{ζῷον}] as a picture [\textit{ὡς ζῷον}] is already to consider it representationally; to consider it as
a copy is to add the notion that this representation somehow \textit{derives from} or is \textit{causally linked} to the object it represents.” Whether viewed as figure or as copy, the figure is viewed as a representation. The difference is whether one views the figure as a generic token or as a copy derived from some particular, actual individual. A figure that is not a copy can mistakenly be considered to be a copy, but this possibility is not what Aristotle wishes to emphasize. Aristotle is considering a figure that is in fact a copy and, hence, also a figure. It is possible to look upon what is in fact a copy as merely a figure. For instance, we look upon Leonardo da Vinci’s \textit{Vitruvian Man} not as a portrait of some particular individual human, but as a generic token of the kind. Alternatively, if we know the figure is a representation of a particular individual, then we look upon it as a copy in addition. It is possible to look upon a portrait that is a copy merely as a figure of a human rather than a copy of, say, Abraham Lincoln.

The realization that Aristotle’s example is at once a figure and a copy because it is a copy is crucial for understanding what is necessary to grasp about “the \textit{phantasma} in us” (450b24). As a copy that is at once a figure and a copy can be viewed either as a figure or a copy, “\textit{so also in this manner (οὕτω) must one grasp that the phantasma} in us is both something by itself (καθ’ αὑτό) and something derived from another (ἄλλου)” (450b24-25). The \textit{phantasma} under discussion is both something by itself and at once something derived from another. Hence, regardless of however it is taken by its possessor, the \textit{phantasma} under discussion is in its being both something by itself and something derived from another. It is possible to regard \textit{phantasmata} that are not copies as though they were (see 451a8-11), but Aristotle is here concerned only with

\footnote{Observe that Aristotle speaks of one \textit{phantasma}, not multiple \textit{phantasmata} in us. The kind of \textit{phantasma} under consideration is something that is itself at once a copy and by itself.}
phantasmata that are in fact at once both copies and something in their own right. The phantasma that Aristotle here considers is of the sort that enters into memory and remembrance. Just as not all figures are copies, regardless of how they are taken, not all phantasmata will be those that enter into genuine memory and remembrance, regardless of how they are taken. The memory phantasma can be viewed as something by itself, but it is causally derived from another.

There is here a parallel with the distinction between figure and copy. Just as all copies are figures, but not all figures are copies, so every phantasma that is derived from another is something by itself, but not every phantasma that is something by itself is derived from another. What it means to be a phantasma by itself is not that it is a mere physical change in the central organ as we might view a painting not as a representation, but a mere collection of lines and colors. Rather, a phantasma by itself is something resembling sense perception according to actuality. Just as both figure and copy are representations of something, so all phantasma, at least those that are in relation to sense perception of proper sensibles, will resemble sense perception. I can have phantasia of a purple fire-breathing elephant that chews gum while riding a unicycle in Topeka, Kansas, but such phantasia cannot be a copy of an actual, prior cognition. All phantasmata are phantasia presentations of sense-like activity and are causally derived from past acts of perceiving, but only memory phantasmata both arise due to sense activity and resemble the particular sense activity from which they derive and this, I think, is how we must to read ἄλλου (from another).

Insofar as a memory phantasma is something by itself, it resembles sense perception, but not an actual, prior, and particular act of sense perception. As something
by itself and not a copy, the *phantasma* is said to be a *theôrêma* (an object of thought) or a *phantasma*. But insofar as it is derived from another, the memory *phantasma* is a copy and a memory object (*mnêmoneuma*). The categorization of the memory *phantasma* insofar as it is something by itself as a *theôrêma* or a *phantasma* on the one hand and the categorization of memory *phantasma* insofar as it is derived from another as a copy and memory object on the other hand confirms the correctness of identifying ‘by itself’ (καθ’ ὑπότο) with *phantasia* presentations more broadly. If as by itself, the memory *phantasma* impressed into the organ of sense is a *phantasma* just as the figure drawn on the board is a figure if not derived from an actual, specific individual. But if as derived from another, the *phantasma* is a memory object as the figure drawn on the board is a copy if derived from an actual, specific individual. Calling the *phantasma* by itself a *phantasma* suggests consideration of the *phantasma* in an unqualified sense, i.e., taken simply as a *phantasma* or simply as something resembling sense perception. Calling the *phantasma* derived from another a memory object suggests consideration of the *phantasma* in a qualified sense, i.e., as being a certain sort of *phantasma*, namely, a memory *phantasma*. Because the memory *phantasma* belongs to the broader genus *phantasma*, its being contains those features that belong to all *phantasmata* as such, as well as those features that are peculiar to memory *phantasmata*. Hence, the memory *phantasma* possesses the being of the species and the genus of the species at once.

Surely the disjunctive in “*theôrêma* or *phantasma*” is inclusive. Why Aristotle includes *theôrêma* in the categorization of memory *phantasma* by themselves is probably motivated by two closely related concerns. First, all thought is provoked by *phantasmata*. If a memory *phantasma* is actualized as something by itself, this may be
accompanied by a thought as when we imagine lines when contemplating triangles but without remembering any previous working out of a theorem or proposition. A theôrêma is a thing thought or contemplated. The proximal association of phantasmata to thoughts puts phantasmata in close association with certain theôrêma. When we consider a triangle or a theorem concerning one, we look through lines to the being of the triangle. Similarly, we may look through the phantasma to the theôrêma that it provokes. Second, by itself, the phantasma is unconnected to any particular, prior act of sense perception or cognition. Unconnected to particular past acts of perception, and so rather resembling a type of perception of X, the phantasma is less particular and more universal, making it more like a universal object of thought.

Aristotle does not give an explanation of what the term mnêmoneuma (μνημόνευμα) indicates, so the meaning must be inferred from context. The mnêmoneuma is the correlate of mnêmoneuton as aisthêma and noêma are the correlates of aisthêton and noêton, respectively. The –ton terms refer to external objects that act on the subject possessing the capacities to be affected by these such that internal objects corresponding to the –ma terms are produced in the subject due to the action of the external objects. The proper, external object of memory are the memorables (mnêmoneuta), the remembering subject’s past cognition (449b9-23). The past cognition is external to the subject in the sense that it no longer exists. But past cognition sets up phantasmata in the perceiving or thinking subject and these may be retained. Phantasmata that are copies are the memory phantasmata. Aristotle now formally labels the memory phantasma in its capacity as a copy to provoke remembrance of the past cognition of which the phanatasma serves as a copy a mnêmoneuma. The phantasma
functions as a reminder insofar as it provokes its possessor to remember its past, but the phantasma is not perceived as a reminder! What the phantasma presents is perceived as one’s memory in the act of remembrance. As the aisthéma is a term for the “contents” that make up a perceptual experience, so the mnémoneuma is a term for one’s “memory contents.” The remembering subject does not perceive a memory phantasma and then get reminded of some content beyond or different from what the memory phantasma presents. Some over translate μνημόνευμα as “reminder,” but this runs the risk of misreading Aristotle’s position. A reminder could be construed as being one thing that puts the one remembering in mind of something that is other than the reminder X. For example, when one looks at a photograph of a friend and is then led to remember something one did with the friend in the photograph. Going from reminder X to Y that is other than X involves two acts: the perception of the photograph and then the thinking of the friend prompted by the photograph. Aristotle never suggests that one is led by the phantasma to think of something other than what the phantasma itself presents. The phantasma is the very vehicle through which the remembering subject’s past cognitive activity appears to it. That the phantasma not only provokes remembrance of past cognition, but is the very thing that presents the past cognition to the remembering subject is confirmed by 451a2-8.

And on account of this sometimes when motions of this sort [memory phantasma] arise in the soul from prior sense perception, we do not know whether the motions come about due to having sense perceived, and we are in doubt whether it is a memory (μνήμη) or not. But sometimes it happens that we consider and recollect that we heard or knew something. And this occurs whenever from viewing it [the phantasma] as itself one changes perspective (μεταβάλλῃ) and views it as derived from another.

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181 καὶ διὰ τοῦτο ἐνότ’ οὐκ ἔσμεν, ἐγκυμώνων ἡμῖν ἐν τῇ ψυχῇ τοιούτων κινήσεων ἀπὸ τοῦ αἰσθήσαται πρότερον, εἰ κατὰ τὸ ἰδεῖν ἡμᾶς συμβαίνει, καὶ εἰ ἔστι μνήμη ἢ οὔ, διστάζομεν· ὅτε δὲ συμβαίνει ἐννοίασαι καὶ ἀναμνησθῆναι ὅτι ἠκούσαμεν τι πρότερον ἢ εἶδομεν· τούτο δὲ συμβαίνει, ὅταν θεωρῶν ὡς αὐτὸ μεταβάλλῃ καὶ θεωρῇ ὡς ἄλλον.
Sometimes we are in doubt whether the memory *phantasma* is a memory and whether it is derived from prior sense perception. The memory *phantasma* is the memory, not merely the reminder of it. And sometimes we are unsure whether what a *phantasma* presents is derived from a previous perception or not and so we are in doubt whether the *phantasma* is itself a memory. Upon recollecting, we may find that we did indeed engage in what the *phantasma* presents to us. Talk of reminding should refer to what puts the remembering subject in mind of the memory *phantasma* and what this presents to its possessor when activated. Whatever the memory *phantasma* presents is precisely what is remembered. Furthermore, a reminder need not resemble that of which it serves as a reminder. For example, a lyre often used by Cebes reminds of Cebes, but it is not a copy of Cebes (see Plato’s *Phaedo* 73c-74b). As copies, all memory *phantasma* resemble the previous sense perception from which they were derived. Richard Sorabji criticizes Aristotle’s insistence that remembrance requires a *phantasma* that functions as a copy of a past cognition on the grounds that remembrance can be provoked by things in association with a past cognition that are not copies of the past cognition. Sorabji gives the example of a *phantasma* of an elephant, which gets us to remember a particular Indian man.\(^{182}\) What Sorabji describes is not a case of remembrance (as Aristotle understands it), but a case either of recollection or an association that leads to remembrance.\(^{183}\)


\(^{183}\) Here I am in agreement with David Bloch (2007) 71, f. 80.
450b27-51a2 Solution to the second impasse part two: memory as assimilation to memory *phantasmata.*

After articulating what the memory *phantasma* is, Aristotle gives an explanation of how the memory *phantasma* comes to be perceived as a copy and a memory of the past, rather than as a present resemblance of sense perception. A memory *phantasma* can be perceived by itself as depicting something similar to sense perception, such as happens in day dreams. When perceived as by itself there is no sense of personal connection to what the *phantasma* presents. On the other hand, the *phantasma* can be perceived as a copy of a past perception and then it is an object of memory (450a24-51a2). One recognizes a personal connection to what the *phantasma* presents. One might object that if the *phantasma* is the object remembered, then memory is not of past cognition. But because past cognition is absent, something present must serve as the object of remembrance. The *phantasma* is the present proxy by which the soul perceives its absent past. This is the reason for insisting that the *phantasma* is a copy of an actual, past cognition: perception of a present X that is a copy to absent Y allows for indirect perception of Y because X is a functional equivalent to Y. To take the *phantasma* as a copy is to be aware that what is presented derives from a past experience. What we wish to see are the conditions that govern when the memory *phantasma* is perceived as a memory and when as something by itself. Why does the remembering subject perceive the present *phantasma* as a copy and presentation of the absent past?

The standard reading of Aristotle’s solution to the impasse is that remembering occurs if the soul regards a *phantasma* as a copy of past perception (or thinking). Richard Sorabji finds that Aristotle has two responses to the question of why the soul
should treat a *phantasma* as a copy. First, the *phantasma*, factually, is a copy of the past perception. Second, “one can regard a [phantasma] as a thing by itself, or as being of, i.e., as being a copy of something. The latter is what one does when remembering.”¹⁸⁴

Victor Caston reaches a similar conclusion.

The *phantasma* possesses content however it is taken. The difference solely concerns the type of memorial state that results: it is only when we take this affect to derive from an earlier experience that we seem to remember—in such cases we “say in our soul that we have seen or heard or thought it before”—and if it actually does so derive as well, then we genuinely remember.¹⁸⁵

Because the *phantasma* is similar to past cognition, it can represent it. But to remember, the soul must take the *phantasma* to be such a representation. And if the *phantasma* really is derived from previous cognition, then genuine memory results. If this is all there is to Aristotle’s account, it is hardly satisfying. Aristotle specifically raises an impasse regarding why perception of a present *phantasma* should yield memory of past cognition. If the solution is that the soul *can* perceive the *phantasma* as a copy and *sometimes* does, then we are left wondering why the soul ever does. And if we grant Aristotle his premise that there is a memory *phantasma* that is a copy, why does the soul regard the *phantasma* that is a copy as a copy? If Aristotle’s answer is that the soul can take the memory *phantasma* as copy because the *phantasma* happens to be a copy, then Aristotle fails to provide a solution to the impasse. Aristotle raises the question of why the subject who remembers should perceive the *phantasma* that happens to be an impression (*tupos*, 450a31, 50b16) or picture (*zôgraphêma*, 450a29-30; *graphê*, 450b16) of the previous cognition as such. The ability of the remembering subject to take its *phantasma* as a copy is not a solution to the impasse: what is needed is an account that explains why the

remembering subject is moved to take its memory *phantasma* to be a copy. Attributing to a *phantasma* the status of being a copy of past cognition does not remove the difficulty of the fact that the *phantasma* that functions as a copy is something present rather than past.

One possible solution that must be ruled out is that one somehow compares the memory *phantasma* to one’s past so as to conclude that the *phantasma* is a copy. When I recognize that a photo of my friend is a copy of my friend, it is because I can compare the photo to a memory or perception of the friend. To recognize that the memory *phantasma* is a copy of some past cognition, I cannot compare the *phantasma* to the past cognition. That would beg the question: the soul views its *phantasma* as a copy to remember, but the soul must compare the *phantasma* to the past perception in order to take the *phantasma* as a copy.\(^{186}\) Furthermore, Aristotle clearly allows that beasts remember. The necessary implication is that remembrance is not by way of opining or judging that a memory *phantasma* is a copy against some standard. First, the standard would be the absent past and if one has this, one is already remembering. Second, although opinion accompanies much remembering in humans, the beasts cannot opine or judge. And remembering is not a form of supposition (Aristotle repeatedly emphasizes that the memory *phantasma* is something perceived, not opined). Finally, if we reflect on the experience of our remembering, we find that we doubtfully make comparisons. So what must happen?

I do not think Aristotle’s account is merely that the soul remembers if it happens to take its *phantasma* as a copy. Aristotle crucially has remembrance analogous not to supposing X as such and such, but to sense perception. Sense perception is not in

\(^{186}\) Richard Sorabji (2004) 10 f. 1 makes a similar criticism.
actuality in virtue of itself, but in virtue of its sensible object. When acted upon, a sense becomes such as its sensible object is in actuality. My thesis is that the sense power has a capacity to assimilate to the activity of a phantasma actualized as a copy of past cognition. When the sense power is assimilated to this activity, the soul becomes such as the copy is and perceives the copy for what it is, a copy. Remembering occurs whenever a phantasma in actuality as a copy acts on the sense power insofar as the phantasma is a copy. I make my case in three stages. First, I establish that awareness of memory phantasmata is a kind of perceiving. Second, I provide a brief overview of how the sense power relates to its objects. How the sense power relates to its objects provides the foundation for the third stage where I argue that remembering according to actuality is an assimilation to memory phantasmata.

Stage one: awareness of phantasmata is a kind of perceiving that belongs to the aisthêtikon.

Because there is awareness (aisthèsis, 450b14-18, 28; theôria, 450b18, 32, 51a7, 12) of the memory phantasma, there must be a capacity in virtue of which one is aware of the memory phantasmata. Because phantasia is that in virtue of which phantasmata emerge, it seems that phantasia should be the faculty in virtue of which there is awareness of phantasmata, but Aristotle never says as much. Aristotle asks whether phantasia is a faculty (dunamis) or hexis that discriminates or is correct or incorrect such as with sense perception and the various modes of supposition. The answer is no. Phantasia is not discriminative and Aristotle nowhere affirms that phantasia is a dunamis. Perhaps we are to see that not only is phantasia not like faculties that discriminate among a proper class of objects, but that phantasia is not a faculty.
Phantasia is a motion-like activity that derives from and resembles sense perception according to actuality; phantasia is presentative (of sense-like appearances) rather than discriminatory. Accordingly, Aristotle emphasizes that phantasia as a kind of motion in virtue of which phantasmata become present to an animal. But because it is possible when one thing has been moved for another to be moved by this, and because phantasia seems to be a motion sort of (τις) and not to occur without sense perception, but in beings that perceive and to be of things regarding which there is perception, and because it is a motion that arises from the activity of sense perception and it is necessary for it to be similar to sense perception, then the motion would be possible neither without sense perception nor for it to be present in those beings that do not sense perceive, and the being that possesses it would do and undergo many things according to it, and it is both true and false.187 (428b10-17)

Therefore, if it is nothing but phantasia that has things that have been mentioned (and this is what has been claimed) phantasia would be a motion that occurs due to sense perception according to actuality.188 (428b30-a2)

Having sense perception as its cause, phantasia is a motion necessarily similar to sense perception. Aristotle emphasizes that phantasia is a motion that resembles the activity of sense perception from which it derives. Because phantasia is similar to sense perception according to actuality, phantasia will affect its possessor in ways similar to sense perception. The status of phantasia as a motion generated by and resembling sense perception has important implications. Phantasia is not a relation to an external class of objects that act on phantasia, raising it to actuality, and among which phantasia discriminates. As a motion set up by and resembling sense perception, phantasia presents sense-like appearances, to which Aristotle gives the name phantasmata. Hence, phantasia is presentative, rather than discriminatory. Unlike the faculty of sense

187 ἀλλ' ἐπειδὴ ἦστι κινηθέντος τοῦτο κινεῖται ἔτερον ὡς τούτου, ἢ δὲ φαντασία κινήσεις τις δοκεῖ εἶναι καὶ οὐκ ἄνευ αἰσθήσεως γίνεσθαι ἄλλ' αἰσθανομένοις καὶ ὃν αἰσθήσεις ἔστιν, ἦστι δὲ γίνεσθαι κίνησιν ὑπὸ τῆς ἐνεργείας τῆς αἰσθήσεως, καὶ ταῦταν ὅμοιαν ἀνάγκη εἶναι τῇ αἰσθήσει, εἰπ' ἢ ἀστὴ ἡ κίνησις οὔτε ἄνευ αἰσθήσεως ἐνδεχομένη οὔτε μὴ αἰσθανομένοις ὑπάρχειν, καὶ πολλὰ κατ' αὐτὴν καὶ ποιεῖν καὶ πάσχειν τὸ ἔχον, καὶ εἶναι καὶ ἁλλὴ καὶ πεισδη.
188 εἰ δὲν μηθὲν ἄλλο ἔχει τὰ εἰρημένα ἢ φαντασία (τούτο δ' ἔστι τὸ λεγθέν), ἡ φαντασία ἢν εἰπ' κίνησις ὑπὸ τῆς αἰσθήσεως τῆς κατ' ἐνεργείαν γιγνομένη.
perception that is raised to actuality by its sensible objects such that there is awareness of
the sensible object, phantasia is a motion that resembles sense perception and of which
there is awareness under the right conditions.

Because phantasia affects animals in ways similar to sense perception, phantasia
is cognitive and involves awareness of cognitive objects, namely, phantasmata.

Phantasia is a motion, but, insofar as it is cognitive, phantasia is a motion “seemingly”
and “of a sort” (kinēsis tis dokei, 428b11). The combination of tis together with dokei
shows that Aristotle’s hesitation to identify phantasia as a motion simply is considerable:
phantasia only seems to be a motion and only a motion of a sort at that. Surely the
hesitation is due to the status of phantasia as a cognitive activity. Because phantasia is
presentative of phantasmata of which there is awareness, phantasia looks to have an
object, but the relation between phantasia and its objects requires some unpacking.

If phantasia is that in virtue of which we mean that some phantasma occurs for us (ἡμῖν γίγνεσθαι) and
if we do not mean it according to metaphor, then is it some one among those things that is a power
(δύναμις) or disposition (ἕξις) by which we discriminate and are in truth or wrong?\(^{189}\) (428a1-4)

Phantasia is a sort of motion in virtue of which phantasmata “occur for us.” The
metaphorical sense refers to a metaphorical appearing when something does not actually
appear before us as when we say that an argument appears sound to us.\(^{190}\) Because
phantasmata occur through phantasia, phantasia is nominally distinguished from the
other faculties that do not have as their objects phantasmata. Considered in isolation, the
phrase “some phantasma occurs for us” (428a1-2) is ambiguous. “For us” translates the

\(^{189}\) εἰ δὴ ἐστὶν ἡ φαντασία καθ’ ὴν λέγομεν φάντασμα τι ἡμῖν γίγνεσθαι καὶ μὴ εἰ τι κατὰ μεταφορὰν
λέγομεν, ἄρα μία τις ἐστι τούτων δύναμις ἢ ἔξις καθ’ ἀς κρίνομεν καὶ ἀληθεύομεν ἢ ψευδόμεθα;

\(^{190}\) Alternately, Ronald Polansky (2007) 414 suggests that the metaphorical usage is the speaking of
phantasia as anything whatsoever that appears (φάνεται) to us “so that phantasia would include any
cognition whatsoever,” a meaning so broad that phantasia would no longer be something in its own right
distinguishable from other faculties.
The dative of the first person plural pronoun and “occurs” translates the present infinitive for the verb ‘come to be’ (γίγνεσθαι). The first person dative pronoun could indicate place, in which case phantasia is that in virtue of which phantasmata emerges (γίγνεσθαι) in us. If phantasia is that through which the phantasma comes to be in us, phantasia looks to be an efficient cause generative of phantasmata. Alternately, the dative could be a dative of manifestation: phantasia is that in virtue of which phantasmata becomes present to us, in which case phantasia would be that in virtue of which a phantasma manifests itself to us (i.e., becomes an object of which we are aware).

