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Imagination as Thought in Aristotle's De Anima

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A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Philosophy

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Abstract

Aristotle appears to indicate in various passages in the *De Anima* that imagination is a kind of thought, and my thesis attempts to make some sense out of this claim. I examine three possible interpretations of the claim that imagination is a kind of thought and eliminate two of them. The first states that Aristotle only calls imagination a kind of thought in a superficial “in name only” sense. The second, more radical interpretation, identifies images as the most basic kind of thoughts. My final chapter defends a more moderate position—inspired by Avempace and the early Averroes—which steers between the superficial and radical interpretations, by construing the formal content of images as a sort of quasi-corporeal substrate for the generation of learned thoughts.

Keywords: Agent Intellect, Alexander, Aristotle, Avempace, Averroes, De Anima, Ibn Bajjah, Imagination, Material Intellect, Perception, Phantasia, Spiritual Forms.

Summary for Lay Audience

My first chapter underscores a tension in Aristotle's account of the imaginative faculty. On the one hand, the bulk of the textual evidence suggests that Aristotle regarded the imagination as something akin to perception, with images just being residual after-effects of perceptual acts. On the other hand, there are several troublesome passages which liken the imagination to a kind of thinking. But whereas other commentators have attempted to explain these troublesome passages away, my thesis seriously considers whether (and in what sense) Aristotelian imagination might be regarded as a kind of thinking. My second chapter briefly examines the possibility that Aristotle was only speaking colloquially when he described the imagination as a kind of thought. After rejecting this hypothesis, my third chapter turns to the much more radical hypothesis that Aristotelian images just are thoughts. If confirmed, this would require us to seriously rethink Aristotle's understanding of humanity's place relative to non-human animals, as it would imply that many non-human animals (i.e., those with imagination) share with us a capacity for thought. But while this hypothesis does withstand many of the objections that have been raised against it, it still proves untenable because images reside within the bodily organs, whereas thought-acts, on Aristotle's view, are very famously unblended with the body. My fourth chapter defends the more moderate claim that images, while not identical with thoughts, nevertheless contribute to their generation, by providing the raw "material" from which they are derived. In order to unpack this in a manner which does not imply that thoughts are blended with the bodily, I invoke the interpretive work of the twelfth century Islamic commentator Ibn Bajjah, who'd posited that images contain "spiritual forms," which possess a limited degree of independence from the body that enables them to undergo changes in their own right. In addition to resolving the tension in Aristotle's account of the imagination, this theory also offers a gradualist account of the intellect's emergence, thereby providing an answer to the notoriously difficult question of how the intellect can be at once unblended with the body, but also, ultimately, derived from it.

Table of Contents

Abstract.....	ii
Summary for Lay Audience.....	iii
Table of Contents.....	iv
Chapter 1: Introduction.....	1
1.1. <i>A Thinking-Model of Imagination in DA 3.3?</i>	1
1.2. <i>Three Possible Variants of the Thinking-Model</i>	4
1.3. <i>Methodology</i>	5
1.4. <i>Contemporary Reactions to a Thinking-Model of Imagination</i>	6
1.4.1. Michael Wedin (1988).....	6
1.4.2. Malcolm Schofield (1992).....	9
Chapter 2: The Superficial Thinking-Model.....	12
2.1. <i>Context for Understanding the Superficial Thinking-Model</i>	12
2.1.1. A Contradiction in Aristotle’s Account of the Passive Intellect.....	12
2.1.2. Alexander’s Solution.....	13
2.1.3. Problems with Alexander’s Solution.....	16
2.2. <i>Historical Proponents of the Superficial Thinking-Model</i>	18
2.2.1. Aquinas.....	19
2.2.3. Brentano (1867).....	22
2.3. <i>On the Superficiality of this Thinking-Model</i>	22
2.4. <i>Pros and Cons</i>	24
Chapter 3: The Strong Thinking-Model.....	28
3.1. <i>Historical Proponents of a Strong Thinking-Model</i>	28
3.1.1. Edwin Wallace (1882).....	28
3.1.2. Edwin Hartman (1977).....	31
3.2. <i>Ramifications of the Strong Thinking-Model: Naturalistic View of the Human Soul</i>	32
3.3. <i>Ramifications of the Strong Thinking-Model: Thinking Animals?</i>	36
3.3.1. Thinking Animals?.....	36
3.3.2. Alternative Gradational View of the Animal World.....	39
3.3.3. Autonomous Thought as the Distinguishing Mark of Human Animals?.....	42
3.3.3.1. Passage (i).....	44
3.3.3.2. Passage (j).....	45
3.3.3.3. Passage (k).....	48
3.3.3.4. Passage (l).....	49
3.3.3.5. Passage (m).....	51
3.3.3.6. Passage (n).....	52

3.3.4. Summary	54
3.4. <i>Answering Wedin’s Objections</i>	55
3.4.1. On Functional Completeness	56
3.4.2. Can Thoughts Denote Particulars?.....	58
3.4.3. On Propositionality	62
3.5. <i>Is Wallace Right?</i>	67
3.6. <i>The Real Problem with the Strong Thinking-Model</i>	69
3.6.1. Images Reside in the Sensory-Organs.....	69
3.6.2. Aren’t Images Still Immaterial in Themselves?	71
3.6.3. Can the Imaginative Faculty be Disengaged from Sensory-Organs?	73
3.7. <i>Revisiting Lowe’s Apprehensive Thought.</i>	82
Chapter 4: The Moderate Thinking-Model	88
4.1. <i>A Disposition in the Imagination</i>	88
4.2. <i>The History of the Dispositional View</i>	88
4.2.1. Ibn Bajjah (Avenpace)	89
4.2.2. Averroes (early works)	94
4.3. <i>A Template for a Moderate Thinking-Model</i>	96
4.4. <i>Benefits of the Moderate Thinking-Model</i>	97
4.4.1. A Correction on Caston	97
4.4.2. A Correction on Wedin.....	100
4.4.3. A Correction on Averroes.....	110
4.4.4. A Correction on My Own Past Research	112
4.5. <i>Objections</i>	114
4.5.1. What to do with GA 2.3 (736b26-28)?	114
4.5.2. Are Imaginative Forms <i>Really</i> Unique in their Partial Independence?	118
4.5.3. Illumination by the Productive Intellect.	124
Conclusion	133
Appendix: List of Passages Cited	138
Bibliography	145
<i>Primary Texts</i>	145
<i>Secondary Sources</i>	146
Curriculum Vitae	150

Chapter 1: Introduction

1.1. A Thinking-Model of Imagination in DA 3.3?

There exists a strange tension within Aristotle's description of the faculty of imagination, in DA 3.3. On the one hand, the chapter contains what is commonly regarded as Aristotle's canonical account of the imagination, as expressed in the following pair of passages.

- (a) But since when one thing has been set in motion another thing may be moved by it, and imagination is held to be a movement and to be impossible without sensation, i.e. to occur in beings that are percipient and to have for its content what can be perceived, and since movement may be produced by actual sensation and that movement is necessarily similar in character to the sensation itself, this movement cannot exist apart from sensation or in creatures that do not perceive, and its possessor does and undergoes many things in virtue of it, and it is true and false (428b10-17).
- (b) If then imagination presents no other features than those enumerated and is what we have described, then imagination must be a movement resulting from an actual exercise of a power of sense (428b29-a3).

According to passage (a), imagination possesses at least the following characteristics: For starters, it seems to be a passive affection in the soul, caused indirectly by perceptible objects. Such, at least, appears to be the thrust of Aristotle's talk of a transference of motion, at the beginning of the passage; his point appears to be that it is the perceptual power which is set in motion by the impingement of a perceptible object, and which then goes on to set the imaginative power in motion.¹ The upshot of this is that while the indirect cause of the activation of the imaginative faculty is an external perceptible object, the *direct* cause of its activation is the already activated perceptual power. Hence, going forward, I will refer to the imaginative faculty as being "sensory-induced."

Secondly, the activated imaginative faculty has the same intentional content as the activated perceptual faculty,² as indicated by Aristotle's claim that imagination "has for its content what can be perceived." And, if we subscribe to a physiological interpretation of Aristotle's theory of

¹ A helpful analogy here might be the "automatic puppets," from GA 2.1, whose parts are said to "...have a sort of potentiality of motion in them, [such that] when any external force puts the first of them in motion, immediately the next is moved in actuality" 734b8.

² i.e., Perceptible qualities.

perception, according to which the organ of sense literally takes on the formal quality of a perceptible object,³ then we can link this rather conveniently with Aristotle's additional claim that imagination is "similar in character to the sensation itself."

Thirdly, the activated imaginative faculty induces the creatures which possess it (i.e. animals)⁴ to "do and "undergo" many things, meaning that it induces them to action.⁵ And finally, passage (a) seems to indicate that the intentional content conveyed by the imaginative faculty has some sort of truth-value.⁶

Passage (b) seems to be mainly reiterative. Although it does not explicitly repeat passage (a)'s points about an animal "doing and undergoing many things" in virtue of imagination, or about imagination being "true and false," it does seem to hark back to these points implicitly. The explicit focus of the passage seems to be to underscore passage (a)'s point about imagination being caused directly by the activated perceptual faculty.

But although the content of passage (b) appears to be mostly summary, there is one additional component, which warrants special attention: namely, its apparent suggestion that the list of features attributed to the faculty of imagination in passage (a) constitutes an *exhaustive* list of the imaginative power's features (i.e. "If then imagination presents *no other features*⁷ than those enumerated...").

This is a rather strange suggestion, given the presence of at least four other passages in the *DA*—two of which also occur in *DA* 3.3—which seem to flirt with the notion of attributing an additional property to the imagination, which is not mentioned in passages (a) or (b). Namely, that imagination is a species of thought:

(c) Thinking [*to noein*] seems to be the most probable exception; but *if this too proves to be a form of imagination*⁸ or to be impossible without imagination, it too requires a body as a condition of its existence (403a8-10).

³ This has been a matter of some dispute. In my master's thesis, I sided with Richard Sorabji, John Sisko and S.M. Cohen, against Myles Burnyeat's claim that, "...no physiological change is needed for the eye or the organ of touch to become aware of the appropriate perceptible objects," but that "...the effect on the organ *is* the awareness, no more and no less" (Nussbaum & Rorty, pg. 22).

⁴ Although Aristotle does not believe that all animals possess imagination, it is clear from his claim in passage (a) that he thinks only animals possess it. Imagination is predicated on perception and perception is the defining feature of animals.

⁵ As we will see in subsequent chapters of my discussion, the faculty of imagination figures heavily in Aristotle's theory of animal action, as it applies both to non-human animals and human beings.

⁶ Which is to say that it can be either true or false.

⁷ "Features" does not actually appear in the Greek. More literally, the passage entertains the notion that phantasia presents "nothing other than (*mêthen allo*) what we have stated."

⁸ My italics.

- (d) That *this activity is not the same kind of thinking [noesis]*⁹ as judgment is obvious. For imagination lies within our power whenever we wish (e.g. we can call up a picture, as in the practice of mnemonics by the use of mental images), but in forming opinions we are not free: we cannot escape the alternative of falsehood or truth (427b14-20).
- (e) *Thinking [noein]* is different from perceiving and is *held to be in part imagination*,¹⁰ in part judgment (427b28).
- (f) These two at all events appear to be sources of movement: appetite and thought (*if one may venture to regard imagination as a kind of thinking [noesin]*¹¹; for many men follow their imaginations contrary to knowledge, and in all animals other than man there is no thinking or calculation but only imagination) (433a9-12).

Passage (c) is one of the more hesitant of these four passages, in that it does not directly confirm that imagination is a kind of thought, but merely entertains a proposition which would have very similar consequences: namely, that thought might be a kind of imagination. Granted, this is only presented as a hypothetical,¹² but if it were the case that thought is a kind of imagination, it would follow that images are at least *sometimes* thoughts. Which is really just a softened version of the conclusion that would follow from the more direct proposition that imagination is a kind of thought—namely, that images are *always* thoughts. And so it seems to me that passage (c) can be counted as evidence that Aristotle was at least considering the proposition that imagination is sometimes a kind of thinking.

Passage (d) makes a much bolder claim. Its primary purpose is to press the point that imagination is not judgment, but Aristotle's phrasing plainly implies that imagination is nevertheless *some* kind of thinking. Which supports the stronger of the two conclusions noted just above, that images are *always* thoughts.

As for passage (e), a straightforward reading would seem to indicate that thoughts are divisible into two component parts, judgments and images. If this is right, then the passage does seem to provide us with grounds for thinking that, at least under certain circumstances, images can be said to take on some degree of noetic status.¹³

Coming finally to passage (f), we find that Aristotle is, again, merely entertaining a hypothetical proposition. But this time, he is entertaining the proposition that imagination is a kind of

⁹ My italics.

¹⁰ My italics.

¹¹ My italics.

¹² That is why I say that Aristotle is merely *entertaining* the notion.

¹³ Though, admittedly, this will not amount to a one-to-one correspondence between images and thoughts.

thinking, rather than the reverse. This would yield the stronger of the two conclusions listed above, that images are *always* thoughts.

And so, of the four passages just listed, three of them entertain the notion that images are either sometimes or always a kind of thought, and one of them confirms that imagination is always a kind of thought. Thus, if passage (b) is to be understood as asserting that imagination possesses no other features than the ones listed in passage (a), we have a clear self-contradiction on our hands. Of course, Aristotle does not definitively commit himself in passage (b) to the position that imagination has no other features than the ones listed in passage (a). He puts this forward as a conditional statement too, and his final verdict is unclear. This opens a window for us to take seriously the proposition that the property “being a kind of thought” might be coherently added to the list of properties attributed to the faculty of imagination, in passage (a). The resulting picture of the imagination—which I will henceforth refer to as the “Thinking-Model of Imagination”—would state that the imaginative faculty is a passive affection in the soul caused directly by the activated perceptual faculty,¹⁴ which has the same intentional content as the activated perceptual faculty, whose intentional content has truth-value, which induces an animal to action, *and which is also (at least in some sense) a kind of thinking*.

The purpose of my thesis will be to explore the plausibility of attributing to Aristotle a belief in some form of the Thinking-Model of Imagination.

1.2. Three Possible Variants of the Thinking-Model

Before proceeding to a discussion of my methodology, I should pause to delineate a number of different forms that a Thinking-Model of Imagination might take. As we saw above, the passages from the *DA* in which Aristotle appears to be entertaining a Thinking-Model of Imagination are divisible into two categories, one of which supports a stronger claim than the other. Corresponding to these two categories are two distinct iterations of a Thinking-Model of Imagination, which one might take up and defend.

The first is a *strong* version of the Thinking Model, according to which imagination is *always* a form of thought. Phrased another way, we might say that this model treats images as being *essentially* noetic in character, or as being *identical* with a certain form of thought.¹⁵ This version is supported by passages (d) and (f).

The second is a more modest version, which states that imagination is *sometimes* a form of thought. Phrased another way, we might say that although this version does not treat images as being essentially noetic in character or as being identical with any kind of thought, it

¹⁴ And indirectly by the perceptible object.

¹⁵ Presumably the most basic kind.

nevertheless allows that images are capable, under certain circumstances, of *acquiring* noetic character. This version is supported by passages (c) and (e).

In addition to the two interpretations just listed, there is a third way of understanding the Thinking-Model of Imagination, which does not strike me as being directly supported by any of the aforementioned passages, but which it would still be wise to consider, as some rather important commentators have defended it. According to this iteration, Aristotle applies the terms like *noesis* and *noiein* to the imagination in a non-literal sense. As we shall see in the next chapter, this reading is often advanced by commentators who regard the material intellect of DA 3.4 as an incorruptible substance.

1.3. Methodology

As I have mentioned above, the purpose of my dissertation will be to explore the possibility of deriving a Thinking-Model of Imagination from the third book of Aristotle's *DA*. And, as I have also mentioned above, there are three distinct variants of a Thinking-Model, which could potentially be derived from *DA* 3.3. Firstly, there is a strong version, which regards images as being intrinsically noetic. Secondly, there is a more moderate version, which treats images as being sometimes noetic. And thirdly, there is a superficial version, according to which Aristotle applies noetic terminology to the imagination only in a non-literal sense. The ramifications of this third version will admittedly be less interesting than those of the former two, but it still seems appropriate to classify it as a variant of the Thinking-Model. This is because—unlike some influential critiques of the Thinking-Model—it does at least acknowledge that passages (c) through (f) say what they appear, *prima facie*, to be saying about the imagination.

Given, then, that there are three possible variants of the Thinking-Model of Imagination, it seems that the soundest methodology for ascertaining the overall plausibility of the Thinking-Model will be to conduct a systematic examination of each individual variant. The remainder of my thesis will therefore be divided into three main chapters, each one dealing with a single variant of the Thinking-Model of Imagination.

My methodology will be systematic in that it will subject each individual variant of the Thinking-Model to the same form of analysis: each chapter will begin with an overview of some of the historical commentators who have defended the variant under consideration, and their reasons for doing so. Next, each chapter will unpack the ramifications of the variant under consideration and discuss the extent to which we should find those ramifications acceptable. Next, each chapter will address some of the independent objections which might be raised against the variant under consideration and make the strongest possible attempt to answer those objections. Next, each chapter will attempt to offer up some independent reasons for adopting the variant under consideration. And finally, taking all of the above into account, each

chapter will attempt to arrive at some definitive conclusion as to whether the relevant variant of the Thinking-Model of Imagination is ultimately defensible, and whether we can therefore help ourselves to its ramifications.

Although the superficial version of the Thinking-Model will receive more or less the same formal treatment as the strong and moderate versions, I should acknowledge from the outset that I am far more interested in the strong and moderate versions, as they seem to me to have far more stimulating ramifications.

1.4. Contemporary Reactions to a Thinking-Model of Imagination

Prior to commencing the project outlined just above, I should pause to note that although all three variants of the Thinking-Model have enjoyed at least some historical support, commentators in our time have generally not been friendly to the idea that Aristotelian imagination might be a kind of thinking. They generally have not even observed the distinctions that I have drawn above, between the three possible variants of the Thinking-Model of Imagination.

1.4.1. Michael Wedin (1988)

For example, Michael Wedin, the most vocal critic of the Thinking-Model of Imagination, really only addresses the strong version's claim that images are inherently noetic in character. He attacks this proposition by attempting to establish that images possess a number of intertwined properties which are incompatible with those possessed by even the most basic kinds of thoughts.

The first of these is "functional incompleteness." Functional-completeness, for Wedin, refers to a faculty's ability to proceed from first to second-order actuality. Wedin's claim is that, unlike the faculty of thought (and that of perception), the faculty of imagination does not possess the capacity to proceed from first to second-order actuality. To elaborate, this means that, "...there is no complete *act* that counts as imagining something...One cannot, as it were, simply represent something" (Wedin, 55).¹⁶ Rather, Wedin thinks that images occur only within the context of complete acts performed by the other, fully-fledged faculties. In the case of perceptual acts, this manifests as a sort of residual accompaniment; images arise and persist as a representational side-effect of the perceptual faculty having been activated by a sensible

¹⁶ In support of this position, Wedin cites the difference in the wording of Aristotle's introduction of imagination, as compared with the wording of his introductions of the full faculties of perception and thought. Whereas the descriptions of perception and thought take the form, "that in virtue of which X Ys"—thereby suggesting that perception and thought enable the soul or the entire system to *do* something—the description of imagination takes the form, "that in virtue of which Y occurs in X."

object. In the case of intellectual acts, the situation is somewhat more complicated. In order to communicate the manner in which images manifest within the context of thought acts, Wedin employs the following linguistic analogy: “I cannot refer to Jones apart from uttering some sentence about Jones. Referring simply cannot be done on its own” (Wedin, 55). Here, imagination is analogous to the referring, and the entire propositional speech act would be analogous to the complete thought-act which provides the context within which the reference occurs.

This turns out to be more than just an analogy for Wedin, as it actually ties in directly to the second property which he thinks distinguishes images from thoughts: On Wedin’s view, even the most basic thought-acts actually *are* propositional linguistic complexes. On Wedin’s reading, one cannot be said to know or to have learned a thing, until one has expressed it to oneself as a term in a proposition: “...I think of daffodils only insofar as the *noema* daffodil occurs in a proposition-like complex [i.e. “daffodils are bulbous herbs”]” (Wedin, 131). And as we have seen above, Wedin regards Aristotle as having believed that images occur only within the context of functionally complete acts. Which, in the case of thought-acts, would seem to require that the image itself is (or represents) a simple term which appears in the propositional complex of a thought-act. But if this is the case, then it follows that the image itself cannot be a propositional complex. Hence, we have Wedin’s second objection to the idea that images are thoughts: All thought-acts are, for Aristotle, propositional linguistic complexes, whereas images are (or signify) non-propositional terms which appear in such complexes. Wedin refers to this as a kind of “subservience” relationship between images and thought acts.

Of course, the implication that images are non-propositional terms which appear in the propositional complexes expressed by thought acts generates a problem for Wedin, as it could be perceived as blurring the distinction between images and *noemata*. Recall Wedin’s claim that one has not truly learned the *noema* ‘daffodil’ until one has expressed it as a term in a proposition. The thought-act is identical to the internal utterance of the proposition, not the *noema* as such. The *noema* is a simple term which occurs within the thought-act. But *noemata* seem to share this status with images—which means that both are, in themselves, non-propositional terms which occur in a propositional complex. Absent some further argument specifying the qualitative difference between images and *noemata*—or at least specifying the unique roles played by each within the proposition—the discerning reader might reasonably begin to wonder why we mightn’t just identify images with *noemata*.¹⁷

Wedin anticipates this problem and offers the following resolution: images are distinct from *noemata* in that, “[primary] thoughts [i.e. *noemata*] are universal” (Wedin, 134).¹⁸ That is,

¹⁷ In which case, we’d have a strong Thinking-Model of Imagination.

