

ARTICLE

Special Issue: Canadian Philosophical Association 2023 Prize Winning Papers

This Paper Won a Congress Graduate Merit Award (CGMA)
Prize at the 2023 Canadian Philosophical Association
Conference

The *Intentio* of Pastness in Aquinas's Theory of Memory

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Abstract

In the *Summa Theologiae*, Thomas Aquinas states that the “aspect of pastness” involved in memory is a certain kind of cognitive object — i.e., an intention — apprehended by the “estimative power.” All told, however, Aquinas mentions this idea precisely once. In this article, I construct an account of the idea that pastness is an estimative intention by drawing upon texts in which I argue that Aquinas develops this idea, albeit without invoking the terminology of the estimative intention. I conclude that, by identifying the aspect of pastness as an estimative intention, Aquinas neatly synthesizes the Aristotelian and Arabic traditions on memory.

Résumé

Dans la *Summa Theologiae*, Thomas d'Aquin déclare que « l'aspect du passé » impliqué dans la mémoire est un certain type d'objet cognitif — c'est-à-dire une « intention » — saisi par la soi-disant « faculté estimative ». Néanmoins, Thomas d'Aquin mentionne cette idée précisément une seule fois. Dans cet article, je rends compte de l'idée selon laquelle le passé est une intention estimative en m'appuyant sur d'autres textes dans lesquels, selon moi, Thomas d'Aquin développe cette idée, sans pourtant faire appel à la terminologie de l'intention. Je conclus qu'en identifiant l'aspect du passé comme une intention estimative, Thomas d'Aquin synthétise parfaitement les traditions aristotélicienne et arabe en ce qui a trait à la mémoire.

Keywords: Aquinas; medieval philosophy; memory; internal senses; Avicenna; Averroes; Aristotle

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1. Introduction

In *Summa Theologiae* I.78.4,¹ i.e., the canonical article on the so-called “interior senses,” Thomas Aquinas (ca. 1225–1274) makes an important, but easily overlooked observation. After explaining that the so-called “estimative power” apprehends something that Aquinas calls the “*intentiones* that are not apprehended by sense,”² and that the memorative power stores these same *intentiones*, he adds: “And the very notion of the past (*ipsa ratio praeteriti*), which memory attends to, is to be counted among the *intentiones* of this kind” (Aquinas, *Summa*, I.78.4).³ This is, it is important to note, a wholly novel move. Although on the important matter of the interior senses, and the estimative power in particular (and its analogue in humans, i.e., the cogitative power⁴), Aquinas is heavily indebted to the great Arabic-language philosophers Avicenna (Ibn Sinâ, 980–1037) and Averroes (Ibn Rushd, 1126–1198), whom he cites repeatedly in *Summa* I.78.4, neither Avicenna nor Averroes ever identify the aspect of pastness (*ratio praeteriti*) as being an instance of an estimative/cogitative *intentio*. Neither, for that matter, does Aquinas’s teacher Albertus Magnus (1200–1280), who was arguably even more enthusiastic than Aquinas about the Arabic Peripatetic tradition on the interior senses.

However, while the idea that the *ratio praeteriti* is an estimative/cogitative *intentio* is both novel and philosophically significant, it is also true that Aquinas’s treatment of this idea is frustratingly perfunctory. All told, he explicitly references this idea precisely once in one sentence in one work. One consequence of this is that the idea has received little attention in the secondary literature.⁵ In this article, I

¹ All translations from Latin texts in this article are my own.

² [*I*]ntentiones quae per sensum non accipiuntur. The Latin *intentio* is often translated into English as “intention.” Although medieval Latin authors do often use the word *intentio* to denote something close to the contemporary use of the English word (i.e., an agent’s consciously willed purpose or plan), when used to denote the object of the estimative/cogitative power, the word carries a wholly different, and more technical meaning. In order to preserve precision, throughout this article, I simply leave the word *intentio* (*intentiones*, in the plural) untranslated, when it refers to the object of the estimative/cogitative power.

³ Aquinas, 1889. *Ad apprehendendum autem intentiones quae per sensum non accipiuntur, ordinatur vis aestimativa. Ad conservandum autem eas, vis memorativa, quae est thesaurus quidam huiusmodi intentionum. Cuius signum est, quod principium memorandi fit in animalibus ex aliqua huiusmodi intentione, puta quod est nocivum vel conveniens. Et ipsa ratio praeteriti, quam attendit memoria, inter huiusmodi intentiones computatur.*

⁴ I explain this distinction below.

⁵ Carla Di Martino briefly discusses the *ratio praeteriti* in her monograph *Ratio Particularis: La Doctrine des Sens Internes d’Avicenne à Thomas d’Aquin* (Di Martino, 2008, p. 137). Interestingly, since the first draft of this article was written, Matthew Acton has published a two-part series of articles (Acton, 2022, 2023) on time perception in Aquinas, the only lengthy study specifically on the topic of which I am aware. However, these articles, while excellent in many respects, do not seek to explain Aquinas’s statement that the *ratio praeteriti* is an estimative/cogitative *intentio*. One notable exception is Mark Barker, who addresses the *intentio praeteriti* in, “Aquinas on Internal Sensory Intentions: Nature and Classification” (Barker, 2012, pp. 218–223). Although there is no space in this article to discuss the problem in detail, it is worth noting that I disagree with Barker’s suggestion (Barker, 2012, p. 222) that the *ratio praeteriti* must be the “proper object” of the memorative power for Aquinas. In fact, it seems quite clear that the proper object of the memorative power is *any* kind of estimative/cogitative *intentio*. Barker’s concern that this would imply that the estimative/cogitative power and the memory share the same object (a seeming violation of Aquinas’s method of diversifying cognitive powers according to the diversity of cognitive objects) is