My position is that phantasia is the vehicle for phantasmata appearances, not their producer. Here is the evidence. In De insomniis (459a23-28) we learn that the ultimate efficient cause of phantasmata is the sensible object. In De memoria (450a30-32) the phantasma is said to be a change (kinēsis) that arises from the aisthêma present in the percipient due to the action of the sensible object. Hence, sense perception, not phantasia, is the ultimate cause of phantasmata. If sense perception, and not phantasia, is the generating cause of phantasmata then “some phantasma occurs for us” would mean “appears (φάνεται) to us” in the sense of comes to be present for us. On the other hand, Aristotle does speak of “maker” imagination. “For it is possible to make something (ποιήσασθαι) before the eyes, just like those image-makers who place something into a memory scheme” (427b18-20). Make (ποιήσασθαι) could mean generate or construct, but if this is the sense, it is unlikely to mean to generate from scratch. But it may be that phantasia is merely the vehicle for the actualization of the appearances and their

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191 To say that the phantasma arises due to the action of the external sensible object is tantamount to saying that the phantasma is generated by sense perception according to actuality insofar as the action of the sensible and sense perception is the same as between agent and patient (see De anima iii 2, 425b26 ff.).

192 πρὸ ὀμίματις γὰρ ἔστι τι ποιήσασθαι, ὡσπερ οἱ ἐν τοῖς μνημονικοῖς τιθέμενοι καὶ εἴδολοποιοῦντες,
combinations before the eyes, not that it generates the appearances themselves.

*Phantasia* is a motion set up by sense perception according to actuality and therefore similar to sense perception according to actuality. What is more likely is that “maker imagination” is the vehicle for the actualization of appearances before the mind and that it serves as the vehicle for combining *phantasmata* in various ways. Another sense of make (ποεῖν) is to do something. Maker imagination causes *phantasmata* to be placed before the mind and to combine *phantasmata* in various ways. *Phantasia* is a motion in virtue of which *phantasmata* appear to the possessor of *phantasia*, not a power that generates *phantasmata*. Aristotle says that *phantasia* gets its name from light (phaos) because without light it is not possible to see (429a2-4). Light does not cause objects to be colored nor does light serve as the faculty in virtue of which we are aware of color. Rather, light enables color to appear to us so that color can be perceived. The implication of the comparison to light is perhaps that *phantasia* is neither the maker of *phantasmata* appearances nor the perceiver of them, but the vehicle in virtue of which the *phantasma* appearances appear to us.

We should see that *phantasia* is emphasized as a presentative power in *De anima* iii 3. *Phantasia* is presentative both in the sense that it is that in virtue of which a *phantasma* presents itself to the possessor of *phantasia* (428a1-4) and in the sense that *phantasia* is a motion presentative of content similar to sense perception according to actuality (428b10-17, b30-a2). Probably we are to see that the *phantasma* is the appearance that *phantasia* motion gives off to its possessor. Conspicuously, nothing is said in *De anima* iii 3 or elsewhere in *De anima* about that in virtue of which there is awareness of *phantasmata*. If *phantasia* is not a faculty in virtue of which there is
awareness of *phantasmata* appearances, it makes sense that the discussion devoted to what *phantasia* is would not give an account of how awareness of *phantasmata* occurs. Admittedly, absence of evidence is not evidence of absence, but the textual evidence is suggestive. Awareness of sensibles is due to sensibles acting on a sense medium and the medium acting on the organ of sense such that there is a reception of the sensible form. Reception of sensible form is what all sense perception in general *is* (*DA* ii 12, 424a17-19). *Phantasia* is not said to be raised to actuality from potentiality by a special class of external objects (although *phantasai* motions and *phantasmata* are said to be actualized; see *DM* 450b27-28 and *De insomn.* 461b15-18). *Phantasia* is not said to be the reception of anything. Rather, *phantasia* is said only to be a motion derived from, corresponding to, and similar to sense perception according to actuality. Further, Aristotle sometimes speaks of *phantasia* in the plural (*phantasai*).193 Intriguingly, after articulating the considered definition of *phantasia*, Aristotle ends the investigation into *phantasia* in *De anima* iii 3 by referring to *phantasia* in the plural, rather than in the singular: “Therefore, about *phantasai*, what it is and on account of what it is, let so much be said” (*περὶ μὲν οὖν φαντασίας, τί ἐστι καὶ διὰ τί ἐστιν, εἰρήσθω ἐπὶ τοσοῦτον*, 429a8-9). Unless there are multiple *phantasia* faculties, we may suppose that *phantasai* are merely presentative motions where the *phantasma* is the appearance that the motion gives off to the subject that possesses it. Aristotle does distinguish between rational (λογιστικῆ) and perceptual (ἀἰσθητικῆ) *phantasia* (see *DA* iii 10, 433b29-30), i.e., *phantasia* that enters into perceptual or rational operations, but this does not mean that there are multiple parts of the soul responsible for *phantasia*. Rather, it indicates that *phantasia* figures into a wide

193 A Thesaurus Linguae Graecae search yields 34 instances.
array of cognitive operations. If *phantasia* is only a “maker” motion in the sense that it is
the vehicle for the presentation of appearances (*phantasmata*), then *phantasia* is not
responsible for the awareness of the appearances. *Phantasia* would be a change or a
motion in the soul-body composite that is presentative of content rather than a cognitive
faculty in virtue of which there is awareness of the appearances for which *phantasia*
motion serves as the vehicle.

Still, the mentioning of *phantasiai* could be a reference to the motions of a
*phantasia* capacity for the emergence of such motions. Perhaps *phantasia* is a power to
present *phantasiai* motions derived from and similar to sense perception. The emphasis
on *phantasia* as a motion and maker or presenter of *phantasmata* does not rule out
*phantasia* as a power in virtue of which there is awareness of *phantasiai* motions. It may
seem strange to speak of a motion presentative of content similar to sense perception
according to actuality that is aware of the content that it presents, but it must be kept in
mind that the motion in question is not crude, physical alteration. *Phantasia* is an
affection of the soul. As a cognitive movement, *phantasia* could refer both to a motion
that presents content and to an awareness of the content presented. For example,
speaking of perception in *De anima* ii 5, Aristotle says that perception consists in being
moved and undergoing something and seems to be an alteration sort of (ἡ δ' αἰσθησις ἐν
tῷ κινεῖσθαι τε καὶ πάσχειν συμβαίνει, καθάπερ εἴρηται· δοκεῖ γὰρ ἄλλοισις τις εἶναι,
416b33-35). The activity of perception is an alteration of a sort and this alteration
includes the awareness of sensibles. Sense perception is at once that in virtue of which
the sensibles manifest themselves to us and that in virtue of which there is awareness of
the sensibles. Because it is a motion with a cognitive dimension, I do not rule out the
possibility that *phantasia* is a motion in virtue of which there is awareness of the very appearances that the motion itself presents.

Nevertheless, (1) the total absence of any discussion of the awareness of *phantasia* in *De anima* iii 3, how such awareness occurs, and to what faculty it belongs, combined with (2) the emphasis on *phantasia* as a non-discriminating presentative motion parasitic on and derivative from sense perception, and (3) lacking a class of objects that puts *phantasia* to work all suggests strongly to my mind that *phantasia* is not a separate, independent faculty or part of the soul in virtue of which there is awareness of *phantasmata*. Indeed, the *phantasmata* seem to be nothing more than the appearance the *phantasia* motions give off to their possessor. *Phantasia*, at least as it is discussed in *De anima* iii 3, seems much more a kind of motion in the soul-body composite of which one can be aware rather than a motion in the soul-body composite in virtue of which one is aware of a cognitive object proper to the motion. *Phantasia* is a motion that functions as a bearer of appearances rather than a faculty in virtue of which one is aware of the appearances.

If my reading is right, how do we become aware of *phantasiai* motions? Aristotle mentions an imaginative power (*phantastikon*) only five times in his writings, once in *De anima* iii 9 and four times in *De insomniiis*. The –ikon ending is common in Aristotle’s psychological works and refers to the part (μόριον) of soul that serves as the principle or faculty (δύναμις) for an operation (for use as a reference to a part of soul, see *DA* 413b11-16; as a reference to a power and faculty of soul, see *DA* 414a29-32). We have the *threptikon* for the nutritive power of the soul (414a31), the *aisthētikon* for the power of sense perception (a31-32), and the *noêtikon* for the intel lective power (428b28-31).
That Aristotle refers to a faculty of *phantasia* would seem to run counter to my claim that *phantasia* is not a faculty in its own right. Two considerations allow for compatibility between my reading and the appearance of *phantastikon* in *De anima* and *De insomniis*. First, *phantasia* is parasitic on sense perception, although differing from it. As I have argued, *phantasia* is neither raised to actuality by nor an operation that engages with an object external to and distinguishable from the *phantasia* motion itself. The *phantasma* looks to be a sense-like appearance that the *phantasia* motion gives off to its possessor. Second, and crucially, in *De anima* iii 9 (432a31-b3) Aristotle says of the *phantastikon* that it differs in being (meaning function) from all the other parts of the soul, but that whether it is different from or the same as another part is an impasse. The impasse is surprising because *phantasia* was distinguished from sense perception and the various forms of supposition in *De anima* iii 3. However, the question of whether the *phantastikon* is a part separate from all the others is not bothersome if Aristotle’s concern is not whether the activity of *phantasia* is distinguishable from that of sense perception and supposition, but whether the part of the soul that engages in and becomes aware of *phantasia* is distinguishable from other parts of soul. Before I mentioned the conspicuous absence of any discussion of how awareness of *phantasia* is obtained in *De anima* iii 3 and Aristotle’s mention of the *phantastikon* in iii 9 may lead us to suppose that there is a part distinguishable and separate from other parts of the soul in virtue of which there is awareness of *phantasia* presentations. Aristotle does not give an answer in iii 9 or anywhere else in *De anima*. The answer is provided only in *De insomniis*: the *phantastikon* is not a separate, distinguishable part of the soul. It is the same as the power for sense perception, although it differs aspectually in being. Hence, the part of
the soul responsible for awareness and use of *phantasia* is the part of the soul responsible for perception.

Now because what concerns *phantasia* has been said in the writings on the soul, and because the part that engages in *phantasia* (τὸ φανταστικὸν) is the same as the perceptive part (τὸ αἰσθητικὸ), but the being for the imaginative and for the perceptive is different, and *phantasia* is a motion emergent due to sense perception in actuality, and the dream appears to be a *phantasma* (for we call the *phantasma* within sleep a dream, whether it occurs simply or with respect to a certain condition), so it is clear that to dream belongs to the perceptive part, but belongs to this insofar (ὅ) as it is imaginative.\(^{194}\) (459a14-22)

The part of the soul that is responsible for dreaming is the perceptive faculty of the soul insofar as this is imaginative (*phantastikon*). Aristotle gives a clear answer to the question posed in *De anima* iii 9 of whether the imaginative capacity of soul is different from the other parts: the imaginative part is the same as the part responsible for perception. The primary hermeneutic issue is understanding how the *phantastikon* should be the same as the *aisthētikon* and yet different in being.

*De insomniis* supplies details of how the awareness of *phantasiai* motions comes about, details that are missing from the account in *De anima* iii 3 and which help account for why the perceptive faculty of the soul is the same as the imaginative. *Phantasmata* are remnants of the *aisthêmata* (461b11-22) present during perception due to the action of the external sensible on the percipient. During sleep, the *phantasmata* present in the blood are carried to the heart, giving rise to perception of them.

When the blood in the sanguineous animals has settled and separated off, the preserved motion of the *aisthêmata* in each of the sense organs makes the dreams connect together, and something presents itself and one supposes to see on account of the movements from eyesight carried down, and to hear because of the movements from hearing, and similarly from the other sense organs. For it is by the motion coming from the organs of sense (ἐκεῖθεν) to the starting source of perception even when awake that one supposes to see and to hear and to perceive…\(^{195}\) (461a25-b1)

\(^{194}\) ἐπεὶ δὲ περὶ φαντασίας ἐν τοῖς Περὶ ψυχῆς εἴρηται, καὶ ἐστι μὲν τὸ αὐτὸ τῷ αἰσθητικῷ τὸ φανταστικὸν, τὸ δὲ εἶναι φανταστικῷ καὶ αἰσθητικῷ ἔτερον, ἐστὶ δὲ φαντασία ἢ ὑπὸ τῆς κατ’ ἐνέργειαν αἰσθητικῶς γινομένη κίνησις, τὸ δ’ ἑνύπνων φάντασμα τι φαίνεται εἶναι (τὸ γὰρ ἐν ὑπνῳ φάντασµα ἑνύπνων λέγομεν, εἰδ’ ἀπλὸς εἶτε τρόπον τινά γινόμενον), φανερὸν δ’ ὅτι τοῦ αἰσθητικοῦ μὲν ἐστι τὸ ἑνυπνιάζειν, τοῦτοι δ’ ἢ φανταστικοῖς.

\(^{195}\) καθισταμένου δὲ καὶ διακρινόμενον τοῦ αἵματος ἐν τοῖς ἐναίμοις, σωζόμενη τῶν αἰσθητικῶν ἢ κίνησις ἢρ’ ἐκάστῳ τῶν αἰσθητηρίων εἰρήμενα τὰ ποιεῖ τὰ ἑνύπνια, καὶ φαίνεσθαι τι καὶ δοκεῖν διὰ μὲν τὰ ἀπὸ τῆς
The preserved motion in the organ of sense is the *phantasma* or *phantasia* motion. When the *phantasma* is carried down to the primary organ and source of sense (the heart), the *phantasma* appears, and under the right conditions one will suppose oneself to see or to hear. Aristotle draws a parallel between the *phantasmata* and the action of the sensible on the percipient during perception. When awake, one supposes oneself to see or to hear because the action of the external sensible on the sense organ affects the heart, and also *phantasmata* that affect the heart appear to the subject in whom this occurs (cf. 460b3-8).

The *phantasmata* are derived from and possess similar powers to the action of the sensible from which they derive. *Phantasmata* that persist may be carried down to the primary organ of sense (the heart) and affect their possessor in ways similar to the action of a sensible. One reason why the imaginative part (*phantastikon*) and the perceptive part (*aisthêtikon*) are the same is because awareness of *phantasmata* occurs due to *phantasiai* motions moving the primary organ of sense in ways similar to how the organ is moved by *aisthémata*. Aristotle elaborates further in the subsequent passage.

For whenever one is asleep, as most of the blood sinks down to the starting-point, the movements present within it — some [in potentiality], but some [in actuality] — go down with it. They are so disposed (οὐδὲ ἐξουσιᾷ) that in any given movement of the blood, one movement will rise from it to the surface; and if that one perishes, then another will [rise]. In fact, relative to one another, they are just like those frogs that float upwards in the water as the salt dissolves — just so, the movements are there [in potentiality], but they [actualize] as soon as what impedes them is removed. Upon being released, they move in the little blood remaining in the sense organs, while [having resemblances], as cloud-formations do, which people liken now to men and now to centaurs as they change rapidly. Each of these, as has been said, is a remnant of [an *aisthêma* in actuality].196 (461b11-22)

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196 Translation by David Gallop (1996) 99-100. Brackets indicate my emendations. ὢν γὰρ καθευδή, κατιόντος τοῦ πλείστου ἀματος ἐπὶ τὴν ἄρχην συγκατέρχονται ἀι ἐνοῦσαι κινήσεις, ἀι μὲν δυνάμει αἱ ἐν ἐνεργεία. οὕτω δὲ ἔχουσιν όσοι ἐν τῇ κινῆσι τοῦ ἄρχην ἐχοῦσι πρὸς τὴν ἄρχην καὶ ἐγκαταφέρουσι δοκεῖ ὄραν καὶ ἄκουειν καὶ αἰσθάνεσθαι...
In 461a25-b1, Aristotle mentions *phantasiai* motions that persist in the individual sense organs that may be carried to the heart during sleep, whereupon something appears to the sleeper. Now Aristotle provides an explanation of why something appears. As blood from the peripheral sense organs sinks down to the heart, *phantasmata* present in the peripheral organs are carried down to the heart in the blood (the reference to remnant motions from active *aisthêmata* in 461b21-22 confirms that *phantasmata* or *phantasiai* are the sort of motions under discussion), some in potentiality, while others are in actuality.

The comment that there are *phantasmata* both in potentiality and in actuality in the blood that sinks down requires some interpretation.

For whenever one sleeps, when the greater amount of the blood goes down to the source, the motions present in it go down with it, some in potentiality (αἱ μὲν δυνάμει), but some in actuality (αἱ δὲ ἐνεργείᾳ). (461b11-13)

On the one hand, Aristotle may be saying that as the blood begins to sink down to the heart (the source) from the peripheral sense organs, the *phantasmata* present in the blood potentially may be carried down in the blood from the organ to the heart. Some actually go down with the blood, while some do not. On the other hand, Aristotle may be saying that there are *phantasmata* motions in the blood that sinks down to the heart in sleep and some of these are motions in potentiality, while others are motions in actuality. Because “some are in potentiality, some in actuality” (αἱ μὲν δυνάμει αἱ δὲ ἐνεργείᾳ) directly follows “the motions present in the blood go down with it” (συγκατέρχονται αἱ ἐνοῦσαι κινήσεις, αἱ μὲν δυνάμει αἱ δὲ ἐνεργείᾳ), neither option can be ruled out on syntactic grounds. Probably both senses are in play. The *phantasiai* motions are not pure possibilities. So something left over from the *aisthêmata* active during perception
remains in the blood, and this can be in motion according to potentiality or in motion according to actuality.

Aristotle mentions that the motions are disposed (οὕτω ἔχουσιν, 461b13) so that the movement of the blood causes phantasmata to actualize. Hence, in the case of sleeping states at least, we are to see that the movement of the blood can activate a dormant phantasia motion. The activation of dormant phantasia motions is one thing that the analogy to the toy frogs is meant to show. Toy frogs are embedded in a salty matter at the base of a container. When water (analogous to blood) is added, the salt is dissolved and the frogs rise to the surface of the liquid. Like the frogs that hold themselves ready to rise, the phantasia motions are disposed (οὕτω ἔχουσιν) to be actualized under the right conditions (οὕτως ἔνεισι δυνάμει, ἀνειμένου δὲ τοῦ κωλύοντος ἐνεργοῦσιν, 461b16-17). The motions contain likenesses or resemblances (ἐχουσαι ὁμοιότητα, 461b19) as clouds do. When the dormant phantasia motion is activated, it can affect the sleeper by giving off an appearance.

Although devoted to a discussion of how dream phantasmata manifest themselves to a sleeping subject, the passage contains important implications for phantasia broadly and for memory more particularly. Phantasia is a motion set up by sense perception, but De insomniiis suggests that we need not conceive of phantasia motions as in actuality perpetually. Does phantasia refer only to phantasia motion that is perceived by its possessor in actuality or does phantasia refer also to motions dormant that are ready to give off appearances once activated? In De anima iii 3, phantasia is said to resemble sense perception according to actuality and so we may suppose phantasia is restricted to such motion that is actually perceived. But De insomniiis seems to speak of phantasia
motion that is in potentiality, as well as actuality, actually affecting its possessor. When in actuality, the *phantasia* motions take on likenesses to things (461b18-21), but it is unclear whether being in actuality as a resemblance is co-implicatory with being perceived. For instance, the sensible quality (*qua* sensible) in actuality is co-implicatory with being perceived in actuality. Being in motion in actuality as having resemblance need only mean having the power to be perceived as a likeness. (Elsewhere Aristotle mentions *phantasia* motions in actuality that are not perceived because drowned out by more vigorous cognitive activity; see *De insomn.* 460b28-61a8). As there are universals already present in the soul that are thinkable in potentiality, so there is dormant *phantasia* motion already present in the soul-body composite that is perceivable in potentiality.