¹⁸ Hence, Wedin has opted to differentiate *noemata* from images qualitatively. We’ll learn more about their respective functions in the third and fourth chapters of my discussion.

they denote common, sharable concepts,¹⁹ which are not themselves the objects of perception. Images, by contrast, do not even denote particular sensible substances, on Wedin's view.²⁰ Hence, we have Wedin's third distinction between images and thoughts: For Aristotle, even the most basic noetic components of thought-acts denote universals, whereas images barely represent particulars.

This is, as I had mentioned above, all by way of dismantling the strong version of the Thinking-Model of Imagination. Wedin does not consider the more moderate proposition that images might be capable of acquiring noetic character, say by undergoing some sort of formal alteration or via combination with judgement. And it is not at all obvious that his objections to the strong Thinking-Model would rule any of this out.²¹ I'll return to this in my final chapter.

Neither is Wedin particularly sensitive to the possibility that Aristotle might be applying noetic terminology to the imagination in a non-literal sense, as per the superficial version of the Thinking-Model. Although this model would offer a convenient (if somewhat speculative) strategy for dealing with the apparent implications of passages (c) through (f), Wedin opts instead to argue that this is all that these implications really are: *apparent*.

Regarding passage (c), he stresses that although the passage does allude to the idea that "[thought] is a form of imagination," it only suggests it as the first of two possible sets of circumstances under which it would be impossible for the mind to exist apart from the body, then reminds us that in the lines that follow, "...only the second [of these two possible sets of circumstances] even receives serious consideration" (Wedin, 72).

As for passage (d), Wedin argues that the impression this passage gives of suggesting that imagination is a kind of thought is really due to a mistranslation on Hamlyn's part. On Wedin's view, Hamlyn's rendering of the passage as reading "imagination is not the same *kind of thought* as judgment" is an awkward attempt to incorporate a reference to "*noesis*," which—although it does indeed appear in several of the Greek manuscripts—ought really to be bracketed, if we wish to make any sense of the passage in context. This is because, in the lines immediately preceding passage (d), Aristotle had just finished explaining that imagination is distinct from perception *and from thought*. Hence, any translation of the remark which retains the "*noesis*" would involve Aristotle in a self-contradiction. Instead, Wedin recommends dropping the *noesis*, and simply rendering the passage to read, "imagination is not the same as judgment." This translation would, in Wedin's view, not only harmonize the remark with the lines which preceded it, but would also allow the remark to sit more comfortably ahead of the

¹⁹ Wedin does allow room for the mind's apprehension of particular substances but argues that these are not the proper objects of the mind's receptivity. In this, he may be following Aquinas' lead. More on this in the final chapter of my discussion.

²⁰ Wedin says that there are no images of sensible substance, but only of proper and common sensibles.

²¹ Actually, his claim that images function as terms in propositional complexes would seem to align quite conveniently with passage (e).

lines immediately following (which offer an explanation as to *why* imagination is distinct from judgment)

As for passage (e)—which held thought to be, “in part imagination and in part judgment”—Wedin argues that to interpret this claim as indicating that images, along with judgments, are component parts of thoughts would be needlessly radical. He offers an alternative reading, according to which the passage is simply telling us that images and judgments are both *involved* in thought-acts.

Coming finally to passage (f), Wedin argues that Aristotle’s venture of regarding imagination as a kind of thought is just a provisional move that he makes, within the specific context of *DA* 3.10, in order to preserve, “...the [main] thesis [of the chapter,] that there are two main components in any action [namely desire, the object of which stimulates movement by serving as an end for the sake of which the animal will or will not move; and intellect, which apprehends the object of desire, and deliberates about whether and by what means it will pursue that end²²]” (Wedin 72).

This main thesis of the chapter is threatened by Aristotle’s subsequent acknowledgement that imagination is also capable of apprehending the objects of desire, and of serving as the final determinant of actions undertaken for the sake of those objects.²³ And so, rather than setting down imagination as a third component of action (effectively abandoning the chapter’s main thesis that there are only two components in any action), Aristotle opts to lump the imagination in with intellect. However, on Wedin’s view, this should not be understood as a literal ascription of noetic character to the imagination. It is simply an acknowledgement that “...imagination plays the [same] role in certain action contexts that intellect plays in other action contexts” (Wedin, 73).

1.4.2. Malcolm Schofield (1992)

Malcolm Schofield is no more receptive to a Thinking-Model of Imagination than Wedin is, and he seems to take much of Wedin’s case for the theoretical incompatibility of thoughts and images for granted.

That said, his treatment differs from Wedin’s in that he does *not* follow Wedin in arguing that passages (d) through (f)²⁴ only *appear* to be suggesting that imagination might be a kind of thinking. Neither, however, does he avail himself of the superficial Thinking-Model’s claim that Aristotle refers to the imagination as a kind of thinking, only in a non-literal sense. Rather, he

²² The conclusion of its deliberation just is the action.

²³ As in the case of non-human animals, and human beings whose intellectual faculties have been impeded by feeling or disease or sleep.

²⁴ He does not address passage (c)

resolves the tension between these suggestive passages and the canonical account of imagination expressed between passages (a) and (b) by proposing that Aristotle simply changed his mind mid-text.

In the case of passages (d) and (e)—which are internal to Aristotle’s central discussion of the imaginative faculty, in *DA* 3.3—this requires Schofield to reject Wedin’s assumption that the chapter really purports to be offering a single, finished account of the imagination. Rather, on Schofield’s view, what *DA* 3.3 offers is an exploratory reflection on the nature of the imaginative faculty, which entertains a variety of perspectives on this question, but which ultimately discards some of these perspectives in favor of others. On Schofield’s view, the Thinking-Model suggested by passages (d) and (e) is one such perspective, entertained briefly at the beginning of the chapter, but ultimately discarded in favor of passage (a)’s more perceptually-based canonical model: “...having begun by treating phantasia as a form of thinking, he ends by taking sense-perception to be the key to its nature” (Nussbaum & Rorty, 275).

Now, I should say that I find this solution to be *prima facie* implausible, given that the Thinking-Model resurfaces later on, in passage (f).²⁵ However, Schofield reapplies the exact same solution to passage (f). In “Phantasia in the *De Motu Animalium*” (2011), he acknowledges that passage (f) does indeed seem to regard imagination as, “...analogous to or [even] (in the end) a kind of practical thinking or calculation” (Pakaluk & Pearson, 121). But he also points out that the passage occurs at the very outset of *DA* 3.10 and that Aristotle seems to have changed his mind by the end of the chapter. Aristotle concludes the chapter by drawing a distinction between “sensitive-imagination” and “calculative-imagination,” and Schofield opines that this is likely intended as a corrective on his earlier remark about venturing to regard imagination as a kind of thought, motivated by his, “...recognition that for a general theory of animal movement, which will work for non-rational as well as rational animals, expressions like “thinking” (noesis) and ‘intellect’ (nous) are in the end not the most appropriate” (Pakaluk & Pearson, 122).

The idea here seems to be that, when Aristotle commenced his account of the process by which animals translate desire into action (i.e., *DA* 3.10), he had the human animal at the forefront of his mind, which led him to paint an overly narrow picture of animal action as resulting from the mediation of desire by the rational faculty, which, through various forms of practical reasoning, decides if and by what means a given object of desire is to be pursued. As a second thought—being vaguely aware that this account would not be applicable to the actions undertaken by non-human animals, and requiring a quick solution to this oversight—he classified the mediating principle of non-human animal action (i.e., imagination) as “analogous to (or in the end) a kind of practical thinking.”²⁶

²⁵ My intuition being that if, by the end of *DA* 3.3, the thinking-model of imagination has already been definitively replaced by the perceptual model, then we should hardly expect it to still be on the table as late in the text as *DA* 3.10.

²⁶ So far this is consistent with Wedin’s analysis of the passage.

This solution would prove inadequate, however, as Aristotle would soon come to appreciate that the imagination holds something of a default position as the guiding principle of action, even in human beings.²⁷ Having grasped the primacy of the imagination as the mediating principle of animal action, Aristotle would realize that his original account of animal action as resulting from the mediation of desire by practical thought needed to be revised entirely. His revised account would describe animal action as resulting from the facilitation of desire by the imagination. Of course, this account would still require some means of distinguishing between non-human and (fully functional) human action, and this is what Aristotle's "sensitive" vs "calculative-imagination"²⁸ dichotomy is intended to provide.

²⁷ As evidenced by the fact that humans are guided by the imagination in contexts in which their intellectual capacities are dulled or muted by feeling, sleep, disease.

²⁸ The latter of which is only possessed by human animals.

Chapter 2: The Superficial Thinking-Model

This chapter will discuss historical commentators who have defended the superficial Thinking-Model of Imagination, their reasons for doing so, the ramifications of this model, and the considerations which speak for and against it.

2.1. Context for Understanding the Superficial Thinking-Model

Before I discuss the historical proponents of the superficial Thinking-Model, it will be necessary to unpack the context in which this interpretation arose. As we shall see, those who have held that Aristotle applies noetic terminology to the imagination only in a superficial sense have tended to do so as a means of resolving a perceived contradiction in Aristotle's discussion of the human intellect.

2.1.1. A Contradiction in Aristotle's Account of the Passive Intellect

In *DA* 3.4, after laying out the mechanism by which the material intellect operates, Aristotle puts forward a number of arguments leading to the conclusion that it corresponds to no bodily organ, and that therefore its activity—or its manner of being acted upon—is proper to the faculty itself, rather than to the compound of the soul and the body.²⁹ Which satisfies a conditional statement from *DA* 1.1, stating that if there exists any faculty whose “way of acting or being acted upon” is proper to itself, then this faculty will be incorruptible and separable from the body. When read in conjunction with this conditional, the arguments presented in *DA* 3.4 for the absence of an intellectual organ seem to suggest that the material intellect of *DA* 3.4 is incorruptible and separable from the body.

²⁹ On the surface, this might seem like an outright self-contradiction on Aristotle's part—for how could anything called the *material* intellect be incorporeal? Well, in this context, Aristotle is using *hylē* not so much to signify physical *stuff* as to signify potentiality (*dunamei*), as he clarifies immediately after naming the material intellect in *DA* 3.5. And by potentiality, he intends the ability to receive the forms of objects without their matter. True, this description is carried over from his earlier description of the perceptual faculty, which itself is undeniably embodied. However, Aristotle is careful to distinguish the perceptual faculty from the magnitude (*megethos*) of the sensory organ, and to stress that it is not itself extended. The question, then, is not whether an incorporeal “material intellect” is an inherently self-contradictory concept, but rather, whether one can properly motivate the idea that the material intellect is disanalogous to the perceptual faculty, with respect to its lack of a bodily organ. As we will see, the dispositional readings of the material intellect advanced by Alexander (and Avempace) are attempts to bring this off.

It comes as a bit of a surprise, then, to find Aristotle apparently contrasting the eternal agent intellect with a perishable, passive intellect, in DA 3.5.

(g) When separated it is alone just what it is, and this above is immortal and eternal (we do not remember because, while this is impossible, *passive thought [pathetikos nous] is perishable*); and without this nothing thinks (430a20-26).

We therefore have a prima facie contradiction on our hands, and there are two possible strategies for resolving it. The first would be to deny that the arguments put forward by Aristotle in DA 3.4 really require that the material intellect be imperishable. And the second would be to challenge the supposition that the passive intellect referenced in passage (g) is the same intellect described in DA 3.4.

2.1.2 Alexander's Solution

The first of these solutions is more popular today than it has been historically. However, it did have some very early proponents. Most notable among these is Alexander of Aphrodisias. Alexander does accept Aristotle's claim that the activity of the material intellect is proper to the soul itself, and that it does not involve any alteration in a bodily organ:

[Material] intellect, however, does not make use of the body when it apprehends beings [which are its object], since as a power it belongs to no body, and is not itself a subject that is acted on [when it cognizes]...Its whole reality is to exist as a power belonging to an actuality of a special kind, that is, the soul, a power that can receive [pure] forms and concepts [*noemata*] (Fotinis, 139).

On the other hand, Alexander is steadfast in his belief that the material intellect is inseparable from the other psychic faculties, and, therefore, from the body as well. He arrives at this position by way of the following argumentative line, which pivots on the arguably Aristotelian principle that the soul is not composed of divisible parts but must instead be numerically one.

His argument begins from the premise that the nutritive power has a precise bodily locus in the torso, in the area surrounding the heart.³⁰ From here, he then reasons that, "It is...simply impossible that the sensory soul should exist in separation from the nutritive" (Fotinis, 129). This should come as no surprise to us, as Alexander is here invoking the definitively Aristotelian

³⁰ Alexander justifies this premise by pointing out that the heart is responsible for the digestive process, as evidenced by the fact that moisture and heat (the material elements involved in digestion) are concentrated around the heart.

principle that, although a more primitive psychic power is capable of existing independently of the next highest power,³¹ the higher psychic powers are incapable of existing independently of the lower ones.³² But Alexander is not simply invoking this principle as a matter of dogma; he also offers detailed explanations as to why each psychic power should be dependent upon the next lowest one. In the case of the sensory soul, he notes that, “...nothing can perform sensory acts without being nourished[.]” (Fotinis, 129)³³ And of course, the faculty of imagination bears a similar (though not identical) relation to the perceptual soul. Alexander explains this dependence-relation by noting that, “...the imaginative faculty has as the object of its activity and function residual impressions produced by sensible objects” (Fotinis, 130).³⁴

But the *really* pressing question is whether the Aristotelian principle that each psychic faculty depends upon the next lowest one extends all the way to the highest psychic faculty—i.e., the intellect—or whether this might be an exception to the rule. On the one hand, Aristotle gives us some reasons for thinking that thought is dependent upon images in a manner analogous to that in which the imaginative faculty is dependent on the perceptual faculty. For example, in *DA* 3.7,³⁵ he states that the soul never thinks without an image. On the other hand, in *DA* 2.2, he muses that thought seems to be an entirely different kind of soul, “differing as what is eternal from what is perishable,” and “capable of being separated.” Alexander appeals to the aforementioned *unified-subject* principle, in order to settle the question. Because Alexander reads Aristotle as having believed that, “...the entire soul exists in a subject that is numerically one” (Fotinis, 135),³⁶ he concludes that the intellect cannot be separable from the other psychic faculties, nor therefore from the body. His rationale is that, “...if it were possible for the rational power in general to exist by itself—separated, that is, from the nutritive, sensory, and imaginative, and appetitive powers that we have just reviewed—then the rational power [would]...have [viz. be] its own subject [of inherence]” (Fotinis, 134).³⁷ However, he finds this conclusion to be unacceptable, “...because it forces us to assert [in contravention of the unified-

³¹ In the sense that there are kinds of organism which possess the lower one, but not the higher one.

³² In that the organisms which possess the higher ones never fail to have the lower ones.

³³ This can be fleshed out in a number of ways: One might be that, if an animal is not nourished, it will die, which will put an end to its capacity for performing sensory acts. Another might be that the sensory organs themselves require nourishment in order function optimally.

³⁴ The relation between the imaginative soul and the perceptual soul is similar to the relation between the perceptual soul and the nutritive soul, in that both are dependence relations. However, the imagination does not depend upon the perceptual power in quite the same way that the perceptual power depends upon the nutritive power. The imaginative power depends upon the perceptual power in the sense that each discrete imaginative act is caused and informed by a discrete perceptual act. However, it is not the case that each discrete perceptual act is causally preceded by a discrete nutritive act. Rather, the perceptual power depends upon the nutritive power in the sense that the organism (or sensory organ) requires nutrition in general in order to perform perceptual acts. I refer to these as strong and weak “subsistence” relations, respectively. I’ll discuss this distinction in more detail in my fourth chapter.

³⁵ I’ll discuss this in more detail in the third and fourth chapters.

³⁶ Strong support can be found for this reading in *DA* 1.5. I will discuss these arguments in more detail in the third chapter, since they figure more prominently in that stage of my discussion.

³⁷ i.e. It would be a substance in itself, as opposed to a mere disposition.

subject principle] that there is a plurality of souls [in man], so that each man would be in fact many animate beings” (Fotinis, 134).

Of course, Aristotle does argue, in *DA* 3.4, that intelligible forms must be potentially within the mind, “...just as characters may be said to be [potentially] on a writing-table on which as yet nothing actually stands written” (429b30-430a1). And a straightforward reading of this passage seems to suggest that, contra Alexander, the mind *is* a subject unto itself, which *is* acted upon when it cognizes intelligible objects. How, then, does Alexander deal with the writing-tablet analogy? Well, in accordance with his view of the intellect as being not a subject but rather “a power³⁸ belonging to an actuality of a special kind,” he reads the analogy not as likening the mind to the tablet itself, but rather, to the tablet’s disposition for being written upon.³⁹

And so, if the intellect described in *DA* 3.4 is inseparable from the body for the reasons given by Alexander, then there will in this case be no contradiction in supposing it to be the same perishable intellect referenced in passage (g). That said, this interpretive strategy imposes upon Alexander the implication that there are two incommensurate intellects referenced in passage (g), one of which (the passive intellect) is perishable, and one of which (the agent intellect) is immortal. Which raises a difficult question as to how each of these two intellects relates to the individual human being. Alexander had famously answered that it is only the passive intellect which belongs to the human soul,⁴⁰ whereas the agent intellect is the divine intellect of the *Metaphysics*:

This intellect that makes [the material intellect to be a knowing intellect] is called “an intellect that comes from outside.” It is no part nor power of our own soul...this intellect is itself an immaterial form; it never existed in union with matter...this intellect is most probably separable from us because of the kind of being that it is: one, sc., that does not come to be an intellect in the act of its being known by us, but is by its own nature both intellect and intelligible in act. And a form of this sort, a subsistent reality, totally independent of matter, is not subject to corruption. Since then the productive intellect is an intellect in act, has its origin outside us, and is a pure intelligible form, Aristotle rightly calls it “immortal” (Fotinis, 141).

³⁸ Viz. a disposition for receiving intelligible forms.

³⁹ That is, with the contingent fact that nothing has yet been written on it.

⁴⁰ Which, given that Alexander regarded the passive intellect as being dependent upon the body, effectively means that he understood Aristotle to be saying that human beings are mortal.

2.1.3. Problems with Alexander's Solution

Although one might well be persuaded by Alexander's case for the inseparability of the material intellect, one might *still* wonder whether he can coherently deny that it makes use of the body when it apprehends intelligible forms. After all, Alexander likens the material intellect to a tablet's disposition for being written upon, and while this disposition may not itself be a physical thing, the tablet most certainly is. And so, if the analogy holds, then it would seem—*prima facie* anyway—that the material intellect is a disposition *of the body* for undergoing some sort of change, and whose fulfillment must therefore involve a change in one or more bodily organs.

Granted, Alexander does specify that the "special kind of actuality" to which the intellectual disposition belongs refers to the soul itself—his point apparently being that it is the soul, rather than the body as such that corresponds to the tablet. However, given Alexander's conviction that the "entire soul exists in a subject that is numerically one," and given that this subject is unmistakably bodily, this doesn't seem to be sufficient to enable him to avoid the conclusion that the intellect's actualization involves a change in a bodily organ.⁴¹

How, then, does Alexander attempt to harmonize his commitment to the mind's inseparability from the body with the premise that its activity does not make use of the body? He attempts to do so by appealing to the notion that a formal power may possess a measure of independence from matter—let's call it "functional independence," as distinguished from ontological independence—by virtue of having emerged from the coalescence of other, simpler formal powers.⁴² The idea here is that, when simpler material substrates are combined and blended to form more complex material substrates, the lower-order formal powers which supervene on those simpler substrates coalesce to generate higher-order forms. These superior forms—which Alexander calls "common forms"—possess a higher degree of perfection and a greater variability of motion than the lower forms from which they were derived, and are, "...consequently...to some extent [i.e., functionally, not ontologically] independent of matter" (Fotinis, 190).

And it is important to note that this notion of "common forms" is more than just an ad hoc remedy for the difficulty presented by the intellect. It is actually a central feature of Alexander's metaphysics, intended to aid him in explaining how increasingly complex substances—including living beings—can arise out of the most basic material components. The process begins with the combination of the primary bodies,⁴³ whose underlying substrate is the elusive "prime matter," and each of whose simple formal natures is, "...the cause of a single, simple movement

⁴¹ We've seen that Alexander assigned to the nutritive faculty a precise bodily locus in the area surrounding the heart. When combined with the aforementioned "unified subject" principle, this seems to entail that the other psychic faculties, including the intellect, also have ties to the area surrounding the heart (at least in some sense).

⁴² So that, in effect, it is tied to the material substrate only indirectly, by way of these other, simpler forms.

⁴³ i.e. The four elements.

in [each of] them”⁴⁴ (Fotinis, 8). When these primary bodies are combined to form a more complex substrate, “...the nature of each of these [primary] bodies making up its substrate adds its own distinctive characteristic to the form that is above all these [inferior] forms” (Fotinis, 9). These are the first-order “common forms,” which characterise natural composite bodies. Such bodies, owing to the greater complexity and perfection of their overarching formal nature, possess the capacity for a greater variability of motion than the simple bodies do, including motions which constitute the foundational psychic activity of plants.

“Simple bodies have indeed an intrinsic principle of movement, but in one direction only, whereas every plant is endowed with a principle whereby it nourishes itself and thus, by growing, moves over many different dimensions” (Fotinis, 11).

And when these natural composite bodies are themselves combined to form an even more complex substrate, the nature of each of these natural composite bodies making up its substrate adds its own distinctive characteristic to a common form characterizing an animal body, which—owing to the greater perfection of its overarching formal nature, is endowed with an even greater range of motion than that possessed by plants, which includes the additional psychic power of perception. From here, incremental increases in the complexity of the underlying substrate yields incrementally more complex combinations of “inferior” forms, whose coalescence yields common forms with an even greater degree of perfection, and which characterise animal bodies possessing an even broader range of motion, including the additional psychic powers of imagination and ultimately, even thought.