investigate the idea that the *ratio praeteriti* is an instance of an estimative/cogitative *intentio*, arguing that even if Aquinas does not explicitly furnish a detailed account of this *intentio* of pastness, it is possible to say a fair amount about it, both by applying principles *vis-à-vis* the estimative/cogitative power and their object (i.e., the *intentio*) that he explicates elsewhere, and by recognizing instances in which he is, in fact, describing the *intentio* of pastness, but without employing the terminology of the *intentio*.⁶ Ultimately, I conclude that Carla Di Martino (2008, p. 137) is right to suggest that by defining the *ratio praeteriti* as an estimative/cogitative *intentio*, Aquinas neatly stitches together the Aristotelian and Arabic Peripatetic traditions on memory, with the former emphasizing the awareness of pastness as the key characteristic of memory, and the latter emphasizing the centrality of the estimative/cogitative *intentio*.

2. Background: Aristotle and the Arabic Peripatetics

In his brief treatise, *De Memoria*,⁷ Aristotle gives an account of memory that heavily emphasizes the idea that memory is of the past. “Memory,” states Aristotle in some of the first lines of the treatise, “is of what has happened” (449b14).⁸ And again: “It is always the case that whenever somebody remembers he says in his soul that he has heard or sensed or understood this thing before” (449b22).⁹ For this reason, there is no memory of the present or of the future, but only of the past (449b10–20). Thus, pastness — and not only pastness, but the subjective *awareness* of pastness — is arguably the essential or defining characteristic of memory.

However, it is important to note that in a critical passage Aristotle links this ability to remember something as having occurred in the past closely to the ability to consider a preserved phantasm as a representation (*imago*) of something previously experienced (450a25–451a3). Without this ability, he notes, we could only “remember” phantasms preserved in the imagination, rather than the absent, previously experienced things of which those phantasms are likenesses. If that were so, there would not really be

alleviated if we recognize that Aquinas believes that powers can be diversified not merely according to the diversity of objects, as such, but also the *ratio* or “aspect” under which those objects are considered (See *Summa*, I.79.7). In *Summa* I.78.4, Aquinas makes clear that in corporeal powers there must be one power for receiving and another power for retaining a sensible object — in which case, the common sense and imagination, on the one hand, and the estimative/cogitative and memory, on the other, do indeed share the same objects (i.e., sensible forms and *intentiones*, respectively). However, their objects are diversified with respect to *ratio* (i.e., reception vs. preservation), which justifies the corresponding diversification of powers.

⁶ On this, I disagree with Alfred Leo White, Jr., who complains that Aquinas does “not give any account of the origin of the intention of pastness. That is, he does not explain how we recall something as past when we originally apprehended it as present” (White, 1997, pp. 141–142). In fact, as I show below, I believe that Aquinas does provide such an account. It is just that he does not explicitly speak of an *intentio praeteriti* when giving that account.

⁷ Since my interest in this article is to understand how Aquinas received and interpreted Aristotle, rather than in Aristotle’s pure doctrine, all references to Aristotle’s *De Memoria* in this article are to William of Moerbeke’s Latin *translatio nova* as found critically edited in the Leonine edition of Aquinas’s commentary (Aristotle, 1984).

⁸ *Memoria autem facti est.*

⁹ *Semper enim, cum secundum memorari agat, sic in anima dicit, quod hoc prius audivit aut sensit aut intellexit.*

memory at all, since all we would be “remembering” would be images in our minds.¹⁰ Memory, in other words, sees *through* the imagined phantasm to the previously sensed thing, of which the phantasm is a representation. To illustrate, Aristotle gives the example of a picture of an animal inscribed on a tablet (450b21–451a3).¹¹ This picture can be considered in one of two ways: first, *secundum se*, i.e., as a picture in its own right, and second, as a representation of something else (*alterius fantasma*), i.e., the real animal used by the artist as a model for the picture. This second mode of considering a phantasm is the mode that is proper to memory. Aristotle, however, does not explain precisely how this shift in perspective — i.e., from considering a phantasm *secundum se* to viewing it as a representation of some previously experienced thing — comes about.

Although the great Arabic-language Peripatetics Avicenna and Averroes do not necessarily deny that memory involves the past,¹² their accounts of remembering are striking in the way they de-emphasize pastness, and instead focus on providing a cognitive account of how it is possible for memory to be “of” a real, previously experienced extra-mental object, rather than merely of a phantasm. As we will see, this account was profoundly influential on Aquinas’s theory of memory.

Post-Aristotelian writers famously attempted to flesh out Aristotle’s thin account of such things as imagination and cogitation, ultimately postulating a number of what came to be termed “interior senses” to explain various aspects of post-sensory cognition (see Barker, 2012; Black, 1993, 1996; Wolfson, 1935). This effort reached a high degree of sophistication in the writings of Avicenna, who postulated in his *De Anima*¹³ the existence of five different interior senses: the common sense, imagination, compositive imagination, estimative power, and memory (Avicenna, 1972, pp. 79–90). Crucially, for our purposes, Avicenna distinguished between two different genera of sensible objects: first, sensible forms, and second, “un-sensed intentiones” (*intentiones non sensatas*) (Avicenna, 1972, p. 89).