These passages in *De insomniiis* fit well with Aristotle’s talk of the times when (ἕταν) the motion of memory *phantasmata* are actualized (450b27-28). If *phantasia* can lie dormant, this would explain how there is retention of past cognition and why we are not continuously and perpetually affected by memories. Memory in its application as retention is the disposition (*hexis*) of dormant memory *phantasmata*, disposed ready to move their possessor to remember. Memory *phantasmata* can be activated (“released”) either by sense perception of something similar to or in association with the dormant memory *phantasma* or by associated memory *phantasmata* that have already been actualized. Memory *phantasmata* need not be perpetually in motion in actuality. And in the account of recollection, Aristotle speaks of *phantasia* motions set in motion by other motions, indicating that *phantasmata* need not always be in motion in actuality (*DM* 451b10-22).

Aristotle adds further details concerning how the dreamer relates to *phantasiai*
motions in actuality. The awareness of dream *phantasmata* is a perceiving of a sort. We have been readied to receive the assertion that dreaming is a perception of a sort by the earlier mention of *phantasia* motions traveling to the heart, whereupon something presents itself (460b3-8; 461a27-b1). The part of the soul that is aware of the dream *phantasmata* is the same part that is aware that it is perceiving according to actuality.

Each of these [*phantasmata*], as has been said, is a remnant of the *aisthêma* in actuality: and it exists within when the true *aisthêma* has departed, and it is true to say that the *phantasma* is such as Coriscos, but it is not Coriscos. But when one was perceiving, the authoritative and discriminating part was not saying [that the *aisthêma* was] Coriscos, but because of this [the *aisthêma*] that the person there (ἐκεῖνον) was the true Coriscos. That which says this while perceiving, if it is not simply held back by the blood, is moved (κινεῖται) by the motions [the *phantasmata*] in the sense organs as though this part were perceiving, and one supposes (δοκεῖ) what is like to be the very thing itself.

The *aisthêma* is the action of the external sensible on the percipient through which there is perception of the sensible object. Because the *phantasma* is derived from the *aisthêma*, the former has powers resembling those of the *aisthêma*. In the perception of Coriscos, the sensible qualities involved act on the percipient through a medium, giving rise to a perception of Coriscos. The *phantasma* that is derived from the *aisthêma* of Coriscos possess the power to affect its possessor in ways similar to the *aisthêma* through which there was perception of Coriscos. Hence, the *phantasma* will resemble the perception of Coriscos, but the *phantasma* is not Coriscos. While wakefully perceiving Coriscos, the primary sense faculty does not say that the *aisthêma* affecting it is Coriscos, but that thing perceived in virtue of the *aisthêma* is Coriscos. The sense faculty does not so much perceive the motion produced in the percipient by the sensible, but perceives the sensible object; it is only under special conditions that the *aisthêma* is much noticed, as with

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197 τούτων δὲ ἐκαστὸν ἔστιν, ὃς ἐρήμηται, ὑπόλειμμα τοῦ ἐν τῇ ἐνεργείᾳ αἰσθήματος· καὶ ἀπελθόντος τοῦ ἀληθοῦς ἐνστα, καὶ ἀληθὲς εἰπέν ὅτι τοιοῦτον οἶνον Κορίσκος, ἄλλ᾽ οὗ Κορίσκος. ὅτε δὲ ἤσθάνετο, οὐκ ἔλεγε Κορίσκον τὸ κύριον καὶ τὸ ἐπικρίνον, ἀλλὰ διὰ τοῦτο ἐκεῖνον Κορίσκον τὸν ἀληθινὸν. ὃ δὲ καὶ αἰσθανόμενον λέγει τοῦτο, ἐὰν μὴ παντελὸς κατέχηται ὑπὸ τοῦ ἀματοῦ, ὃς ἀματονόμην τοῦτο κινεῖται ὑπὸ τῶν κινήσεων τῶν ἐν τοῖς αἰσθητηρίοις, καὶ δοκεῖ τὸ ὄμοιον αὐτῷ εἶναι τὸ ἀληθὲς.
afterimages ("motions") in the eyes. But in sleep, when the sense faculty in its application as the discriminating power is held in check and only phantasmata are affecting the heart and the faculty, the phantasma that resembles the perception of Coriscos causes the perceptual part to suppose (δοκεῖ, 461b29) itself to be having a real perception of the true Coriscos rather than a likeness.

Crucially, the sense faculty in sleep is moved by the phantasia motions lingering in peripheral organs (κινεῖται ὑπὸ τῶν κινήσεων τῶν ἐν τοῖς αἰσθητηρίοις, 461b28-29). The sense faculty becomes aware of the phantasma only when the latter moves and affects the former. We are not to suppose that the sense faculty is actually altered, but the phantasmata are moved movers that move the sense faculty with their motion. Motion is from the the mover but takes place in what is moved. So the sense faculty receives the motion of the phantasma such that it becomes aware of the phantasma. The comparison to perception cannot mean standard perception, but clearly the sense faculty is in play and its being moved by a motion of phantasia is the action in virtue of which there is awareness of a phantasma. Awareness of phantasmata is an affection of the sense faculty in two ways. First, the phantasma motions of which the sense faculty can become aware arise due to and resemble its own perceiving activity. Second, awareness of phantasmata is a perceiving of a sort insofar as the awareness occurs through the reception of the motion of the phantasma by the sense faculty.

In De insomniis 459a14-22, the imaginative part (phantastikon) of the soul is said to be the same as the perceptive part (aisthêtikon), though different in being. Subsequent passages show that the sense faculty is that in virtue of which there is awareness of phantasmata. The aisthêtikon is that through which there is awareness of phantasia.
motions. Hence, the aisthētikon is the same in number as the phantastikon. However, the operations are different in being. Phantasia is not discriminatory. It is a motion that presents perception-like appearances of which the sense faculty becomes aware under the right conditions. If there is discrimination of phantasia by the sense faculty, it is a discriminating of phantasia presentations from actual perceptions. It is not my concern here to provide a detailed analysis of the activities of the aisthētikon that can be described as acts of phantasia. It has been enough to show that awareness of phantasmata is a kind of perceiving. This applies to memory phantasmata as well as dream phantasmata.

The passages that I have analyzed in De insomniis fit well with my reading that remembrance is a perception of a sort. In De memoria, Aristotle attributes memory to the primary sense faculty of the soul (450a12-14) on the grounds that memory is not possible without phantasmata. Memory is due to the primary sense faculty in a double sense. First, retention is of phantasmata that are produced by the activity of perception. Second, as De insomniis indicates, awareness of phantasmata is in virtue of the sense faculty. Hence, remembrance that is an engagement with memory phantasmata is an application of the sense faculty. There is textual confirmation that the activity of remembrance is an application of the primary sense faculty. Prior to asserting that the primary sense power is responsible for memory, Aristotle states that the one remembering says (λέγει) in soul that X was perceived or thought before (449b22-4). After asserting that memory is an affection of the primary sense power and attributing memory to certain beasts, Aristotle

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198 450a12-14: Memory, even memory of intelligibles, is not possible without a phantasma, and the phantasma is an affection of the common sense, so that memory would belong to the intellect incidentally, but in its own right, memory belongs to the primary sense faculty. ἡ δὲ μνήμη, καὶ ἡ τῶν νοητῶν, οὐκ ἀνέχει φαντάσματος ἔστιν, <καὶ τὸ φάντασμα τῆς κοινῆς αἰσθήσεως πάθος ἔστιν>· ὡστε τοῦ νοῦ μὲν κατὰ συμβεβηκός ἢν εἶ, καθ’ αὐτὸ δὲ τοῦ πρῶτου αἰσθητικοῦ.
carefully rewords the point about saying things in the soul.

For always when one is active with memory, just as we also said earlier, that one saw this, or heard or learned, one perceives-in-addition (προσαισθάνεται) that it was before: and the before and later are in time.\(^\text{199}\) (450a19-22)

Saying in soul that X was perceived before is replaced by perceiving.\(^\text{200}\) Remembrance occurs when there is both a perception of the phantasma of prior cognition and in addition a perception (προσαισθάνεται) of the temporal context to which what the phantasma represents belongs. Time is a number of before and after with respect to motion and motion is a common sensible grasped by the common sense power; hence, time is discriminated by means of the common sense (450a10-11). The emphasis on perception of phantasmata and perception of temporal aspect indicates that remembering is a function of the sense power. Aristotle employs a verb of perception eight times to describe the soul’s engagement with its memory phantasmata.\(^\text{201}\) Memory, even in humans, is primarily perceptual, not doxic. Aristotle asks, “How will one remember what is not present? For it would be to see and to hear what is absent” (450b18-20.) Remembrance cannot be standard perception of a present sensible, but because remembrance belongs to the sense faculty, it is a perception of a sort.

**Stage two: the sense power assimilates to the activity of its objects.**

This brings me to the second stage of my account. The part of the soul that is aware of the memory phantasma and perceives it as copy is the perceptive part (to aisthētikon). To understand why the soul perceives the memory phantasma as a copy, I

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\(^\text{199}\) ἀεὶ γὰρ ὅταν ἐνέχω ἔτη μνήμης, καθάπερ καὶ πρότερον εἴπομεν, ὅτι ἔδει τούτῳ ἢ ἠκούσεν ἢ ἔμαθε, προσαισθάνεται ὅτι πρότερον· τὸ δὲ πρότερον καὶ ὑστερον ἐν χρόνῳ ἐστίν.

\(^\text{200}\) Cf. saying in soul in De memoria 449b22-23 with talk of the sense faculty saying things in De insomniis 461b22-29.

\(^\text{201}\) See 450a21, 40b14, b15, b16, b18, b19-20, 28 and 30 (by parallel construction with b28).
will make a brief examination of *De anima* ii 5 and iii 2. In *De anima* ii 5, Aristotle distinguishes between sensing in potentiality and sensing in actuality. The sense power has being as a potency to be in actuality in some way. Because there are states where sense perception is not at work (e.g., sleep, or total darkness preventing sight), the sense power cannot be at work in virtue of itself, but requires an external mover to put it to work (*DA* 417a6-14). Aristotle articulates the relation of the sense faculty to its object and mover that is telling for how remembering works. I emphasize the relation sense has to its object rather than the details of how sense perception works.

The sense power is in potentiality what sort the sensible is already in actuality, just as mentioned. Therefore, the power is acted upon when not being like [the sensible], but having been acted upon, the sense power is made like that [sensible] and is what sort that [sensible] is.\(^{202}\) (*DA* ii5, 418a3-6)

The sense power is a potency for becoming such as its sensible object is in actuality. If the sensible is already in actuality as sensible, then it must be being perceived in actuality. So Aristotle emphasizes that the sense power is a potency to be what sort of thing the sensible is when the sensible is actually being perceived. Why sensation is a potency for being what sort the sensible is in actuality requires some explanation. The sensible acts on a non-percipient body such that the non-percipient body becomes perceivable *in potentiality* due to the sensible that affects it. But the sensible acts on the sense power such that the sensible is perceived *in actuality*. For example, green paint applied to a wall causes the wall to be perceivable, but not percipient. The color acts on the wall insofar as the color is perceivable in potentiality (to be colored is not the same as to be sensed). The wall acted on has the potential to be such as the sensible is *qua* sensible only in potentiality, potentially sensed. Whereas non-percipient magnitudes

\(^{202}\) τὸ δ’ αἰσθητικὸν δυνάμει ἐστὶν ὁἷον τὸ αἰσθητόν ἣδη ἐνεμελεῖται, καθάπερ εἴρηται. πάσχει μὲν ὃν ὁὐχ ὃμισθος δ’, πεπονθὸς δ’ ὑμῖοιται καὶ ἐστὶν ὁἷον ἐκεῖνο. (*418a3-6*)

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become perceivable when acted on by sensibles, the sense power becomes percipient, perceiving the sensible feature affecting it. Hence, when the sense power is unaffected by the sensible, the sense is unlike the sensible. Once acted upon, the sense power becomes what sort the sensible is as actually sensible.

Aristotle elaborates in *De anima* iii 2, 425b26-26a5. The actuality of perceiving is one in number and concurrent with the actuality of the sensible object insofar as it is sensible. But the actuality of the perceiving and the sensible perceived differ in aspect as does the activity shared between an agent and a patient. Motion belongs to a mover as agent, but takes place in what is moved as patient. The sense acted on by the sensible serves as the patient that receives the action of the sensible. Aristotle thus emphasizes that the sense is a potency for being assimilated to the activity of the sensible. In perception, sensibles are not assimilated to the activity of the sense; the sense faculty is assimilated to the actuality of the sensible and this is just what it is to perceive. In a similar way, the sense faculty in its operation as imaginative is assimilated to the activity of the *phantasmata* that remain in the soul-body composite when these act, presumably, on the heart (see *De insomn.* 461b11-21).²⁰³

*Stage three: remembrance is an assimilation of the sense power to the activity of the memory phantasma insofar as it is from another.*

Here are the main points so far established. The *phantasma* is the memory object because it is perceived as a presentation of the remembering subject’s past cognition and awareness of *phantasmata* is through the sense power (*to aisthētikon*). The sense power

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²⁰³ Speaking strictly, only living beings have activity. Because the *phantasma* is a cognitive object and a motion, activity may be attributed to *phantasmata* inasmuch as *phantasmata* enter into the activity of cognition.
is a capacity to assimilate to the actuality of the sensible object insofar as it is sensible and the *phantasmata* are perceived in a qualified way. We are ready to appreciate how the sense power relates to the memory *phantasma* in remembering. Here is the crucial passage that details the soul’s engagement with the relevant *phantasma* when remembering.

By itself (ἡ καθ’ αὐτό), the *phantasma* is a thought or a *phantasma*, but as from another (ἡ ἄλλοι), it is a copy (εἰκόν) and a memory (μνημόνευμα). Hence also, when the motion (κίνησις) of the *phantasma* is in actuality (ἐνεργή), if the soul perceives the *phantasma* (αὐτό) in this way (ταύτη) in which the *phantasma* is by itself (ἡ καθ’ αὐτό ἔστι), then the *phantasma* appears to come upon [the soul] as a thought or *phantasma*. But if [the soul perceives the *phantasma* in this way] in which the *phantasma* is from another (ἡ ἄλλοι) and just as in the case of the painting one views as a copy and, when one has not viewed Coriscos, as of Coriscos, then the affection of this viewing and when one views [a painting] as a drawn figure are different, in the so ul, too, the one *phantasma* motion (τὸ μὲν) occurs as a thought (νόημα) only, but the other *phantasma* motion (τὸ δέ), like the painting viewed as copy, because it is a copy, occurs as a memory (μνημόνευμα).²⁰⁴ (450b25-451a2).

Aristotle is explaining the conditions under which there is perception of the memory *phantasma* either as a non-autobiographical presentation or as a presentation of a memory. The *phantasma* that enters into memory is one in number, but two in being, as the one figure drawn on a board is both a figure and a copy. Because the memory *phantasma* is a copy of a past perception, it can serve as a figure that depicts something to which there is no personal connection or it can serve as a memory (μνημόνευμα).

Attribution of motion to the *phantasma* reminds us that it is a presentation of *phantasia*.

Aristotle says, “When (ὅταν, 450 b27) the motion of the *phantasma* is in actuality…” The “when” indicates that the *phantasma* motion is not continuously in actuality such that the soul perceives the *phantasma*. This implication that the motion of the memory *phantasma* is not continuously in actuality fits nicely with *De insomniis*, as does the

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²⁰⁴ ἡ μὲν οὖν καθ’ αὐτό, θεώρημα ἢ φάντασμα ἔστιν, ἡ δ’ ἄλλου, οὐδεὶς εἰκόν καὶ μνημόνευμα. ὡστε καὶ ὅταν ἐνεργῆ ἢ κίνησις αὐτοῦ, οὐ μὲν ἡ καθ’ αὐτό ἔστι, ταύτη αἰσθάνεται ἢ φαντασία αὐτοῦ, οὐδὲ ἑνώμα τι ἡ φάντασμα φαίνεται ἐπεξεργαζόμεν· ἄν δ’ ἡ ἄλλου καὶ ὅσπερ ἐν τῇ γραφῇ ὡς εἰκόνα θεωρεῖ καὶ, μὴ ἐκεῖνος τὸν Κορίσκον, ὡς Κορίσκου, ἐνταῦθα τῇ ἄλλῳ τῷ πάθος τῆς θεωρίας ταὐτῆς καὶ ὅταν ὡς ζῶν γεγραμμένον θεωρή, ἐν τῇ γραφῇ τὸ μὲν γίγνεται ὅσπερ νόημα μόνον, τὸ δ’ ὡς ἐκεῖ ὃτι εἰκόν, μνημόνευμα.
suggestion that the soul perceives the phantasma when this is actualized. Phantasia is not always affecting us, such as in deep sleep or alert perception that blocks it out, and so we do not say of phantasmata that they are always affecting or moving the soul.

Retained memory phantasmata lie dormant until activated due to some associated motion, either a sense perception or a passion in relation to something similar to what the dormant phantasia motion represents, or by other associated phantasai already activated (see DM 451b10-22).

We should see that phantasmata are moved movers. Phantasmata set up by prior sense perception are in potentiality to affect the soul with the sort of motion they possess. When the phantasma is in motion according to actuality and moves the soul under the right conditions, the soul perceives the phantasma. The soul is moved by the phantasma such that the soul perceives the phantasma. Because being moved results in perception, surely it is the sense faculty that is in play in its application as imaginative (phantastikon) (see De insomn. 461b21-29). In De anima i 4, 408b13-18, Aristotle remarks that because the soul is not a motion (some motions proceed from the soul while others terminate at the soul), it is better to conceive of the soul as the principle in virtue of which the ensouled being engages in various motions and activities. Strictly speaking, the animal or the human perceives in virtue of the soul; it is not the soul that perceives. Talk of the soul perceiving indicates that the perception in question is not of a standard sort (I examine more precisely what this non-standard perception entails below). When remembering, the sense faculty is not raised to actuality by one of the external sensibles for which a sense serves as a discriminating mean. Rather, the primary sense faculty (and the heart) alone is affected by an internal phantasma. The condition of the soul
remembering according to actuality is that it is acted on by an internal phantasma. If this is right, remembering looks passive to a certain extent: one remembers when the soul (the aisthētikon) is moved by a phantasma actualized with the relevant motion. This passivity is decisive for solving the impasse concerning why perception of something present that functions as copy of past cognition should be perceived as a presentation of one’s past cognition, rather than merely as some present object of phantasia. Because remembrance is a kind of perception, what happens is that the soul takes on the kind of activity that the phantasma happens to possess when the phantasma acts on the soul. The soul perceives the present memory phantasma to be a memory because the aisthētikon is acted on by the phantasma in accordance with the kind of actuality that the phantasma possesses—and the memory phantasma is in actuality a copy. I will now explore what it means for the aisthētikon to become such as the memory phantasma is in actuality.

The importance of the present general conditions in the passage has been under appreciated. Aristotle emphasizes that the actuality of the motion is of two sorts: actualized either as something by itself (ἦ καθ’ αὐτό, 450b28) or as a copy derived from past cognition (ἦ ἄλλου, 450b30). Depending on the manner (ταύτῃ, 450b28) of the motion according to which the phantasma is perceived by the soul, the phantasma will appear either as a mere thought (or a mere phantasma) or as a memory.

When the motion (κίνησις) of the phantasma is in actuality (ἐνεργῇ), if the soul perceives the phantasma in this manner (ταύτῃ) as it is by itself (ἦ καθ’ αὐτό ἐστι), the phantasma appears to come on the soul as a thought (νόημα) or phantasma.206 (450b27-29)

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205 This is not to say that phantasmata are never actualized due to choice or wish in humans. Humans can choose to remember, but often do remember from choice. Probably beasts are always caused to remember by something due to association. My present point is that the sense faculty is raised to actuality by the phantasma that affects it; the sense faculty does not in virtue of itself enter into remembrance.

206 ὡστε καὶ ὅταν ἐνεργῇ ἡ κίνησις αὐτοῦ, ἢ μὲν ἦ καθ’ αὐτό ἐστι, ταύτῃ αἰσθάνεται ἡ ψυχή αὐτοῦ, οἷον νόημα τι ἢ φάντασμα φαίνεται ἐπεξεργάζεται.
The *phantasia* motion may be in actuality such that the *phantasma* presented is something by itself rather than something derived from another. The “if” (*ἀν*, 450b28) indicates that the *phantasia* motion can be in actuality and yet not be perceived. Hence, *phantasia* motion according to actuality need not mean that the *phantasia* motion is affecting the *aisthētikon*. The strength of other cognition may obscure the *phantasia* motion or the *phantasia* motion may not yet have moved the perceptual part of the soul (perhaps the motion is in the blood, but has not yet been carried to the heart; see *De insomn.* 460b28-61a8). Of crucial importance is the assertion that the manner in which the *phantasia* motion is actualized determines how the *phantasma* is perceived. Aristotle employs a standard present general condition: *ἀν* + the subjunctive (*αἰσθάνηται*) in the *protasis*, followed by a present indicative (*φαίνεται*) in the *apodosis.* Some read the passage so that it could indicate an arbitrary perception on the part of the soul: when the motion of the *phantasma* is actualized, if the soul perceives the *phantasma* as by itself, then a thought or *phantasma* appears to come upon it. If read this way, no explanation is given for why the soul should perceive the *phantasma* as by itself and as a mere *phantasma* rather than as a memory. Aristotle neither suggests that the way in which the soul perceives the *phantasia* motion is arbitrary nor fails to provide an account for why the soul perceives the *phantasma* as by itself or as from another. Rather, Aristotle suggests that the perception of the *phantasma* as a thought or mere *phantasma* is due to the kind or manner of motion the *phantasma* happens to have. Two considerations suggest that how the *phantasma* is perceived is due to the motion with which the

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207 Because *ἀν* is not used with present indicatives (Smyth §1794), the *protasis* cannot be *ἀν + ἐστι*. Could *ἀν* take a present indicative, then we would have a present general with two *apodoses*: if the *phantasma* is active by itself, then the soul perceives it this way, [and then] a thought or *phantasma* appears to come upon it.
phantasma happens to be actualized: 1) syntax and grammar and 2) the passage fails to supply a solution to the impasse the passage is meant to solve if the motion of the phantasma does not determine the perception of the soul.