Thus, Alexander’s solution to the tension between the intellect’s ontological dependence upon the body and the premise that its cognitive activity does not make use of the body, appears to be as follows: the material intellect can be described as a disposition inhering in the soul, in the sense that it emerges from the coalescence of all the other, lower psychic faculties. Inasmuch as these lower faculties are themselves formal powers, the intellect’s emergence from their coalescence qualifies it as a “common form,” which, being higher and more perfect than they are, and possessing a broader range of motion, grants it a certain (functional) independence from the matter of the body.

The problem with this solution is that, according to Alexander’s understanding of hylomorphism, all formal powers (save those of the primary bodies) result from the coalescence of other, simpler formal powers, and this includes the formal powers by which an organism nourishes itself, perceives, and retains or conjures up images. It follows that the nutritive, perceptual, and imaginative psychic powers, whose coalescence gives rise to the intellect, are themselves “common forms.” And if the greater perfection and mobility possessed

⁴⁴ Fire, for example, moves upward. And earth moves downward.

by a common form entails a certain degree of functional independence from matter, then it will follow that these psychic powers are also “to some extent” functionally independent of the matter of the body, by the same token that the intellect is (albeit to a lesser extent). This is troublesome for a number of reasons. Firstly, because the rational faculty’s functional independence from matter is supposed to be what distinguishes it from the lower psychic faculties. Secondly, given that the activity of each of the other faculties clearly involves an alteration in one or more bodily organs, it just isn’t clear what it would mean to say that they are functionally independent of matter “to an extent,” since each still seems to be directly undergirded by some change in a bodily organ. Finally, even if this second problem could be resolved, it still isn’t clear why the activity of the intellect should be unique in being *wholly* independent of any bodily organ, while the activity of the other psychic powers is only partially independent. Existing as it apparently does on a spectrum of formal powers with gradationally increasing degrees of functional independence from matter, there seems to be something rather arbitrary about designating the intellectual power as the cut-off point at which total functional independence is achieved. And appeals to its “greater perfection” don’t offer us a very informative explanation.

None of this is to say that Alexander’s solution doesn’t make a certain formal sense; the notion of a partially independent “common form” isn’t inherently self-contradictory, and so insofar as it is a feature of Alexander’s broader understanding of hylomorphism, my objection doesn’t give us any *a priori* reason for thinking that the intellect couldn’t be at once functionally independent of any particular bodily alteration, yet also tied indirectly to the body by way of other, simpler forms. Alexander’s solution is undermined primarily by the overbroad applicability of the concept of partially separable “common forms,” combined with Aristotle’s explicit stipulation that the lower psychic faculties are directly undergirded by a bodily substrate. Thus, although my objection doesn’t illustrate that Alexander’s solution is formally incoherent, it does illustrate its inadequacy to the task of explaining the supposed uniqueness of the intellectual faculty, as being functionally (if not ontologically) independent of the body. I’ll offer an alternative solution in the final chapter of my discussion.

2.2. Historical Proponents of the Superficial Thinking-Model

As I mentioned above, the Alexandrian approach did not gain a great deal of traction until relatively recently. Throughout much of the *DA*’s interpretive history, it was regarded as quite unpalatable, because interpreters were often committed to the imperishability of *DA* 3.4’s passive intellect. In some cases, this was because, having accepted the premise that the passive intellect is a component of each individual human soul, they sought to read the *DA* in such a way as to harmonize it with their own religious commitments to human immortality. In other cases, it was because they sought to understand the passive intellect of *DA* 3.4 as transcending each individual human being, elevating it to a kind of quasi-divine status.

In any case, those interpreters who were committed to the incorruptibility of *DA* 3.4's passive intellect had only one remaining strategy at their disposal for dealing with the apparent contradiction between this premise, and Aristotle's reference to a perishable passive intellect in *DA* 3.5. They needed to argue that the latter was referring to something other than the passive intellect described in *DA* 3.4. Of course, this prompts the question of just what else it could have been referring to, and the answer typically given by these commentators was that it refers to the imaginative faculty. I will discuss three such commentators, below:

2.2.1. Aquinas

Thomas Aquinas argued that the receptive intellect of *DA* 3.4 and the agent intellect of *DA* 3.5 represent complementary facets of the intellectual part of each individual human soul.⁴⁵ If true, this would mean that whatever differences obtain between these two facets of the human intellect, they cannot be so drastic as to render one perishable and the other imperishable, as Alexander would have it. Since they both belong to the same part of the human soul, they must therefore both either be perishable, or imperishable.⁴⁶ And the weight of the evidence suggests the latter.⁴⁷ Hence, in his *Commentary on Aristotle's De Anima*, Aquinas writes that Aristotle's claim about the immortality of the intellect (expressed in general terms in *DA* 2.2), "...must be understood, not as regards agent intellect or possible intellect alone, but as regards both...so it is clear that he is speaking here of the whole intellective part, which is called separated, of course, because it has its operation without a corporeal organ" (Pasnau, 369).

This, of course, requires Aquinas to wrestle with the tension between the imperishability of *DA* 3.4's passive intellect, and Aristotle's reference to a perishable *nous pathetikos*, in passage (g). And, given that he has rejected the only other available means of resolving this tension,⁴⁸ his only remaining recourse is to argue that passage (g)'s *nous pathetikos* refers to something other than the passive intellect of *DA* 3.4. His solution can be inferred from the following statement: "Without this perishable part of soul, however, our intellect intellectually cognizes nothing,

⁴⁵ Meaning that, on Aquinas' view, the agent intellect of *DA* 3.5 (contra Alexander) does *not* refer to the Deity.

⁴⁶ If one were perishable and the other imperishable, then it could not be the case that they belong to the same part of the soul, as this would entail that one of them is capable of existing independently of the other. This is especially true if we consider that, on Aquinas' reading of Aristotle, the soul is not composed of discrete parts at all, but is rather a unity. Although he does at times speak of 'parts' of the soul, this really only refers to the logical distinctions between the soul's various faculties; Aquinas does in fact commit himself to the view that it is with the whole soul that we live, and with the whole soul that we perceive and with the whole soul that we think.

⁴⁷ Aristotle seems quite unambiguous in his assertion that the agent intellect is immortal. And while one could make a case that he is somewhat less forthright about whether the receptive intellect is immortal (as Alexander did, when he introduced the possibility of an emergentist reading), there is, on Aquinas' supposition that they both belong to the same part of the soul, no strong incentive for doing so. If the receptive intellect belongs to the same part of the soul as the agent intellect, and if we know the agent intellect to be immortal, then the receptive intellect must be immortal also.

⁴⁸ i.e. Alexander's emergentist view of *DA* 3.4's passive intellect, and his accompanying claim that the agent intellect refers to God.

because it does not intellectually cognize anything without a phantasm” (Pasnau, 370). The notion that thought is dependent upon the presence of images should be familiar to us from *DA* 3.7, and Aquinas’ suggestion that passage (g)’s *nous pathetikos* is responsible for supplying the requisite images confirms that he understands it as a reference to the imaginative faculty.

2.2.2. Averroes (later works)

In his *Long Commentary on the De Anima*, Averroes rejects the notion that the material intellect is a component of each individual human soul. He does this because he believes that the material intellect is receptive not of “individual and particular forms,” but rather, of “universal forms,” and he takes this to entail that the material intellect itself must “not [be] a determinate particular” (Taylor, 304).⁴⁹ In other words, he doesn’t think the material intellect is individuated by matter; rather, he regards it as a species unto itself, of which it is the only instantiation.⁵⁰

On the other hand, Averroes is very clear that the material intellect is still involved in each individual human’s acts of conceptualization, and this raises a puzzle: if there is only one material intellect to account for the conceptual acts of all human beings, then it would seem (*prima facie*) that all human beings must think in unison.⁵¹ But since this is clearly not the case, it cannot be the case that there is only one material intellect for all human beings.

Averroes addresses this problem by offering the following elaboration on the nature of the relationship between the material intellect, and each individual human being: The material intellect serves as an eternal repository for (universal) intelligible forms⁵² and makes these available to all individual human beings. Hence, when Averroes says that there is one material intellect for all humans, what he means is that we all gain access to the same intelligible content, from the same eternal reservoir. However, our access to this eternal reservoir of intelligible forms is not instantaneous, and it does not come solely from the top-down (otherwise we all *would* think in unison). It is still—crucially—a matter of abstraction from our awareness of concrete particulars, and the material intellect does not contain within itself the particularized representations from which this process must necessarily begin. These are provided by the imaginative faculty, which is informed by the perceptual faculty, and which—like the perceptual faculty—is blended with, and individuated by, the body.

Hence, despite the fact that all human beings grasp at the same intelligible content housed within the same eternal reservoir (i.e. the material intellect), a given person’s thought-acts can

⁴⁹ This appears to be an elaboration on Aristotle’s argument, from *DA* 3.4, that, “...in so far as the realities it knows are capable of being separated from their matter, so it is also with the powers of thought” (429b20-21). Averroes is here interpreting “separability from matter” as implying some manner of universality.

⁵⁰ Aquinas makes a similar claim about the angels, in *On Being and Essence*.

⁵¹ Such that if I apprehend an intelligible form, then you must apprehend that same form simultaneously, and vice versa.

⁵² It receives these forms from the agent intellect.

still be private to that individual and independent of the thought acts of all other people, because each person's connection to the material intellect is mediated by representations of particular objects, which result from the activation of their individuated perceptual and imaginative faculties, and which are therefore private to that individual.⁵³

Since it was explained among the doubts mentioned earlier that it is impossible for the intelligible to be united with each human being and be numbered in virtue of the number of these by way of the part which belongs to it as matter, namely, the material intellect [i.e. since the material intellect itself does not admit of individuation], then it remains that the conjoining of intelligibles with us human beings is through the conjoining of the intelligible intention with us (these are the imagined intentions) (Taylor, 320).⁵⁴

Moreover, since the imaginative faculty's integration with the matter of the body entails that it will itself be destroyed when the body is destroyed, it follows that the private and particularized connection that it affords each human being to the material intellect—by virtue of which each human being becomes a properly *individuated knower* of intelligible forms—will also be destroyed along with the body. Hence, Averroes writes that

“...the disposition for intelligibles which is in the imaginative power [i.e. the potential intelligibility of images, which, as the privatized starting point for acts of abstraction, grants a person the potential for being a particularized knower] is generated through the generation of an individual, [and] corrupted through its corruption, [in addition to being] generally numbered through its numbering” (Taylor, 320).

The net result of all of this is that, unlike Aquinas,⁵⁵ Averroes is unable to affirm the immortality of the individual human being. Although we each enjoy a personal connection to the eternal reservoir of intelligible forms, this connection is severed at the moment of bodily death, which means that we are, qua individuated knowers, corruptible. But despite this radical discrepancy between Averroes' interpretation of the *DA* and the interpretation championed by Aquinas, he is nevertheless in agreement with Aquinas, at least insofar as he regards *DA* 3.4's passive intellect as being (contra Alexander) independent of each individual human body, and immortal. And for this reason, he is faced with the same problem that Aquinas faced, with respect to the tension between the immortality of the receptive intellect of *DA* 3.4, and

⁵³ This is owing to their roots in individual perceptual experiences.

⁵⁴ In placing the imaginative faculty at the heart of each individual's relation with the material intellect, Averroes is recalling Aristotle's claim, from *DA* 3.7, that the soul never thinks without an image.

⁵⁵ Who had regarded the immortality of the material intellect as confirming the immortality of each individual human soul, since he'd regarded the material intellect itself as being particularized in each individual human being.

Aristotle's reference, in passage (g), to a perishable passive intellect. And he offers the same solution: "He [Aristotle] means by the passive intellect [of passage (g)] the imaginative power, as he will later explain" (Taylor, 325).

2.2.3. Brentano (1867)

The Thomistic picture has enjoyed a long shelf-life and has influenced many prominent interpreters. Franz Brentano (1867) also rejected Alexander's idea that the agent intellect of *DA* 3.5 refers to the Deity of the *Metaphysics*, and regarded it instead as a facet of each individual human soul. And, like Thomas, he even specified that it, "...belong[s] to the *same part* of the soul to which the receptive intellect also belongs" (Brentano, 118).⁵⁶ Which, as he spells out at length, means that the receptive and agent intellects must be, for the most part, qualitatively similar—especially as regards imperishability.⁵⁷ Hence, Brentano concludes that the agent intellect, must be, "...indestructible for the same reason that the receptive intellect is" (Brentano, 118).

As in the case of Thomas, this approach left Brentano in need of some method of resolving the tension between the evident imperishability of *DA* 3.4's passive intellect, and Aristotle's reference to a perishable passive intellect, in passage (g). His solution is the same as Thomas': he denies that the *nous pathetikos* of passage (g) refers to the intellect described in *DA* 3.4, and argues, instead, that, "It [refers to] the imagination which, as a sensory faculty according to chapter 4 does not partake in the impassibility [apatheia] of the receptive intellect" (Brentano, 141).

2.3. On the Superficiality of this Thinking-Model

We have seen three rather influential commentators arguing that Aristotle used the term *nous* in reference to the imaginative faculty in passage (g). However, it seems improbable that any of these commentators believed that Aristotle intended to signify that the imagination is really noetic in any robust sense.

⁵⁶ i.e. The intellective part.

⁵⁷ There is one point of dissimilarity between the receptive and agent intellects, which might seem, on the surface, to upset this symmetry: namely, that one is by its nature pure potentiality whereas the other is by its nature pure actuality. However, Brentano maintains that the pure potentiality of the receptive intellect on the one hand, and the pure actuality of the active intellect on the other hand, can both be understood—for slightly different reasons—as indicators of the mind's unmixed quality: "Just as pure potentiality can be called unmixed since it does not have actuality in it, so can pure actuality be called unmixed, since it has not been received into any potentiality" (Brentano, 119). And, of course, it is by virtue of its unmixed nature that Aristotle credits it with separability from the body.

After speculating that the *nous pathetikos* of DA 3.5 refers to the imagination, Aquinas tempers his conclusion with the following qualification: “This [passive] part of soul [which “pertains to the sensory part”] is nevertheless called intellect, as it is also called rational, [only] insofar as it to a certain extent participates in reason by obeying reason and following its movement, as is said in Ethics 1 [1102b13-1103a3]” (Pasnau, 370).

And, in his notes to Averroes’ *Long Commentary*, Richard C. Taylor cautions that although Averroes’ interpretation of passage (g) does entail that the imagination, “...is a kind of reason which is bound up with the body for Averroes,” this is the case, “...thanks only to its connection to the material intellect” (Taylor, 325).

Brentano, for his part, takes great pains to link passage (g) back to passages (d) and (f), hoping thereby to illustrate that it was actually not uncommon for Aristotle to use noetic terminology in reference to the imagination.⁵⁸ That said, he also points out that, “In the *Nicomachean Ethics*, Aristotle once called sensation (*aisthesis*) itself *nous*” (Brentano, 141), which seems like an attempt to downplay the significance of Aristotle’s applications of noetic terminology to the imagination. The idea here would be that because Aristotle’s application of the term *nous* to perception can hardly have been intended literally, and because the imagination is in Brentano’s own words “a sensory faculty” according to Aristotle, there should be a strong presumption that Aristotle wasn’t speaking literally when he applied noetic terminology to the imagination, either.

It would seem, then, that while all three of the aforementioned commentators would acknowledge that Aristotle sometimes had occasion to apply noetic terminology to the imagination, none would allow that he intended it literally. The ramifications of the superficial Thinking-Model are therefore (as the name should suggest) not especially interesting. It does not imply that images really possess any robustly noetic qualities as a part of their intrinsic nature, nor that they are capable of acquiring such qualities. It therefore would not require us to rethink any orthodox positions concerning the nature of Aristotelian imagination or its relation to perception or thought. Nor would it offer us any insights which might help to resolve any longstanding disputes surrounding these issues. It simply entails that Aristotle sometimes had occasion to apply terms like *nous*, *noesis*, or *noiein* to the imagination in a non-literal sense. I therefore classify this hypothesis as a variant on the Thinking-Model of Imagination—and devote an entire chapter to it—only by way of paying respect to the fact that some rather prominent historical commentators have subscribed to it, and also because, for all its triviality, it is still a far stronger claim than some opponents of the Thinking-Model (particularly Wedin) would be willing to accept.⁵⁹

⁵⁸ “...imagination he [Aristotle] often counts with thinking [*noiein*], as, for example, in chapter 3 of *De Anima* 3, and calls it *nous* and a kind of knowledge [*noesis*], as, for example in chapter 10 of the same book” (Brentano, 141).

⁵⁹ Recall that Wedin was unwilling even to acknowledge that any of passages (c) through (f) seriously proposed that imagination might be a kind of thinking.

We will find, in the coming chapters, that the strong and moderate thinking-models have far more interesting implications, with respect to the metaphysical status of images, and man's place within the cosmos.

2.4. Pros and Cons

We have seen above that Aquinas, the late Averroes and Brentano had all interpreted passage (g)'s *nous pathetikos* as a superficial reference to the imagination, and that this interpretation was necessitated by their prior commitment to the view that the receptive mind described in *DA* 3.4 is incorruptible. But one needn't necessarily take this view of the receptive intellect. As we have also seen above, Alexander had very famously construed it as a disposition emerging from the coalescence of the various other, more firmly embodied formal powers. I have, admittedly, pointed out a serious difficulty with Alexander's emergentist reading, on the basis of which I have ultimately rejected it. But this is not to say that the project of advancing a naturalistic reading of Aristotle's account of the receptive intellect is entirely unsalvageable; as I will explain at more length in the final chapter of my discussion, this project has enjoyed an enthusiastic revival in recent decades. And in fact, my final chapter will defend a subtle variation on Alexander's view, which (as I hope to illustrate) avoids the difficulties that I've noted with his approach.

At any rate, since I am not committed to the incorruptibility of *DA* 3.4's receptive intellect, there is—in my view—no special difficulty in supposing it to be the referent of passage (g)'s *nous pathetikos*. This being the case, I see no reason to suppose that passage (g) applies the term *nous* to the imaginative faculty at all, let alone in the superficial sense proposed by Aquinas, Averroes and Brentano. And since passage (g) does not give us a clear-cut example of Aristotle using superficially noetic terminology to describe the imaginative faculty, it can hardly serve as evidence for the assumption that he is doing likewise in passages (c) through (f).

That said, as I have mentioned already, Brentano does allude to another passage, from *EN* 6.11, which might be thought to provide indirect evidence in favor of a superficial Thinking-Model. Here, Brentano tells us, Aristotle, "called sensation (*aisthesis*) itself *nous*" (Brentano, 141). His point seems to have been that this cannot have been intended in a literal sense, as Aristotle is very adamant in *DA* 3.3 that perception and thought are distinct, owing to the latter's fallibility and the former's ubiquitousness throughout the animal world. The more plausible alternative would be that Aristotle only intended to underscore an *analogy* which holds between the two faculties in spite of the aforementioned distinctions between them. For instance, his point

might simply be to underscore that (as he notes at the outset of *DA* 3.3), “...in the one as well as the other the soul discriminates and is cognizant of something which is” (427a20-22)⁶⁰.

On Brentano’s view, then, we have here a clear precedent, if not for the superficial application of noetic terminology specifically to the imagination, then at least for the superficial application of such terminology in general. In light of this precedent—and especially in light of the close association between the perceptual and imaginative faculties—one might be tempted to assume that Aristotle was using the terms *noesis* and *noein* in a similar manner when he applied them to the imaginative faculty in passages (c) through (f). That is, he was using them to convey the idea that imagination (like perception) is merely *analogous* to thought, perhaps in that it is a faculty by virtue of which the soul becomes “cognizant of something which is.”

But this strikes me as inappropriately hasty. It does not follow, simply because Aristotle might have had occasion to apply superficially noetic terminology to the perceptual faculty, that he must therefore have been doing the same thing with the imaginative faculty in passages (c) through (f). Moreover, even if we could point to an uncontested example of Aristotle applying superficially noetic terminology to the imagination, it would still require a careful case-by-case analysis to determine whether he is doing the same thing in passages (c) through (f). Of each passage, then, we must ask whether we have good contextual reasons for thinking that Aristotle is only applying the terms *noesis* or *noiein* to the imagination superficially, as a way of underscoring some sense in which it is analogous to thought. And I see no compelling contextual reasons for supposing that any of these passages are making such weak a claim about the imagination.

Let’s begin with passage (c). Here, Aristotle entertains two possible scenarios under which thought will be inseparable from the body in spite of its not being blended with a bodily organ: These are: (1) if thought turns out to be a form of imagination, and (2) if thought turns out to be dependent upon imagination. And while Wedin stresses that Aristotle only seems to explicitly follow up on the latter of these two scenarios, the fact remains that they are not mutually exclusive,⁶¹ and that the former entails that imagination is at least sometimes a kind of thinking.⁶² For these reasons, it seems to me that passage (c) should be read—at the very least—as seriously floating the suggestion that imagination is sometimes a kind of thought. And given the weightiness of the ramifications that Aristotle attaches to this suggestion, it is difficult to fathom how this can be explained away as a mere analogy. The stakes are nothing less than human immortality! This question cannot hinge on so limp an observation as that thought and imagination share the property of being faculties through which one becomes aware of things.

Passage (d), on the other hand, might initially seem to be more amenable to such an interpretation, as there are no weighty theological implications hinging on its central claim.

⁶⁰ In other words, they are both *cognitive* faculties (as opposed to the nutritive faculty, which itself does not make us aware of anything outside of ourselves).

⁶¹ I’ll defend this premise at length in my final chapter.

⁶² Hence why I’ve counted it as support for the moderate thinking-model of imagination.