In Avicenna’s model, four of the five interior senses are split into two receptive/retentive pairs, with each pair responsible for receiving and retaining one of the two kinds of sensible objects. The first pair is constituted of the common sense and the imagination, which are responsible (respectively) for receiving and retaining the sensible forms conveyed by all five of the proper senses. The second pair is constituted of the estimative power and memory, which have for their object the

¹⁰ *Si quidem enim hoc, absentium nihil utique memorabimur. ... Et si est simile sicut figura aut pictura in nobis huius ipsius sensus, propter quid utique erit memoria alterius, sed non huius ipsius? Agens enim memoria speculatur hanc passionem et sentit hanc.*

¹¹ *Ut enim in tabula scriptum animal, et animal est et imago, et idem et unum ipsum est ambo, esse tamen non idem amborum, et est considerare et sicut animal et sicut imaginem, sic et quod in nobis fantasma oportet suscipere et ipsum aliquid secundum se esse et alterius fantasma.*

¹² I hedge because there is some uncertainty about whether Averroes believes memory always involves pastness. Black (1996) has argued that for Averroes memory, rather than the power that apprehends things as past, is essentially the power that receives the individual *intentio* from the cogitative power, and in so doing apprehends the individual object as the very individual object that it is. Some of the reasons for this counter-intuitive claim will become apparent below.

¹³ It is important to note that Avicenna’s *De Anima* is not a commentary on Aristotle’s *De Anima*. Although Avicenna’s text is suffused with an Aristotelian ethos, it is ultimately an independent work of philosophy, in which his account of the interior senses is particularly noteworthy for its originality.

intentiones non sensatas, with the estimative power receiving and the memory retaining these *intentiones*. To give an account of what, precisely, these *intentiones non sensatas* are would require more space than is available here. However, in general, we can say that these estimative *intentiones* represent various sensible aspects of objects that are nevertheless not sensed by any of the exterior senses (Avicenna, 1972, p. 86),¹⁴ whether because they exceed what the exterior senses are capable of apprehending, or because they are being sensed *per accidens* by another sense (e.g., when sight “accidentally” senses “sweet” when it apprehends the yellowness of honey (Avicenna, 1968, p. 35).¹⁵ Importantly, the apprehension of *intentiones* like these cannot be attributed to intellect, because these *intentiones* are fundamentally *particular* aspects of individual sensible objects, rather than universal features conceptualized as universal, which is why non-rational animals are also capable of apprehending them. Thus, according to Avicenna, there must be a power other than the proper senses or intellect that is responsible for apprehending these unsensed sensible features of objects, i.e., the estimative power. For Avicenna, *intentiones* of this kind include such things as the suitability or unsuitability of objects to the sensing agent (Avicenna’s favoured example is the *intentio* of “hostility,” which is apprehended by the estimative power of a sheep when sensing a wolf (Avicenna, 1972, p. 86)). At times, however — and particularly when discussing memory (Avicenna, 1968, pp. 9–10) — Avicenna speaks of the estimative *intentio* as being a cognitive object that in some way represents a sensed object *as the very individual object that it is*, i.e., as an integral whole with a unique identity (see Black, 1993, pp. 226–227).

Averroes, in turn, accepted Avicenna’s distinction between sensible forms and *intentiones non sensatas*. Although Averroes eventually rejected Avicenna’s account of the estimative power in animals (Averroes, 1987, p. 336), he nevertheless retained the concept of unsensed *intentiones*, postulating that humans cognize these *intentiones* through an analogous power that he called the “cogitative power.” Averroes, however, significantly pared down the account of these *intentiones*, de-emphasizing the idea that *intentiones* represent relational/affective content (e.g., wolf as “hostile”), and instead singling out the idea that the *intentiones* somehow represent an object *qua* individual. As he describes it, the *intentio* of an object is like the kernel (*medullam*) of a fruit, while all the various sensible features are like the rind (*cortices*) (Averroes, 1949, p. 42). The upshot, as Deborah L. Black summarizes, is that “the perception of an intention for Averroes would seem to entail the recognition of an individual precisely insofar as it is an individual” (Black, 1996, p. 169).¹⁶

¹⁴ *Differentia autem inter apprehendere formam et apprehendere intentionem est haec: quod forma est illa quam apprehendit sensus interior et sensus exterior simul, sed sensus exterior primo apprehendit eam et postea reddit eam sensui interiori, sicut cum ovis apprehendit formam lupi, scilicet figuram eius et affectionem et colorem, sed sensus exterior ovis primo apprehendit eam et deinde sensus interior; intentio autem est id quod apprehendit anima de sensibili, quamvis non prius apprehendat illud sensus exterior, sicut ovis apprehendit intentionem quam habet de lupo, quae scilicet est quare debeat eum timere et fugere, quamvis non hoc apprehendat sensus ullo modo.*

¹⁵ This latter category of sensibles finds its origin in Aristotle’s description of the *per accidens* sensible in the *De Anima* (418a20–5). Avicenna’s innovation is to attribute this kind of *per accidens* sensation to the estimative power, and to call its object an estimative *intentio*.