First, the syntax suggest the motion determines how the phantasma is perceived. The phrase “if it [the phantasma] is as by itself” (ἄν μὲν ἢ καθ᾽ αὐτὸ ἐστι) in the protasis immediately follows the phrase “when the motion of the phantasma is in actuality” (ὅταν ἐνεργῇ ἡ κίνησις αὐτοῦ) that directly precedes the protasis. A more literal rendering of the word order gives: when the motion of the phantasma is in actuality, if as it is by itself (ἡ καθ᾽ αὐτὸ ἐστι) in this way (ταύτῃ) the soul perceives it, the phantasma appears to come upon the soul as a thought or phantasma. “As” (ἂν) in “as it is by itself” (ἂν καθ᾽ αὐτὸ ἐστι) and “in this way” (ταύτῃ) are both adverbial forms indicating manner. “As it is by itself” refers to one of the two manners of being of the memory phantasma previously posited (namely, as by itself or as from another; see 450b24-27). The “being something by itself” or the “being derived from another” is said to be a manner of the motion of the phantasma when (ὅταν, 450b27) this motion is in actuality. “In this way” (ταύτῃ) refers to the manner of the phantasma just described (i.e., as by itself, ἡ καθ᾽ αὐτὸ ἐστι) so that ταύτῃ does not refer to the manner of the perception, but to the manner and way in which the phantasma is actualized. Hence, the sense is not that the phantasma appears to the soul as a thought or phantasma if the soul perceives the phantasma as it is by itself. The aisthētikon is a power in virtue of which there is discrimination among different perceptible objects. That discriminating power may be applied to different sorts of internal motions as well as external (i.e., the actuality of sensibles). The distinction between by itself and from another is between non-memory
phantasia and memory phantasia, but these also differ from the activity of sense perception. When acted on by phantasia motion active as by itself or as from another, the aisthétikon discriminates either of these as other than perception, but also as different from each other due to the sort of actuality the phantasia motion happens to possess. The soul perceives the phantasma as by itself under the condition that the motion of the phantasma is actualized in just this way.

We may now consider how things stand if the proper function of ταύτη is missed. Despite the fact that ταύτη appears in all of the manuscripts, many recent interpreters and translators render 450b28-29 as though ταύτη were not present. Such omission is fatal for the account because the omission leaves the reader with the impression that all Aristotle says is that the phantasma appears before the soul as a thought or phantasma if the soul perceives the phantasma as something by itself. On this reading, Aristotle does not give a reason for why the soul should perceive the phantasma as something by itself so that the phantasma appears as a thought or mere phantasma. And because the crucial phrasing in 450b28-30 is clearly meant to be inserted into “But if from another” (ἂν δ’ ἕλλου) in 450b29-30, the initial failure to appreciate the role of ταύτη compounds the error: the soul remembers if it perceives the memory phantasma as from another.

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208 It is not that the aisthétikon in its application as the perceiver of phantasia discriminates among objects of phantasia, but that the aisthétikon discriminates the activity of imagination from remembrance and both of these from sense perception.
209 The grammar is difficult and very nearly anacoluthic. See Richard Sorabji (2004) 51 and the commentary to which his failure to realize the importance of ταύτη leads on page 10. David Bloch (2006) 33 gets into similar trouble. Joe Sachs (2001) 171 better captures the sense: “And so, whenever the motion is at work that belongs to it [the phantasma] insofar as it is something in its own right, if the soul perceives it by this motion, a certain sort of thought or image seems to come before it.” Sachs (without comment) appears to transpose ἄν (“if”) from its position in front of μὲν ἧ καθ’ αὐτό ἔστι (insofar as it is something in its own right) to after. Sachs differs from me by taking ταύτη as an instrumental dative feminine pronoun that references motion (κίνησις, 450b27).
210 Hence also, when the motion (κίνησις) of the phantasma is active (ἐνεργῇ), if the soul perceives the phantasma (αὐτῷ) in this way (ταύτη) in which the phantasma is by itself (ἡ καθ’ αὐτό ἔστι), then…
But why should the soul perceive a phantasma as from another rather than as something by itself? If Aristotle’s explanation is only that the soul remembers under the condition that it perceives its phantasma as from another, then Aristotle fails to provide a solution to his impasse, a solution which the passage under discussion is supposed to supply. What is supposed to be explained is not that the one who remembers can perceive a phantasma as something derived from another, but on account of what (449b4) the perception of a present phantasma amounts to a perception of one’s past. On my reading, Aristotle has at least the beginning of such an explanation, for I have him saying that the soul perceives the phantasma (αἰσθάνεται ἡ ψυχὴ αὐτοῦ) according to the manner in which the motion is actualized. The sense of the passage is that if the soul perceives the phantasma motion in the way in which it is actualized as by itself, then under this condition, the phantasia motion appears to come upon the soul as a mere thought or phantasma, and not as a memory. When the phrasing concerning the manner of actuality that belongs to the phantasma is transposed to ἂν δ’ ἂλλου in 450b29-30, we then understand that if the motion of the phantasma is actualized as from another and the soul is affected by this motion, then under this condition the soul perceives the phantasma as a memory. Only with this reading does Aristotle actually begin to provide a solution to the impasse.

After establishing that the phantasmata that provokes remembering is perceived in accordance with the sort of actuality it happens to possess at the time when it is perceived, Aristotle moves to discuss the conditions under which there is perception of the memory phantasma as a memory. The explanation again takes the form of a present general condition, but it is complicated by the insertion of a complex comparison to
viewing a painting as a representation of a generic figure and viewing it as portrait or copy of someone.

But if as from another (ἂν δὲ ἄλλου) and just as one looks into a painting as a copy and, when one has not been viewing (μὴ ἔσωξεν) Coriscos, as of Coriscos, then the affection (τὸ πάθος) of this viewing and when one views [it] as a painted figure are different, also in the soul the one case occurs as a thought only (νόημα μόνον), but the other case, like that other, because it is a copy (εἰκόν), occurs as a memory (μνημόνευμα). (450b29-51a1)

As before, Aristotle draws an analogy, on the one hand, between perceiving a phantasma as a copy derived from some actual particular thing and perceiving a phantasma as something by itself and, on the other hand, between viewing a figure in a painting as a copy of an actual, particular person (Coriscos) and viewing a figure merely as painted figure of some man. In the example, a single thing, a painting (γραφή, 450b30), may be viewed either as a copy of a particular man, Coriscos (ὡς εἰκόνα θεωρεῖ καὶ ὡς Κορίσκου, 450b30-31), or as a painted figure (ζῷον γεγραμμένον, 450b32). The painting is a nexus of lines and colors that represent something. In Aristotle’s example, a particular painting may be viewed as a representation that is a copy of Coriscos or as merely a painted male figure. Previously (450b24-29), Aristotle referenced (1) the motion of the phantasma, (2) the phantasma as by itself, and (3) the phantasma as derived from another. Now (450b29-31) he mentions three things in an example meant to illustrate the perception of the phantasma as derived from another: (1) a painting (γραφή), (2) a copy (εἰκόν) and (3) a painted figure (ζῷον γεγραμμένον). The painting observed in actuality corresponds to the actualized phantasia motion that presents a phantasma to the soul, whereas the viewing of the painting as either (i) a painted figure or (ii) a copy corresponds to the soul perceiving the phantasma as (i) a thought and mere phantasma or as (ii) a memory, respectively. Because both copy and painted figure are viewed as a representation of a male figure, the difference must lie in the viewer’s
relation to the male figure depicted (the viewer looks upon what is depicted as a male figure whether this is viewed as a copy or a painted figure). The copy is not viewed as of some (any) particular man, but as of a certain, particular named man, Coriscos.

Aristotle could have the copy be of some particular man (τινος ἄνδρος) and contrast this with a painting viewed as a generic token representation of the male figure (e.g., the Vitruvian Man). The difference in this latter case is between viewing a painting as a portrait of an actually (or once actually) existing person with whom we have no acquaintance and viewing a painting as a representation of a generic token of the male form. However, because the distinction between viewing a painting (1) as a copy or (2) merely as a painted figure is supposed to illustrate the distinction between (1) perceiving a phantasma as a memory of past cognition and (2) perceiving a phantasma as a thought or mere phantasma, Aristotle gives as an example the viewing of a painting that depicts a man whose name is known to the viewer (or to the readers to whom De memoria would have been distributed). The viewer not only looks upon the painting as a copy (ὡς εἰκόνα θεωρεῖ) and portrait, but looks upon the painting also as of Coriscos in particular (ὡς Κορίσκου), not merely of some particular man (τινος ἄνδρος). The implication is that the viewer has previously seen or been acquainted with Coriscos. It is only because the painting matches up with the viewer’s memory of previous dealings with Coriscos that the viewer will view the painting as indeed a copy of the Coriscos. If Aristotle only intends the painting to be something one views as a copy of some unknown man, he makes this point difficult to grasp by supplying a name. Were the point that one views the painting as copy of some actual but unknown man, there would be no reason to
mention the man’s name, which would be unknown to the viewer in any case. Further, if the viewer has no personal connection to what the painting depicts, the case, which is supposed to illustrate how one relates to one’s memory, is less like remembering than is the case where one has previous dealings with what the painting depicts. If I am right that the viewer in Aristotle’s example is meant to be understood as having seen Coriscos before, then “has not seen Coriscos” (μὴ ἐωρακώς τὸν Κορίσκον) means that the viewer has not been seeing Coriscos for some time. If there is no personal connection to what the painting depicts, then the viewer will look upon the painting not as of Coriscos, but as merely a painted figure, presumably of some man to whom there is no personal connection.

Now, in what sense is the viewing of the portrait as a copy of Coriscos like viewing a memory phantasma as a copy (eikôn) and a memory (mnêmoneuma)? Richard Sorabji is no doubt led to translate mnêmoneuma as “reminder” because of the comparison of the memory phantasma to the painting that functions as a likeness of Coriscos. Certainly the painting that is a copy of Coriscos will serve as a reminder of

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211 W. D. Ross (1955) 239 says of Coriscos that he was a member of the Academy with whom Aristotle associated while in Assos. Based on Aristotle’s mention of Coriscos in the Lyceum in Physics 219b20-21, Ross conjectures that Coriscos had become a member of Aristotle’s school. Assuming De memoria was discussed among the Peripatetics, Coriscos would have been known to those reading and discussing the present passage.

212 Jack M. Greenstein (1997) 16 rightly argues that no prior knowledge of Coriscos is needed to view the painting of him as a copy on the grounds that a viewer may look upon a portrait as a copy of the person it depicts without ever having come into prior contact with the depicted. Hence, Greenstein urges that we read μὴ ἐωρακώς τὸν Κορίσκον as “never seen Coriscos” rather than “has not been seeing Coriscos.” However, if the viewer has never seen Coriscos, the viewer cannot view the painting depicting Coriscos as a copy of the Coriscos. The viewer could view the painting as a likeness of some man, but not of the Coriscos. Hence, the viewer cannot view the painting as a copy and as of Coriscos if the viewer has never seen or has no previous acquaintance with Coriscos. The viewer who has never seen Coriscos before can look upon a painting as a copy of some particular man, but not as a copy of the particular man called Coriscos. But the phrase ὡς εἰκόνα θεωρεῖ καί…ὁς Κορίσκου indicates that the viewer not only looks upon the painting as a copy, but as a copy of Coriscos specifically.

previous dealings with Coriscos for the viewer who has had previous dealings. But I think Sorabji may be drawing the wrong lesson from the analogy. In the example of viewing the painting, Aristotle’s focus is on viewing the painting either as a copy of Coriscos or merely as a painted figure. In order for the viewer to view the painting as being a copy of the Coriscos, the painting must match up with the viewer’s personal acquaintance with Coriscos. And because Aristotle has said that the viewer has not now been viewing Coriscos, there is only one standard from which the painting can be viewed as being a copy: the viewer’s own memory of previous dealings with Coriscos. The painting reminds the viewer of the previous dealings because the viewing of the painting is a “motion” similar to the phantasai of previous dealings with Coriscos: viewing the painting triggers memory of dealing with Coriscos. But the viewing of the painting of Coriscos (when he is not present for comparison with the painting) as a copy derived from Coriscos depends on recognizing that painting that has triggered a memory of Coriscos is a likeness to the Coriscos that our memories present to us.

What (1) viewing a painting as a copy and (2) perceiving a phantasma as a copy and memory have in common is not that both are reminders or triggers for entering into remembrance, but that both involve the awareness of a prior personal acquaintance with what each represents. As the painting is taken to be a copy of the absent Coriscos because we have had prior dealings with Coriscos to which the painting matches up, so the memory phantasma is perceived to be a presentation of our prior cognitive engagement with X: when remembering, one says in soul that one cognized X previously. If there is no personal connection to what the phantasia motion presents, then just as a painting depicting a figure with which the viewer has no prior acquaintance is perceived
as a representation of some unknown person or a generic token, so will a phantasia motion be perceived as a presentation of a mere phantasma or thought. Why the one who remembers perceives the phantasma to be a memory of previous cognition is because the remembering subject perceives a past, personal connection to what the phantasma presents.

That personal connection brings us to the heart of the matter: what causes the soul to perceive a personal connection to what the memory phantasma presents? Talk of perception suggests that the perceptual faculty of the soul is in play. Perception works by assimilation to its object and Aristotle has the soul perceiving the memory phantasma in accordance with the sort of motion with which the phantasma is actualized, either as something by itself or as something derived from another and as a copy. Motion talk is useful for Aristotle because remembering surely involves a change in the animal, although it is not a standard alteration or destruction as phantasia is a motion, but only of a sort (see DA 428b11): there is a transition from remembering in potentiality to remembering in actuality, or from fantasizing in potentiality to fantasizing in actuality. The soul does not become other than itself in some way, but instead (as aisthêtikon) realizes a capacity to assimilate to the activity of a phantasia motion present in the soul-body composite. There is here an implicit genus-differentia definition for remembrance. The genus is phantasma affecting the soul in actuality. Were the phantasma moving the soul in potentiality, nothing would occur. The motion is actual and producing perception of a sort, so the phantasma is a moving cause. The soul can be moved either to fantasy or to remember. Because one and the same phantasia motion can move the soul to fantasy or to remember, the phantasia motion must be derived from and possess the power to
serve as a copy of a previous cognition. A *phantasia* motion that presents a purple fire-breathing elephant that rides a unicycle while chewing gum in Topeka, Kansas is not derived from any actual, previous instance of cognition (although the constituent components may be). The *phantasia* motion that pertains to memory is capable of serving as a memory object and so it must be derived from and capable of serving as a copy of an actual, previous instance of cognition. When in motion as a copy of a past cognition, the *phantasma* moves the soul to remember. When in motion as something by itself, it moves the soul merely to fantasy.

We still require an account that explains how the activity of the *phantasia* motion that presents a *phantasma* as by itself differs from the *phantasia* motion that presents a *phantasma* as a memory. I will argue that the difference is the presence of a motion of time together with the motion of the *phantasma*. I have argued that the one who remembers perceives a personal connection to what the *phantasma* presents. The memorable object is the remembering subject’s past cognition and the one remembering “says in soul that previously (πρότερον) one heard or perceived or considered this” (449b22-23). The perception of a personal connection (“that one did X”) already contains a perception of past aspect. Setting aside cases of remembrance that may occur in sleep, wakeful remembrance occurs alongside sense perception and (in humans) thinking. The *phantasma* one perceives in remembrance is not a presentation of what the remembering subject currently perceives or thinks or has yet to think. Hence, the personal connection must be in relation to content possessing past aspect: “For always whenever one is in actuality with memory, just as we said, that one saw or heard or learned this, one perceives-in-addition that [it was] earlier (πρότερον)” (450a19-21). The
case of viewing the painting as a copy of Coriscos is analogous to remembering precisely because the viewing of the painting as a copy involves the perception of a past, personal connection to what the painting depicts: because one has a past, personal connection with what is depicted, one views the painting as a copy of the Coriscos one has dealt with previously. Although Aristotle does not mention time explicitly when speaking of the two sorts of *phantasma* motions and the viewing of the painting, the viewer’s implied past personal connection to what the copy depicts already includes a temporal dimension. When remembering, one perceives oneself to be remembering precisely because one perceives a past, personal connection to what is presented in the memory. The autobiographical connection distinguishes remembering from other sorts of *phantasia*. Just as a viewer who has no past, personal connection to the absent Coriscos does not view the painting of Coriscos as a copy of the Coriscos, so the perceiver of *phantasia* motion actualized as something by itself perceives the resulting *phantasma* as something to which the perceiver has no autobiographical connection. The reason why is that the *phantasia* motion actualized as something by itself has no past aspect attached to it. Without past aspect attached, the *phantasia* motion cannot present a *phantasma* as derived from prior cognition. The sort of motion with which the *phantasma* is actualized when it is serves as a memory must somehow include past aspect.

Aristotle needs to explain the conditions under which a present *phantasma* will be perceived as a representation of something past if the commitment to indirect realism in the case of memory is to be maintained. If the motion with which the memory *phantasma* is actualized when it is perceived as a memory includes past aspect and the soul is moved with this motion, then this would help explain why a presently appearing
phantasma should be perceived as representing something past. In a later passage, Aristotle indicates that a motion concerning time is included in the act of remembering.

Therefore, whenever the motion [the phantasma] regarding the deed (πράγματος) and the motion regarding the time arise together, then one is in actuality with memory (τῇ μνήμῃ ἐνεργεῖ). But if one supposes [so] without doing it, one supposes one remembers (μνημονεύειν). For nothing prevents one from being mistaken somehow and seeming to remember while not remembering (μνημονεύειν μὴ μνημονεύοντα). But not to suppose [so] while being active with memory (ἐνεργοῦντα τῇ μνήμῃ), but rather to fail to notice when being put in mind (μεμνημένον) is not possible: for recall (μεμνήσθαι) is this very thing. But if the motion of the deed arises separately (χωρίς) from the motion of the time, or the latter separately from the former, then one does not recall. 214 (452b23-29)

The passage is important for several reasons. Not only is there mention of a motion belonging to time that enters into remembering, but also an explanation of how there can be mistaken memory, for which any theory of memory must provide an account. The positing of a motion connected to time allows Aristotle to explain two birds with one stone: (1) how a present phantasma can serve as a representation of the past and (2) how mistaken memory arises. The condition for genuine remembrance is that the motion of the deed (πράγμα) arises together (ἅμα) with a motion of the time (κίνησις τοῦ χρόνου).

The motion of the deed is the phantasma. The motion of the time may be a precise measure of the temporal distance from the present or it may be unmeasured and imprecise (see 452b29-53a2). Together (ἅμα) is at least in terms of time, but remembrance requires that the motion of the time and the motion of the phantasma coincide and jointly affect the soul. When one of the two motions occurs separately (χωρίς) from the other, there is no remembrance. I take this to be strong evidence that the motion of the phantasma perceived as a copy is together with a motion that indicates past aspect. For the phantasia motion to be actualized as a copy means for the motion to be in actuality

214 ὅταν οὖν ἄμα ἢ τε τοῦ πράγματος γίνηται κίνησις καὶ ἢ τοῦ χρόνου, τότε τῇ μνήμῃ ἐνεργεῖ. ἂν δὲ οὐθαὶ μὴ ποιῶν, οἰσεί τοῦ μνημονεύειν· οὔθεν γὰρ κἂν διαφεύγῃ, τὸν καὶ δοκεῖ τοῦ μνημονεύειν μὴ μνημονοῦσαν, ἐνεργοῦντα δὲ τῇ μνήμῃ μὴ οἰσθαί ἄλλα λανθάνειν μεμνημένοιν οὐκ ἔστιν· τοῦτο γὰρ ἢν αὐτὸ τὸ μεμνήσθαι, ἄλλῳ ἑάν ἢ τοιοῦ πράγματος γένναις χωρίς τῆς τοῦ χρόνου ἢ αὕτη ἐκεῖνης, οὐ μέμνηται.
together with a motion indicating past aspect.