Aristotle states that imagination, "...is not the same kind of thinking [*noesis*] as judgement." But his main purpose here is simply to distinguish imagination from judgement, which can easily be done without committing oneself to the premise that imagination is literally a form of thinking. One might therefore be tempted to suppose that if *noesis* can be interpreted colloquially as just an umbrella term for faculties which make us aware of something, then this is how we ought to interpret it in this context. In this case, passage (d) would be saying nothing more remarkable than that imagination and judgement are not the same kind of awareness. But if we look back more closely at Aristotle's comparison of thought and perception in the opening lines of *DA* 3.3 (i.e. "in one as well as the other, the soul discriminates and is cognizant of something which is") we find that he is actually attempting to explain why thought is held to be a form of perception, not the reverse.⁶³ It would seem, then, that perception is Aristotle's paradigmatic example of a cognitive faculty.⁶⁴ If this is right, then, if all Aristotle is trying to convey in passage (d) is that imagination and judgment are different modes of awareness, our expectation should be that he would distinguish them colloquially under the umbrella term of 'perception' (*aisthesis*), rather than describing them as different kinds of thinking (*noesis*). That he chose the latter route suggests that he has something more significant in mind.

As does Aristotle's remark, in passage (e), that thought (*noein*) is held to be "in part imagination, in part judgment." Here, he seems to imply not just that imagination and judgment belong to the same cognitive category, but that imagination (along with judgment) is an integral component of any given thought-act. Such, at least, appears to be the upshot of his follow-up remark that his analysis of *phantasia* must therefore be completed before the nature of thought can be properly illuminated, in *DA* 3.4.

Passage (f) seems to be the most amenable to a superficial reading, as Aristotle's purpose in venturing to "regard imagination as a kind of thinking" does indeed appear, on closer inspection, to be an awkward attempt to incorporate non-human animals into an anthropocentric account of animal action as resulting (generally) from the mediation of desire by thought. In other words, his point is very plausibly just to stress that in the case of nonhuman animals, imagination plays a role in the mediation of action, which is similar to the role played by practical reasoning in humans. Hence why Schofield had wavered on whether passage (f) indicates that imagination is merely, "...analogous to or...[actually] (in the end) a kind of practical thinking" (Pakaluk & Pearson, 121). He ought perhaps to have settled on the former and stopped there, because his subsequent account of Aristotle's evolution on the subject between passage (f) and the closing lines of *DA* 3.10 inadvertently breathes new life into the notion that Aristotle was advancing a non-superficial Thinking-Model of Imagination. To reiterate, Schofield had credited Aristotle with having subsequently reconceptualized animal

⁶³ Truth be told, I see a similar dynamic in *EN* 6.11. The chapter is not a meditation on the nature of perception, but rather on the role of comprehension (*nous*) in demonstration and practical reasoning. It is thus not Aristotle's use of the term *nous* which should surprise us here, but rather, his use of *aisthesis*. Brentano's entire argument may therefore be predicated on a false precedent.

⁶⁴ This makes sense, as it is the only cognitive faculty which is ubiquitous throughout the animal world.

action, as resulting from the mediation of desire by *imagination*; then with having distinguished between “sensitive” and “calculative” imagination in order to account for the differences between nonhuman animals and humans. But this seems to reduce the uniquely human contribution to action (i.e. practical reasoning) to a form of imagination. This echoes Aristotle’s earlier flirtation with the notion that thought might be a kind of imagination in the first antecedent of passage (c). And as I’d pointed out in the previous chapter, this notion supports a moderate version of the Thinking-Model of Imagination. That this doesn’t register as a problem for Schofield is due, I think, to his failure to distinguish between the strong and moderate versions of the Thinking-Model of Imagination; on his view, if *DA* 3.10 turns out not to be affirming a strong Thinking-Model of Imagination, then it says nothing noteworthy about the noetic status of imagination at all.

To summarize then, we have found that the contextual markers in passages (c), (d), and (e) give us no compelling reasons for supposing that Aristotle was applying noetic terminology to the imagination only informally, as a way of underscoring some loose analogy which holds between imagination and thought. As for passage (f), it *does* lend itself to such an interpretation, but this is only due to a hasty effort on Aristotle’s part to address complications arising from an ill-conceived (anthropocentric) account of animal action. But because Aristotle overhauls this account of animal action at the end of the chapter, the need for passage (f)’s provisional solution would appear to be obviated. The superficial Thinking-Model therefore looks to me to be dead in the water.

That said, we’ve also found that Aristotle’s revised account of animal action winds up advancing a claim—let’s call it (f)’—which supports the moderate version of the Thinking Model of Imagination, by the same token that the first antecedent in passage (c) does. In light of this development, it looks as though I’ll need to revise my own initial tally of the passages supporting each variant of the Thinking-Model of Imagination. I’d initially counted no passages favoring the superficial Thinking Model, two passages—(c) and (e)—favoring the moderate Thinking-Model, and two passages—(d) and (f)—favoring the strong Thinking-Model. But regarding passage (f), I was mistaken on two counts: firstly, it didn’t support the strong Thinking Model at all, but rather (taking the full context into consideration) the superficial Thinking-Model. Secondly, it was discarded in favor of passage (f)’ by the end of the chapter. And so the revised tally reads as follows: three passages—(c), (e) and (f)’—favoring the moderate Thinking-Model, and only one passage—(d)—favoring the strong Thinking-Model.

Of the two remaining variants on the table, the *moderate* Thinking-Model of Imagination therefore enjoys the greatest textual support. Still, it will be worthwhile to explore the history of the strong Thinking-Model, scrutinize various conceptual objections to it, and make the strongest possible case for it, before turning our attention to the moderate Thinking Model. This brings us to our next chapter.

Chapter 3: The Strong Thinking-Model

This chapter will discuss the historical commentators who have defended the strong Thinking-Model of Imagination, their reasons for doing so, the ramifications of this model, and the considerations which speak for and against it.

3.1. Historical Proponents of a Strong Thinking-Model

3.1.1. Edwin Wallace (1882)

It would be a touch misleading to say that Edwin Wallace subscribed to the strong Thinking-Model in an unqualified manner. However, he did express doubts as to whether there was any meaningful distinction to be drawn between the images of our imaginative faculty and the thoughts of our receptive mind, and so it strikes me as appropriate to credit him with having at least flirted with the strong Thinking-Model. This flirtation is encapsulated in Wallace's observation, in *Aristotle's Psychology* (1882), that, "...the images of our imaginative faculty often *approximate* closely to the ideas of thought" (Wallace, xciii).⁶⁵

He arrives at this conclusion by way of a comparative analysis of the intentional contents of imaginative and noetic psychological states, beginning with a bottom-up analysis of the process through which images of perceptible objects are assembled. This process begins with the five special senses (i.e. sight, sound, smell, taste, and touch), each of which is fundamentally incapable of perceiving the reports of any of the other four.⁶⁶ This poses a problem, however, because the fully-fledged perception of an object (*as an object*) would have to involve the integrated perception of multiple perceptible qualities, as well as other, supervening properties. It follows that there must be some additional, unifying, meta-sensory faculty which is capable of cognizing sensible qualities from all five of the special sensible categories at once, and which, in so doing, performs the task of, "...*translating sensations into things*, and of

⁶⁵ He also cites passage (d) as indicating that, "...the imaginative faculty is looked at as a species of thought" (Wallace, xciii). But he stops short of *identifying* the images of the imaginative faculty with the ideas of the receptive intellect.

⁶⁶ i.e. Each is restricted to its own proper category of sensible quality, such that the power of sight cannot perceive sounds or odors or flavors, or tactile qualities, but only color. Similarly, the power of taste cannot perceive colors or sounds or odors or tactile qualities, but only flavors.

apprehending...forms which *give meaning to the intimations of our* [individual] *senses*" (Wallace, xcvi).⁶⁷

Wallace assigns this task to the common or central sense. He describes the synthesizing contribution of the central sense as consisting of three distinct but intertwined sub-functions. The first is a power, "...which transcends the mere sensation of a colour or of a smell as such and recognizes it as something belonging to ourselves" (Wallace, lxxx). In other words, the first sub-function of the common sense is to provide us with conscious awareness of our perceptions *as our perceptions*.⁶⁸ The second sub-function is to distinguish between, and compare, the communications of the individual senses. The third sub-function involves, "...grasping the common properties [i.e. categories] which are involved in the existence of the qualities of the body" (Wallace, lxxx). These include such properties as magnitude, number, figure, movement, and rest, which we are said to perceive, "immediately in connection with each [single] perception."⁶⁹

These three sub-functions of the central sense are said by Wallace to be intertwined in the following manner: the third sub-function is predicated on the second, and the second is predicated on the first. Wallace explains this in the following manner: To begin with, the common properties are not all on an equal footing; our awareness of movement is foundational among them and serves as the basis for our awareness of all the other common properties. However, our awareness of movement supervenes on our combined awareness of the special sensory-properties of sight and touch.⁷⁰ And our ability to recognize the co-presence of visual and tactile qualities depends upon our ability to distinguish and compare multiple different kinds of sensations. Hence the third sub-function (grasping the common properties) is predicated on the second sub-function (distinguishing and comparing special sensations). But as Wallace also points out, "To judge of [i.e. compare] two sensations we require a power of holding them [both] before the mind" (Wallace, lxxx). By this he means we must be able to stand back from our special sensations and recognize them *as belonging to us*. Hence the second sub-function (distinguishing and comparing special sensations) is predicated on the first (perceiving that we perceive). This also means that the third sub-function (grasping the common properties) is indirectly predicated upon the first (perceiving that we perceive).

⁶⁷ The sum total of the individual senses cannot accomplish this, since the animal would, in this case, become aware of nothing more than an incoherent smattering of sensory impressions. Hence, Wallace concludes that, "...these single senses as such [either individually or collectively] never really constitute the [complete] act of sense-perception" (Wallace, xcvi).

⁶⁸ In effect, this means that the common sense enables us to perceive *that* we are perceiving.

⁶⁹ So, for example, "...at the same time as we perceive (say) a color, we perceive it further as a coloured surface or magnitude" (Wallace, lxxviii).

⁷⁰ Which means that our awareness all of the other common properties is indirectly predicated on our combined awareness of sight and touch, since our awareness of all of the other common properties is predicated on our awareness of movement.

Taken together, these three interlocking sub-functions of the central sense fill out the process by which the disparate reports of the individual senses are synthesized into coherent perceptions of objects. And while Wallace acknowledges that particulate-images (i.e. images of colors, sounds, tastes...etc.) are present from the outset of this cognitive-process,⁷¹ he does not assign images any special role in translating the reports of the special senses into fully-fledged perceptions of objects, as some other commentators appear to have done.⁷² On his view, the particulate-images merely supervene on the reports of the special senses, piggybacking on them as they are processed through the central sense. As the central sense assembles these into coherent perceptions of objects, it also (incidentally) processes the supervening particulate-images into fully-fledged images of those objects, which supervene on the assembled perceptions: "...the pictures of imagination, though dependent on the sensations which have passed away, are not of a merely sensuous character: they become through that *koine dunamis* of sense generalized conceptions of an object" (Wallace, xciii).

But why should any of this have led Wallace to question the distinction between the images of the imaginative faculty and the ideas of receptive thought? Well, firstly because, if the work of translating disparate qualitative sensations into fully-fledged perceptions of objects occurs prior to any unique contribution made by the imaginative faculty,⁷³ this would seem to leave little work for the imaginative faculty to perform, save the reception and retention of those object-representations, following the termination of the perceptible object's contact with our sensory organs.⁷⁴ And secondly, because Wallace apparently regards the ideas of thought as, at least sometimes, representing particular objects just as these processed images do.

I'll have more to say about the defensibility of this second point as my third chapter progresses. For now, it should suffice to point out that although Wallace doesn't commit himself to this premise explicitly, it must be an implicit component in his thought-process, because his claim that, "...the images of our imaginative faculty often approximate closely to the ideas of thought" (Wallace, xciii), simply wouldn't follow unless he believed that ideas could sometimes represent particular objects.

⁷¹ Produced as a natural consequence of the impingement of sensible objects on the individual sensory organs, as per the canonical model of imagination.

⁷² For example, Dorothea Frede (1992) has argued that, "...Animals without *phantasia* would therefore only get a sequence of incoherent imprints" (Nussbaum & Rorty, 285). Martha Nussbaum also describes the imagination as a faculty of perceptual interpretation, in the notes to her 1978 edition of the *MA*, and in the fifth of her (accompanying) interpretive essays.

⁷³ Logically at least—though it may turn out to be chronologically simultaneous with the imagination's contribution.

⁷⁴ That is, the removal of the formal representation from the matter of the original perceptible object. Wallace would therefore likely wish to correct Frede's claim that animals without *phantasia* would be unable to cognize anything more than incoherent imprints, so as to read that animals without *phantasia* would be unable to *recollect* objects that they had previously perceived, once the object was removed from contact with their sensory organs.

I'd also remind readers that the rejection of this premise was central to Wedin's case against the strong Thinking-Model.⁷⁵ This lends additional support to my intuition that the strong Thinking-Model pivots on the premise that thoughts at least sometimes denote particular objects.

3.1.2. Edwin Hartman (1977)

In *Substance, Body, Soul*. (1977), Edwin Hartman arrives at a very similar conclusion to the one approached by Wallace, only this time, by way of an examination of Aristotle's solution to the eristic paradox from the *Meno*. This paradox concerned the problem of how we could possibly, "...come to recognize substances as exemplars of their species" (Hartman, 241), prior to having grasped the essence. Plato's solution in the *Meno* was that each individual human soul had a prenatal existence, during which it came into direct contact with the realm of intelligible Forms, and that we are reminded of this latent knowledge in part by the stimulation of perceptible exemplars, and in part by a programme of Socratic questioning.

Aristotle rejected this solution in favor of the view that we gradually extract universals from repeated sensory experiences,⁷⁶ by way of a process of induction; and that it is by virtue of our possession of *nous* that we are able to do this. Hartman describes the contribution of *nous* in the following manner: "...it enables us to know what is not, or not usually, given in experience...by [allowing] us to progress from cognition of mere *phantasmata* to knowledge of true universals, especially species and genera" (Hartman, 235).

Put another way, "*Nous* is the faculty that permits humans not only to have phantasmata, but also to have [certain] attitudes towards them..." (Hartman, 239), which are constitutive of a realization that the image that one calls to mind of—for example—a man, will inevitably have certain properties which are inessential to the what-it-is-to-be a man, which must be excluded from consideration if one is to truly set one's mind on the universal: "Having the concept man, knowing what a man is, requires more than simply having the ability to call up a man-like phantasma. One must understand that the phantasma called up represents a certain universal; and this involves understanding among other things that, considered as a universal, man is neither short nor tall, light nor dark, young nor old and so on, even though any man-like phantasma will inevitably have some of these (irrelevant) characteristics" (Hartman, 239).

As to how this is supposed to provide an alternative solution to the eristic paradox of the *Meno*, the idea appears to be that a human being only *truly* comes to know that a given substance (represented cognitively by an image) is an exemplar of its proper species, at the moment in which he grasps the distinction between its "irrelevant" (i.e. inessential) properties, and those

⁷⁵ This, again, is really the only version of the Thinking-Model that he entertains.

⁷⁶ The universals being contained implicitly—though perhaps not given explicitly—in the contents of sensory impressions, which are retained via the contribution of the imaginative faculty.

properties which could not be stripped away without the substance ceasing to be the kind of substance that it is.⁷⁷

But what does this tell us about the possible noetic status of *phantasmata*? Well, one might be tempted to interpret the process described above by Hartman⁷⁸ as one in which the knower graduates from an apprehension of a mere image (which is not a thought at all) to an apprehension of the most primitive kind of thought (viz. a universal).

Interestingly, however, this is not the way in which Hartman seems to view the process. On his view, the image is the most primitive form of thought: “*The simplest case of having a thought is having an image of an object of thought*, much as the simplest case of perception is having an *aisthema* of the thing perceived” (Hartman, 243).

We have here then a rather definitive endorsement of the strong version of the Thinking-Model of Imagination; whereas Wallace had merely confided that he was having trouble grasping the distinction between images and the most primitive form of thought, Hartman appears to be boldly asserting that there is no distinction.

3.2 Ramifications of the Strong Thinking-Model: Naturalistic View of the Human Soul

Now, Wedin—who, as we have seen above, is the most vocal critic of the strong Thinking-Model of Imagination—is also a vocal critic of the view that the human soul is, for Aristotle, separable from the body. In fact, in the preface to his book, he specifies that the principal aim of his project is to show, “...why thinking is not [for Aristotle], in any serious sense, divine” (Wedin, xi). And it is important to note that Wedin regards his opposition to the strong Thinking-Model as a necessary step in his defense of this position. But why is this the case?

Well, recall that Wedin had cited the functional incompleteness of the imaginative faculty as one of the key reasons why imagination cannot be a kind of thought. Recall also that, in unpacking the ramifications of the imagination’s functional incompleteness, he’d claimed that images cannot appear on their own, but only within the context of complete acts performed by the other, functionally complete faculties. Which, in the case of the rational faculty, means that they appear as non-propositional (viz. simple) terms in the propositional complexes of thought-acts—a state of affairs that Wedin describes as a kind of “subservience” relation between

⁷⁷ The implication here appears to be that knowledge of the particular and knowledge of the universal actually occur simultaneously.

⁷⁸ Wherein a human being graduates from the mere ability to call up an image to the ability to appreciate that that image has certain extraneous features which are inessential to the species that it exemplifies.

imagination and thought. And this notion of subservience appears to occupy a pivotal place in Wedin's case against the divinity of human thought.

This last point becomes easier to grasp once we recall the naturalistic conditional from passage (c). Here, Aristotle had stipulated that if thought "...proves to be a form of imagination *or to be impossible without imagination*, it too requires a body as a condition of its existence." And while Wedin does not regard Aristotle as having taken the former of these two eventualities seriously, he does believe that Aristotle affirmed the latter. And to say that the imagination subserves the faculty of thought is one possible way of unpacking the claim that thought is dependent upon the imagination.

The reason why Wedin regards the strong Thinking-Model of Imagination as an impediment to his naturalistic reading of Aristotle therefore appears to be as follows: Thought is a functionally complete faculty. If imagination were a form of thought, it would therefore be functionally complete. But this would undermine Wedin's rationale for regarding the imagination as a quasi-faculty which subserves the faculty of thought,⁷⁹ thereby—supposedly—blocking the satisfaction of the naturalistic conditional from passage (c).

I'll have more to say in the next chapter about the notion of subservience and the extent to which Wedin's particular conception of the subservience relation between imagination and thought is an effective means of fleshing out the second antecedent of passage (c)'s naturalistic conditional. For now, though, I will simply urge that there are other possible avenues for satisfying passage (c)'s naturalistic conditional, and that—contrary to what Wedin seems to believe—the strong Thinking-Model of Imagination is a fairly direct one. The conditional stipulates that if thought turns out to be impossible without imagination, then thought will be inseparable from the body. But it can hardly be the case that thought is *independent* of (*viz.* possible without) imagination if images just *are* thoughts, particularly if they are the most basic kind of thought. And so it seems to me that, rather than serving as an impediment to it, the strong Thinking-Model of Imagination can actually be enlisted in support of the naturalistic reading that Wedin seeks to advance.

It also seems to me (with only minor reservations) that Wallace can be invoked to provide additional support for this intuition. As we have seen in the previous section, Wallace comes very close to advocating a strong Thinking-Model of imagination, noting that, "...the images of our imaginative faculty often *approximate* closely to the ideas of thought" (Wallace, xciii). And although he does not comment specifically on the connection between this understanding of images and the question of the soul's (im)mortality,⁸⁰ there is a strong case to be made that he also favored a naturalistic reading of Aristotle's view of the human soul, not too dissimilar from the one championed by Wedin.

⁷⁹ "Phantasia...cannot be the same as thought because it is not a faculty at all" (Wedin, xii).

⁸⁰ Hence my minor reservations.

For one thing, a guiding theme of Wallace's commentary is that body and soul are mutually complementary facets of a living thing, representing, "...two sides of an antithesis, in which the opposing members only exist in the true sense of the terms in their combination with each other" (Wallace, xxxix). This implies that, just as the body isn't truly itself (i.e. fully what it is capable of being) in the absence of the soul, neither is the soul truly what it is in the absence of the body. Here, Wallace is clearly echoing Aristotle's remark, from the closing lines of *DA* 2.1, that, "...[just] as the pupil plus the power of sight constitutes the eye, so the soul plus the body constitutes the animal" (413a3), and that "From this it is clear that the soul is inseparable from its body [i.e. by the same token that the power of sight is inseparable from the pupil]" (413a4). These passages also constitute the bedrock of Wedin's naturalistic reading of Aristotle, in that they—in conjunction with certain other passages from the second book of the *DA*—help to establish a presumptively naturalistic definition of *psuche*, with which Wedin seeks to square Aristotle's seemingly dualistic remarks about the intellect, through his appeal to the idea that imagination is a subservient quasi-faculty.⁸¹

For another thing, Wallace makes a series of moves in his interpretation of Aristotle's discussion of the intellect in the third book of the *DA*, which parallel several of the other interpretive strategies that Wedin employs in order to square Aristotle's seemingly dualistic claims about the intellect with his presumptively naturalistic definition of the soul. Firstly, Wallace rejects the proposition that the fourth and fifth chapters can be conceptually separated, "...as if Aristotle were speaking of one reason in the one chapter, [and] of another reason in the other" (Wallace, cvi). On Wallace's view, both chapters refer to a single intellect. This, of course, requires Wallace to reject the proposition that the creative intellect of *DA* 3.5 refers to the deity, as the receptive intellect of *DA* 3.4 is clearly referring to the individual human intellect. Hence, Wallace concludes that it is, "...'in the soul of man' that the distinction which [Aristotle] draws [in *DA* 3.5, between the passive and creative intellects] is found" (Wallace, cix). He adds that "Aristotle views the partition of the soul into faculties [which presumably includes his partition of the human intellect into passive and creative aspects] as merely a convenient application of abstraction," which does not entail that these faculties are separable, "in actual fact or actual locality" (Wallace, liii). Rather, the partition "rests simply on a difference in their mode of working, on the point of view from which they are regarded: it is in short a distinction not a division" (Wallace, liii). Again, these are all moves that Wedin makes in his own commentary, and which (as I will explain in more detail in the final chapter) he regards as integral to his case against the divinity of human thought.