¹⁶ Richard Taylor (1996, 2000) argues that the cogitative power’s apprehension of the *intentio* also provides some inchoate understanding of an individual as belonging to a *kind*. That is, according to

Importantly for our purposes, this idea that the *intentio* represents an individual *qua* individual plays a key role in both Avicenna's and Averroes's accounts of memory. Instead of emphasizing that memory is of the past, as Aristotle does, Avicenna and Averroes both single out the presence of the estimative or cogitative *intentio* as being what differentiates memory from other cognitive states, such as sensation or imagination. In both of their accounts, remembering occurs when the agent combines the correct *intentio* (which is stored in the memory) with the correct sensible forms (which are stored in the imagination). In his *De Anima*, Avicenna states that remembering requires at least three things, i.e., the sensible form, the *intentio*, and the putting of these two things together by the estimative power. It is only when these three things co-occur that the act of remembering occurs (Avicenna, 1968, pp. 8–10). In his *Epitome of the Parva Naturalia*, Averroes states that there are *four* things involved in an act of remembering, i.e., the sensible image, the intention, causing that intention to be present (*facere illam intentionem esse presentem*), and the judging that the intention is the same intention that was previously sensed (Averroes, 1949, pp. 51–52). Like Avicenna, then, for Averroes, remembering occurs when the correct *intentio* (preserved in the memory) is combined with the correct sensible form (preserved in the imagination) by the agent.

While Avicenna's and Averroes's accounts of interior sense and memory differ in some significant ways (see Black, 2017), in both cases, the *intentio* is a cognitive object that provides the intentional content that links sensible forms preserved in the imagination to a real, previously experienced object *extra mente*. In this way, both authors single out and explain Aristotle's idea that memory happens when the sensible phantasm in the imagination is apprehended as a *representation* of something previously experienced. Without the appropriate *intentio*, the phantasm in the imagination is merely a collection of sensible forms, i.e., a phantasm considered *secundum se*. Combined with the appropriate *intentio*, however, it is a representation of some previously experienced thing, and thus remembering can occur. In this way, they explain Aristotle's description of two radically different modes of considering the same phantasm, i.e., by postulating a cognitive object that represents the individual as such, and a corresponding cognitive power (estimative or cogitative) that, working in concert with memory and imagination, recombines the correct *intentio* with the correct sensible forms to produce an act of remembering. Although Avicenna and Averroes both typically assume that memory is of something experienced in the past,¹⁷ their accounts of memory and remembering do not typically emphasize pastness, instead focusing on the cognitive objects that must cohere and the cognitive processes that must occur for remembering to successfully come about.

Taylor, the *intentio* is a representation of the "individual form" of the object, which, when apprehended, provides both an awareness of the individual, and prepares the agent for intellectual understanding by providing a pre-intellectual grasp of the potentially universal aspects of the object. However, it is the cogitative's grasp of the individual that is most directly relevant for our purposes.

¹⁷ For a possible exception in the case of Averroes, see footnote 12 above.

3. Aquinas's Hybrid Account

Black rightly suggests that Aquinas's account of the internal senses is essentially a hybridization of Avicenna's and Averroes's theories (Black, 2000, pp. 66–68). A detailed comparison between Aquinas's theory and that of the two great Arabic-language philosophers would require more space than is available here. However, a brief summary might go like this.¹⁸ Aquinas agrees with Avicenna on the existence of a common sense, imagination, estimative power, and memorative power. However, he agrees with Averroes (and disagrees with Avicenna) that there is no separate compositive imagination. Those functions that Avicenna attributes to an ontologically distinct compositive imagination can instead be attributed simply to the imagination. Whereas Avicenna postulates the existence of an estimative power in animals and humans alike, Aquinas argues that the equivalent of the estimative in humans is sufficiently different in mode of operation as to merit being called by a different name, i.e., the cogitative (see De Haan, 2014, 2019) (in accepting the animal estimative, however, Aquinas disagrees with Averroes, who ultimately rejects this power altogether (Averroes, 1987, p. 336)). Thus, where Avicenna postulates *five* interior senses, Aquinas accepts only four, i.e., the common sense, imagination, estimative/cogitative, and memory.

Importantly, following both Avicenna and Averroes, Aquinas accepts the distinction between two kinds of sensible objects, i.e., sensible forms and unsensed *intentiones*. Like Avicenna, he argues that the interior senses are split into two receptive/retentive pairs, with the common sense and imagination receiving and retaining (respectively) sensible forms, and the estimative/cogitative power and memory receiving and retaining (respectively) the unsensed *intentiones*. The “hybridization” is particularly evident in Aquinas's balancing of the Averroistic emphasis on the *intentio* as representing an object *qua* individual, and the Avicennian notion of the *intentio* as representing various relational/affective qualities of individual objects. So, for example, in *Summa Theologiae* I.78.4, Aquinas, in describing the function of the estimative power, repeats Avicenna's example of the sheep sensing the wolf as “enemy,” and adds his own example, i.e., that of a bird apprehending straw as “useful-for-building a nest.” However, in his commentary on the *De Anima*, Aquinas takes a distinctly Averroistic line in explaining that the estimative power (in animals) or cogitative power (in humans) is responsible for apprehending an object as a *this*, i.e., as an integral individual. As he writes:

If, however, something is apprehended in the singular — as when, for example, seeing something coloured, I perceive *this man* or *this animal* — then this apprehension occurs through the cogitative power (in the case of humans), which is also called the *ratio particularis*, because it collates individual *intentiones*, just as universal reason collates universal *intentiones*. (*In De Anima*, II.13, n. 396)¹⁹

¹⁸ Most of what follows is laid out quite neatly and succinctly, with explicit reference to Avicenna and Averroes, in *Summa Theologiae* I.78.4.