Aristotle compares the discrimination of temporal locations to the estimation of relative distance among objects closer and further from the viewer (452b7-22). The viewer’s location is analogous to the present moment and objects closer to and further from the viewer are analogous to events closer to and further past from the present moment. I have not arrived at a satisfactory working hypothesis of how exactly Aristotle supposes time estimation works, but some basic features are discernible.\footnote{For a thorough analysis of the motion concerning the time and its connection to the memory phantasma see chapter nine ("Time and the common perceptibles") in Tony Roark (2011) \textit{Aristotle on Time: a Study of the Physics}.} Aristotle suggests that \textit{phantasmata} produced during perception are proportional to the matters perceived from which the \textit{phantasmata} are derived. The primary sense faculty judges the relative distance among objects perceived by means of the \textit{phantasmata} that preserve the proportions of the things perceived (νοεῖ γὰρ τὰ μεγάλα…καὶ πόρρω ἀλλὰ τῇ ἀνάλογον κινήσει, 452b9-12). That which discriminates time is the same part of the soul that discriminates magnitude, the primary sense faculty (452b7-9; cf. 450a9-12). Temporal distances from past to present motions perceived or between various past events perceived are likened to extended magnitudes. Just as perception of magnitudes sets up perceptual \textit{phantasmata} that preserve the relative proportions of the magnitudes perceived, so are there motions of time (temporal \textit{phantasmata}) set up from the perception of the passage of time that are proportionate to the passage of time relative to motions perceived. Time is the recognition (measure) of the before and after connected to motion that belongs to cognition or to perceivable magnitudes in motion. Probably we are to see that retention of \textit{phantasia} set up from the perception of the passage of time in
connection with things perceived serves as a token that represents the temporal distance ("magnitude") between things perceived. The motions of time ("time phantasmata") are proportionate to the temporal distance between things that have been perceived. As the sense faculty judges how big or far off one magnitude is relative to other magnitudes, so the sense faculty discriminates temporal distance in time by means time phantasmata proportionate to the actual passage of time. The proportionality of the temporal phantasia would explain why there can be a sense of the temporal distance an event perceived has from the present that does not require reliving everything that has happened from the perceived event up until the present moment. As perceptual phantasmata serve as proportionate tokens of the distance among the perceptual objects perceived relative to the perceiver, so temporal phantasmata in the animal serve as proportionate tokens of the temporal distance for the matters of concern relative to present moment inhabited by the animal.

The motion of the time (κίνησις τοῦ χρόνου, 452b23-24, 29) is a phantasia that represents passage of time. The motion could refer to the duration of the deed that the memory phantasma represents or to the temporal distance of the deed to the present moment or relative to other memories. Because the memory phantasma is derived from the past deed (cognitive activity), it may preserve the duration of the deed proportionally (we do not have to relive the event remembered in its entirety to have some sense of how long it lasted). Probably the motion of the time refers to a token that presents some proportional distance into the past from the present. If trying to recollect the precise time of an event, time motions that preserve the temporal location will be needed that have a high degree of precision. To remember, all that is needed is a sense that what the
memory *phantasma* presents belongs to the past. We should not expect the beasts to remember with much precision; probably the beasts perceive that the memory presents something prior to the present moment without much sense of when this was. Perception (awareness) of past aspect arises in what a *phantasma* represents whenever a motion proportionate to some temporal distance from the now jointly moves the sense faculty. The time token can be a precise proportion of the time elapsed, e.g., the event happened three days ago. In such a case the time token precisely preserves the proportion of time elapsed relative to other things that have happened prior to the event and after. In this way, the one remembering or recollecting picks out when something happened not only relative to the present moment, but relative to other things that happened in the past. On the other hand, there may be only a sense that what the memory presents happened some time ago if the time token does not well preserve the proportions of distance among things. The memory is sensed as past but its location relative to other things in the past is poorly preserved. If unable to situate a memory temporally in relation to other memories, there will be only a sense that it happened previously as opposed to when it happened previously.

Does Aristotle have an answer to the question of why the propionate motion of time should be co-actualized along with the motion of the deed? Time is a measure of motion and the memory *phantasma* is a representation of past cognition that was itself a motion of a sort. Hence, the original cognition (motion) occasioned a past awareness of the passage of time for the one who had the cognition. Perhaps we are to see that the actualization of the memory *phantasma* moves the temporal *phantasia* (or *vice versa*?) that was set up by and represents the sense of time associated with the original cognition.
This is a central question for further research.

The presence of a time motion indicates that remembering is a special case of the convergence of *phantasia* and perception of time. Insofar as remembering involves the occurrence of *phantasmata* derived from sense perception, remembrance is presentative and non-discriminating. The primary sense faculty is merely moved to perceive a presentation of sense-like (or cognition-like) activity. Yet insofar as remembrance distinguishes past temporal aspect (that is attached to what the memory *phantasma* represents) from the present time in which the act of remembering and concurrent perceptions occur, remembrance is discriminating. Further (at least in a wakeful and healthy state), the sense faculty discriminates between the perceptions concurrent with the remembering and the act of remembering itself; perception concerns what is present whereas memory concerns what has past aspect. Because memory contents have past aspect, they cannot belong to any current perception, but must be copies of perception instead. The discrimination of past from present time and of memory from perception gives rise to self-awareness that one is remembering.

Aristotle says, “For always whenever one is in actuality with memory, just as we said, that one saw or heard or learned this, one perceives-in-addition that [it was] earlier (προσαισθάνεται ὅτι πρότερον)” (450a19-21). We have now seen Aristotle’s answer to the question of how the additional sense of past time enters into remembrance. A motion that serves as a proportional token of the amount of time elapsed since the event that the memory *phantasma* presents combines with the motion of the memory *phantasma*. I have also emphasized the personal connection to the memory remembered. The remembering subject recognizes that such and such was cognized previously by the
remembering subject. Not only is the content presented in memory a copy of previous
cognition, but the content is perceived to be the remembering subject’s very own (and
thus perceived to be a copy). A little more needs to be said about this personal
connection and how it arises.

Surely the attachment of past aspect is one reason for perceiving a personal
connection to what memories present. The past aspect attached to memories
distinguishes remembrance from sense perception and supposition, but also from modes
of phantasia such as day dreaming and constructive imagination. The one who engages
in constructive imagination does not consider the fantasized object to be real or actually
to have occurred before. It is possible to imagine that something occurred before, but in
this case, it is the subject who imposes the temporal frame, which, for lack of better
language, always has a counterfactual halo hovering around it. In remembrance, the
memory contents are perceived as having past aspect, but the past aspect is not perceived
as having been imposed on the memory by the remembering subject. The awareness of
past aspect that enters into memory is something that happens to the one who remembers
as an affection; the awareness is something that the remembering subject undergoes as a
patient rather than something the subject imposes as an agent. Having time sense in
memory be due to a motion of time by which the remembering subject is moved fits with
the experience of remembering where the sense of time is not something actively
imposed, but passively felt. Setting aside cases of illusion induced by disease, physical
or mental, fatigue, or extreme passion (one may suppose the bush is a man in wait if in a
state of fright or panic), phantasia of the constructive sort involves the awareness that the
fantasizing subject has a role in causing the contents fantasized. The experience of
remembering, as well as false remembrance, is passive in ways that fantasy is not. One may choose to initiate an act of remembrance, but once initiated, the contents remembered exhibit a resistance and fixity that the contents of fantasy do not.

For instance, I can imagine a purple fire-breathing elephant that rides a unicycle while chewing gum in Topeka, Kansas. I can make the elephant smaller or bigger, make it peddle the unicycle faster or slower. But this feels directed by myself and, because directed, it does not feel like something I have actually experienced. (Is past aspect ever attached to the fantastical among those considered sane?) But if I remember the elephant I saw at the zoo a month ago, there is only so much I can play with the memory contents before it ceases to feel like a memory. My memory tells me that the bull elephant was facing me, chewing grass. If I turn the elephant around, it no longer feels as much like a memory because viewing the back of the bull does not feel like something I perceived formerly. Only when the bull is facing me does the presentation feel like something with past aspect. Too much liberty with the deed portrayed in memory destroys the sense of past aspect, destroys the sense that one is remembering something one actually did. In contrast, there is no amount of liberty that destroys the sense that one is fantasizing. On the contrary, the more liberty taken, the stronger is the awareness that one is fantasizing. Hence, there seems to be an intimate connection between perceiving a personal connection to memories and perceiving memories to present something that has past aspect. Once the personal connection is severed, so is the sense of past aspect.

Due to the intimate connection between the sense of past aspect and the perceived personal connection to memories, it is tempting to propose that one of the two, the sense of past aspect or the perceived personal connection, gives rise to the other. But probably
the sense of past aspect and personal connection can each give rise to the other in different circumstances. Aristotle’s comments on mistaken memory look to confirm this.

Aristotle twice speaks of being mistaken that one remembers.

The opposite also occurs; for example, it happened to Antipheron of Oreus and others who were out of their minds (ἐξισταμένοις): for they were speaking of their phantasmata as things that occurred and as though they were remembering [their phantasmata]. This happens whenever one beholds what is not a copy as though it is a copy.216 (451a8-12)

Those who are out of their minds may treat their phantasmata as though they present things that actually happened and take themselves to be remembering when they contemplate these phantasmata. Being out of mind suggests that the phantasmata are fantastical or the products of delusion, but certainly Aristotle was aware that those of sound mind have false memories (see 452b25-26). Those out of their minds speak of their phantasmata as having occurred, so they attach past aspect to them, see a personal connection to them, and speak of them as memories. Wrongly speaking of phantasmata representations as having occurred is dependent on falsely remembering what they represent. The condition under which one speaks (i.e., believes) that a phantasma represents what actually happened is that one supposes oneself truly to remember what the phantasma presents. Aristotle gives what looks to be the condition under which the mistakes mentioned should occur. The mistake (‘this’, τοῦτο) happens when (τοῦτο δὲ γίγνεται ὅταν, 451a11) the unstable perceive phantasmata to be copies of prior cognition that are not copies. ‘This’ (τοῦτο) is ambiguous because two intimately related mistakes are mentioned: (1) wrongfully supposing of the phantasma that it represents something that actually occurred (τὰ γὰρ φαντάσματα ἔλεγον ὡς γενόμενα, 451a10-11) and (2)

216 γίγνεται δὲ καὶ τοῦναντίον, οἷον συνέβη Ἀντιφέροντι τῷ Ὀμείτῃ καὶ ἄλλοις ἐξισταμένοις: τὰ γὰρ φαντάσματα ἔλεγον ὡς γενόμενα καὶ ὡς μνημονεύοντες. τοῦτο δὲ γίγνεται ὅταν τις τὴν μὴ εἰκόνα ὡς εἰκόνα θεωρή.
wrongfully supposing oneself genuinely to remember (ἔλεγον...ὡς μνημονεύοντες, 451a11). The mistake (τοῦτο) could refer to both mistakes or to the nearer of the two in word order, the supposing oneself genuinely to remember. Probably ‘this’ refers to both because to remember is to relate to a *phantasma* as a copy with a sense of past time. Remembering and considering a *phantasma* to be a copy of something prior are inseparable. Therefore, one wrongly remembers and wrongly considers *phantasma* representations as having occurred when (i.e., under the condition that) one beholds a *phantasma* that is not a copy of prior cognition as though it were a copy (τοῦτο δὲ γίγνεται ὅταν τις τὴν μὴ εἰκόνα ὡς εἰκόνα θεωρῇ, 451a11-12)

Still, Aristotle does not mention why a *phantasma* that is not a copy of one’s prior cognition would be viewed as though it were. To perceive a *phantasma* to be a copy of one’s prior cognition requires that one both recognize a personal connection to what the *phantasma* represents and to perceive it as belonging to the past! Aristotle does not so much explain *why* false remembrance happens in his discussion of Antipherson and others like him, that is, why one should take what is not a copy to be a copy in the first place. Rather, he explains *what* false remembrance is: it is perceiving as copy what is not a copy. The reason for false remembering and why one should take what is not a copy as a copy is given only later, when Aristotle introduces the motion proportionate to the passage of time and connects this motion to false remembrance.

Therefore, whenever the motion [the *phantasma*] regarding the deed (πράγματος) and the motion regarding the time arise together, then one is in actuality with memory (τῇ μνήμῃ ἐνεργεῖ). But if one supposes (οἴηται) [so] without doing it, one supposes one remembers (μνημονεύει). For nothing prevents one from being mistaken somehow and seeming to remember while not remembering...But if

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217 In this regard Aristotle appears to track the discussion of the wax block in *Theaetetus* 191c-195b. Socrates explains that false judgment occurs when a percipient misapplies a memory imprint to a current perception, but fails to explain why such misapplication occurs in the first place. Aristotle says misremembering occurs when one takes what is not a copy to be a copy, but fails to provide an account for why such a mistake should happen.
the motion of the deed arises separately (χωρίς) from the motion of the time, or the latter separately from the former, then one does not recall.218 (452b23-26, b28-29)

“In actuality with memory” (τῇ μνήμῃ ἐνεργεῖ, 452b24) means genuinely remembering and not merely supposing so. When a motion proportionate to the passage of time occurs together with a phantasma that is truly a copy of some prior instance of cognition, then one remembers truly. But if one fails to put (μὴ ποιῶν, b24) the phantasma together with the motion proportionate to the passage of time, then one will only suppose oneself to remember. Aristotle cannot mean that one may suppose oneself to remember if one is at work with one of the two motions alone, either the phantasma alone or the proportionate motion of time. One might entertain a memory phantasma without any motion proportionate to any passage of time, but in such a case the phantasma will not be perceived to possess past aspect; but the subject in actuality with memory perceives a presentation of the subject’s having cognized X and perceives-in-addition that this happened previously (450a19-21). Conversely, one cannot suppose oneself to remember if one entertains a motion proportionate to a passage of time independently from a phantasma of some past deed. Aristotle mentions that the motion proportionate to the passage of time may be actualized separately from the phantasma of the deed. This may mean independently from any phantasma representing cognition whatsoever, whether a genuine memory phantasma and copy of prior cognition or not. For example, we might be occasioned to wonder what we were doing two days ago and so we have a sense of some distance into the past from the present moment, but not in connection to any

218 ὅταν οὖν ἁμα τε τοῦ πράγματος γίνηται κίνησις καὶ ἡ τοῦ χρόνου, τότε τῇ μνήμῃ ἐνεργεῖ. ἂν δὲ οὕτως μὴ ποιῶν, οἴεται μνημονεύειν· οὔθεν γάρ κολλῶς διαψευσθήναι τινα καὶ δοκεῖν μνημονεύειν μὴ μνημονεύοντα. ἐνεργοῦντα δὲ τῇ μνήμῃ μὴ οἴεσθαί ἄλλα λανθάνειν μεμημένον οὐκ ἔστιν· τοῦτο γὰρ ἢν αὐτὸ τὸ μεμνήσθαι. ἄλλ᾽ εάν ἡ τοῦ πράγματος γίνῃ τοῖς τῆς τοῦ χρόνου ἢ αὕτη ἑκεῖνης, οὐ μέμνηται.
specific event and so there is not remembrance of any prior cognitive activity. We merely think of some temporal distance prior and relative to our present cognition.

Alternately, because the possible separation of the motion of time is said in relation to the deed, having the motion of the time separately from the *phantasma* may mean separately from a *genuine* copy of actual, prior cognition. If a motion proportionate to some passage of time is combined with a *phantasma* that is not a copy, then in such a case nothing will prevent the one who has done so from supposing oneself to remember. Because there can be no remembrance, either genuine or not, without both a perception of some likeness to a cognition of X and a perception of past aspect attached to the former, we see that mistaken remembrance occurs when a motion proportionate to some passage of time is combined with a *phantasma* that is not actually a copy derived from prior cognition.

Those out of their minds, like Antipheron, may be in such a condition that motions proportionate to a passage of time get combined with fantastical *phantasmata*. Those in possession of themselves probably do not so much suffer from attaching past aspect to fantastical *phantasmata* on the grounds that the fantastical does not fit well with other memories. A well-functioning faculty of reason prevents the association of past time with the fantastical because the fantastical does not fit within the course of normal experience and what effects are associated with what causes (e.g., the effect of fire does not issue from the mouths elephants). But regarding *phantasia* presentations that fit with other memories, probably it is possible to fit these presentations with motions proportionate to the passage of time relative to the other memories with which these fit well. We insert plausible *phantasia* into the nexus of genuine remembrance.

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Aristotle’s comments on mistaken memory show that a perceived personal connection to false memories cannot arise unless past aspect is attached to the false memory. Without past aspect attached to the *phantasia*, the subject will suppose her or himself to be imagining rather than remembering. In acts of constructive imagination or self-aware day dreaming, the subject does not take the *phantasia* presentations to be real. The counterfactual halo that hovers around the activity prevents the sort of personal connection to the *phantasma* presentation that is present in remembering.

Probably what happens in cases of mistaken memory among those in possession of their wits is that a motion proportionate to the passage of time gets attached to plausible *phantasia* giving rise to the perception of a personal, past connection to the *phantasma*. By plausible *phantasia* I mean *phantasia* that fits with other memories. The purple fire-breathing unicycle-riding elephant does not fit well into any train of memories. If a subject fantasizes a plausible *phantasma*, this may trigger memories that have past aspect attached that are similar to the plausible *phantasia*. The remembering subject may perceive a personal connection to the plausible *phantasia* due to its similarity to the other memories. The plausible *phantasia* is then fitted in with the other memories and attaches to motion proportionate to the lapse of time fitted to the other memories. For example, I may start out fantasizing about an elephant and this may trigger memory of the elephant I actually saw at the zoo. I then mistakenly see a personal

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219 In the sixth meditation, Descartes observes of the difference between waking and sleeping life that, “dreams are never linked by memory with all the other actions of life as waking experiences are. If, while I am awake, anyone were suddenly to appear to me and then disappear immediately, as happens in sleep, so that I could not see where he had come from or where he had gone to, it would not be unreasonable for me to judge that he was a ghost, or a vision created in my brain, rather than a real man. But when I distinctly see where things come from and where and when they come to me, and when I can connect my perceptions of them with the whole of the rest of my life without a break, then I am quite certain that when I encounter these things I am not asleep but awake” (CSM II, 61-2).
connection in the plausible phantasia of the elephant due to its similarity to memory and attach it to the motion of time of the genuine memory. If the plausible phantasia fits with or is not contradicted by other content that precedes, or is current, or comes after, then a perceived personal connection arises. Why a personal connection would arise is that the attachment of past aspect shows that what the phantasma presents happened previously. The counterfactual halo is dissolved.

We might further observe that phantasia in general is similar to sense perception according to actuality and sense perception includes self-awareness that one perceives (see De anima iii 2). This explains why all that is needed for false memory is the attachment of past aspect to phantasia. As similar to sense perception according to actuality, phantasia presentations will have some analogue of the self-awareness that figures into sense perception. If past aspect is attached to phantasia that includes self-awareness, then the falsely-remembering subject will perceive a past, personal connection. The analogue of self-awareness may be stronger in phantasia presentations that are genuine copies of actual, past cognition. Because the memory phantasma is derived from and a copy of an actual cognition (or set of cognitions), the phantasma may somehow serve to return us to the self-awareness that was included in the original act of cognition. If the phantasma is a trace and likeness of an actual prior act of cognition on the part of the remembering subject, perhaps the phantasma somehow contains an indication of that self-awareness. But we should see that phantasia in general is similar to sense perception according to actuality, which includes self-awareness. This explains why all that is needed for false memory is the attachment of past aspect to phantasia that fits with other memories.
We are now in a position to see fully Aristotle’s solution to the impasse. Aristotle’s theory of remembrance commits him to an indirect realism theory of remembrance. Because the proper object of memory is the remembering subject’s own past, absent cognitive activity, a present proxy must stand in for the absent past cognition, namely, a memory *phantasma* that serves as a copy. However, if the *phantasma* the remembering subject deals with is something present, then even if it is a likeness and copy of the absent past, it is unclear why perception of the present *phantasma* will be perceived as a representation of the subject’s own past cognition. For what is perceived in remembrance is the present *phantasma*, not the absent past. In stage one of my account of Aristotle’s solution to the impasse, I showed that the part of the soul responsible for being aware of the memory *phantasma* is the primary sense faculty and that awareness of memory *phantasmata* is a perception of a sort. In the second stage of my account, I showed that an animal becomes aware of sensibles because the sense faculty is assimilated to its sensible objects. Finally, in the third and present section, I have argued that the sense faculty is assimilated to the activity of the memory *phantasma* and that the activity of the memory *phantasma* includes a motion proportionate to some distance into past time from the present moment (or relative to other memories) and that it, perhaps, includes some analogue to the self-awareness that is built into perception. Aristotle compares our relation to the two actualities of motion to the experience of (1) viewing a painting as a representation without connection to a particular original and (2) viewing a painting as a copy of an actual, particular original to which the viewer has some prior connection. If the memory *phantasma* is in motion as something by itself, then it does not have past aspect attached to it. When the memory *phantasma* that arises
separately from a motion of time acts on the soul, it moves the sense power with such a motion as it has and the soul perceives a mere phantasma. But if the phantasma is in motion as a copy of a past cognition, then it both resembles an actual, prior cognition and it is combined with a motion of time. If the memory phantasma that acts upon the soul along with some motion proportionate to passage of time, then the sense power is raised to actuality and becomes what sort the phantasma motion is in actuality: a copy of a past perception combined with a proportionate representation of passage of time. Because the sense power works by assimilation to its object, remembering is an assimilation of the sense power to a phantasma in actuality as a copy (in actuality as like the perception from which it is derived and with a motion proportionate to the passage of time of the event of which the phantasma is a copy). As sense perception is not always at work, but requires a sensible to act upon it, so it is with remembering. Were the capacity to remember at work in virtue of itself, we should be always remembering. Something memorable in actuality must move the soul to remember. Hence, remembrance is a passive potency of the sense power to become what sort of thing the memorable object is in actuality whenever this moves the soul. We should see that the soul does not arbitrarily or without reason take a phantasma as a copy and memory: the soul is assimilated to the sort of actuality the memory phantasma happens to possess at the time when the phantasma acts on the soul such that the soul becomes aware of the phantasma.