Finally, as I will explain in more detail in the next section, Wallace advocates for a gradational reading of Aristotle's view of the animal world, according to which man, "...stands on the same line as the rest of animal existence," such that, "all forms of life lead gradually up to man as the perfect development of what is contained implicitly and imperfectly in lower forms" (Wallace, li). This really does not sit well with the view that the human soul is immortal, possessing the

⁸¹ In addition to a number of other interpretive strategies.

capacity to outlive the body. That is, of course, unless we introduce the additional premise that the human soul is capable of transcending its naturalistic origins and *acquiring* immortality, perhaps by forging some sort of a connection with the divine intellect of the *Metaphysics*. But while there is some precedent in the historical literature for this additional premise, it is (as we will see in the next chapter) fraught with difficulties.

The only aspect of Wallace's commentary that gives me pause in attributing to him a naturalistic reading of Aristotle derives from a series of remarks made during his attempt to explain the function of the creative intellect. His discussion of the creative intellect aims to clarify how, on Aristotle's view, material things come to be intelligible—that is, capable of being grasped by the receptive intellect. His answer is that, when a material object comes to be apprehended by the receptive intellect, this is really just a process of rendering in explicit terms what was already implicitly rational; by which he means that although a human being may not always be consciously aware of the rational categories into which material objects fit, he is always nonetheless unconsciously aware of them. And it is, "...the creative reason [which] communicates to things those ideas, categories, or whatever we may call them, by which they become objects on which thought as a receptive passive faculty may operate" (Wallace, cv).⁸² Wallace describes the creative intellect's implicit communication of rational categories to the objects of experience as a sort of "creation of the world" (not *ex nihilo*, but *qua* intelligible). He adds that this act of creation, "...never began to exist—rather it is coeval with the world...in itself as eternal and unceasing it is outside all relations of time" (Wallace cvx).

Given Wallace's prior denial that the creative intellect refers to the deity, and his insistence that it refers to something internal to the soul of each man, this attribution of timelessness to the creative intellect and its contribution to the intelligibility of the world might seem to yield the obvious implication that each individual human soul is immortal, not only in the sense of having the capacity to outlast the lifespan of the body, but also in the sense of preceding it from eternity. And this might seem to place Wallace rather firmly in the dualistic camp of Aristotelian commentators.

⁸² In addition to addressing the question of how material objects come to be intelligible, Wallace is also interested in finding a way to harmonize some seemingly conflicting passages from the *APo* (and also the *EN*), in which Aristotle had identified now sense-perception, now reason, as the originating source of our knowledge and ideas. Wallace believes that his account of the creative intellect will allow him to maintain that while sensory perception is a necessary condition for the organizing and systematizing of the materials of thought (so that, in a sense, the power of sense-perception is what makes thought possible), the creative intellect is what sheds the necessary intellectual light on the material world for even this to happen. So that, ultimately, it is the creative reason which provides the necessary condition for perception to carry out its necessary function. And as Wallace points out, "...there is no contradiction in holding on the one hand that thought requires for its exercise an object suggested by sense and maintaining on the other hand that thought requires to illuminate this object in order that it may think it" (Wallace, cxiii).

That said, Wallace's treatment of the creative intellect contains several indications that this is not his intended meaning. For one thing, his attribution of timelessness to the creative intellect is tempered by the claim that the creative intellect is, "...at once in our minds *and immanent in the world*" (Wallace, cvii). This could be interpreted in a number of ways. It could signify that the creative intellect is a singular, independent substance, which enters temporarily into the cognitive apparatus of each individual person.⁸³ Of course, this interpretation seems to be precluded by Wallace's claim that the creative intellect does not refer to the deity at all, but rather to an element of each human soul.

Alternatively, it could mean that in addition to existing in each of our individual minds, the creative intellect is immanent in the world, in the sense that, quite independently of any particular human being, there is—and presumably always has been and will be—a thing called humanity, which is endowed with a creative intellect, and which therefore guarantees that the material world always has been and always will be potentially intelligible. In other words, when Wallace says that the creative intellect is timeless, he may be referring to humanity as a collective or in the abstract, rather than to the individual human soul. In which case, this would be perfectly consistent with a naturalistic interpretation of Aristotle. And it seems to me that this interpretation is supported by Wallace's subsequent remark that the creative intellect (as immanent in the world), "...takes us back to the time when man first thought the universe: and it thus easily approximates to that universal thought or logos which "was in the beginning"—as the a priori condition of a rational experience" (Wallace, cx).

To reiterate, then, in addition to coming very close to advocating a strong Thinking-Model of Imagination, there is a very persuasive case to be made that Wallace preferred a naturalistic reading of Aristotle's view of the human soul. And while his commentary does not give us any concrete reasons for thinking that a strong Thinking-Model of Imagination entails a naturalistic reading of Aristotle, the co-incidence of these two positions in Wallace's commentary should at least provide us with some additional reassurance as to the coherence of the two positions.

3.3. Ramifications of the Strong Thinking-Model: Thinking Animals?

3.3.1. Thinking Animals?

The most radical implication of the strong Thinking-Model's claim that images are inherently noetic would be that a subsection of the non-human animal world would be, for Aristotle, endowed with the capacity for a kind of thought. This would follow from the conjunction of the proposition that imagination is a kind of thought, with Aristotle's implication in *DA* 3.3 that,

⁸³ Recall that the later Averroes had postulated a relationship of this sort between each individual human being and the material intellect.

with very few exceptions (e.g. some insects),⁸⁴ imagination is found among non-human animals:

- (h) If actual imagination and actual sensation were the same, imagination would be found in all the brutes: this is held not to be the case; e.g. it is not found in ants or bees or grubs (428a8-10).

The conjunction of these two propositions forms the following argument: if most non-human animals possess imagination, and imagination is a kind of thought, then most non-human animals possess the capacity for some form of thought.

Now, this conclusion will likely strike many readers as so obviously wrongheaded as to constitute a definitive refutation of the strong Thinking-Model, in and of itself. This is because there is a good deal of textual evidence, peppered throughout the Aristotelian corpus, which suggests that it was precisely by virtue of their possession of intellectual capacities that Aristotle sought to distinguish human beings from the rest of the animal genus.

A number of these indicator-passages occur in the *DA*. For example, in *DA* 2.3, Aristotle writes that

- (i) Lastly, certain living beings—a small minority—possess calculation and thought, for (among mortal beings) those which possess calculation [*logismos*] have all the other powers above mentioned, while the converse does not hold—indeed *some live by imagination alone*, while others have not even imagination (415a8-12).

And, in *DA* 3.3:

- (j) And because imaginations remain in the organs of sense and resemble sensations, animals in their actions are largely guided by them, some (i.e. the brutes) *because of the non-existence in them of thought*, others (i.e. men) because of the temporary eclipse in them of thought by feeling or disease or sleep (429a5-8).

Another occurs in *PA* 1.1:

⁸⁴ Victor Caston (1996) disputes whether there are really any exceptions in the animal world at all. In support of his contention that "Phantasia belongs to every animal" (44), Caston gathers textual evidence from a variety of sources, in order to construct the following argument, to which he believes Aristotle is committed: P1. Anything that has at least one of the five senses will experience pleasure, and therefore also desire (*DA* 2.2, 2.3, 3.11). P2. All animals possess at least one of the five senses (*DA* 2.2, 2.3, 3.12, 3;13; *SS* 1; *HA* 1.3). P3. Therefore, all animals will have desire (*DA* 3.7). P4. Desire requires phantasia (*DA* 3.10). P5. Therefore, *all* animals have phantasia.

- (k) But perhaps it is not the whole soul, nor all its parts collectively, that constitutes the source of motion; but there may be one part, identical with that in plants, which is the source of growth, another, namely the sensory part, which is the source of change of quality, while still another, and this not the intellectual part, is the source of locomotion. For other animals than man have the power of locomotion, but *in none but him is there intellect* (641a41-45).

Several more indications can be found in the *Nicomachean Ethics*. Firstly, in EN 1.7:

- (l) Life seems to be common even to plants, but we are seeking *what is peculiar to man*. Let us exclude, therefore, the life of nutrition and growth. Next there would be a life of perception, but it also seems to be common even to the horse, the ox, and every animal. There remains, then, an active life of the element that has a *rational principle* [*logon*] (1097b32-36).

Next, in EN 7.3:

- (m) It also follows that this is the reason why the lower animals are not incontinent, viz. because *they have no universal beliefs* but only imagination and memory of particulars (1147b3-5).

And, again, at EN 10.7:

- (n) And what we said before will apply now; that which is proper to each thing is by nature best and most pleasant for each thing; for man, therefore, the life according to intellect is best and pleasantest, *since intellect more than anything else is man*. This life therefore is also the happiest (1178b2-6).

In light of this collection of passages, one might understandably be tempted to conclude that because Aristotle regarded the intellectual power as marking a sharp demarcation between human and non-human animals, a strong Thinking-Model of Imagination is flatly impossible.

That said, I would urge that it is still worthwhile to keep our minds open to a strong Thinking-Model of Imagination, for two reasons. Firstly, there is some textual evidence in the corpus which supports an alternative reading of Aristotle's conception of the animal world, according to which the various animal species form a gradational hierarchy, such that the human species can be viewed as differing from its inferior neighbors, not so much by a matter of kind—as passages (i) through (n) might seem to suggest—but by a matter of degree. And secondly, because it is possible to square this gradational reading with passages (i) through (n). I'll discuss each of these reasons in turn.

3.3.2. Alternative Gradational View of the Animal World

Edwin Wallace—who, as we have seen, came very close to defending the strong Thinking-Model—believed it to be Aristotle’s view that man, “...stands on the same line as the rest of animal existence. He is the end and centre of creation: but he is so simply in so far as all forms of life lead gradually up to man as the perfect development of what is contained implicitly and imperfectly in lower forms” (Wallace, li). In defense of this gradational reading, he cites the following thread of passages, from *HA*. 8.1.

- (o) In the great majority of animals there are traces of psychical qualities which are more markedly differentiated in the case of human beings (588a16-17).
- (p) “Some of these qualities in man, as compared with the corresponding qualities in animals, differ only quantitatively: that is to say, a man has more of this quality...” (588a21-23).
- (q) “The truth of this statement will be the more clearly apprehended if we have regard to the phenomena of childhood; for in children may be observed the traces and seeds of what will one day be settled habits, though psychologically⁸⁵ a child hardly differs for the time being from an animal...” (588a26-b1).

⁸⁵ This remark about children hardly differing psychologically from animals should not be interpreted as suggesting that children and animals only share a similar range of *cognitive* abilities. Aristotle’s broader point is that they have nearly indistinguishable souls, at least with respect to the psychic powers that they exhibit in actuality—and this encompasses *all* of the psychic powers that they exhibit in actuality, including the capacities for nutrition and growth, which all animals share with plants. Nor, therefore, should passages (o) through (q) be understood as supportive *only* of the proposition that humans and non-human animals exist on the same continuum. The gradational picture in support of which Wallace cites these three passages entails that *all* living things (including plants) exist on the same continuum. This can be easy to overlook, as passages (o) through (q) do seem to focus mainly on the psychological overlap between humans and non-human animals (the most salient facet of which would presumably be their shared range of cognitive abilities). But the psychological overlap between animals and plants with respect to nutrition and growth is nonetheless implied, and there is another passage from *GA* 2.3 which drives this point home more explicitly. Here Aristotle notes that animal embryos which have been separated from their mother appear to live the life of a plant; which is the same sort of claim that he makes in passage (q) about human children hardly differing psychologically from animals. And since this latter claim is invoked to illustrate the continuity between non-human and human animals, it seems reasonable to suppose that the remark from *GA* 2.3 would have similar implications with respect to the continuity between plants and animals. The passage from *GA* 2.3 can therefore be counted as further support for Wallace’s gradational picture, which, in conjunction with passages (o) through (q), helps to flesh out the full scope of this picture’s import.

Now, the notion that non-human animals might possess some kind of thought is perfectly consistent with the gradational picture described between passages (o) through (q), provided we specify that it is only a limited, imperfect form of thought, which falls short of the full range of intellectual activities that human beings are capable of exhibiting. If we were to express this idea in the terms used in passage (o), we might say that the vast majority of (non-human) animals possess limited or imperfect traces of intellectual activity, which are more “markedly differentiated” in human beings.⁸⁶ In the terms of passage (p), we might say that although some intellectual capabilities are shared in common by many non-human animal species and human beings, the intellectual capabilities possessed by human beings are quantitatively greater than those possessed by non-human animals.⁸⁷ And in the terms of passage (q), the idea would be that, in the early stages of their development, human beings only exhibit (in actuality) those intellectual capabilities which are shared in common between humans and non-human animals⁸⁸—but that as they develop into adulthood, they gradually begin to exhibit the other more numerous and more markedly differentiated intellectual capabilities which characterize adult humans, but which they only possessed in potentiality during childhood.

Of course, this is all contingent on whether there are solid textual grounds for supposing that Aristotle believed in the sort of gradational hierarchy of intellectual capacities, posited above. In particular, we would need to produce some textual evidence for the existence, in the Aristotelian schema, of a kind of thought which is more primitive than (and separable from) the sorts of intellectual capacities which characterize fully-developed human beings. As it happens, there are good textual reasons for supposing that Aristotle did believe in such a species of thought. Malcolm Lowe makes the case for us in “Aristotle on Kinds of Thinking” (1993). Lowe’s argument centers on the following passage, from *DA* 3.4:

- (r) When thought has become each thing in the way in which a man who actually knows is said to do so (this happens when he is now able to exercise the power on his own initiative), its condition is still one of potentiality, but in a different sense from the potentiality which preceded the acquisition of knowledge by learning or discovery; and thought is then able to think of itself (429b6-429b9).

⁸⁶ Here, we might interpret “more markedly differentiated” as meaning that the intellectual capabilities exhibited by human beings, being more fully-developed, are more easily recognizable as being “Intellectual.” Whereas those exhibited by non-human animals, being more primitive, tend to resemble lower-order psychical qualities.

⁸⁷ This quantitative asymmetry might be fleshed out as meaning that human beings possess a greater number of different *kinds* of intellectual capabilities than non-human animals.

⁸⁸ So that they resemble non-human animals, in terms of their psychological behavior.

In this passage, Lowe finds a distinction between two species of thought: "...[a]n apprehensive process, whereby the mind acquires thoughts in the first place, and [b] an autonomous process, which can begin once the mind has acquired thoughts" (Durrant, 115-116).

In the latter category, Lowe places such intellectual capabilities as abstraction, propositional judgment, practical reasoning, and theoretical reasoning.⁸⁹ And the nature of the dependence-relation which passage (r) appears to signal between autonomous thought and apprehensive thought—i.e. that apprehensive thought is a prerequisite for autonomous thought—suggests that apprehensive thought is both more primitive than, and separable⁹⁰ from, those thought-processes which fall under the category of "autonomous thought."

Given that there very plausibly exists in Aristotle a kind of thought which is more primitive than, and separable from, the sorts of intellectual capacities which characterize fully-developed human beings—i.e. apprehensive thought—it should be entirely possible to formulate a coherent gradational picture of the animal world in accordance with passages (o) through (q), which recognizes some degree of overlap between humans and non-human animals with respect to the capacity for thought. According to this gradational picture, *apprehensive* thought is shared in common by humans and some non-human animals, and represents the absolute pinnacle of non-human psychic capacities; human children initially only exhibit apprehensive thought (hence why a child "hardly differs for the time being from an animal" psychologically), but gradually begin to express more numerous and markedly differentiated intellectual capacities, which fall under the category of autonomous thought.

Of course, this by itself only establishes that the Aristotelian corpus contains two conflicting accounts of the animal world. On the one hand, we have the gradational account, represented by passages (o) through (q). On the other hand, we have the standard account, represented by passages (i) through (n), in which Aristotle seems to regard human beings as being sharply demarcated from non-human animals, by virtue of their possession of intellectual capabilities.

And so in order to properly legitimize the gradational picture (and along with it, the strong Thinking-Model of Imagination) an additional step is required. We'd need to be able to show that the gradational picture is reconcilable with the picture painted by passages (i) through (n). This would require us to make a case that, when Aristotle designates thought as the distinguishing mark of the human animal in passages (i) through (n), he is referring specifically to autonomous thought, rather than to thought simpliciter. And I believe that this is possible.

⁸⁹ I'll say a bit more about this in the next section of the chapter.

⁹⁰ Passage (q) lends further support to the idea that apprehensive thought is separable from autonomous thought, by confirming that an individual human child can have the one without the other.

3.3.3. Autonomous Thought as the Distinguishing Mark of Human Animals?

In order to begin to understand why the gradational picture sketched above might be compatible with passages (i) through (n), we might look to John Cooper's observation that it was Aristotle's tendency, "...always to search out the best and most fully realized instance, when attempting to define a kind of thing" (Cooper, 320).⁹¹ If this is right, then it might be possible to advance the view that, in passages (i) through (n), when Aristotle *appears* to be citing thought simpliciter as the distinguishing characteristic of the human animal, he is really only referring to intellectual capacities which fall under the category of "autonomous thought," since these are the more fully realized manifestations of *nous*. And if this is right, then, since none of these passages will be saying anything about apprehensive thought,⁹² it will turn out that passages (i) through (n) are not giving us any reason to think that apprehensive thought could not extend downward into the upper echelon of the non-human animal world.

In which case, the seemingly contentious implication of the strong Thinking-Model of imagination—that some non-human animals possess a kind of thought—will turn out to be consistent with Aristotle's apparent appeal to rationality as the distinguishing feature of the human species, in passages (i) through (n).

However, before helping ourselves to this conclusion, we should pause to consider a potentially serious problem with our proposed application of Cooper's claim that Aristotle tends to define things in terms of their most fully realized instances. The problem comes to us in the form of the following passage, from *EN* 9.9:

(s) "*Now life is defined in the case of animals by the power of perception, in that of man by the power of perception or thought*" (1170a15-17).

If, as Cooper suggests, it was Aristotle's tendency to define a thing in terms of its most fully realized instance, and if we wish to utilize this principle in order to motivate the view that animals possess a rudimentary species of thought, then we should expect Aristotle to define animals in terms of this rudimentary form of thought. But passage (s) clearly states that animals are defined by the power of perception. Which, in light of Cooper's claim about Aristotle's tendency to define a thing in terms of its most fully realized instance, would seem to suggest that non-human animals have no psychic capacities beyond perception.⁹³

A response to this objection might begin with the observation that (as we have seen above), many non-human animals possess the power of imagination, according to Aristotle. And we

⁹¹ Cooper attributes this to the "pervasive teleological bias of his thinking" (Cooper, 320).

⁹² Which, as we have seen above, is more primitive than autonomous thought, and separable from it, even in an individual human being.

⁹³ Which would rule out the possibility of their having the capacity for any kind of thought, however rudimentary.

know that the faculty of imagination is superior to mere perception. So that really, on the supposition that Aristotle defines a thing in terms of its best and most fully realized instance, we should expect Aristotle to define animals in terms of imagination, rather than perception.

Of course, this invites the accusation that we have inadvertently toppled Cooper's claim about Aristotle's approach to definitions, in our attempt to defend our proposed application of it. If Cooper's claim should yield the conclusion that animals are defined in terms of imagination, but Aristotle instead defines them in terms of perception, then we are faced with a contradiction. And the most intuitive solution—given the unambiguous nature of Aristotle's appeal to perception as the defining characteristic of animals in passage (s)—might seem to be to reject Cooper's claim that Aristotle defines things in terms of their most fully-realized instances.

My response to this follow-up objection would be that there is a way of qualifying Cooper's claim about Aristotle's approach to definitions, which will allow us to square the claim (and our proposed application of it) with Aristotle's appeal to perception as the definitive feature of animals, in passage (s).

This qualification can be developed in the following manner: The reason why Aristotle does not cite imagination as the distinguishing feature of animals is because not all animals possess imagination. As we saw above, in passage (h), bees and grubs lack imagination. Perception, on the other hand, is shared in common by all animals; no animal can fail to have at least one of the five senses. And any adequate definition of animals would have to be sufficiently broad to be applicable to *all* of the different kinds of animals. Which means that the definition must be in terms of characteristics which are shared in common by all animals (hence why perception is a better candidate than imagination).

We might therefore consider tweaking Cooper's claim about Aristotle's approach to definitions, to read as follows: *Aristotle defines a thing not in terms of the highest capacity that a given instance of that thing might happen to have, but in terms of the highest capacity that it shares with all of the other instances of that thing.* Interpreted in this manner, Cooper's claim about Aristotle's approach to definitions is perfectly compatible with Aristotle's claim, from passage (s), that animal life is defined by the power of perception.

But it can also accommodate the notion that some animals have additional, superior capacities, since this interpretation of Cooper's claim about Aristotle's approach to definitions does not require that 'animal' be defined in terms of the highest capacity that a given animal might happen to have. And—crucially, for our purposes—we know that such additional capacities can include those which are shared by human beings, since we know that both non-human animals (not all, but apparently most), and human beings, possess the faculty of imagination.

The pivotal question, then, is whether our qualified interpretation of Cooper's claim can accommodate the inclusion of Lowe's apprehensive thought among the higher-order faculties which can be attributed to some non-human animals, in addition to their defining power of perception.

The only reason to think that it couldn't do this would be that, because animals were defined by a lower, more broadly applicable capacity—i.e. perception, rather than imagination—then, given that Aristotle distinguishes between two hierarchically-ordered and potentially separable species of thought, perhaps our expectation should be that humans would be defined by the lower of these two capacities. So, the argument might conclude, because human beings are defined by their possession of apprehensive thought (autonomous thought therefore being an additional feature which human beings might or might not happen to possess), we cannot entertain the notion that apprehensive thought might extend downward into the higher echelon of the non-human animal world.