¹⁹ Aquinas, 1984. *Si vero apprehendatur in singulari, ut puta <si>, cum video coloratum, percipio hunc hominem vel hoc animal, huiusmodi quidem apprehensio in homine fit per vim cogitativam, quae dicitur*

Similarly, when the sheep recognizes its own offspring, this is the estimative power at work.

We can summarize the upshot of Aquinas's account of estimation/cogitation by repeating a principle we have already encountered in the case of Avicenna, i.e., for Aquinas, any kind of apprehension at the level of sense with respect to an individual that cannot be explained by the proper or common senses (which are confined to apprehending only the proper and common sensibles), is an instance of an estimative/cogitative *intentio*. Hence, Aquinas's definition of the object of the estimative/cogitative power in negative terms, i.e., "*intentiones* that are *not* received by the senses," (*Summa*, I.78.4) or, as Avicenna put it, "unsensed *intentiones*."

4. The *Intentio* of Pastness

With this foundational background material now in place, it is time to turn our attention to the main topic of this article, i.e., the *intentio* of pastness. As already noted, although Aquinas is heavily indebted to Avicenna and Averroes for his account of the interior senses and the estimative/cogitative *intentio*, neither of these thinkers ever speak of the aspect of pastness (i.e., *ratio praeteriti*) as an estimative/cogitative *intentio*. Nor does Aquinas's teacher, Albertus Magnus, an avid disciple of the Arabic Peripatetics, especially on the matter of the interior senses. Thus, there is good reason to take note when Aquinas writes:

However, for apprehending *intentiones* where are not received through sense, the estimative power is appointed; and for preserving those [*intentiones*], the memorative power, which is a certain storehouse of such *intentiones*. ... *And the very notion of the past* (ipsa ratio praeteriti), *which memory attends to, is to be counted among the intentiones of this kind.* (*Summa*, I.78.4)²⁰

What Aquinas is clearly saying here is that the apprehension that something was thought or sensed in the past, which is essential to the act of remembering, is the apprehension of a certain kind of estimative/cogitative *intentio*. That is to say, the apprehension of pastness with respect to a specific phantasm is something that is not apprehended by the proper or common senses, but rather by the estimative/cogitative power.

Clearly, this claim holds important implications for understanding Aquinas's theories of time perception and memory. The difficulty is that Aquinas provides absolutely no further description of the *intentio* of pastness in the *Summa*. Nor does he ever speak explicitly of an *intentio* of pastness in any other work. However, in the rest of this article, I will argue that he does provide significant detail

etiam ratio particularis eo quod est collativa intentionum individualium sicut ratio universalis est collativa rationum universalium.

²⁰ *Ad apprehendendum autem intentiones quae per sensum non accipiuntur, ordinatur vis aestimativa. Ad conservandum autem eas, vis memorativa, quae est thesaurus quidam huiusmodi intentionum. Cuius signum est, quod principium memorandi fit in animalibus ex aliqua huiusmodi intentione, puta quod est nocivum vel conveniens. Et ipsa ratio praeteriti, quam attendit memoria, inter huiusmodi intentiones computatur.*

about this *intentio* of pastness in other works, particularly in a key passage in his commentary on the *De Memoria*, in which he takes up Aristotle's skeletal description of how the soul cognizes past time. Although Aquinas makes no mention of an *intentio* here, if indeed the awareness of past time involves a kind of *intentio*, then it seems that this passage is the primary candidate in Aquinas's *corpus* to provide further detail as to what sort of thing this *intentio* of pastness might be. Other clues are to be found in his descriptions of time and time perception in his commentary on the *Physics*.

Let us begin with a brief look at the commentary on the *Physics*.²¹ In the *Physics*, Aristotle famously speculates on the nature of time, noting that time is "either motion or something of motion."²² However, he discards the notion that time *is* motion, arguing that it is "something of motion." More specifically, he states, time is motion "insofar as it has number" with respect to a before and after (218b21–219a10).²³ Thus, while time is not motion, it is the case that we only apprehend time when there is motion.

Aquinas accepts this account, repeatedly emphasizing that time is the measure of motion. Thus, in cases when an agent fails to apprehend motion of any sort, including the motion of the succession of his own interior cogitations or imaginations, he also loses all apprehension of time (*In Phys.*, IV.17, n. 572).²⁴ This is what happened in the famous case of the Sardinian sleepers, who fell into so deep and dreamless a sleep that they lost all consciousness, and thus any awareness of motion. Awakening later, they failed to realize that any time had passed (*In Phys.*, IV.16, n. 517). Given the outline of Aquinas's theory of the cogitative power given above, however, it should strike us as significant that Aquinas argues that the apprehension of motion, which is propaedeutic to the apprehension of time, is dependent upon the continuous apprehension of a particular individual (*hoc aliquid*) (*In Phys.*, V.18, n. 587) across a prior and a posterior. Thus, he notes, we can see Coriscus in the forum and Coriscus in the theatre. In both cases, Coriscus is the same in subject. And it is because we apprehend Coriscus as the same in subject that we are empowered to apprehend motion with respect to Coriscus, and thus to apprehend time, i.e., because "insofar as there is something that is the same in motion, so also it must be the same in time" (*In Phys.*, IV.18, n. 585).²⁵ Although, in this passage, Aquinas makes no mention of the cogitative power, we know from other passages that for Aquinas to apprehend Coriscus *as* Coriscus, is to apprehend an individual *intentio* by means of the cogitative power. Critically, then, this apprehension of Coriscus (or any object) as a discrete, continuous individual across a prior and a posterior, which would seem to be a prerequisite for the apprehension of