451a2-8 A consequence of the dual role of the memory phantasma as both by itself and from another.

Prior to the final, considered definition of memory and remembrance, Aristotle draws out the consequence that results from the dual status of the memory phantasma as
both something by itself and as a copy derived from another. Because the memory
phantasma can affect the soul with or without a sense of time, there can arise doubt over
whether the phantasma is a memory or not.

And on account of this, sometimes when motions of this sort arise in the soul from prior sense
perception, we do not know (ἰσμεν) whether the motions come about due to having sense perceived,
and we are in doubt (διστάζομεν) whether it is a memory or not. But sometimes it happens that we
consider and recollect that we heard or knew something. And this occurs whenever from viewing it
[the phantasma] as itself we change perspective and view it as derived from another.\(^{220}\) (451a2-8)

The phantasma that enters into remembrance is, like the figure that is at once figure and
copy, both something by itself and from another (450b20-26). Because the memory
phantasma may occur as either a memory or a non-memory phantasia presentation, there
can be doubt over whether a memory phantasma is really a memory, i.e., whether the
phantasma is really derived from an actual, prior cognition. Aristotle says that we do not
know (ἰσμεν, 451a3) and that we are in doubt (διστάζομεν, a5), so he is speaking of
humans. Lacking reason, beasts that possess memory cannot fall into doubt about the
status of their phantasmata. If a phantasma occurs without a strong sense of past time
attached during a wakeful state, the beast perceives its phantasma as a sense-like
presentation without past aspect due to which the beast may act (see De anima 429a5-6).
If a phantasma occurs with past aspect attached, the beast remembers. In neither case
will a beast adopt a doxic position about its phantasia or remembrance. Doubt is a doxic
state.\(^{221}\) Critical capacity in beasts does not extend beyond the scope of the sense faculty.

While the beast that possesses a sense of time can discriminate phantasmata that

\(^{220}\) καὶ διὰ τοῦτο ἐνίοτ’ οὐκ ἱσμεν, ἐγγινομένων ἡμῖν ἐν τῇ ψυχῇ τοιούτων κινήσεων ἀπό τοῦ αἰσθέσθαι
πρότερον, εἰ κατὰ τὸ ἱστήσθαι συμβαίνει, καὶ εἰ ἔστι μνήμη ἢ οὐ, διστάζομεν· ὅτε δὲ συμβαίνει ἐννοῆσαι
καὶ ἀναμνησθῆναι ὅτι ἱκουσαμέν τι πρότερον ἢ εἰδόμεν. τούτῳ δὲ συμβαίνει, ὅταν θεωρῶν ὡς αὐτὸ
μεταβάλλῃ καὶ θεωρῇ ὡς ἄλλου.

\(^{221}\) See Nicomachean Ethics 1146b26-27: Some people have no doubt about their opinions, but suppose
themselves to know with precision (ἑνοι γὰρ τῶν δοξαζόντων οὐ διστάζομεν, ἄλλα’ οἶονται ἕκριβος
eἰδέναι).  

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represent past cognitive activity from motions presently perceived, the beast lacks capacity for forming judgments concerning the veracity of what it remembers. The fact that human beings can fall into doubt about whether some phantasia is a memory or not indicates that humans especially live an autobiographical existence that is self-reflective and self-critical. For the beasts, presentations of past cognitive activity connect to an appetitive life. Beasts cannot be moved to reflect on their memories, but only act due to them. Humans both act due to memory and adopt opinions about the status of their memories.

We might wonder why doubt about a particular memory should arise. Aristotle does not say, but doubt over whether a phantasia is a memory is unlikely unless something comes into conflict with the status of phantasia as by itself or from another. For example, I remember taking my book to my office, but when I get home, the book is lying on the entryway table. (Can a beast become perceptually confused concerning whether a memory fits with its present perception?) A present perception casts doubt on the veracity of the memory. In the absence of any present perception or evidence that conflicts with a memory, only a memory could cast doubt on another memory. A memory X may be called into question when juxtaposed with other memories with similar past time attached if memory X does not fit sufficiently well with the other memories. For example, we might remember being at the party and having talked to John, but in juxtaposition with other memories that do not occasion any doubt we might begin to doubt whether it was John. Alternately, a phantasma may seem to fit well with other memories, but past aspect is not strongly perceived in connection with this or we are unsure how well the phantasma fits with other memories. But it is possible for
humans to consider and recollect (ἐννοῆσαι καὶ ἀναμνησθῆναι, 451a6) that the
phantasma represents some past cognitive activity and then one switches from a
suspension of belief to remembrance and beholding the phantasma as a copy.

Aristotle contrasts those who stand in two ways (διστάζειν) with those who stand
outside of themselves (ἐξιστάναι). To doubt means to stand in two ways in relation to
something; one is not sure which ground to occupy. The insane stand outside of
themselves. Those in doubt may discern an inconsistency between what their dubious
memory presents and other memories that precede, are concurrent, or posterior to the
temporal location of the dubious memory in question. The judgment that phantasia does
or does not well fit with other memories belongs not to the sense capacity, but to the
deliberative. Those who stand outside of themselves have lost the capacity to discern any
conflict. The vision of having seen a giant cyclops or having been turned into a pig does
not conflict with the trip to the market for Antipheron. Those who are out of their minds
resemble the beasts in their inability to oppose whatever is presented to them as a
memory.
Chapter Five: What is memory and remembrance?

In the final, considered definition of memory, Aristotle defines both memory and remembering. Why Aristotle refers both to memory (μνήμη) and remembering (τὸ μνημονεύειν), and not just to memory, is because memory (μνήμη) may refer either to the dispositional possession of memories (retention) or to the exercise of the operation that engages with the memories possessed (remembering). The inclusion of remembering (τὸ μνημονεύειν) in addition to memory (μνήμη) signals that both the disposition and the activity are under consideration.

Therefore, what memory (μνήμη) and remembrance (τὸ μνημονεύειν) is has been said, that it is a hexis concerning a phantasma, inasmuch as (ὅς) it is a copy of that of which it is a phantasma, and of what among the parts in us it belongs, that it belongs to the primary perceptive part and that by means of which we perceive time.222 (451a14-17)

The ambiguity of hexis as between a disposition (first actuality) and an activity (second actuality) allows Aristotle to define memory in both its applications as retention and remembering. Affection (pathos) in the initial definition (449b24-25) has been subsequently explained as a phantasma that serves as a copy of an actual, prior instance of cognition; hence, phantasma as copy replaces pathos in the final definition. What we are to see is that memory in its application as retention is the disposition for entering into an activity (remembering) in relation to a particular class of objects, namely, to phantasmata that serve as copies of past cognitive activity.

The memory hexis is (1) a shared actuality between something that has and something that is had and (2) a disposition for relating in a better or worse way to a class

222 τί μὲν οὖν ἐστι μνήμη καὶ τὸ μνημονεύειν, εἴρηται, ὅτι φαντάσματος, ὡς εἰκόνος οὐ φάντασμα, ἔξει, καὶ τίνος μορίου τῶν ἐν ήμιν, ὅτι τοῦ πρώτου αἰσθητικοῦ καὶ ὧν χρόνου αἰσθανόμεθα. My translation preserves the correspondence of the singular to be verb (ἐστι, 451a15) with the dual subject of memory and remembrance.
of affections or objects (see *Meta* v 20, 1022b4-8). Both senses of *hexis* apply to memory in application as both retention and remembering. As retention, memory is the dispositional possession of memory *phantasmata*. The memory *phantasma* is received and kept by the soul and the part of the body that contains the principle of sense perception (450a27-32). These *phantasmata* motions are retained dispositionally, ready to be actualized. When actualized under the right conditions, they move the soul to remember. The status of memory in its application as retention as a disposition for entering into acts remembering is evident from Aristotle’s articulations of memory and remembering according to second actuality throughout *De memoria*.

For always whenever one is in actuality regarding remembrance (ἐνεργῇ κατὰ τὸ μνημονεύειν), in this way one says in soul that previously one heard or perceived or considered this.\(^{223}\) (449b22-23)

For always whenever one is in actuality with memory (ἐνεργῇ τῇ μνήμῃ), just as was also mentioned before [i.e., 449b22-23], that one saw this, or heard or learned it, one perceives-in-addition that it happened previously.\(^{224}\) (450a19-21)

For the one who is in actuality with memory (ὁ ἐνεργῶν τῇ μνήμῃ) observes this affection [a *phantasma*] and perceives this. (450b17-18).\(^{225}\)

For the one who is at work with memory (ἐνεργοῦντα τῇ μνήμῃ), it is impossible not to suppose [so], but instead to fail to notice that one is recalling.\(^{226}\) (452b26-28)

Of particular importance is the consistent use of the verb ἐνεργεῖν (to be in actuality) in the third person to describe memory acts or the exercise of remembrance. Aristotle is careful to point out that it is not the memory *hexis* that enters into the activity of remembrance, but rather the human (or animal) subject enters into activity in virtue of memory that the subject possesses. Remembering is an activity of relating to

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\(^{223}\) ἀεὶ γὰρ ὅταν ἐνεργῇ κατὰ τὸ μνημονεύειν, οὕτως ἐν τῇ ψυχῇ λέγει, ὅτι πρότερον τοῦτο ἤκουσεν ἢ ἴσθετο ἢ ἔνόψειν.

\(^{224}\) ἀεὶ γὰρ ὅταν ἐνεργῇ τῇ μνήμῃ, καθάπερ καὶ πρότερον εἴπομεν, ὅτι εἶδε τοῦτο ἢ ἤκουσεν ἢ ἔμαθε, προσαναθάνεται ὅτι πρότερον·

\(^{225}\) ὁ γὰρ ἐνεργῶν τῇ μνήμῃ θεωρεῖ τὸ πάθος τοῦτο καὶ αἰσθάνεται τοῦτον.

\(^{226}\) ἐνεργοῦντα δὲ τῇ μνήμῃ μὴ οἴεσθαι ἄλλὰ λανθάνειν μεμνημένον οὐκ ἔστιν.
phantasmata. Attribution of the activity (second actuality) to the subject who possesses the *hexis* rather than to the *hexis* fits with Aristotle’s treatment of *hexeis* elsewhere. In the background is the Aristotelian triple scheme of first potentiality – second potentiality/first actuality – second actuality. A paradigmatic example of the triple scheme appears in *De anima* ii 5, where Aristotle discusses the transition from ignorance or privation of literacy to the exercise of reading (417a21-b2). An illiterate human has an undeveloped or first capacity to read and write. When an illiterate human has acquired the knowledge of how to read and write, there is now a developed capacity for reading and writing (second potentiality). Once developed, the human can enter into the operation of reading and writing (second actuality). Knowledge is an unmoved disposition (*hexis*) in virtue of which the human enters into contemplative activity. Inasmuch as knowledge is an unmoved mover, knowledge does not enter into activity, but in virtue of the knowledge possessed, the human can enter into an activity that utilizes the knowledge. For example, the artist who possesses an art enters into artistic activity in virtue of the knowledge that is in the artist’s soul. Character is an unmoved, stable disposition in accordance with which the human who possesses it enters into action in characteristic ways. A temperate person engages in refraining from excessive drinking and feels delight in drinking an appropriate amount of alcohol relative to the drinker’s condition (and in the right circumstances). In a similar way, retention is a disposition concerning *phantasmata* in virtue of which and in accordance with which the subject who possesses the disposition enters into acts of remembering.227 Remembering is the activity

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227 “In accordance with which a subject enters into an activity” requires some explanation. Below I will argue that the memory is a *hexis* in virtue of which its possessor relates in a better or worse way to its past cognitive activity.
of perceiving perception a *phantasma* as a copy of the remembering subject’s previous cognition, along with the awareness that what the *phantasma* represents has past aspect. Because the *phantasma* motion retained is a copy of prior cognition, the *phantasma* can move the soul in accordance with the sort of actuality it possesses. Hence, it is not the retention and keeping of *phantasmata* that enters into activity. Rather, the remembering subject enters into an activity in virtue of the retention.

Some might object that Aristotle is here defining only the disposition for remembering and not the activity on the grounds that the definition includes no mention of any sense of past time. Sense of past of time may be seen to enter with the phrase “*hexis of phantasma* inasmuch as the *phantasma* is a copy of that of which it is the *phantasma*” (φαντάσματος ὡς εἰκόνος ὁ φάντασμα ἔξις, 451a15-16). Because *hexis* can refer to an actuality shared between what has and what is had, “*hexis of phantasma* inasmuch as the *phantasma* is a copy” allows for both retention and remembrance. The remembering subject has a hold of a memory in actuality rather than in potentiality and perceives this.  

The definition allows for a sense of past time through the inclusion of the phrase “having the *phantasma* as a copy.” Having the *phantasma* in mind as a copy of prior cognitive activity is possible only under the condition that the remembering subject views what the *phantasma* presents as belonging to the past. Otherwise, the remembering subject will not look upon the *phantasma* as a copy. For Aristotle, the *phantasma* that enters into remembrance is factually a copy of prior cognition regardless of how one looks upon it. Hence, the mention that remembrance is a disposition concerning a *phantasma* as (ὡς) a copy of that of which it is the *phantasma* can signal

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228 See 450b17-18: “For the one who is in actuality with memory (ὁ ἐνεργῶν τῇ μνήμῃ) observes this affection [a phantasma] and perceives this.”
that one is in a state of (*hexis*) perceiving in actuality the *phantasma* as a copy of the prior cognition from which it derives.

The definition is a typical instance of Aristotle’s articulation by genus and *differentia*. The broader genus into which memory and remembrance fall is *hexis*, while the proximate genus is *hexis* of a *phantasma*. What distinguishes memory from other *hexes* of *phantasmata* is that memory is a *hexis* of a *phantasma* inasmuch as the *phantasma* is a copy; hence, “inasmuch as the *phantasma* is a copy of that of which it is the *phantasma*” supplies the *differentia*. The other species within the proximate genus “*hexis* of a *phantasma*” are various *hexes* of non-memory *phantasia*. Because all *phantasia* is derived from the activity of sense perception, a variety of *phantasia* can persist in the soul-body composite. *Phantasia* enters into thinking when it provokes contemplation of a universal, enters into deliberation when practical thinking projects future action, and enters into animal motion when *phantasia* combines with desire and appetite. For *phantasia* to enter into memory in its application as retention, the persisting *phantasia* must not only be derived from sense perception according to actuality, but come about such that it serves as a copy of the very sense perception from which it derives. In contrast, constructive, contemplative, deliberative, and desiderative *phantasia* need not present a copy of some actual, prior instance of cognition.\footnote{I do not mean to apply that these various, distinguishable applications of *phantasia* are always distinct from one another. Surely there is much overlap between memory *phantasia* and desiderative *phantasia* that initiates animal motion and between memory *phantasia* and deliberative *phantasia* in humans that concerns right action. What separates *phantasia* in its application as remembrance is (1) a required sense of past time and (2) the requirement that the *phantasia* present a copy of something that was actually cognized previously; these two requirements may not be necessary to initiate desire and animal motion. Probably practical deliberation always involves memory, but some constructive envisioning of possibilities also enters in.} For *phantasia* to enter into memory in its application as remembrance, not only must the subject who
remembers be aware of a "phantasma" that is a copy as a copy, but there must be an additional sense that past aspect is attached to the "phantasia." To take the "phantasma" as a copy of actual prior cognition already indicates that past aspect is perceived. Hence, the differentia that distinguishes remembrance according to actuality from other sorts of "phantasia" applications is not only that one has a "phantasma" in mind as a copy, but that one has combined the "phantasia" with a sense of past time. Aristotle manages to supply a definition that accounts for memory both in its application as dispositional retention and in its application as the operation of remembrance. "Hexis" covers both the dispositional retention of "phantasmata" and the activity of remembering itself.

So far I have concentrated on the final, considered definition of memory and remembrance insofar as it articulates the form of memory: memory and remembrance is a certain sort of "hexis." But insofar as memory is an affection common to the soul and to the body, memory is an enmattered affection. In "De anima" i 1, Aristotle illustrates how affections common both to the soul and to the body ought to be defined: “If thus, it is clear that affections [of the soul] are enmattered "logoi." Hence, the definitions are such as follows: ‘To be angry is a sort of motion of such a body or a part or a faculty by this for the sake of this’” (ἐὰν δ’ οὕτως ἔχει, δὴ λοιπόν ὅτι τὰ πάθη λόγοι ἐνυλοί εἰσιν· ὥστε ὁ δὲ ὁριστὸν τοιοῦτον ὅτι τὸ ὀργίζεσθαι κίνησις τετοῦ παιδὸς σώματος ἢ μέρους ἢ δυνάμεως ὑπὸ τοῦδε ἑκέκα τοῦδε,” 403a24-27). Affections common to soul and to body are “enmattered "logoi"” (λόγοι ἐνυλοί, 403a25) will have definitions that include an account of the matter and substratum in which they inhere. As an enmattered, natural phenomenon, the definition of an affection common to the soul and to the body should include an articulation of the four causes (see "Phys." ii 3, 194b16-95a3). An enmattered
affection has a form (*logos*), a moving cause, a material cause, and a final cause. The affection does not necessarily have a matter, but as an affection, it does have a substratum in which it inheres or to which it happens. The substratum of an affection common both to soul and to body should be a living substance or a part of the living substance, so Aristotle mentions that anger is a motion that belongs to a body (or body part) or a faculty. Motion proper belongs to body alone, but an affection common to soul and to body cannot be motion simply because the soul does not undergo alteration. Hence, Aristotle carefully speaks of anger as a motion of a sort (*tis*) that belongs to such a sort of body or to a faculty of such a sort of body. Anger is defined by means of a genus (it is a motion of a sort) and the *differentia* is provided by the subject of the affection, the moving cause, and the final cause. Being a motion of a sort (*tis*) motion is the form, the body or part and the faculty of this in which the motion takes place is the matter, by this (*hupo toude*) is the moving cause (e.g., an insult), and for the sake of this (*heneka toude*) is the final cause (e.g., revenge or desire for justice).

The final, considered definition of memory tracks closely the paradigmatic definition of anger. In addition to (1) the form (*hexis* of a *phantasma* inasmuch as it is a copy), we should expect the definition of memory to articulate (2) the substratum for the *hexis* (the body part and faculty of which memory is the affection), (3) what gives rise to the *hexis* (the moving cause), and (4) that for the sake of which the *hexis* is (final cause). What memory and remembering are (the form) is a *hexis* of a *phantasma* inasmuch as it is a copy of that of which it is the *phantasma*. As a relation, the memory *hexis* does not have a matter, but, like anger, the memory *hexis* does have a substratum in which it inheres, the part of the soul and the body to which it belongs. The substratum of memory
is the primary perceptive part (*to proton aisthêtikon*) and that by which we perceive time 
(τίνος μορίου τῶν ἐν ἡμῖν, ὅσι τοῦ πρώτου αἰσθητικοῦ καὶ ὁ χρόνου αἰσθανόμεθα,
451a16-17). I have translated *to proton aisthêtikon* as the primary perceptive part 
although part is not included in the phrase because Aristotle speaks of the part (μόριον) in 
us to which memory belongs in 451a16. The “primary part” could refer to the faculty or 
to the body part that serves as the substratum for the faculty, while “that by means of 
which we perceive time” is the faculty. Aristotle spoke of the part of the body that 
contains sense perception and into which the memory *phantasmata* are stamped in 
450a27-32; it is the heart and the primary faculty of perception that serve as the 
substratum for memory. The ultimate moving cause of retention and remembering is the 
past cognitive activity that gives rise to memory *phantasmata*, but the proximate moving 
cause of memory in both its applications as retention and remembering are the 
*phantasmata* that are copies of actual, prior instances of cognitive activity. Retention 
arises whenever a *phantasma* is received by the primary perceptive part and kept 
dispositionally. Remembering occurs whenever the actualized motion of the memory 
*phantasma* and an associated motion proportionate to passage of time moves the primary 
perceptive part. Finally, that for the sake of which memory and remembering are is the 
engagement of past cognition, i.e., perceiving a *phantasma* as a copy of prior cognition. 
Here, as is often the case with natural phenomena, the final and formal causes overlap.