The trouble with this argument lies in its assumption that apprehensive thought's lower position on the thought-hierarchy implies that it is more broadly applicable to human beings than autonomous thought. This is a mistake. Unlike non-human animals—which, as Aristotle tells us, can be divided into a relatively small camp which possesses only perception, and another larger camp which possesses imagination in addition to perception—human beings are not divided into one camp which possesses only apprehensive thought and another camp which possesses the capacity to engage in autonomous thought, in addition to apprehensive thought. Rather, all human beings possess the ability to graduate from apprehensive to autonomous thought, to one degree or another. Therefore, on our interpretation of Cooper's claim about Aristotle's approach to definitions (that he defines a thing in terms of the highest capacity that all members of the category share in common), we can understand Aristotle's appeal to thought as the defining feature of the human animal, as referring specifically to thought-forms which fall under the category of "autonomous thought."⁹⁴

And, in fact, if we look back more carefully at passages (i) through (n),⁹⁵ we will find that there are good contextual reasons, either in the passages themselves, or else in the text surrounding the passages, for supposing that Aristotle is referring specifically to *autonomous* thought, when he cites thought as the distinguishing feature of the human animal.

3.3.3.1. Passage (i)

In the case of passage (i), we needn't look too deeply into the surrounding text, as Aristotle clearly specifies that he is referring to "calculation," (*logismos*) as the distinguishing mark of the

⁹⁴Now, if we are supposing that autonomous thought is the highest capacity that every human being shares in common, then one might reasonably inquire as to what sorts of additional, contingent capacities human beings might happen to possess on top of their capacity for autonomous thought. The answer is that there are not, strictly speaking, any additional faculties which outstrip autonomous thought. However, there are varying degrees to which human beings are capable of engaging in autonomous thought processes, after having graduated from mere apprehensive thought. And there are some individuals who are capable of exhibiting autonomous thought to such a high degree that they approximate the life of the gods. i.e. those who live a maximally contemplative life. (1178a-1861)

⁹⁵ Upon which the sharp-demarcation model was based.

human animal. And calculation, as we have seen above, in Lowe's discussion, belongs to the category of autonomous thought.

True, the passage also states that non-human animals "live by imagination alone." Which, on the surface, might seem to preclude the possibility that non-human animals possess apprehensive thought. But remember that the whole point of our discussion is to inquire into the possibility that imagination and apprehensive thought might be one and the same. And so, given our foregoing demonstration that it is potentially feasible to extend apprehensive thought downward into the upper-echelon of the non-human animal world, as well as our demonstration that passage (i) is specifically designating autonomous thought as the distinguishing feature of the human animal (with no mention of apprehensive thought), it seems to me that to interpret this remark about the imagination as excluding the possibility that non-human animals might possess apprehensive thought would be, at this stage in the discussion, question-begging.

3.3.3.2. Passage (j)

Passage (j) presents a somewhat greater difficulty, as Aristotle here stresses the "non-existence of thought" in animals, without explicitly stressing which type of thought he is speaking about, which might lead some interpreters to assume that he is speaking of thought in the broadest possible terms. However, we can still gather, from contextual markers in this passage (and in other, related passages) that Aristotle most likely intends some variant of autonomous thought. The main point that Aristotle is trying to convey in passage (j) is that while both imagination and thought can be guiding forces of animal action, it is the imagination which occupies the more fundamental (i.e. default) position in this regard.⁹⁶ He communicates this point by examining two scenarios in which the influence of the intellect has been removed from the equation, and noting that, in these cases, imagination is the sole determinant of an animal's action. The first scenario is the case of non-human animals, who are only ever guided by imagination, because they supposedly lack intellect altogether. The second is the case of human beings who are temporarily guided by imagination alone, due to the temporary eclipse of their intellectual capacities by feeling or sleep or disease.

It is this second example which provides us with grounds for suspecting that Aristotle is referring (in either case) to a variant of autonomous thought, rather than to thought simpliciter. The temporary nature of man's guidance by imagination—during bouts of emotional unrest, illness, or sleep—suggests that, whenever thought is present and in working order, it possesses ultimate control over the animal's action. With this in mind, it is perfectly appropriate for us to press the question of *how* the intellect oversees action, in those cases in which it does.⁹⁷

⁹⁶ Recall that this was a common theme in Wedin and Schofield's treatments of passage (f).

⁹⁷ i.e. In human beings whose rational faculties are in proper working-order.

We can look to a parallel discussion of animal action, in *MA 7*, for some insight as to precisely *how* thought oversees action when it is present and in working order. Here, Aristotle explains thought “in the domain of conduct”⁹⁸ by analogy to “thinking and inferring about the immovable objects.” His account runs as follows:

- (t) There [i.e. in the case of thinking and inferring about the immovable objects] the end is the truth seen (for, when one thinks the two propositions, one thinks and puts together the conclusion), but here [i.e. in the case of thinking in the domain of conduct] the two propositions result in a conclusion which is an action—for example, whenever one thinks that every man ought to walk, and that one is a man oneself, straightaway one walks; or that, in this case, no man should walk, one is a man: straightaway one remains at rest (701a8-13).

Passage (t) indicates that although thought in the domain of conduct may have a different object and a different result than thought concerning the immovable objects,⁹⁹ these two forms of thought are nevertheless fundamentally similar, in that both involve the putting-together of multiple propositions, and the distillation of a resultant conclusion. In the case of thought in the domain of conduct, the conclusion which results from the putting-together of propositions just *is* the action which is (or is not) performed.

This gives us our answer as to how thought oversees action, and as to what kind of thought is involved, in those cases in which it does exert an influence. Thought oversees action by putting together the relevant propositions pertaining to what ought or ought not to be done, and distilling the conclusion (i.e. the action to be done). Which means that “thought,” as it pertains to animal action, refers to a species of propositional reasoning.¹⁰⁰ And since we know from Lowe’s discussion that propositional reasoning belongs to the category of “autonomous” thought, it follows that in those cases in which intellect does contribute to animal action, it is qua “autonomous” that it does so.

Hence, when Aristotle notes—in his second example—that human beings are guided solely by imagination when their intellectual capacities have been eclipsed by feeling or disease or sleep, it is clear that he is referring specifically to the eclipse of “autonomous” intellectual

⁹⁸ i.e. As it pertains to action or inaction.

⁹⁹ The object of thought in the domain of conduct is thing to be done, and the result is the action or inaction. The result of thought concerning the immovable objects consists in the seeing of truth, rather than the performance of an action.

¹⁰⁰ Specifically, in the domain of conduct.

capacities,¹⁰¹ since it is this specific sub-category of thought which has turned out to be relevant to the sphere of animal action.

So too, then, we are justified in interpreting Aristotle's first example—of non-human animals, who are only ever guided in their actions by imagination because thought is absent in them—as referring specifically to “autonomous” thought. To insist that he is referring more broadly, to thought *simpliciter*, would be to attribute to Aristotle a far stronger claim about non-human animals than would be required in order for the example to fulfill the purpose for which Aristotle is utilizing it.¹⁰² To reiterate, the purpose of both examples is to underscore the primacy of the imagination as the most fundamental guiding principle of animal action. And, in light of our finding from *MA* 7, that it is specifically “autonomous” thought in the domain of conduct which is relevant to animal action,¹⁰³ a focused denial of “autonomous” intellectual capacities to non-human animals would be sufficient to make this point.

Of course, one *could* argue that because Aristotle clearly intends for the animal example to provide *more emphatic* support for the primacy of imagination than his stunted human example, a broader interpretation of passage (j) as referring to thought *simpliciter* might actually serve this purpose more effectively than my narrower interpretation—particularly in light of our foreknowledge (from *DA* 3.4) that the presence of apprehensive thought is a precondition for the presence of autonomous thought. The idea here would be that, since it is specifically “autonomous” thought which plays a direct role in guiding animal action when intellect is involved at all, and since non-human animals do not even possess the intellectual prerequisite for “autonomous” thought (i.e. apprehensive thought), they *certainly* cannot possess the intellectual capacities which are directly responsible for guiding action.

But this would be no more necessary than interpreting Aristotle's stunted human example as suggesting that feeling or disease or sleep act as suppressants of both the apprehensive and the autonomous intellectual capacities. Apprehensive thought simply isn't directly relevant to animal action, and since it is perfectly conceivable for apprehensive thought to exist in the absence of autonomous thought,¹⁰⁴ the most appropriate approach would be to interpret both the animal example and the stunted human example as being silent on the question of apprehensive thought.¹⁰⁵ This would still enable us to insist that Aristotle's animal example provides a more emphatic case for the primacy of imagination than his stunted human

¹⁰¹ If it is qua autonomous that intellect contributes to animal action when it does contribute to animal action, then it would seem to follow that, in those cases in which the intellect fails to contribute to animal action, it should be qua autonomous that it fails to do so.

¹⁰² It would also be question begging since, as I had mentioned above in my treatment of passage (i) this would be to rule out a priori the possibility that imagination and apprehensive thought are one and the same, which is precisely the question we are inquiring about.

¹⁰³ And in light of the fact that, according to *DA* 3.4, apprehensive thought is separable from autonomous thought.

¹⁰⁴ As the prerequisite for autonomous thought, apprehensive thought is therefore separable from autonomous thought.

¹⁰⁵ Leaving us some room for agnosticism as to whether Aristotle would have been willing to grant non-human animals a share in apprehensive thought.

example. We could simply say that, whereas “autonomous” intellectual capacities (specifically) are capable of being temporarily eclipsed in human beings, they (specifically) are wholly absent in non-human animals.¹⁰⁶

3.3.3.3. Passage (k)

Moving on, we find exactly the same situation in the case of passage (k). Here, Aristotle repeats the sentiment that thought is not found in non-human animals, and (again) declines to specify whether he is referring to any particular form of thought.¹⁰⁷ And, just as in the case of passage (j), the purpose of Aristotle’s emphasis on the supposed non-existence of thought in non-human animals is to underscore that it is the imagination, rather than the intellect, which serves as the default impetus to animal action. The main difference between passage (j) and passage (k) is that, in passage (k), Aristotle relies solely upon the example of non-human animals in order to make this point, rather than including the example of the stunted human. This lends to passage (k) the superficial appearance of denying that intellect makes any contribution to animal action at all. But if this were the correct reading, it would mean that passages (j) and (k) are in direct conflict with one another, since passage (j) allows that intellect sometimes makes a contribution to animal action, and that it in fact possesses ultimate control over an animal’s action in those cases in which it is involved.

In order to avoid this conflict and render passages (j) and (k) compatible, we need only consider that Aristotle might just as well have included the stunted human example in passage (k), (in which case, it would have been more easily discernible that Aristotle did not intend to deny that intellect makes any contribution to action at all, but only that intellect is the *baseline* contributor to action). On this reading, passage (k) is implicitly friendly to the notion that intellect *sometimes* contributes to animal action.¹⁰⁸

This being the case, we are again free to press the question of *how* the intellect contributes to animal action, when it does. Which will lead us down the same path that our examination of passage (j) took. As before, an appeal to Aristotle’s parallel discussion of animal action in *MA 7*,

¹⁰⁶ Or, if we wished to express this in terms of our agnosticism concerning whether non-human animals possess apprehensive thought, we might put it as follows: We cannot be sure, based on what Aristotle has to say in passage (j) whether Aristotle believed that non-human animals possess apprehensive thought. But we can be sure that, if they do, they do not possess the ability to graduate beyond apprehensive thought, into the realm of autonomous thought.

¹⁰⁷ Which, as before, might motivate readers to assume that he is speaking of thought in the broadest possible terms.

¹⁰⁸ This is corroborated by *EN 6.2*, which echoes Aristotle’s claim from passage (k), that “intellect is not the source of locomotion,” but which is more careful about qualifying the statement, so as to clarify his intended meaning, that it is not *just any* function of the intellect which is the source of locomotion, but one function in particular (i.e. deliberation in the domain of conduct): “Intellect itself, however, moves nothing, but only the intellect which aims at an end and is practical” (1139a36-b1).

will indicate that the intellect contributes to animal action by putting together the relevant propositions pertaining to what ought or ought not to be done, then distilling the conclusion, which is identical with the performance or non-performance of the relevant action. Which, in light of Lowe's classification of propositional reasoning as a variant of "autonomous" thought, will lead us to the conclusion that it is *qua* autonomous that the intellect makes a contribution to animal action, in those cases in which it does. From this we can again derive the conclusion that, when the intellect fails to contribute to animal action, it fails to do so *qua* autonomous.

Hence, in passage (k), when Aristotle notes the supposed absence of thought in non-human animals, we can reasonably infer that he is speaking specifically of "autonomous" thought, for the same reasons that we did in our analysis of passage (j). The purpose of Aristotle's appeal to the example of non-human animals in passage (k) is to stress that imagination is the sole determinant of an animal's action, in those cases in which thought does not make a contribution (and that therefore, imagination is the most fundamental determinant of animal action). And our examination of Aristotle's discussion in the *MA 7* has revealed that it is specifically autonomous thought which is directly relevant to animal action, in those cases in which thought does make a contribution. And since apprehensive thought is separable from autonomous thought, there is no reason to interpret Aristotle's apparent denial of thought to non-human animals as applying to apprehensive thought, in addition to autonomous thought.¹⁰⁹ To do so would be superfluous, since the more moderate interpretation—that Aristotle is merely denying non-human animals a share in "autonomous" thought—is sufficient to render Aristotle's example of non-human animals effective as an illustration of the primacy of the imagination as a determinant of animal action.

3.3.3.4. Passage (l)

Passage (l), when read out of context, gives the impression of designating rationality (again, seemingly broadly construed) as something uniquely human; which, if true, would mean that non-human animals can have no share in thought whatsoever. But it is important to remember that, in the context in which this passage appears, Aristotle is not trying to render a definition of "human being," but rather, to discern the nature of human happiness. His seemingly generalized appeal to the human soul's "rational principle," in passage (l), is only the beginning-stage of what will, over the course of the *EN*, become an increasingly fine-tuned answer.

In *EN 1.7*, in the lines immediately following passage (l), Aristotle clarifies that it is not any and every activity of the soul's rational principle which conduces to human happiness, but more specifically, activity of the rational principle *in accordance with its appropriate excellence*. But of course, even this needs to be parsed a bit further in order to be genuinely informative. Which is why, in *EN 1.13*, Aristotle introduces a distinction between two kinds of rational excellence—

¹⁰⁹Unless, as I have also noted in my treatments of passages (i) and (j), we are begging the question in favor of the view that non-human animals cannot possess *any* kind of thought at all.

one intellectual and another moral—and zeros in on the latter as being the most pertinent to his project of defining human happiness. Thus, by the end of the first book of the *EN*, Aristotle’s account of human happiness has already matured from “activity of the soul’s rational principle,” to the more specific “activity of the soul’s rational principle, in accordance with *moral* excellence.”

He develops his answer even further in the second book, by expounding more precisely on the nature of moral excellence. In the sixth chapter of this book, Aristotle posits that moral excellence is a state of one’s soul, which comes about as a result of habitually choosing the correct course of action, in response to the pleasures and pains that circumstance might make available to us or impose upon us. As a general rule, he posits that the correct course of action will aim at a mean between excess and deficiency, with regard to one’s responses to pleasurable and painful circumstances.¹¹⁰ However, he is careful to acknowledge that this does not amount to a formula which can be easily applied to every situation; rather, choosing the correct course of action requires careful deliberation about the particulars of the situation that one finds oneself in, just as the practice of medicine requires the physician to “consider what is appropriate to the occasion,” before deciding upon a regimen of treatment.

Thus, over the course of the first two books of the *EN*, Aristotle’s account of happiness develops from the seemingly generic “activity of the soul’s rational element,” to the far more specific “a state of the soul, which results from repeated (and successful) deliberation about what ought to be done in a given set of circumstances, particularly in response to the pleasures or pains which are attendant upon those circumstances.” This clearly indicates that happiness comes about not as a result of thought *simpliciter*,¹¹¹ but as a result of what Aristotle had referred to, in the *De Motu*, as “deliberation in the domain of conduct.”

He is even careful, in *EN* 3.3, to distinguish this form of thought from philosophical contemplation (which he had referred to in the *MA* 7 as “thinking and inferring about the immovable objects”):

- (u) Now about eternal things no one deliberates, e.g. about the universe or the incommensurability of the diagonal and the side of a square...We deliberate about

¹¹⁰ However, merely performing the median *action* in response to pleasurable and painful circumstances is not enough to establish that the person has attained a state of moral excellence. This is merely the process by which one gradually (by habituation) attains the state of moral excellence. The state of moral excellence is characterized by one’s attainment of the median state with regard to one’s *passions* concerning pleasurable and painful circumstances (for the passions too admit of means, as Aristotle tells us in *EN* 2.7). This means that, in addition to choosing the correct course of action in regard to the pleasure and pain that one experiences, the morally excellent person will also, “...feel them [i.e. pleasure and pain] at the right times, with reference to the right objects, towards the right people, with the right aim, and in the right way, [which] is what is both intermediate and best, and this is characteristic of excellence” (1106b21-23).

¹¹¹ Which a passing glance at passage (l) might seem to suggest.

things that are in our power and can be done (1112a21-31).

And we know, from Aristotle's discussion in *MA* 7, that deliberation in the domain of conduct is a form of propositional reasoning. Which makes it, according to Lowe's discussion, a species of autonomous thought.¹¹²

Hence, since Aristotle's project in the *EN* is not to highlight the role of the rational principle in providing a definitional demarcation of human beings from nonhuman animals,¹¹³ but rather to highlight its role in bringing about a state of happiness, and since his developed theory specifies that it is by virtue of our capacity for *propositional reasoning in the domain of conduct* that we are able to attain happiness, it follows that Aristotle's emphasis on the activity of the rational principle in passage (l) must refer specifically to autonomous thought.

3.3.3.5. Passage (m)

As for passage (m), a superficial reading might lead some to understand Aristotle as saying that non-human animals are incapable of akratic action (i.e. incontinence) because they have no share in thought whatsoever. However, a more careful reading should yield the conclusion that non-human animals are incapable of akratic action because they have no share in *autonomous thought*. Right from the outset of his discussion of akratic action in *EN* 7.1, Aristotle describes the akratic person as one who abandons the results of his calculations:

- (v) The same man is thought to be continent and ready to abide by the result of his calculations [*logismou*], or incontinent and ready to abandon them (1145b10-11).

And although Aristotle does ultimately back away from the notion that akratic action involves any literal contravention of the results of one's calculations, his subsequent account of the mechanics of akratic action in *EN* 7.3 does nevertheless retain the presupposition that akratic action occurs against a backdrop of propositional reasoning. In rough strokes, Aristotle's mature position appears to be that akratic action involves a sort of *misfiring* of one's propositional reasoning (such that the correct conclusion is never actually reached), caused by the interference of a passion. More precisely, the idea would be that, although one might be in active possession of the necessary theoretical information required to draw the correct

¹¹² This conclusion is also bolstered by Aristotle's repeated reminders, throughout books 2 and 3 of the *EN*, that moral excellence comes about as a result of *choice*—which is to say that we choose the actions which, when undertaken habitually, bring about a state of excellence in our souls. A clear expression of this principle can be found in the opening lines of *EN* 3.5: "The end, then, being what we wish for, the things contributing to the end what we deliberate about and choose, actions concerning the latter must be according to choice and voluntary. Now the exercise of the excellences is concerned with these" (1113b3-6).

¹¹³ As a cursory, decontextualized reading of passage (l) might seem to suggest.

conclusion about what ought to be done in a given circumstance,¹¹⁴ one's distillation of the correct conclusion is nevertheless impeded, because the particular premise,¹¹⁵ whose combination with the foregoing universal propositions would ordinarily clinch one's arrival at the correct conclusion, is in some sense suppressed by a passion:

- (w) ...the last proposition both being an opinion about a perceptible object, and being what determines our actions, this a man either has not when he is in the state of passion, or has it in the sense in which having knowledge did not mean knowing but only talking, as a drunken man may utter the verses of Empedocles (1147b9-12).

Insofar, then, as akratic action is effectively defined by Aristotle as a hiccup in one's propositional reasoning, it follows that any organism which lacks the capacity to engage in propositional reasoning in the first place will be incapable of akratic action as well. And this is how we need to interpret Aristotle's explanation as to why non-human animals are incapable of akratic action; his emphasis on the non-human animal world's lack of "universal beliefs" should be taken as shorthand for their inability to engage in acts of propositional reasoning (from which follows, implicitly, an inability to have their propositional reasoning compromised by the impingement of a passion).

And since we know, from Lowe, that propositional reasoning belongs to the category of autonomous thought, the upshot is that when Aristotle stresses the absence of "universal beliefs" in non-human animals as the explanation for why these animals are incapable of akratic action, he is not necessarily denying them any share in thought *simpliciter*, but only a share in *autonomous thought*. We have no reason for thinking that this denial of autonomous thought to non-human animals extends also to apprehensive thought, because apprehensive thought is a prerequisite for autonomous thought, and separable from it. This means that the absence of autonomous thought does not imply the absence of apprehensive thought. The category of apprehensive thought simply is not addressed in passage (m).¹¹⁶

3.3.3.6. Passage (n)

Coming finally to passage (n), many readers might be inclined to seize upon Aristotle's remark that "*intellect* (again, seemingly broadly construed) *more than anything else is man*" as

¹¹⁴ i.e. Universal propositions such as, for example, that "dry food is good for every man," that "I am a man," and that, "such and such food is dry."

¹¹⁵ i.e. That "this food here is such and such."

¹¹⁶ As with passages (i), (j), and (k), this passage also clarifies that non-human animals have only imagination, which some might be inclined to take as confirmation that non-human animals have no share in thought whatsoever (not even apprehensive thought). However, this would be question-begging, for the same reason given in my treatments of those earlier passages.

conclusive evidence that non-human animals cannot be granted any form of thought, since this remark seems to intensify the familiar appeal to thought as the characteristic feature of the human species, to the point of approximating an identity claim between each individual intellect and each individual human-being. The idea would then be that, if each human being just *is* their intellect (their other psychic faculties being in some sense presupposed), then perhaps—with the exception of the divine intellect of the *Metaphysics*—each individual intellect just *is* a human being. This would allow us no wiggle-room for any kind of overlap between intellectual expression and non-human animal life.