²¹ For insights into the *Physics* commentary, I am indebted in part to the first part of Acton's recent series (Acton, 2022, 2023) on time perception in Aquinas. As with Aristotle's *De Memoria*, I here rely upon the Latin translation of Aristotle's *Physics* as found in the Leonine edition of Aquinas's commentary (Aristotle, 1884), as made available by The Aquinas Institute on <https://aquinas.cc>.

²² *Quare aut motus aut aliquid motus est tempus.*

²³ *Cum autem prius et posterius est, tunc dicimus tempus: hoc enim est tempus, numerus motus secundum prius et posterius. Non ergo motus tempus est, sed secundum quod numerum habet motus.*

²⁴ Aquinas, 1884.

²⁵ *[S]imiliter oportebit esse aliquid idem in tempore, sicut est aliquid idem in motu.*

motion, and thus for time, is one way that the cogitative (or estimative, in animals) power is involved in time perception (and, in turn, memory).

That time is a measure of motion, which measurement depends upon the agent's capacity to apprehend an individual as maintaining a stable identity across a prior and posterior, is the first key lesson we learn from the commentary on the *Physics*. The second idea worth highlighting from the commentary, is Aquinas's claim that we measure motion, and in turn the passage of time, by comparing two discrete "nows," i.e., the "now" of the immediate present, and the "now" of some past moment. He writes:

For it is clear that we determine that there is time when we apprehend one thing and something else, and we apprehend the medium between them. For when we understand the diverse extremes of a certain medium, and the soul says that there are two "nows" — this one prior, and that one posterior — as though by numbering the prior and posterior in motion, then we say that there is time (*In Phys.*, IV.17, n. 580).²⁶

The present now, in other words, is the anchoring point of all determinations of time, with past time being determined by some sort of measurement or numbering from the present "now" to some past, discrete "now." Here, however, Aquinas does not explicitly state *how* or by means of which faculties the agent accomplishes this comparison of nows, and thereby apprehends time. Let us now turn to the *De Memoria* commentary.

In the key portion of Book VII of the *De Memoria* commentary that we will spend the rest of the article examining, Aquinas tackles some of the same themes as in the *Physics* commentary, while providing considerably more detail. Here, he is commenting on a passage in *De Memoria* in which Aristotle argues that the soul recognizes and judges past time through a sort of proportion or *ratio*, which takes the form of an image or phantasm (452b8–452b22). Aristotle's description involves a variety of points, labelled with letters of the Greek alphabet. Scholars who have grappled with this obscure passage have graphed the points as forming a triangle, which is sectioned into segments of different sizes that are, however, proportionate to one another. The details of how precisely this image is supposed to function are famously murky.²⁷ Nevertheless, the upshot is that Aristotle supposes that the one remembering gauges how far in the past something occurred by means of a kind

²⁶ *Manifestum est enim quod tunc esse tempus determinamus, cum accipimus in motu aliud et aliud, et accipimus aliquid medium inter ea. Cum enim intelligimus extrema diversa alicuius medii, et anima dicat illa esse duo nunc, hoc prius, illud posterius, quasi numerando prius et posterius in motu, tunc hoc dicimus esse tempus. Tempus enim determinari videtur ipso nunc. Et hoc supponatur ad praesens, quia postea erit magis manifestum.*

²⁷ Richard Sorabji's (1972, pp. 18–21) analysis of this passage in the Greek is highly tentative, raising more questions than it answers. David Bloch doesn't comment on it at all. However, in commenting on the lines immediately following (452b23–29), Bloch notes that these lines follow "upon a very difficult passage, the interpretation of which is extremely uncertain" (Bloch, 2007, p. 101). In a footnote, he adds, "I have no strong views regarding this passage, and I am uncertain whether the difficulties can be sufficiently solved" (Bloch, 2007, p. 101, ff. 187).

of phantasm that represents temporal lapses in terms of geometrical proportions. When the image of the thing to be remembered, and this temporal phantasm,²⁸ occur together, then memory occurs (452b23).²⁹

If the Greek manuscripts of this passage are confusing, we should not be surprised that William of Moerbeke's Latin translation is no better. Nevertheless, Aquinas provides a detailed reading that is, on some points, significantly clearer than the Latin Aristotelian original. In tackling this passage, Aquinas notes that Aristotle says that there is "something in the soul whereby it judges a greater or lesser measure of time." This "something" involves a *ratio* with respect to corporeal magnitudes that represent a certain distance. It is to these magnitudes or distances that "the quantity of time is made proportionate, which is grasped with respect to the distance from the present *now*" (*In De Mem.*, VII, n. 387).³⁰