**Why it is fitting to categorize memory as a hexis.**

Several implications follow from categorizing memory as a *hexis*. Beyond the 
advantageous ambiguity *hexis* has between first actuality and second actuality that allows
Aristotle to slide between speaking of memory as a disposition and an activity, we might wonder why it is so fitting and appropriate to place memory within the genus *hexis*. What commentators generally have failed to emphasize, if not realize, is that memory is a disposition in virtue of which one is well or poorly disposed toward memorable objects. Citing *NE* 1105b19-28 and *Meta* 1022b10-12, Richard Sorabji points out that *hexis* can mean a developed disposition in virtue of which one is well or poorly disposed toward a certain class of affections, but does not explore how memory might actually be such a disposition.\(^{230}\) David Bloch denies that there is any evidence in *De memoria* suggesting that memory means anything like a disposition in virtue of which its subject relates well or poorly to a class of affections and wrongly asserts that such an understanding of *hexis* is limited to practical contexts.\(^{231}\) I say wrongly because, for example, *Meta* v 20, 1022b10-12 includes health as a disposition that disposes us well or poorly toward something, and health is an affection that falls within the study of physics. In what follows, I set out how the understanding of *hexis* as a disposition in virtue of which one is well or poorly disposed toward a class of affections fits well with the text of *De memoria*, and I consider the implications for what it means to treat memory as such a *hexis*.

The first clue that memory is a *hexis* in accordance with which we are disposed well or poorly toward a class of affections arrives quite early in the text: “For those who are good with memory and good with recollection are not the same, but for the most part those better at remembering are the slow while those better at recollecting are the quick and the good learners” (οὐ γὰρ οἱ αὐτοὶ εἶσι μνημονικοὶ καὶ ἀναμνηστικοὶ, ἀλλὰ ὡς ἐπὶ τὸ πολὺ μνημονικῶτεροι μὲν οἱ βραδεῖς, ἀναμνηστικῶτεροι δὲ οἱ ταχεῖς καὶ εὐμαθεῖς.

\(^{230}\) Richard Sorabji (2004) 69. See also *Cat.* vii, 9a4-10.

\(^{231}\) David Bloch (2007) 111.
That all are not equally good with memory already indicates that memory has us well or poorly disposed toward remembering our past in varying degrees. Second, those with bodily conditions too fluid or too sclerotic or too dense (those with dwarf-like builds) do not retain well the phantasmata needed for remembering (see 450a32-b11; 53a31-b7). Those with the appropriate sort of bodily condition are better disposed toward the retention and remembrance of their past. Third, it is possible to improve memory with repeated exercises, which suggests that with practice it is possible to alter one’s relation to memorable objects for the better (451a12-14). These passages suggest that memory is a disposition in virtue of which the possessor both has and is well or poorly disposed toward the reception, keeping, and engagement with phantasmata of prior cognitive activity.

Hexis as that which disposes one well or poorly toward a class of affections fits well with memory in its application as both retention and remembrance. As a disposition, a hexis is a relation between things (see Phys vii 3, 246b3-20). In chapter three, I give a detailed account of the physiological and psychological conditions impacting on retention and only review the main points here. Memory in its application as retention is a relation of bodily qualities in relation to phantasmata. Those excessively fluid and excessively hard in physiology cannot well receive and retain phantasmata needed for remembering. Phantasmata are easily lost and rubbed out in the excessively fluid and not easily received in the excessively hard (451a32-50b11). If the body is too fluid or too hard, this may also impact the quality of the phantasma retained, which in turn will affect accuracy in remembering. If there is due proportion between fluidity and hardness, one is

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232 Cf. Cat. 9a1-5 and DM 451b10-16.
well disposed both to receive and to hold onto memory *phantasmata*.

Still, efficacy in retention cannot be reduced to physiology alone. Retention of details differs in different people as when witnesses to an accident retain and recall variant and sometimes conflicting details. We do not retain all things, but some things and not others and this indicates that retention is selective. The implication is that retention is a relation of both bodily qualities and psychological elements in relation to *phantasmata*. We tend to retain those things that strike us more strongly than others or that involve intense passion (pleasure and pain). If this is right, then character will impact what is retained in addition to physiology. What causes great pleasure or pain is more likely to make a deeper impression and character is the developed relation to pleasure and pain. Different character dispositions have people more disposed to retain some things than others. Depending on the sort of physiological *hexis* one possesses, one will be disposed to hold onto a *phantasma* well or poorly in a general way. Depending on the sort of character one has, one will be more prone to hold onto *phantasmata* of certain things better than others. Interest (which connects to pleasure and pain), habit, and practice impact what tends to strike us with enough force to be retained. For example, Aristotle observes that the great-souled (μεγαλόψυχοι) tend to remember (μνημονεύειν) the favors they have done for others rather than favors done for them on the grounds that being in a position to do a favor is superior to the position that needs a favor. Because the great-souled individual is worthy of greatness and being in need of or receiving a favor is beneath having no need and doing a favor, the great-souled person “hears about his favors done with pleasure, but about favors received without
pleasure”. Nor is the great-souled individual disposed to harbor ill will (μησίκακος) toward others because the great-souled do not remember with animosity toward others. One thinks also of Nietzsche’s remarks about the petty-minded who, due to their peevishness, hold onto and retain every insult. Because the peevish find insults incredibly painful, insults received make lasting impressions and the peevish cannot let go of them. In contrast, the great-souled, aristocratic types have short memory for such things.

Intriguingly, Aristotle has habituation impact greatly on what among our past activities we are moved to keep and return to. The influence of habituation on retention suggests that memory is *hexis* developed or impacted by practice and repetition.

But it happens that some [phantasmata] set in motion just once are habituated (ἔθισθηναι) more (μᾶλλον) than others often set in motion. Hence, although having seen some things only once, we remember (μημονεύομεν) them more (μᾶλλον) than others seen often. (DM 451b14-16)

Some phantasmata set up by a prior act of cognition are from the start more disposed to be activated than others and, hence, to move their possessor to remember. Habituation typically results from repetition, but undergoing a single, impactful event may be enough to set up a dispositional tendency to return to that event over and over. For instance, if someone suffers through a bad car wreck, this may give rise to a dispositional tendency to remember the wreck often and more often than other things experienced multiple times, say, going to the zoo. Some phantasmata will be set up with a stronger tendency to be activated than others. Such phantasmata will require less force of association to be triggered and a broader array of things will remind us, whereas phantasmata retained

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234 *NE* iv 3, 1124b11-15.
235 *NE* iv 3, 1125a3-5.
236 See *On the Genealogy of Morals* i 10.
237 συμβαίνει δ’ ἐνιαίς ἁπαξ ἔθισθηναι μᾶλλον ἡ ἑτέρας πολλάκις κινουμένους· διό ἐνια ἁπαξ ἱδόντες μᾶλλον μημονεύομεν ἡ ἑτέρα πολλάκις.
with less dispositional force might require more determinate associations to be triggered. For example, if someone suffered through a horrible collision, anything to do with cars may remind, whereas as memory of a fender bender will require more specific items of association to be triggered. Some things may require that we encounter them multiple times before retention of a phantasma of the encounter is established.

Of interest is the correlation between the dispositional force of the phantasma and the strength with which something is remembered. We remember (μνημονεύοεμν) more (μᾶλλον) those things of which the phantasma is more (μᾶλλον) habituated. Habituated means to have developed a dispositional tendency. So some phantasma are more disposed to be activated and move us to remember more (μᾶλλον) than others. Mallon (μᾶλλον) is perhaps usefully underspecified. More (μᾶλλον) habituation to remember could mean more in terms quality, quantity, or both. If more habituated to remember X is in reference to quality, then perhaps we are to see that one remembers X more fully and completely and with more accuracy than other things. If more habituated to remember is in reference to quantity, then remembrance of X occurs with more frequency and the one who remembers will be more easily moved to remember X than other things.

We should see that the role of habituation in memory is a central reason why it is so fitting to refer to memory as a hexis that has us disposed well or poorly toward our past. The dispositions that develop from habit follow from an individual’s experience. The setup of retention and subsequent remembering by habituation is especially fitting because habit allows for individual experience and difference. If memory is formed from habit, this would explain (1) why different people have better memory for different kinds of things, (2) why different people have a tendency to remember different things, (3) why
different people are moved to remember by different associations, and (4) why different people become better with memory than recollection and vice versa. Habituated remembrance and retention may have some overlap with what our term “selective memory” captures.238 Often we seem to remember only what we wish. This fits with character disposition: as we tend voluntarily to choose in accordance with what appears pleasant, so perhaps people tend to remember what they find pleasant and of interest while tuning out what is unpleasant (i.e. we may tend to tune out and fail to retain what we find unpleasant or take little interest in). As different people find different things to be pleasant out of habit, so people tend to remember different sorts of things out of habit. And as we tend to pay more attention to what we pursue and enjoy, the sort of things we tend to be good at remembering follow our interests and pleasures. Thus, the impact of habit on the development of memory helps account for idiosyncrasy in what tends to get retained and remembered.

To sum up, memory is a hexis that has us relate well or poorly to memorable objects in several senses. First, retention has us disposed to hold onto memories well or poorly (long-term memory versus short-term memory). Those able to hold onto memories easily and permanently have good retentive disposition, whereas those who hold onto memories with difficulty and only for limited periods have a poor disposition.239 Second, we may retain memories more or less accurately. Some may be more prone to vague, rather than to precise memory. Further, some are more prone to

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238 The possible connection between my interpretation of Aristotle’s habituated remembrance and selective memory was suggested to me by Ronald Polansky.

239 Here I am not considering whether it is better to have long term or short term memory about all past events, but only how well one holds on to past events. In certain cases, it might be better for an animal or human to lack permanent, photographic recall of horrible things that have happened to them or that they have witnessed.

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distortion of their past than others. For example, Aristotle mentions an Antipheron who
tends to treat his false imaginings as true memories of things he experienced (451a8-12).
Third, we may see that retention has us retaining certain classes of things better than
others (selective memory). Depending on the sort of character one has developed,
different sorts of things will tend to make a greater impression and be retained.

Memory in the primary and lesser senses.

There is one other feature of Aristotle’s account that deserves further attention. I
have maintained throughout the dissertation that Aristotle conceives of the memorable
object (τὸ μνημονευτόν) in the proper and primary sense as the remembering subject’s
own past, cognitive activity. At least in those parts of De memoria where the aim is
taxonomical, Aristotle narrowly limits memory to the past cognitive activity of the
remembering subject. Because Aristotle limits memory to the remembering subject’s
past activity, we should see that Aristotle conceives of memory and remembering in the
primary sense much more narrowly than perhaps do others. Yet, we should see that there
are passages in De memoria ii and elsewhere that allow for a less governing sense of
memory that is less restrictive and fits with our more inclusive way of speaking of
memory. I will examine first Aristotle’s narrow view of the governing sense of memory
in relation to broader, less primary views and examine second how Aristotle allows for
the less narrow view.

To better appreciate the narrow, taxonomical classification favored by Aristotle, it
will be helpful briefly to scan roughly the current classification of memory in philosophy.
John Sutton surveys the rough consensus pertaining to types of memory that has emerged
among philosophers and psychologists. Here I will only refer to the philosophical
terminology Sutton surveys. Sutton sees three main types. (1) Propositional memory is
memory that something is the case, which includes facts, objects, and states of affairs.
For example, I remember that Caesar crossed the Rubicon in 49 BC or I remember that
water consists of two parts hydrogen and one part oxygen. (2) Habit or procedural
memory is memory of how to do something, which may include skills, specialized
kinesthetic movements, and activities that require a specific sequence of actions. For
example, we sometimes speak of remembering how to ride a bike or how to play a
melody on a guitar (kinesthetic movements), how to build a cabinet or solve a
geometrical proof (skill, knowledge), and how to cook a meal (skill, sequence of actions).
(3) Episodic or personal memory is memory that concerns the remembering subject’s
own experiences from which the remembering subject’s memories are derived. As
Sutton puts it, episodic memory “brings us into contact with the particular past events
which such memories are about and by which they are caused.” We might suppose that
remembering our own past activity and retrieving information and know-how previously
acquired are, if not the same, very similar actions. In both cases something is called to
mind that was previously acquired and retained. Both propositional memory (memory
pertaining to facts and features about objects) and habit memory (memory pertaining to
how to do something) as defined involve the retrieval of information previously acquired
and retained. Yet, only episodic or personal memory is memory in the governing sense
in De memoria.

\[241 Loc. cit.\]
Regarding propositional memory of facts and objects, Aristotle would insist that an object X called to mind in such a way that X is not connected to any previous cognition of X is not a case of remembering in the primary sense. The reason why is that an object abstracted from any prior cognition of it cannot include the relevant past aspect that enters into remembering. If I call to mind an object, a cat, or a fact, that the sun rises in the east, there is nothing intrinsically temporal about these. It is not just that they are not necessarily past objects, it is that they are not conceived as temporally located anywhere. For Aristotle, an object will lack temporal position if it is conceived of as abstracted from any continuum of motions; in such a case, there is no “when” the thing thought about has happened. Time is a number of the before and after regarding motions. Any object or fact conceived as abstracted from any prior or subsequent motions will not be in relation to any before or after. An object can be perceived as having a place in time only when the object is conceived as belonging to some continuum of motions. It may be helpful here to point out a distinction between the conception of something that “takes” time and something that can be placed temporally relative to other events. For example, thinking of a cat running from a porch to a tree has a beginning, middle, and end. The thought is about something that takes time to happen. But this event that takes time will be without temporal position unless it is conceived as in relation to events that preceded or followed. Unless thought in relation to other events or the present moment, there is no “when” the cat ran, only a sense of the duration of the event itself. Remembering in the primary sense, so Aristotle would argue, is of the past (449b15) and the sense of past time relevant in memory only arises when the remembering subject calls to mind an object in connection with some previous cognition of it (449b22-24; 50a19-21; 50b11-15). It is
the remembering subject’s own prior and present cognition that provides the continuum of motions into which the memorable object fitted in memory.

I have just argued that an object or fact is temporally positionless if it is conceived as abstracted from any continuum of motions. Does this mean that the retrieval of historical facts previously acquired and retained is an act of memory in the primary sense? Again, Aristotle would argue no on the grounds that the historical fact retrieved does not contain past aspect in the relevant sense. It will be helpful to consider how (1) the past time that enters into the thinking of historical facts differs from (2) the sense of past time present in remembering. The genus of the memorable object (τὸ μνημονευτόν) is the past (τὸ γενόμενον, what has come about), but the differentia is the remembering subject’s own prior cognition. In the opening section of De memoria, where the aim is taxonomical (449b9-28), Aristotle excludes as memorable any object that does not include the remembering subject’s own prior cognitive activity. Genuine memory is directly caused by the very event the memory is about; hence, memory is about and puts us in relation to the prior cause that gave rise to the memory. The remembering subject looks upon a present phantasma as a representation of the absent, past activity that gave rise to the phantasma. It is the sense that memories are copies of their prior cause that informs the peculiar sense of past time that enters into remembering. In remembering, we are directed back to the source of the memory and we perceive ourselves to return to the prior cause of the memory because the prior cause is precisely what the memory portrays (or indicates). The memory phantasma is a copy of its cause.

In contrast to remembering my past activity, my thought that consists of a historical fact is not about the prior cause that gave rise to the thought in me. Caesar
crossing the Rubicon did not directly cause me to possess the opinion or knowledge of Caesar’s movements. Rather, hearing it, reading about it, or otherwise learning of it caused the thought of the fact to be in me. Hence, when I think merely of the fact that Caesar crossed the Rubicon in 49 BC, I am neither returned to Caesar’s movements nor to my own prior activity. There is no sense of “returning back to the time when” in thinking of historical facts as there is when one remembers something one did yesterday or two years ago. We should see that the thinking of historical facts takes the form of a judgment (phasis) inasmuch historical facts involve the predication of a subject: Caesar did $X$ at time $T$. Past aspect is present in thoughts of historical facts as a temporal predicate posited of a subject in a judgment. The judgment as conceived has no past aspect, even if the referent of the judgment does. Remembering in the primary sense includes the sense that what has happened before is appearing or indicated anew in the memory. For Aristotle, the vehicle through which the remembering subject’s past activity appears anew is not a judgment conceived, but a phantasma perceived that acts on the remembering subject conjointly with a motion proportionate (to a more or less precise extent) to the time elapsed since the event perceived which the phantasma depicts. I have a supposition (ὑπόληψις) that Caesar previously crossed the Rubicon in 49 BC. But I do not perceive my proposition to be the appearing anew of something that happened previously. In contrast, when I remember reading about or learning about Caesar crossing the Rubicon in 49 BC, I perceive the memory to be the appearing anew of my previous learning. The memory phantasma is perceived as a representation and appearing anew of the past. The thought of a historical fact is a declaration about the past made in the present, not a reappearance of the past. Only when the judgment about
Caesar’s movements is fitted to my past cognitive activity does the judgment become a memory and a reappearance of something I did previously.

In addition to objects, facts, and states of affairs, often we speak also of remembering how to do something (“habit memory”), such as how to play a melody on an instrument or how to build a cabinet, or remembering things that we know, such as how to derive an equilateral triangle from a given radius. The reason why it is sensible to make knowledge the object of remembering in our expressions is because knowledge is something retained. We may see that categorizing as remembering the cognition of objects, facts, skills, opinion, or knowledge previously acquired and retained effectively reduces all thinking that involves the retrieval of retained information to some form of remembering. Thinking would be other than remembering only under the condition that what is thought is not something previously acquired and retained. And because the exercise of knowledge is of something previously acquired, broadening memory to include objects formerly as opposed to past cognition of objects runs the risk of collapsing knowing and remembering. For scientific taxonomical purposes, then, the inclusion of time sense keeps memory to its proper place and keeps memory from being muddled with supposition that deals with present objects (449b13-18). While anything retained is by necessity something acquired previously, not everything retained is cognized as belonging to the past. Because Aristotle restricts memory in the primary sense to what has occurred previously, acts of knowing cannot be acts of remembering. If one moves from potentially thinking of how to derive an equilateral triangle in potentiality to actually thinking of how to derive an equilateral triangle, one does not take up anything past unless the proof is conceived as connected to some prior learning,
thinking, or figuring out. Similarly, when a jazz pianist sits down to improvise within the limits of a given chord progression, the pianist need not (and probably does not) recall any previous occurrence of playing; the pianist simply exercises skill at playing jazz piano. Indeed, attempting to recall previous occurrences of playing or how to play with much clarity or specificity would likely get in the way of playing in the present.

Aristotle classifies art (technê) as right reasoning that pertains to making something and classifies knowledge (epistêmê) as demonstration of what is necessary or for the most part (see NE vi 3-4). Both knowledge and art, like memory in its application as retention, are first actualities and dispositions (hexeis) of the soul, except that art and knowledge are intellectual dispositions, whereas retention is a disposition of the perceptive part of the soul. Rather than having remembering as the second actuality of knowledge or opinion, Aristotle has us merely acting dispositionally on the knowledge or belief that we possess. Knowledge and belief are things retained, but dubiously memories in the primary sense for Aristotle. While we can speak of dispositions as things retained, cognitive dispositions are not so much memories retained in the soul as they are developed, stable capacities from out of which the possessor enters into certain kinds of activity in relation to certain sorts of objects. For instance, geometrical knowledge is a stable disposition in virtue of which the possessor can provide demonstrations of geometrical proofs. The person who works through a demonstration need not recall any previous learning or working through the proof. On account of the developed, stable understanding of geometry and its principles, the geometer exercises geometrical understanding rather than remembering it. This is even more obvious with literacy. It would be strange to claim that when reading one remembers how to read.
Rather, one reads by exercising a developed disposition for the activity. Procedural memory is especially dubiously an instance of remembering in the case of reading, writing, and speaking. We do not recall how to speak. We act on a fully developed disposition for speech.

To sum up, we should see that both a genus, what has (already) come about (τὸ γενόμενον), and a differentia, the remembering subject’s own prior cognition, enter into the primary, governing sense of memory. The differentia shows that the primary, governing sense of memory is episodic. Although Aristotle does not say explicitly, the reason why episodic memory is the primary sense is probably because (1) episodic memory allows for other sorts of memory in the less governing sense and (2) episodic memory is most widely distributed sort of memory (as Aristotle defines it) and, hence, the most basic. Episodic memory is memory in the exemplary sense because if one can remember one’s past cognition of X, then one can also retain and return to X abstracted from the original cognition of X. While retention of the cognition of X includes X, the retention of X need not so much include retention of the cognition of X (which the retrieval of information without the ability to recall prior cognition of the information confirms). This fits with Aristotle’s tendency to provide comprehensive explanations by dealing with exemplary instances of the subject matter under discussion.