The problem with this reading is that it neglects not only the distinction between apprehensive and autonomous thought (which, as we have seen, are separable), but also, the extent to which Aristotle recognized distinctions between lower and higher echelons, even within the category of autonomous thought. Sensitivity to this latter fact is especially crucial to understanding passage (n) within its proper context.

For example, we saw, in *MA 7*, that Aristotle drew a comparison between two distinct forms of propositional reasoning, one of which was concerned with the domain of conduct, and one of which was concerned with the immovable objects. We also saw that although these two forms of thought differed with respect to the nature of the conclusions that they yielded,¹¹⁷ they were nonetheless united under the category of “autonomous thought,” by virtue of the fact that they involved the putting-together of propositions and the distillation of conclusions.

Granted, we did not see any clear indication in *MA 7*, that these two forms of thought stand in any particular hierarchical ranking, in relation to one another. However, in the tenth book of the *EN* (from which passage (n) is drawn), Aristotle is very clear that they do. His metric, in deciding the layout of this hierarchical arrangement, is the extent to which each of these two forms of thought is conducive to happiness. And in *EN 10.7*, he identifies the life of philosophical contemplation—by which he means thought in the realm of the immovable objects—as the maximally happy life. Thought in the domain of conduct receives only a secondary position on the scale of happiness.

Aristotle defends this ranking by stressing that philosophical contemplation outstrips thought in the domain of conduct, in terms of continuity and self-sufficiency, both of which he had listed as criteria for the happiest life in the first book of the *EN*.

(x) ...it is the most continuous, since we can contemplate truth more continuously than we can *do* anything (1177b29-30).

(y) For while a wise man, as well as a just man and the rest, needs the necessaries of life, when they are sufficiently equipped with things of that sort the just man needs people

¹¹⁷ The conclusions drawn from thought in the domain of conduct are actions, whereas the conclusions drawn from thought concerning the immovable objects are truths seen.

towards whom and with whom he shall act justly, and the temperate man, the brave man, and each of the others is in the same case, but the wise man, even when by himself, can contemplate truth (1177b35-40).

All of this is established in the paragraphs leading up to passage (n), and so it must inform our interpretation of that passage. In fact, passage (n) contains a clause which harks back to Aristotle's preceding discussion of the hierarchical ordering among thought-forms: immediately after declaring that intellect, more than anything else, is man, Aristotle closes the passage (and the chapter), by remarking that the life lived in accordance with intellect, "...therefore is also the happiest."

Given our prior understanding—gleaned from a complete reading of *EN* 10.7—that the "happiest" life, for Aristotle, refers to the life of philosophical contemplation, this closing remark makes it clear that, when Aristotle speaks of intellect in passage (n), he is referring not only to a form of autonomous thought, but indeed, to the highest possible form of autonomous thought.¹¹⁸

3.3.4. Summary

To recap, then, our analysis of the objection to the strong Thinking-Model of Imagination, that it leads to a conclusion which conflicts with Aristotle's designation of intellect as the distinguishing feature of the human animal, in passages (i) through (n), has yielded the following results:

¹¹⁸ At this point, some might be inclined to point out the following tension between my treatment of passage (l), and my treatment of passage (n). Both of these passages occur in the context of a discussion of human happiness. However, my treatment of passage (l) revealed that when Aristotle identified the life of rational activity as the happiest life, he was speaking about rational activity in the domain of (moral) conduct. Whereas, in my treatment of passage (n), it was revealed that, when Aristotle identified the life of rational activity as the happiest life, he was referring to something even higher (i.e. philosophical contemplation). This objection gestures towards a notoriously difficult problem for interpreters of the *EN*—namely, whether the account of happiness that Aristotle develops throughout the bulk of the text (focusing as it does on rational activity in the sphere of moral excellence) is compatible with his emphasis on pure philosophical contemplation, in the tenth book. Much ink has been spilled on the question. However, for our present purposes, the answer to this question really isn't relevant. This is because both thought in the domain of conduct and philosophical contemplation are forms of propositional reasoning and are therefore both subsumed under the category of "autonomous thought." And the point that I am making here—that in passages (i) through (n), when Aristotle appears to be citing intellect in general as the distinguishing feature of the human animal, he is, in fact, only referring to the category of "autonomous thought"—requires nothing more than a demonstration that thought, in the context of each passage, refers to *some* variant of autonomous thought. It does not require that every one of these passages be shown to be referring to the same variant of autonomous thought.

Firstly, the objection overlooks the gradational picture of the Aristotelian animal world suggested by passages (o) through (q), which is perfectly capable of accommodating the notion that non-human animals might possess a kind of thought, so long as there exists within the Aristotelian schema a distinction between the fully-developed intellectual capacities which typify mature human beings, and a more primitive, less complete form of thought which serves as a precursor and a prerequisite to those other more complete intellectual capacities.

Secondly, it overlooks the distinction between autonomous thought and the more primitive (and separable) “apprehensive” thought, the latter of which fulfills the foregoing condition for the gradational picture of passages (o) through (q) to be able to accommodate the notion that non-human animals possess a species of thought.

Thirdly, it overlooks the fact that a slightly modified version of Cooper’s proposition about Aristotle’s approach to definitions (i.e. that Aristotle defines a living thing in terms of the highest faculty that all members of that group share in common) makes it feasible to interpret Aristotle’s apparent designation of rationality as the distinguishing feature of the human animal, as referring specifically to thought-forms which fall under the category of “autonomous thought,” rather than to thought *simpliciter*.

And finally, the objection overlooks the fact that this interpretation of Aristotle’s designation of rationality as the distinguishing mark of the human animal really is born out by passages (i) through (n). Read within their proper contexts, each of these passages does indeed turn out to be referring specifically to one or another form of autonomous thought, when they speak of “intellect” or “rationality” as the distinguishing feature of the human animal. None of these passages addresses apprehensive thought at all.

Attentiveness to these details makes it clear that passages (i) through (n) do not give us any compelling reason for thinking that apprehensive thought could not extend downward into the upper echelon of the non-human animal world. It would seem, then, that the existence of a form of thought in non-human animals can be viewed as a genuinely interesting ramification of the strong Thinking-Model of Imagination, rather than as a self-refutation.

3.4. Answering Wedin’s Objections

With that in mind, the most likely fallback strategy for opponents of the strong Thinking-Model would be to appeal to Wedin’s a priori arguments against the identification of images with learned thoughts. These were, to reiterate: (1) that the faculty of thought is functionally complete, whereas the faculty of imagination is functionally incomplete, (2) that thought is necessarily propositional in structure, whereas imagination is non-propositional, and (3) that thought always takes universal concepts for its intentional content, whereas imagination (barely) concerns particulars. This section will respond to each of these objections, in turn.

3.4.1. On Functional Completeness

What Wedin means by “functional completeness”, we recall, is the ability of a psychic faculty to graduate from first to second-order actuality. Or, in other words, an animal’s ability to proceed from the mere possession of the relevant power to its actual exercise (the former being itself the result of some prior alteration).

Now, as to Wedin’s claim that the faculty of thought is functionally complete, there is no doubt that he is correct. Not only is the faculty of thought functionally complete for Aristotle, it is his paradigmatic example of functional completeness. When he introduces the concept of functional completeness in *DA* 2.5, he relies on the example of thought in order to communicate his point; first-order actuality, in the case of intellect, refers to the possession of knowledge, and is said to be the result of a prior alteration (that is, an acquisition of knowledge, via instruction). Second-order actuality refers to the exercise of this previously acquired knowledge, via reflection. Crucially, this second-order actualization is said to be within the knower’s autonomous control:

(z) ...he can reflect when he wants to, if nothing external prevents him (417a28-29).

Where Wedin goes wrong is in his claim that the faculty of imagination is functionally *incomplete*. This becomes clear when we check the faculty of imagination against the template for functional completeness, exemplified by the faculty of thought. When we do this, we get a near perfect correlation between the faculty of imagination and the faculty of thought. The first-order actualization of the faculty of imagination consists in the acquisition of an image—which results from a qualitative alteration resulting from an occurrence of perception—and correlates with the intellectual faculty’s acquisition of knowledge via instruction. This acquisition of images in turn enables the human agent to call images to mind at will, as is clear from the following passage in *DA* 3.3:

(aa) For imagining lies within our own power whenever we wish (e.g. we can call up a picture, as in the practice of mnemonics by the use of mental images) (427b19-20).

This willful calling to mind of images constitutes the second-order actualization of the imaginative faculty and corresponds to the autonomous exercise of learned knowledge referenced in passage (z).

That the faculty of imagination maps so seamlessly onto Aristotle’s paradigmatic template for functional completeness should be sufficient to undermine Wedin’s claim that, “...there is no complete *act* that counts as imagining something” (Wedin, 55). But we can go a step further.

When we check the faculty of perception against Aristotle's paradigmatic template, we find a rather striking dis-analogy. As in the case of thinking, there is still a graduation from first to second-order actualization. However, unlike the paradigmatic example of thought, the second-order actualization of the perceptual faculty is *not* an autonomous process:

(bb) ...a man can think when he wants to but his sensation does not depend upon himself—a sensible object must be there (417b25-26).

Rather, the process which we might expect to correspond to the acquisition of knowledge in the case of intellect (i.e. being passively affected or altered by a sensible object) is the *second-order* actualization of the faculty of perception, and corresponds to the willful exercising of knowledge in the case of intellect—though, again, it is not itself autonomous.

What, then, is the first-order actuality, which, having been attained, renders one capable of proceeding to the second-order actualization of perceiving, and which corresponds to the mere possession of knowledge in the case of intellect? It appears to consist simply in being the kind of thing which possesses a sensitive faculty. And the process of alteration which brings about this state is said to occur prenatally:

(cc) In the case of what is to possess sense, the first transition is due to the action of the male parent and takes place before birth so that at birth the living thing is, in respect of sensation, at the stage which corresponds to the possession of knowledge (417b17-20).

I bring this up not to suggest that it is perception, rather than imagination, which is functionally incomplete, but simply to illustrate that the faculty of imagination is more similar to Aristotle's paradigmatic example of functional completeness (i.e. thought), than is the faculty of perception. For this reason, it strikes me as odd that Wedin should single out imagination as the outlier.

But even if the passage indicating an autonomous facet to the imaginative faculty did not exist, so that imagination could not be understood to be functionally complete in the same way that thinking is, it could still be understood to fit Aristotle's description of functional completeness, as exemplified by the faculty of perception. Given that imagination is said to be a motion in the soul caused by an actualized sensation, we *could* make the case that the contribution of the male parent prior to birth, which endows the animal with the capacity for being affected by sensible objects (i.e. the first-order actuality of sensation), also endows the animal with the capacity to receive images (i.e. the first-order actuality of imagination), which is then actualized at the secondary level, along with perception, by the impingement of a sensible object.

3.4.2. Can Thoughts Denote Particulars?

When it comes to responding to Wedin's second argument—that the faculty of thought, unlike the imagination, always takes universals for its intentional content—the best strategy would be to make a case that thought *doesn't* necessarily take universals for its intentional content (at least not in any sense that wouldn't also be applicable to the imagination). And this strikes me as a defensible position, provided that one accepts Lowe's "apprehensive vs. autonomous thought" dichotomy, which I'd introduced in the previous section.

This is because the function of "apprehensive thought," at least as described by Lowe, appears to be to render judgements *about particular substances*. He says that apprehensive thought is responsible for "judging concrete examples of flesh to be flesh" (Durrant, 117),¹¹⁹ which implies the articulation of statements like, "This [particular] thing here is flesh."

True, the precise wording of Lowe's description also seems to imply that apprehensive thought concerns particulars in a way that presupposes a familiarity with the corresponding essences; as if the knower, upon being presented with a concrete instance of flesh, were consulting their previously acquired knowledge of the essence of flesh, and then, by reference to that knowledge, verifying that the concrete object with which they were being presented is in fact an instantiation of the essence of flesh. Which, if correct, would vindicate Wedin's argument, as the same could certainly not be said of the imagination. But it seems to me that ordinary language is simply failing Lowe here. Such a view of apprehensive thought cannot be charitably attributed to him, given the dependence-relation that passage (r) signals between "apprehensive" and "autonomous" thought, and given his classification of abstraction as a form of autonomous thinking.¹²⁰

¹¹⁹ He arrives at this position while wrestling with the problem, which we've encountered above (during our treatments of Wallace and Frede, in the first section of this chapter), that, "...the [special] senses are able to perceive the shapes, colours, flavors and sounds of objects, but not their substance, be it gold, iron, bronze—or flesh" (Durrant, 117). Or—to borrow Wallace's phrase—that the special senses are incapable of "translating sensations into things." Reasoning as Wallace and Frede had that some additional faculty is therefore required to perform this interpretive work, he departs from both of them in assigning the task not to the central sense (as Wallace had done) or to the imagination (as Frede had done), but to the mind itself (specifically the apprehensive mind): "It makes Aristotelian sense to say that it is the mind that judges a concrete example of a substance *to be* a substance, through acting by means of the senses" (Durrant, 117).

¹²⁰ Lowe claims that, "...infallible thinking is the thinking of essences as such, as a special case of thinking concerned with things that are 'without matter'" (Durrant, 118). For Lowe, "thinking concerned with things that are without matter" refers to autonomous thought (the point being that autonomous thought-acts are about things that are not making direct contact with our sensory organs; hence the objects of thought contain no matter external to our bodies). So, what Lowe is effectively saying in this passage is that abstraction is a special case of autonomous thinking (i.e. special in the sense that it alone is infallible). Lowe's designation of abstraction as a form of "autonomous" thought seems to me to be supported by the fact that Aristotle's abrupt shift in focus (at 429b6-9) from apprehensive to autonomous thought is followed closely by an extended discussion of essence-grasping.

This is because passage (r) indicates that autonomous thought is predicated on apprehensive thought, in such a way that it can only occur *after* apprehensive thought has already occurred. If apprehensive thought is a prerequisite for autonomous thought, and if abstraction is a form of autonomous thought, then it follows that apprehensive thought is a prerequisite for abstraction.¹²¹ And if apprehensive thought is a prerequisite for abstraction, it follows that apprehensive thought cannot itself entail any awareness of the relevant essences, as it is precisely through abstraction that one comes to an awareness of the relevant essence. To construe apprehensive thought as involving prior knowledge of essences would therefore result in an absurdity (that, for example, one would have to have already grasped the essence of flesh in order to have ever become capable of grasping it).

That is, of course, unless Aristotle subscribed to some Platonic notion of latent, unremembered knowledge; in this case, the construal of apprehensive thought as implying some prior familiarity with essences need only entail that one must have knowledge of essences in order to become capable of remembering it (a perfectly coherent statement). But while Aristotle does consider the notion that we possess unremembered knowledge of essences in *APo* 2.19, he ultimately rejects this notion as an absurdity:

(dd) ...as to knowledge of the immediates, one might puzzle...whether the states are not present in us but come about in us, or whether they are present in us but escape notice. Well, if we have them, it is absurd; for it results that we have pieces of knowledge more precise than demonstration and yet this escapes notice (99b26-27).

Since consistency precludes the idea that apprehensive thought presupposes any *conscious* awareness of essences, and since Aristotle rejects any notion of *latent* knowledge of essences, it follows that there is *no* sense in which apprehensive thought can be understood to involve knowledge of essences. The only remaining alternative is that such knowledge “comes about in us” where it was not already present—presumably via abstraction, following our apprehension of particular objects. And this is very much the story that Aristotle goes on to tell, during the remainder of *APo* 2.19.

That said, there is one complication in Aristotle’s subsequent account of abstraction, which might seem to tip the scales back in favor of Wedin’s argument; and Wedin does in fact seize upon this, in his response to Lowe. This complication arises in the following passage:

(ee) ...there is a primitive universal in the mind (for though one perceives the particular, perception is of the universal—e.g. of man but not of Callias the man); again,

¹²¹ This also follows intuitively from Lowe’s claim that apprehensive thought involves the grasping of particular substances, as abstraction—by definition—involves induction from our awareness of particulars.

a stand is made in these, until what has no parts and is universal stands—e.g. such and such an animal stands, until animal does (100a15-100b1).

What this passage seems to suggest is that although the process of abstraction does technically begin with the apprehension of concrete particulars,¹²² it is not qua particular that these objects are registered by our internal cognitive apparatus—not even at the level of perception—but rather, qua universal.¹²³ Obviously, this cannot mean that we become immediately aware of essences the moment an object comes into contact with our sensory organs; if this were the case, then there'd be no need for abstraction to occur, and perception itself would qualify as a form of thought. Nevertheless, the passage does indicate that our perception of particular objects makes us privy to a qualified flavor of universality which falls short of the pure universality of essences; and that, moreover, these “primitive universals” serve as the most immediate precursors to our distillation of essences via abstraction.

Now, if this passage can be plausibly interpreted as telling us anything about Lowe's apprehensive thought,¹²⁴ the upshot would appear to be that apprehensive thought grasps particulars qua “primitive universal,” just as perception does. And Wedin exploits this implication in order to make the case that, even if we accept Lowe's apprehensive vs autonomous thought dichotomy (which he does not¹²⁵), apprehensive thought still will not give us any reason for doubting the premise that thought necessarily denotes universals. Cognition involves universals from the moment of perception, and therefore, “...thinking that involves perception, Lowe's apprehensive thinking, will also involve universals” (Wedin, 262).

What Wedin overlooks is that this would also have to apply to the imagination, since imagination “has for its content what can be perceived,” and is “similar in character to the sensation itself,” as Aristotle says in passage (a).

¹²² In that it is concrete particulars which initiate the entire process, by stimulating our peripheral sensory-organs.

¹²³ “...in standard cases of perception one receives the form from a particular—not, however, qua particular but, rather, qua universal” (Wedin, 262).

¹²⁴ And I think that it can be; recall that Lowe theorizes apprehensive thought as being directly informed by the perceptual faculty, and passage (ee) states that it is through perception that primitive universals come to be present *in the mind*, with no mention of mediation by any other faculty.

¹²⁵ Though he grudgingly acknowledges that 429b5-9 alludes to the process of knowledge acquisition discussed in *APo* 2.19, he argues that it does so only by way of reminding readers of the necessary background information for understanding the central project of *DA* 3.4. Which, on Wedin's view, is not to distinguish between two kinds of thinking, but rather—in conjunction with *DA* 3.5—to explain, “...the nature of the activity a fully equipped thinker is capable of” (Wedin, 264). Or, in other words, to describe the, “...functional organization [of the mind] that explains the fact that from a ready stock of concepts [previously acquired through learning] persons are able to produce thoughts autonomously and spontaneously” (Wedin, xii). On Wedin's view, any autonomous thought act involves the interplay of two noetic sub-systems, one of which involves the mind's becoming like its object, and another of which involves the mind's making itself like its object. Wedin had previously advanced this line of reasoning in “Tracking Aristotle's *Nous*” (1986).

In fact, *APo* 2.19 identifies imagination—not perception—as the *really* pivotal precondition for the possibility of knowledge acquisition. The idea here seems to be that knowledge requires not only the entry of primitive universals into the soul by way of the sensory organs, but also their *retention* within the soul following the cessation of the perceptible object’s contact with the sensory organs. And that this retention is made possible by the faculty of phantasia.

Hence, Aristotle writes that,

(ff) ...for those [animals] in which it [retention] does not come about, there is no knowledge outside perceiving (either none at all, or none with regard to that of which there is no retention); but for some perceivers [i.e. those with imagination], it is possible to grasp it in their minds (99b38-40).

Admittedly, passage (ff) does not sit well with Lowe’s claim that apprehensive thought is directly sensory-induced. My sense is that he would want to interpret the dependence relation that it posits between imagination and knowledge as applying only to autonomous thought-forms (i.e., either knowledge attained via abstraction or via propositional reasoning, or both), as it is Lowe’s general contention that images serve as a kind of substitute for sensations in the context of autonomous thought-acts, performing the role that sensations play in apprehensive thought-acts.¹²⁶ As to whether this is a plausible reading of passage (ff), I am rather skeptical, as it specifies that without the retention made possible by the imagination, there’d be no grasping of the object in question by the mind (which is just how Lowe describes apprehensive thought), and no knowledge of any kind beyond perception (which would certainly have to apply to apprehensive thought, even if it also applied to autonomous thought). This passage also seems to me to function in context as a sort of qualifier to passage (ee), which itself was dealing specifically with apprehensive thought. However, I should add there does seem to me to be independent textual evidence to support Lowe’s general claim that images serve as a substitute for sensations in autonomous thought-acts. I’ll have more to say about this in the closing section of the chapter. But for now, it really isn’t necessary to dwell upon it, as we’re presently concerned with answering Wedin’s objection, and our foregoing observation from passage (a), concerning the intentional content of imagination, is sufficient to enable us to do so.

Wedin may well be correct in his claim that if perception involves the apprehension of particulars qua primitive universal, then so too must apprehensive thought (inasmuch as it is supposedly caused and informed directly by perception). But this will turn out to be something that it shares in common with the imagination, since imagination is also caused and informed directly by perception. The denotation of “primitive universals” therefore cannot serve as the

¹²⁶ He reasons that autonomous thought, “...is not directly connected with the ordinary process of sensation” (Durrant, 116)—meaning that it occurs in the absence of sensible objects, after they have ceased to make contact with our sensory-organs—and that therefore, “...the mind would need some substitute for sensation in dealing with things ‘without matter’ [meaning the external matter of the sensible object]” (Durrant, 120).

basis for a distinction between imagination and Lowe's apprehensive thought, as Wedin's argument would require it to.¹²⁷ In order to really uphold the desired distinction, Wedin would need to be able to show that Lowe's apprehensive thought denotes the *pure* universality of essences, which cannot be said of the imagination.

Therefore, if one accepts Lowe's dichotomy between apprehensive and autonomous thought, it seems to me that one is accepting the presence, within the Aristotelian framework, of a species of thought which seriously undermines Wedin's second argument for the qualitative incongruity between imagination and thought.