What Aquinas appears to be saying here is that, in order to grasp how far something is in the past, we must apprehend the distance of time by means of a sensible phantasm that represents a certain, proportionate measure of time from the present, which is applied to a certain imaginative form considered as a representation of something experienced in the past. The present "now," then (as we already saw in the *Physics* commentary), is the anchoring point for all temporal judgements, while proportionate imagistic magnitudes represent disparate quantities of time from the present moment. Aquinas goes on to note that this is similar to the way that the soul grasps any corporeal magnitude, i.e., by means of a movement in the soul that bears a proportion to the magnitude outside the soul: "for there are in the soul certain forms and motions similar to the things, by which it knows things" (*In De Mem.*, VII, n. 388).³¹ What he is saying is that, when comparing the size or magnitude of any number of things (including time), the images we have in our mind are not actually the size of the things of which we are thinking; they are, rather, proportions. For instance, if one thinks about the difference in height between the CN Tower and the Empire State building, one does not have in one's imagination two

²⁸ As Aristotle notes, the amount of elapsed time represented in this phantasm can be non-specific, e.g., this thing happened at some unknown point in the past, or specific, e.g., this thing occurred on 3 November 2013 at 4:00 pm (452b29).

²⁹ *Cum igitur rei que simul fiat motus et temporis, tunc memoria agit.*

³⁰ Aquinas, 1985. *Dicit ergo primo quod aliquid est in anima quo iudicat maiorem et minorem mensuram temporis, et hoc rationabile est esse circa tempus sicut et circa magnitudines corporales, quas quidem intelligit anima et magnas quidem, quantum ad quantitatem corporum visorum, et procul, quantum ad quantitatem distantiae localis cui proportionatur quantitas temporis quae accipitur secundum distantiam a praesenti nunc.*

³¹ [N]on ergo cognoscit anima magnitudinem ei se extendendo, sed per hoc quod quidam motus a re sensibili relictus in anima est proportionalis magnitudini exteriori: sunt enim in anima quaedam formae et motus similes rebus, per quas res cognoscit. Aquinas repeats and expands slightly upon this idea a few paragraphs later, comparing the manner in which a person grasps magnitudes through interior likenesses to the way a person grasps species of things (i.e., a cow or horse) through interior likenesses. *Et dicit quod per similem figuram sive formam intelligit minora, id est minorem quantitatem, sicut et per formam similem cognoscit maiorem magnitudinem. Formae enim et motus interiores proportionaliter correspondent magnitudinibus exterioribus, et forte ita est de magnitudinibus sive de distantibus locorum et temporum sicut et de speciebus rerum, ut sicut in ipso cognoscente sunt diversae similitudines et motus proportionaliter respondentibus diversis speciebus rerum, puta equo et bovi, ita etiam et diversis quantitativibus* (*In De Mem.*, VII, n. 390).

images that are, in fact, 553 metres and 381 metres, respectively, but rather two images that bear the same proportion as 553 metres to 381 metres, and which represent and map onto the real-world quantities.

Then follows a difficult, but in the end fairly clear description of a triangle made up of points, which is subdivided into smaller, but proportionate triangles by subsectioning the triangle at various points horizontal to the base. As Aquinas explains it, the lines formed by the original and subsectioned *sides* of the triangle represent a certain motion or magnitude in the soul, while the lines formed by the *bases* of the original and subsectioned triangles represent a certain quantity of time. The point is that, as one moves up the side of the triangle, the side and base lengths reduce in size proportionately. And so, whatever magnitude we have as a motion in the soul corresponds to a proportionate magnitude of time in the world.³²

The ensuing descriptions of how various magnitudes are compared all riff on the same basic theme, i.e., that temporal distances are known by comparing and contrasting different magnitudes in the soul. The whole passage, however, concludes with this crucial principle, quoted nearly verbatim from Aristotle: “when in the soul there occurs at the same time a motion of the thing to be remembered and of past time, then there is an act of memory” (*In De Mem.*, VII, n. 396).³³

If we assume that Aquinas is being consistent across the *De Memoria* and *Physics* commentaries and the *Summa*, then this motion of past time — which is apprehended by means an imaginative magnitude that is proportionate to the distance from the present to a past “now,” and then applied to a particular thing being remembered — must be a case of an *intentio*, i.e., the *intentio* of pastness mentioned in *Summa* I.78.4. This certainly seems to me to be a reasonable hypothesis, and one that coheres perfectly well with Aquinas’s overall account in the *De Anima* commentary of the estimative/cogitative *intentio* as an instance of a *per accidens* sensible (*In De Anima*, II.13, n. 385–396). That something sensed was sensed or experienced in the past is not something that either the proper or common senses can apprehend (i.e., it is not a proper or common sensible). Neither can the imagination, since the imagination only stores sensible species without intentional reference to the things of which they are likenesses. Without that intentional reference to a real, previously experienced thing, the phantasm in the imagination is simply a phantasm considered *secundum se*. Nor can the intellect apprehend this aspect of pastness, since the intellect abstracts from temporality altogether, in which case the only candidate left is the estimative or cogitative power. By apprehending the *intentio* of this sensed thing as a particular individual, the estimative/cogitative power is thus empowered to judge *via* an imagistic magnitude proportionate to a certain quantity of lapsed time that this phantasm stored in the imagination is a representation of something *extra mente* that was known or experienced a certain quantity of time in the past. This estimative/cogitative judgement that something was experienced

³² *Per lineam vero ab et partes eius, intelliguntur motus animae, quibus anima cognoscit. Per lineas autem BE, GD et ZI, quae sunt bases triangulorum, intelliguntur diversae quantitates, magnitudine et parvitate differentes.*

³³ [Q]uando in anima simul occurrit motus rei memorandae et temporis praeteriti, tunc est memoriae actus.

in the past both enriches and depends upon the individual *intentio* (i.e., that *intentio* which represents the individual thing as the very individual it is), which in turn enriches the sensible forms stored in the imagination, and is an instance of an estimative/cogitative *intentio*, i.e., the *intentio praeteriti*.