Further, we might see that episodic memory is primary because it is the only sort that is distributed universally among all the animals that remember. In chapter one of De memoria, where the aim is at least in part taxonomical (one aim is to say what memory is), Aristotle says that as many among the animals as have a sense of time remember (449b28-30). Nowhere in DM chapter one does Aristotle waver from his commitment
that remembering is of the past cognition of X. The implication of the two positions in
*De memoria* chapter one, that (1) all animals with a sense of time remember and that (2)
Aristotle never wavers from the commitment to memory as the cognition of X, is that all
animals with memory must possess episodic memory. Perhaps there are less primary
forms of memory in addition to the episodic sort, but there is no memory *hexis* that is not
a relation to prior cognitive activity. Hence, memory in the primary sense is episodic. It
is not until the second chapter of *De memoria*, where the inquiry is devoted mostly to the
uniquely human capacity of recollection, that Aristotle begins to speak with any
frequency of remembering X seemingly abstracted from any prior cognition of X.
Tellingly, when speaking of being put in mind of past objects seemingly abstracted from
any prior cognition of the object, Aristotle refers to “they” or “we,” meaning human
rather than beasts. They who seem to recollect (δοκοῦσιν ἀναμιμήσκεσθαι) by means of
the place schema of memory (*topoi*) are moved to take up autumn (*DM* ii, 452a12-16)
and whenever it is necessary to remember a name (δέ ονομα μνημονεύσαι), if we know
(ίσμεν) a similar name, we sometimes hit upon the similar name rather than the one we
wish to remember (*DM* ii, 452b4-7).

These passages possibly suggest that humans, but not beasts, are able to
remember past objects without much focus on the prior cognition of the object. If the
beasts too much remember X abstracted from the former cognition or cognitions of X,
then the beast has something in the soul that is not very particular. Probably beasts are
restricted to episodic memory of prior sense perception because beasts are tied to
particulars without access to universals. And because the beasts lack calculative
*phantasia*, beasts will have a poor sense of time. We should see that their sense of past
time is a vague sense as they cannot remember with precision (see 452b29-53a4). Beast memory is tied to prior sense perception, but because the beasts lack the ability to locate their memories temporally with much precision, they are unlikely able to remember with much context. Lacking much precision in locating their past cognition, the particularity of beast memory can only be so particular. Because humans possess calculative phantasia and can locate their past activity with precision, humans have memory that exceeds the beasts regarding both particulars and universals.\textsuperscript{242}

Passages from outside of De memoria support the view that Aristotle allows for a less governing sense of memory, but one which applies only to humans. In Metaphysics i 1 and especially in Posterior Analytics ii 19, Aristotle links memory to experience (ἐμπειρία) and the acquisition of universals and science. In Posterior Analytics ii 19, Aristotle lays out the role of memory in learning of and grasping universals.

From sense perception arises memory (μνήμη), as we say, and from many memories (μνήμης πολλάκις) of the same thing arises experience (ἐμπειρία): for a single experience is many memories (πολλαὶ μνήμαι) in number. And from experience or from the whole universal settled in the soul, of the one beside the many, that which is one thing in all those, [there arises] a source of art and knowledge, if it concerns genesis, of skill, but if being, of knowledge.\textsuperscript{243} (100a3-9)

Many memories of sense perceptions of the same species (poodle) or genus (dog) constitutes an experience of the species or genus. Of interest is Aristotle’s mentioning that a single experience is many memories in number pertaining to the same thing. An experience is not simply an aggregate heap of memories, but an impression of a class of

\textsuperscript{242} Cf. NE vi 7, 1141b14-22. Practical judgment moves back and forth from the particular to the universal. Because action requires choice concerned with ultimate particulars guided by what is universal, the practically wise will require memory of prior, specific actions in relation to the current circumstance. The implication is that the practically wise have memory of specific instances of prior activity and not just a vague sense of generally having done this or that kind of thing.

\textsuperscript{243} Ἐκ μὲν οὖν αἰσθήσεως γίνεται μνήμη, ὡσπερ λέγομεν, ἢ δὲ μνήμης πολλάκις τοῦ αὐτοῦ γινομένης ἐμπειρία· αἱ γάρ πολλαὶ μνήμαι τὸ ἀρίθμῳ ἐμπειρία μιᾷ ἐστίν. ἢ δ’ ἐμπειρίας ἢ ἢ παντὸς ἠμημήσαντος τοῦ καθόλου ἐν τῇ ψυχῇ, τοῦ ἐνὸς παρὰ τὰ πολλά, ὃ ἀν ἐν ἀπασίν ἐν ἐνὶ ἐκείνοις τὸ αὐτὸ, τέχνης ἄρχῃ καὶ ἐπιστήμης, ἐάν μὲν περὶ γένεσιν, τέχνης, ἐάν δὲ περὶ τὸ ὅν, ἐπιστήμης.
beings or of a type of feature that belongs to a class built up from many different memories of the same class or feature. If I have enough memories of different poodles, I can represent through *phantasia* a token instance of the kind poodle. From the impression of the token type, I can begin to pick out universals that belong to the kind poodle: quadruped, curly coat, etc. Memories that enter into experience need not so much be tied to any particular prior cognition of the object remembered and so there is not so much a sense of past time. But because the experience involves the retention of *phantasmata* of the kind X, in a lesser way these can be called memories. So memory in the less governing sense (i.e., the experience of memory) that is not so tied to particulars is necessary for grasping what memory is in the primary sense! Because things known and opined are previously acquired and subsequently retained in the soul, we can speak of these as memories in a lesser way inasmuch as they are retained and retrieved. And as it is possible to remember past exercise of knowledge, opinion, and skill, to this extent it is possible to refer to knowledge retained as a memory of a sort.

Hence, we see how Aristotle provides a comprehensive account of what memory is. In the primary sense, memory is a *hexis* in relation to *phantasmata* that serve as copies of prior cognition that disposes the animal well or poorly toward its past. In the primary governing sense, memory is a *hexis* that disposes the animal well or poorly toward its prior cognitive activity as prior; this sort of memory is distributed universally among all the animals that remember. In a lesser way, memory is a *hexis* that disposes the human well or poorly toward past objects and is not so much focused on the prior cognition of the object or the sense that the object is past.
Appendix 1: Recall (τὸ μεμνῆσθαι) versus remembrance (τὸ μνημονεύειν).

In order better to understand recall (μέμνησθαι), it is necessary to look to the explanation of recall provided in chapter two of De memoria. Aristotle does not provide any explanation in chapter one. I will refer to μέμνησθαι as recall in order to distinguish it from remembrance (μνημονεύειν).

Recollection differs from relearning in this way, that one will be able somehow due to oneself to be moved toward what follows the source. But whenever one cannot do this oneself except on account of another, one no longer recalls (μεμνῆσθαι).\(^{244}\) (452a4-7)

In order to recollect, there must be (1) a source (ἀρχή) in the one who recollects through which one may be moved to take up a lost thought or memory (451b8-10) and (2) an abiding memory or thought in the one who is to recollect it (451b2-6). If such a source is not present, then one cannot be moved to take up again the abiding, but presently inaccessible memory or deed. The knowledge will have to be relearned or the matter of concern of the lost memory will have to be experienced anew. Additionally, if the thought or the memory of concern has been somehow destroyed or permanently lost, it will be impossible to return to this. The source is an associated nexus of thoughts and motions (phantasmata) in virtue of which the subject that possesses this can be moved to the missing matter of concern. Recollection differs from relearning knowledge in that the one who recollects has the motions associated with matter of concern in him or herself that lead to the missing subject matter. If the associations that lead to the missing knowledge must be provided by an outside source, then one no longer recollects, but

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\(^{244}\) καὶ τούτῳ διαφέρει τὸ ἀναμμηνήσκεσθαι τοῦ πάλιν μανθάνειν, ὅτι δονήσεται πὼς δὲ αὐτοῦ κινηθῆναι ἐπὶ τὸ μετὰ τὴν ἀρχὴν. ὅταν δὲ μὴ, ἄλλα δὲ ἄλλου, οὕτως μέμνηται.
relearns. Hence, recollection works through habituated associations (451b10-22). Motions (phantasmata) are associated by necessity or by habit (451b10-14). If a pair of motions is connected by necessity, then the movement of one must give rise to the other. By necessity, Aristotle may be thinking of ideas that are analytically bound to one another: if one happens to think of a bachelor, one must also think of an unmarried male or if one thinks of a triangle, one must also think of a shape that has three sides, etc. The reference could also be to a kind of hypothetical necessity: if recollection of a particular item is going to occur, then by necessity this motion must follow that motion.

Alternately, some motions are connected by habit so that if one movement occurs, then (for the most part) so does another. It appears that habituated associations among phantasmata also occasion remembrance. Those things are more easily remembered to which the one remembering has been more strongly accustomed (see 451b10-16).

Recollection occurs whenever an associated train of phantasia is set going such that one is moved to take up the wanted thought or memory (452a7-10). It probably does not matter whether the movement is occasioned by the one who recollects or whether someone else “jogs” the memory of the one trying to recollect: to jog someone’s memory is to set in motion the needed train of associations without which the one who wishes to recollect will be unable to arrive at the wanted missing term. Aristotle gets to Plato’s treatment of learning as recollection, but stops short of entering into metaphorical or mythical territory. The person who recollects must search for something that he or she already has in him or herself and by means of a source that he or she possesses. The searching may be provoked by another, but successful provocation requires that the one

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245 συμβαίνουσι δ’ αἱ ἀναμνήσεις ἐπειδὴ πέρυσεν ἡ κίνησις ὡσ παθέσθαι μετὰ τήνδε.
who is provoked possesses already the needed source of associated ideas. When Socrates asks the slave obviously leading questions, the slave boy must still come to understand and work things out for himself (and the ability to work things out is a source that belongs to the slave). The difference between the Platonic recollection metaphor for learning and Aristotle’s treatment is that Aristotle has recollection depend on possessing a memory or knowledge that one has previously learned in this life.

If one is able through oneself to be moved toward the missing matter of concern that follows the source (the associated ideas), then under these conditions one will recollect rather than relearn (καὶ τοῦτο διαφέρει τὸ ἀναμυνήσκεσθαι τοῦ πάλιν μνημόνειν, ὅτι δυνήσεται πως δί’ αὐτοῦ κινηθῆναι ἐπὶ τὸ μετὰ τὴν ἀρχήν, 452a4-6).

Whenever one is not able through oneself to be moved toward the missing matter of concern that follows a source that one possesses, but must be moved by another and something external, then under this condition one no longer recalls (μέμνηται) [the missing matter of concern] (ὅταν δὲ μὴ, ἄλλα δι’ ἄλλου, οὐκέτι μέμνηται, a6-7).

Recollection and recall (μεμνήσθαι) are not the same thing, although Aristotle has them closely linked in 452a4-7. Aristotle starts out by distinguishing recollection from relearning. Recollection may occur when one is able through oneself to be moved toward a missing term that follows upon an associated nexus of phantasmata (a4-6). If one is unable to be moved (κινηθῆναι) to the missing term through a source in oneself, then one no longer recalls (οὐκέτι μέμνηται) (a6-7). To be moved (κινηθῆναι) is either a condition for recall (μεμνήσθαι), an explanation of the sort of thing that recall is, or something that results in recall. I think that οὐκέτι (a7) indicates that the right reading is to take recall (μέμνηται, a7) as the process or action of calling to mind or being put in mind of an
absent item rather than the presently having in mind an item one has been moved to take up. Were οὐκέτι μέμνηται to mean that one no longer (presently) attends to a term in mind, then we must read, “Whenever one is unable through oneself to be moved toward the missing term that follows the source, but must be moved toward the term by something external or by someone else, then one no longer (presently) attends to the term in question.” Of course, if one does not have the source in virtue of which one is moved to the missing term, one cannot have had in mind the missing term so as no longer to attend to it presently. Hence, it makes no sense to read μέμνηται in 452a7 as referring to the result of having been moved or put in mind of something, namely, ‘having something in mind that has been recalled’; μέμνηται refers to the movement in virtue of which something comes to mind or is brought to mind. Aristotle is not saying that when we lack a source we no longer have in mind what has been recalled. Rather, Aristotle asserts that if one lacks the power and source to be moved to the missing item, one will no longer be able to be moved to retrieve the missing term: one no longer recalls, one no longer retrieves the absent term.

If my reading of οὐκέτι (452a7) and the surrounding contextual implications are correct, then recall (μεμνῆσθαι) looks to refer to an activity of calling something to mind or being put in mind of something. It should be noted that in chapter one, 450b27-51a2, where Aristotle provides an explanation of how the soul relates to a phantasma when remembering, Aristotle speaks of the soul perceiving a phantasma as a likeness or not “whenever the motion of the phantasma is actual” (ὅταν ἑνεργῇ ἡ κίνησις αὐτοῦ, 450b27-28). The primary focus of the chapter on memory and remembrance is not how the one who remembers is moved or moves to take up a memory phantasma, but what
occurs upon being engaged by a memory \textit{phantasma}. At least part of the point of 450b27-28, as “whenever” (δόταρ) indicates, is that memory \textit{phantasmata} are not always actualized and that the subject in whom they are retained is not always being affected by them. How memory \textit{phantasmata} come to be before the mind in the first place is not discussed until chapter two of \textit{De memoria} and it is in the context of how \textit{phantasmata} come before the mind that recall (μεμνησθαι) becomes a focus of discussion in chapter two.

Aristotle emphasizes a relation between being moved (κινηθῆναι) and recall (μεμνησθαι). And to be moved to a term presently absent to mind is just what Aristotle goes on to say recall accomplishes.

And often one is not able straightaway to recollect, but searching, one is able and discovers. And this comes about by setting in motion many [i.e., \textit{phantasmata}], until one sets moving the sort of motion through which the matter of concern will follow. For (γάρ) recall (τὸ μεμνησθαι) is the moving power (δύναμιν τὴν κινοῦσαν) present within, and this so as to be moved (κινηθῆναι) by oneself, namely (καί), by those motions which one possesses (ἔχει), as was said.

Recollection works by setting in motion many \textit{phantasmata} until a \textit{phantasma} is set in motion with which the wanted missing item is in proximate association. The talk of motions set in motion from which follows the missing item is a reference to the accustomed patterns of association set up among \textit{phantasmata} in the soul-body composite (451b10-22). The definition of recall (τὸ μεμνησθαι) is introduced to explain (γάρ) ultimately how recollection through a series of associated \textit{phantasmata} is possible; recollection advances by setting in motion associated motions from which one will follow a \textit{phantasma} of the missing matter of concern. Why it is possible to set in motion many

\footnote{246 πολλάκις δ’ ἦδη μὲν ἀδύνατε ἀναμνησθῆναι, ἢτων δὲ δύναται καὶ εὐρίσκει. τοῦτο δὲ γίγνεται κινοῦτι πολλά, ἐξ ὧν τοιαύτην κινήση κίνησιν ἢ ἀκολουθήσει τὸ πράγμα. τὸ γὰρ μεμνησθαι ἐστὶ τὸ ἐνεύμα δύναμιν τὴν κινοῦσαν· τοῦτο δὲ, ὡστ’ ἐξ αὐτοῦ καὶ ὧν κινήσεως κινηθῆναι, ὡσπερ εἴρηται. I read καί in the last sentence as epexegetical.}
phantasmata is because (γάρ) there is a power (δύναμις) for setting in motion a series of associated phantasmata. When one phantasma is set in motion, it will move (for the most part, 451b13-14) another associated phantasma and this another and so on. Once in motion phantasmata become moved movers: set in motion, a phantasma is capable of moving other phantasmata, but also the one who possesses these. The language of moving and being moved (“For recall is the moving power…as was said” 452a10-12) echoes the language in 452a5-6\(^{247}\) and a8-10\(^{248}\) and so “as was said” (a12) may refer to a5-6 and a8-10. Aristotle also has previously mentioned (451b10-14) that motions (phantasmata) in the soul-body composite are associated through necessity, or (for the most part) through habituation, so that 451b10-14 could also be the reference of “as was said.” Hence, Aristotle emphasizes that recall is a power that moves such that the things set in motion, namely, the phantasmata in association that one possesses, in turn move the subject that possesses them.

While 452a5-7 places recall within the context of recollection, the definition of recall in 452a10-12 suggests broader application. Recall is the power to set phantasmata in motion such that the subject possessing the power is in turn moved by the phantasmata set in motion. What it means for the subject that possesses the power of recall “to be moved” is hardly obvious. In 452a5-6, to be moved means to be moved from one phantasma (τὴν ὑπὲρην) to another that follows by association (ἐπὶ τὸ μετὰ). Aristotle illustrates with an example of recollecting a time of the year.

For recall (τὸ μεμνῆσθαι) is the moving power present within, and this so as to be set in motion by oneself, namely, by those motions which one possesses, as was said. But it is necessary to seize a source: it is for this reason that some seem to recollect from places. And the cause is that they go quickly from one thing to another, for example from milk to white, from white to air, and from this to

\(^{247}\) “…one will be able somehow due to oneself to be moved toward what follows the source.”

\(^{248}\) “…this comes about by setting in motion many [i.e., phantasmata], until one sets moving the sort of motion through which the matter of concern will follow.”

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Recollection requires getting ahold of a proper source from which the desired missing term can be found. Of key interest is Aristotle’s conjugation of μεμνήσθαι in the passive voice, ἐμνήσθη (a16), to be put in mind. Through a series of associated phantasmata one is put in mind of late autumn. The one who recollects sets in motion a phantasma that represents milk. How the phantasma that represents milk is set in motion in the first place is because the one who wishes to recollect is not completely blank. There is some context that motivates thinking of the particular starting point. The starting point in the example is a phantasma representing milk, from which one is moved by association through a sequence of associated items until one is reminded of late autumn by a phantasma that represents moisture. Once the phantasma that serves as a source is set going, the source moves whatever phantasma with which it is in association and the one who recollects is put in mind of what the associated phantasma represents and so on. Because late autumn is in the genitive (μετοπώρου), late autumn cannot be the subject of ἐμνήσθη; the precise claim is not that “late autumn gets remembered,” although remembering late autumn is what happens. Rather, the precise claim is that the one who engages in recall is put in mind (ἐμνήσθη) of or moved to think of late autumn. The emphasis is not on remembering late autumn, but being moved to take
up late autumn. How recall (μεμνῆσθαι) differs from recollection is that recollection is a directed search that makes use of the power of recall. Recall is a more general power to be moved from one phantasma to another. Because there are patterns and associations of phantasmata in the soul-body composite, there is the potency to be moved from one phantasma to another in virtue of the associations. When one phantasma is set going, we are moved to take up another associated with this and so on. Recall is the power to be moved to take up some X absent to mind due to an association X has with a phantasma that is present to mind. Hence, recall underlies and is instrumental both to remembrance and to recollection.

Aristotle tells us that there is an inner ability or capacity for moving phantasmata (recall), but hardly elaborates on the features the power possesses or how it moves. We may see that this under specificity is purposeful, for several things could function as a moving power of phantasmata. What sets a phantasma in motion may be something external, such as sense perception that is similar to some phantasma retained in the soul-body composite. Because like affects like, motion X set up by a particular sense activity can move another phantasma Y retained that is like X. Phantasma Y is before the mind in potentiality and when moved by motion X, Y comes to be before the mind in actuality. Hence, the association of phantasmata by habit and custom nicely allows Aristotle to account for why this or that memory “pops” into our head due to association with whatever we currently perceive or think. In the case of a predatory beast, for example, the sight of its prey moves retained phantasmata that represent past interactions with

“With the accus. μεμνῆσθαι means to remember something as a whole, with the gen. to remember something about a thing, bethink oneself.” Note that ‘bethink’ means to come to think something. To μεμνῆσθαι autumn is to to be put in mind of the time of the year in which something occurred.

253 For a similar, but alternate interpretation of 452a10-12, see David Bloch (2007) 86-89; 105-106.
similar prey. In this way the beast comes to remember itself chasing or eating past prey. The beast’s perceptual activity actualizes phantasmata similar to the perceptual activity. Further, once desire has been generated by present perception, further memories may be recalled. Suppose the prey of a snow leopard is atop a rocky outcropping with which the leopard has no previous experience. The appetite to reach the prey along with the present perception may set in motion several phantasmata that represent previous attempts to scale various ascents, triggering memories of past attempts at scaling. For humans, sense perception likewise can trigger recall of some memory due to the association among phantasmata, but recall need not be due to sense perception alone. Because human beings have rational and deliberative phantasia (λογιτικὴ καὶ βουλευτικὴ φαντασία, De anima iii 10, 433b29; iii 11, 34a7), supposition and thinking things through generally can cause movement among phantasmata of past cognition. This is especially clear in the case of practical thinking. Consideration of what is best to do in a new situation sets in motion phantasmata that represent similar past situations, causing these situations to come before the mind. Why recollection differs from recall is because recollection is a directed search among associated phantasma for a memory to which the one who wishes to recollect has lost immediate access and which must be hunted down. Recall is nothing other than the power to set phantasmata in motion to be before the mind in actuality. Hence, recall underlies both recollection and remembrance, but recall is neither of these. If recall is instrumental for both recollection and remembrance, this would explain why recall is used to explain not only both remembrance and recollection and why Aristotle contrasts recollection with remembrance, but never with recall. On the contrary, recall is essential for recollection.
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