Note that it would not seem that the temporal *phantasm* by which past time is apprehended is itself the *intentio*. Given Aquinas's overall account of the interior senses, the imagistic content of the *phantasm* here would have to be provided by the imagination. It is the imagination, after all, that preserves and uses the sensible forms that constitute the imagistic content of a sensible *phantasm*. The estimative or cogitative powers, however, apprehend *intentiones* that are not sensed by the proper senses, such as the aspect of "hostility," or an object's very individuality (e.g., Socrates), or the aspect of pastness (*ratio praeteriti*). Thus, it must be the *judgement* that this particular thing was experienced a certain length of time in the past that is the *intentio praeteriti*. This is something that is arrived at *by means of* an imagistic *phantasm* that represents a certain length of time, but is not reducible to an imagistic *phantasm*. As is the case with certain other estimative/cogitative *intentiones*, the *intentio praeteriti* represents a kind of relation,³⁴ i.e., a relation between the now and a certain time in the past, which is then applied to an imaginative form considered as a representation of a previously experienced thing.

5. Conclusion: Uniting the Aristotelian and Arabic Peripatetic Traditions

In brief remarks in her monograph *Ratio Particularis*, Di Martino notes Aquinas's acceptance of the Arabic Peripatetic distinction between sensible forms and estimative/cogitative *intentiones*. However, she adds, Aquinas's move to identify the *ratio praeteriti* as itself being an estimative/cogitative *intentio* is ultimately a "bold but brilliant exegetical idea" by which he "recovers the Aristotelian definition that links memory to past time by making the temporal determination, the *ratio praeteriti*, an *intentio*." In this way, he "brilliantly resolved the primary problem in the tradition, which proposes two definitions of memory: the faculty of the past, or the faculty of *intentiones*" (Di Martino, 2008, p. 137).³⁵

³⁴ Dag Hasse argues that, for Avicenna at least, estimative intentions are essentially "relational" (Hasse, 2000, pp. 135–136). One can see this quite clearly in Avicenna's own example of how dogs come to fear wood, i.e., because the dog comes, through experience, to associate the *intentio* of pain or hostility with wood (Avicenna, 1968, p. 39). The *relation* between wood and pain the dog has experienced in the past, is apprehended as an estimative *intentio*.

³⁵ Avec sa maîtrise habituelle, Thomas d'Aquin récupère sur ces deux points la position d'Aristote, en l'intégrant et en l'enrichissant dans son exégèse afin de former une doctrine complète. Il parle en effet de deux facultés conservatives, l'imagination pour les formes et la mémoire pour les intentiones, mais il souligne que le souvenir part toujours d'une perception d'intentio. Le discours est jusqu'à présent encore commun à l'animal et à l'homme, et Thomas, avec une idée exégétique hardie mais géniale, récupère la définition aristotélicienne qui lie la mémoire au temps passé en faisant de la détermination temporelle, *ratio praeteriti*, une *intentio* ... De cette manière Thomas a brillamment résolu le premier problème de la tradition, qui proposait pour la mémoire deux définitions, faculté du passé ou faculté des intentiones. Dans la suite du *respondeo*, il résout également la seconde, en expliquant que la mémoire humaine est différente de la mémoire animale parce que la perception des intentiones est globalement différente chez l'animal et chez l'homme.

This seems basically right to me, although perhaps a touch overstated. As we have seen, it's not quite correct to say that Aristotle only links memory to pastness. He also links memory to the cognition of a phantasm not *secundum se*, but rather as a *representation* of something previously experienced. The significant innovation of the Arabic-language philosophers was to develop an account of *how* the agent is capable of shifting from considering a phantasm *secundum se* to considering it as a representation of a real, previously experienced thing, i.e., by means of an interior sense power that cognizes a particular cognitive object (i.e., the estimative or cogitative *intentio*), that represents the very individuality of the sensed object.

In his psychology, Aquinas, fundamentally a synthesizer, combines the best qualities of Avicenna's and Averroes's accounts of the interior senses, and in a single clause in *Summa* I.78.4, neatly stitches this hybrid account together with the purer Aristotelian doctrine to which he has access. Although Aristotle has no account of an estimative or cogitative power, or of the estimative/cogitative *intentio* as a different kind of cognitive object, Aquinas takes these Arabic innovations and reconciles them with Aristotle's account of memory in the *De Memoria*. Yes, memory has to do with pastness. It also, importantly, depends upon the capacity to consider a sensible phantasm as a representation. However, one and the same cognitive power, and the same kind of sensible object, explain both. The estimative/cogitative power, by apprehending the individual *intentio*, explains how an agent can shift from viewing a sensible phantasm in the imagination *secundum se*, to considering it as a representation of something previously experienced. And the estimative/cogitative power, by apprehending the *intentio* of pastness (which is a kind of judgement made by means of a proportionate phantasm of the kind described in the *De Memoria* commentary), also explains how memory involves the awareness of pastness. The important thing to note is that the latter capacity (i.e., the capacity to cognize pastness) depends and builds upon the prior capacity (i.e., the capacity to cognize an individual *as* an individual).

Competing interests. The author declares none.

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