3.4.3. On Propositionality

Coming now to Wedin's final argument, that imagination—unlike the faculty of thought—is non-propositional, there are two ways in which we might respond. The first would be to accept Wedin's supposition that thought is always propositional, and dispute the premise that imagination is non-propositional. This is not my favored strategy, but there is some textual evidence which appears to indicate that imagination is propositional in nature, and this evidence must be taken seriously.

The textual evidence in favor of the propositionality of imagination occurs in Aristotle's discussion of animate motion, between *MA* 6-7. In these chapters, Aristotle is attempting to explain the contingent nature of animate motion, as compared with the eternal motion of the universe. His explanation is that the universe is moved directly by the prime mover, whereas the animal is moved directly by its soul's faculty of desire.¹²⁸ In both cases, the "being moved" can be said to be for the sake of some good, and in the case of the universe, its motion is for the sake of the prime mover itself. In the case of the animal, its motion is for the sake of the object which stimulated its faculty of desire. But since the prime mover's goodness is unqualified,¹²⁹ it never ceases to move the universe (hence the universe never ceases to move). The object of animal desire is, by contrast, not even eternally present, let alone eternally good. And the fact that the object is not eternally present to the animal is sufficient to explain the contingency of animal motion.

However, in the case of rational animals, things are even further complicated by the fact that, interposed between the impingement of the object upon the soul (through perception or imagination) and the resulting action lies a chain of propositional reasoning,¹³⁰ a chain of

¹²⁷ Lowe himself is rather cryptic about the nature of the relationship and distinction between imagination and apprehensive thought. I'll discuss this in more detail in the closing section of this chapter.

¹²⁸ Which itself is stimulated to action by an impinging object, through perception or imagination.

¹²⁹ Aristotle refers to it as "the *eternally* fine, and the truly and primarily good (which is not at one time good, at another time not good)" (700b30-31).

¹³⁰ Of which the rational animal's action is the conclusion.

reasoning which may occur with varying degrees of speed, depending upon how many premises are contained within the chain and how meticulous the rational animal is in pausing to consider each premise.

It is within the context of his discussion of variations in the speed of deliberative action, that Aristotle appears to describe the imagination as propositional. After noting that deliberative action occurs more quickly when the rational animal passes over certain obvious premises rather than pausing to reflect on them, he goes on to acknowledge that there are circumstances under which imagination, rather than thought as such, affirms the pivotal premise needed for the conclusion (viz. action) to go through:

(gg) For the actualizing of desire is a substitute for inquiry or thinking. I want to drink, says appetite; *this is drink*, says sense or imagination or thought: straightaway I drink (701a31-32).

A straightforward reading of this passage seems to indicate that the imagination itself articulates propositional judgments (i.e. “this is drink”). And numerous commentators have pointed this out. For example, Schofield (2011) notes the “propositional content of what *phantasia* is here represented as saying” (Pakaluk and Pearson, 124), and he criticizes Wedin for failing to address passage (gg).¹³¹

Of course, the idea that the imaginative faculty literally articulates propositional judgments is difficult to countenance, as most non-human animals also have a share in imagination on Aristotle’s view, and they cannot be credited with possessing any propositional-reasoning capabilities, even if they can be credited with possessing some rudimentary form of thought.¹³² And so there is a strong imperative to find some other way of interpreting passage (gg), which does not require that imagination literally articulates propositions.

Thankfully, this is not an especially difficult task. Rather than interpreting passage (gg)’s claim that imagination “says “this is drink”” as meaning that the imagination itself literally articulates propositions such as “this is drink,” we might just as well read it as indicating that imagination *makes an animal aware* of the presence of drink, perhaps on some baseline intuitive level—common to both non-human and human animals—which, in the case of humans, may or may not in some sense find its expression within the context of a chain of propositional reasoning.¹³³

¹³¹ Bolton (2005: 240) and (Labarriere (2004: 238n2) also criticize Wedin on this score.

¹³² As I’d explained above, during my discussion of the cognitive limitations of non-human animals.

¹³³ If non-human animals have the ability to be made aware of particular substances in a totally non-propositional manner, then it follows, in light of the Aristotelian principle that the higher psychic faculties presuppose the lower ones, that human beings must also possess the capacity to be made aware of particular substances in this way. Hence why a human being’s imaginative awareness of a particular substance may or may not be expressed in the context of a propositional judgement.

This strikes me as a perfectly plausible reading of passage (gg), and it is one that Schofield suggests himself. It also seems to fit quite conveniently into Wedin's overarching narrative about the kind of subservience relation that obtains between images and thought acts, as this narrative does suggest one possible sense in which a human being's imaginative awareness of a particular substance—though non-propositional in itself—might find its expression within the context of a chain of propositional reasoning. Or at least it could do this, if Wedin hadn't committed himself to the premise that there are no images of particular sensible substances, but only of special and common sensibles. Recall that according to Wedin, images never occur on their own¹³⁴ but only within the context of complete acts performed by the fully-fledged faculties, and that what this means in the case of thought acts is that images appear as simple terms in propositional complexes articulated by the rational faculty.

The problem for Wedin is that it is difficult to imagine what this might mean, other than that images denote or represent the particular objects referenced in certain non-definitional propositions which make some claim about that particular object—i.e. "This thing here (represented by an image) is a daffodil." But this would conflict with Wedin's insistence that there are no images of sensible substances, but only of special and common sensibles; if there are only images of shapes, colours, flavors, sounds, and accompanying properties such as magnitude, number, figure, movement, or rest—and not of objects as such—then it is difficult to see how imagination could pick out a "this thing here." Wedin would therefore need to accept the following correction to his claim about the intentional content of phantasia: although there may exist images of special and common sensibles, these cannot be the only kinds of images which exist. There must also be images of particular substances.

Once having been corrected on this point, Wedin would be able to respond effectively to our observation that passage (gg) appears to credit the imaginative faculty with articulating propositional judgments—and, moreover, to do so in a manner that squares with his overall perspective on the relationship between images and thought acts: In the case of humans, it is strictly speaking the faculty of thought that articulates the proposition, not the imagination. That said, the imagination does provide a representation of the proposition's referent, thereby helping to fill out not only the intentional content, but also the mechanical structure of the proposition. And so there does remain a limited sense (at least in the case of humans) in which the imagination really can be credited with "saying" something about a particular object, as the *prima facie* reading of passage (gg) seems to suggest. Whereas in the case of non-humans, this "saying" can only be figurative, since there is no possibility of their imaginative awareness of an object finding its way *in any sense* into a propositional complex.

This solution would also provide us with some additional insight into why the type of subservience relation that Wedin posits between imagination and thought might be taken as

¹³⁴ It seems to me that this claim would need to be softened, in light of passage (aa)'s assertion that we can call up images "whenever we wish."

supportive of the second antecedent entertained in passage (c)'s naturalistic conditional, that thought is dependent upon the imagination. We've seen that on a prima facie level, passage (gg) appears to credit the imagination with articulating a propositional judgment of the form "this is drink." And that while Wedin's reading does downplay the imagination's involvement in the actual articulation of the linguistic complex,¹³⁵ he still retains the notion that the imagination makes an indispensable contribution to the mind's ability to articulate a propositional judgement of this sort, by picking out its referent. Which—if true—would mean that the imagination makes an indispensable contribution to the mind's ability to complete a chain of propositional reasoning leading to the conclusion that one will perform the action of drinking, by enabling it to affirm the pivotal premise. Hence, we have at least one kind of thought-act (i.e. propositional reasoning within the domain of conduct; or deliberative action) whose reliance upon the imaginative faculty might be thought to be plausibly explained by Wedin's subservience hypothesis.

The second—and in my view, the more effective—method of responding to Wedin's final argument would be to accept the premise that imagination is non-propositional, but also to dispute the premise that all thought acts are necessarily propositional. And it seems to me that this position is perfectly defensible, again, provided that one accepts Lowe's apprehensive vs. autonomous thought distinction. This is because Lowe's apprehensive thought needn't necessarily be construed as propositional. This might seem counterintuitive at first, as Lowe does describe apprehensive thought in terms which seem to entail that it involves the articulation of a propositional judgement.¹³⁶ Lowe writes that apprehensive thought is responsible for "...judging concrete examples of flesh to be flesh" (Durrant, 117). Which is effectively the same as crediting apprehensive thought with saying things like "this thing here is flesh."

However, as with Aristotle's remark about the propositionality of imagination in passage (gg), Lowe's apparently propositional description of apprehensive thought needn't be taken literally, either. Let's suppose, for the moment, that apprehensive thought *did* involve a literal propositional judgement of the sort, "this thing here is flesh." If so, then this still could not mean that apprehensive thought implies any genuine understanding as to *why* the thing in question is an example of flesh. This is—to reiterate—because apprehensive thought is a prerequisite for autonomous thought, and because abstraction (at least according to Lowe) falls under the category of autonomous thought.¹³⁷ As I had explained above, the upshot of all of this is that there is *no* sense in which apprehensive thought can be informed by any foreknowledge of essences; the apprehensive mind's judgement that a concrete example of flesh is flesh occurs *prior* to the agent's having grasped the essence of flesh.

¹³⁵ Maintaining that it is ultimately the rational faculty that does this.

¹³⁶ The same *kind* of propositional judgement, moreover, which passage (gg) seems to attribute to the imagination.

¹³⁷ And also because Aristotle rejects the notion of any latent, unremembered knowledge of essences.

But if the apprehensive mind's identification of an object as an instance of flesh does not reflect any genuine understanding of what it is to be flesh, we should ask ourselves what else it *could* reflect. And it seems to me that the only other thing that it could reflect is an awareness that the object in question bears a certain resemblance to other objects of a similar character—let's call it an awareness of family resemblance. But there is no reason to suppose that this sort of awareness is inherently propositional. If it were, then non-human animals would not be capable of grasping resemblances between objects, since non-human animals are incapable of formulating propositional judgements. But non-human animals *are* capable of grasping family resemblance, on the Aristotelian view. Such, at least, appears to be the implication of Aristotle's acknowledgement that non-human animals are capable of being moved to action by their apprehension of particular objects; it is difficult to imagine how an object which an animal has never before encountered could present itself to the animal as an object of desire, unless it bore a certain resemblance to other, previously encountered objects, which turned out to be pleasing to the animal.

Now, a proponent of the propositionality of apprehensive thought might well allow that because the awareness of family resemblance is common to both non-human and human animals, it needn't be inherently propositional.¹³⁸ However, they might still insist that it is propositional insofar as it manifests in the form of apprehensive thought in humans. The idea here might be that while both non-human and human animals possess the capacity to become imaginatively¹³⁹ aware of an object as belonging to a certain kind, humans possess the further ability to grasp this family resemblance via apprehensive thought. And insofar as apprehensive thought serves as a direct prerequisite for the human being's ability to graduate to an awareness of the corresponding essence via abstraction (and, thereafter, to engage in the various other forms of autonomous thinking), it must possess some additional quality—absent in cases of imaginative awareness—which enables it to do this. The prime candidate would seem to be *logos*. This would help to explain why non-human animals are incapable of advancing beyond an awareness of family resemblance among particulars to an awareness of the corresponding essence: because they lack the ability to first express their awareness of family resemblance in the form of a propositional judgement. In support of this line of reasoning, one might even invoke Charles Kahn's observation that, "...lacking *logos*, animals cannot have *our* way of understanding what we perceive" (Nussbaum & Rorty, 369).

But while Kahn's remark *could* be spun as support for this position, it strikes me as a bit of a stretch. He doesn't seem to me to be making a point about what *logos* enables the autonomous mind to do indirectly. Rather, he's just making a claim about what *logos* contributes to the

¹³⁸ For example, Dorothea Frede (1992) argues that, "Seeing something may indeed be always seeing 'something as something.' But this seeing-as need not be explicit and it should not be, since sense-perception and imagination are common to both man and animals and therefore the seeing-as cannot be explicitly predicative or propositional" (Nussbaum & Rorty, 287).

¹³⁹ Viz. intuitively

apprehensive mind, which marks it off qualitatively from imaginative apprehension. A more economical reading of Kahn's statement would simply be that *logos* enables human beings to express their awareness of family resemblances among particular objects in linguistic terms.

Moreover, the idea that our ability to render our awareness of family resemblance in this way contributes something crucial to the human ability to grasp essences is fraught with difficulties. For instance, given that apprehensive thought has already been shown to entail no genuine understanding, it is doubtful whether the contribution made by *logos* to our awareness of family resemblances among particulars would consist of anything more substantial than the ability to apply names or labels to those objects. But the application of names or labels needn't necessarily take the form of a propositional judgment, either. For example, although my application of the label "flesh" to a concrete object *may* take the form of a proposition like "this thing here is flesh," it may just as well take the form of an exclamation like, "aha, flesh!"¹⁴⁰

Moreover, the latter, exclamational style of name-application may not even be a uniquely human capacity. Kahn himself seems to flirt with the idea that non-human animals might, on Aristotle's view, "...have something corresponding to sortal classifications like *man, dog, or my master, my sibling*" (Nussbaum & Rorty, 369). If this is right, then the capacity for naming as such cannot be what *logos* contributes, which is of pivotal significance to the human ability to grasp essences. It would have to be something more fine-grained; something which non-humans lack, but which humans possess. And so it seems to me that Kahn's appeal to *logos* is really of no help to proponents of the propositional-model of apprehensive thought, in their efforts to substantiate the pivotal premise in their counter-argument.

We therefore have no good reason for thinking that apprehensive thought must be propositional in nature.¹⁴¹ Thus, if one accepts Lowe's dichotomy between apprehensive and autonomous thought, it seems to me that one is accepting the presence, within the Aristotelian framework, of a species of thought which seriously undermines Wedin's final argument for the qualitative incongruity between imagination and thought.

3.5. Is Wallace Right?

We have seen, during our treatment of Wedin's arguments, that imagination and thought are both functionally complete faculties. Moreover, we have seen that there is very plausibly a kind of thought within the Aristotelian framework (i.e. apprehensive thought) which, like the

¹⁴⁰ Imagine me saying this while pointing to an object.

¹⁴¹ That is, of course, unless we're still motivated by a desire to avoid extending apprehensive thought downward into the upper echelon of the non-human animal world, out of some sense that non-human animals couldn't possibly exhibit any form of thought. But, given my extensive argumentation to the contrary in the previous section, this would be question-begging.

imagination, is non-propositional, and which—being caused and informed by perception—is concerned with concrete particulars.¹⁴²

But there are several other similarities between imagination and Lowe’s apprehensive thought, which might be added to the foregoing list. For starters, apprehensive thought is—like the imagination¹⁴³—a passive affection. This should be clear from the fact that apprehensive thought is, according to passage (r), a prerequisite for autonomous thought. If apprehensive thought precedes our ability to think at will, then it cannot itself be within our autonomous control. The only remaining alternative is that it is something that happens *to us*. This can also be inferred from Aristotle’s heavy reliance upon an analogy to the perceptual faculty (which is indisputably a passive affection), while apparently describing apprehensive thought, in *DA* 3.4.

Imagination and Lowe’s apprehensive thought also appear to be similar in that they are both fallible. That the imagination is fallible (i.e. “true and false”) was made clear all the way back in passage (a). But as we have also seen—during our examination of Lowe’s conception of apprehensive thought in the previous section—apprehensive thought precedes infallible thought (viz. abstraction) and must therefore itself be subject to error.

Finally, we can state with confidence that both imagination and Lowe’s apprehensive thought are prerequisites for autonomous thought. This should already be clear with regard to Lowe’s apprehensive thought, as it is practically the defining characteristic of apprehensive thought to be a prerequisite for autonomous thought, according to Lowe’s reading of passage (r). But it can also be inferred about the imagination, from numerous passages in the Aristotelian corpus. For example, as we have seen above already, passage (ff) states that imagination is the pivotal prerequisite for an animal’s ability to acquire any knowledge beyond perception. And while I remain convinced that this is referring specifically to the relation between imagination and *apprehensive* thought,¹⁴⁴ it will in any case support the premise that imagination is a prerequisite for autonomous thought forms—albeit an indirect one—insofar as we know apprehensive thought to be a direct prerequisite for autonomous thought.

Besides passage (ff), there are also a number of passages which could be taken as supportive of Lowe’s claim that autonomous thought-acts proceed *directly* by means of images. Take, for example, the following passage from *DA* 3.7:

(hh) The faculty of thinking then thinks the forms in the images and...sometimes by means of images or thoughts which are within the soul, just as if it were seeing, it calculates what is to come by reference to what is present (431b2-7).

¹⁴² Qua primitive universal.

¹⁴³ At least in its first-order actualization.

¹⁴⁴ Contra Lowe.

The reference to calculation (*logizetai*) here indicates that what is being described in passage (hh) is a situation in which the *autonomous* mind makes direct use of images (since calculation is something that one does at will).

Another passage from *DA* 3.7 repeats this same point:

(ii) To the thinking soul images serve as if they were contents of perception (and when it asserts or denies them to be good or bad it avoids or pursues them). That is why the soul never thinks without an image (431a15-17).

In summary, then, we know that imagination and Lowe's apprehensive thought are both (i) functionally complete, (ii) non-propositional, (iii) caused by sensations, (iv) informed by sensations, and therefore (v) concerned with concrete particulars,¹⁴⁵ (vi) passive affections, (vii) fallible, and (viii) prerequisites for autonomous thought. With so many commonalities between the imagination and Lowe's apprehensive thought, some might find it difficult to resist the pull of Wallace's remark that, "...the images of our imaginative faculty often *approximate* closely to the ideas of thought" (Wallace, xciii). That is, at least, if one accepts the terms of Lowe's apprehensive vs autonomous thought dichotomy.

One might of course attempt to avoid this result by disputing the legitimacy of Lowe's apprehensive vs autonomous thought distinction. And I will discuss the potential drawbacks of the distinction in the final section of this chapter. But it is actually not necessary to do so at this juncture, as there is a dissimilarity between imagination and thought (*per se*), which Wedin does not discuss, but which would hold true even if one *did* accept Lowe's apprehensive vs. autonomous thought distinction. Moreover, this distinction will come to bear on the drawbacks of Lowe's apprehensive vs autonomous thought distinction, and so it should be unpacked first.

3.6. The Real Problem with the Strong Thinking-Model.

3.6.1. Images Reside in the Sensory-Organs

The strongest argument *against* the strong Thinking-Model is prompted by the following, pointed question: "Where do images reside?" Aristotle's final statement, in the closing lines of *DA* 3.3, seems to indicate that images reside in the organs of sense:

¹⁴⁵ Qua primitive universal.

- (jj) ...because imaginations remain in the organs of sense and resemble sensations, animals in their actions are largely guided by them, some (i.e. the brutes) because of the non-existence in them of thought, others (i.e. men) because of the temporary eclipse in them of thought by feeling or disease or sleep (429a5-429a8).

This sentiment also appears in the second chapter of the *Mem et. Rem*. After declaring that memory is a function of the faculty of imagination, Aristotle says the following, by way of elaboration.

- (kk) That the affection is corporeal, i.e. that recollection is a searching for an image in a corporeal substrate, is proved by the fact that some persons, when, despite the most strenuous application of thought, they have been unable to recollect, feel discomfort, which even though they abandon the effort at recollection, persists in them none the less...the reason why the effort of recollection is not under the control of their will is that...he who tries to recollect and hunts sets up a process in a material part, in which resides the affection (453a14-453a31).

The conclusion that images reside in the bodily organs can also be derived from the following passage in the first chapter of the *De Insomniis*.

- (ll) But since we have, in our work on the soul, treated of imagination, and the faculty of imagination is identical with that of sense-perception, though the being of a faculty of imagination is different from that of a faculty of sense-perception (459a15-459a22).

This passage is striking in its apparent intensification of the canonical theory of imagination contained within passages (a) and (b). Rather than merely claiming that imagination is caused by perception, as he does in passage (a) and (b), Aristotle goes as far as to claim that imagination and perception are identical. Which, if true, would seem to necessitate that images reside in the organs of sense, since this is where perceptual changes occur. Of course, the claim that imagination and perception are identical cannot be literally true for Aristotle, as this would conflict with his argument, from *DA* 3.3, that the two are distinguished by the fact that perception is always correct, whereas imagination is capable of being mistaken. And so we should probably interpret passage (ll) more moderately, as meaning something like “imagination *supervenies* on perception.”¹⁴⁶ But even this more moderate interpretation of the passage still implies that, if images reside anywhere, they reside in the organs of sense. We therefore have pretty substantial textual evidence for the claim that images reside in the

¹⁴⁶ Which seems perfectly consistent with the passage’s caveat, that although the two faculties are identical, they are nevertheless different in their being.

sensory organs.

This is actually quite a serious problem for the plausibility of the strong Thinking-Model of Imagination, given the lengths to which Aristotle goes in *DA* 3.4, to stress that thought...

(mm) ...cannot reasonably be regarded as blended with the body: if so, it would acquire some quality, e.g. warmth or cold, or even have an organ like the sensitive faculty: as it is, it has none (429a22-26).

If images reside within the sensory organs, but thought is not blended with any bodily organ at all, then it is difficult to see how imagination could possibly be a species of thought, at least in any strong sense. And it is important to note that Aristotle is referring in passage (mm) to thought in its first-order actualization—what Lowe would call “apprehensive thought.” So even if one accepts Lowe’s formulation of apprehensive thought, there will still be a fairly strong *prima facie* asymmetry between images and learned thoughts, with regard to the property of corporeality.

That said, there are a number of strategies that one might employ in order to cast doubt on the supposed corporeality of images—or at least, the necessity of their always remaining corporeal—and so we should take the time to subject these to charitable scrutiny before declaring the aforementioned difficulty unanswerable.

3.6.2. Aren’t Images Still Immaterial in Themselves?

Those wishing to challenge the alleged corporeality of images might begin by citing the following passage, from *DA* 3.8:

(nn) When the mind is actively aware of anything it is necessarily aware of it along with an image; for images are like sensuous contents except in that they contain no matter (432a7-9).

This passage states, in no uncertain terms, that images are, in themselves anyway, immaterial. Which is almost certainly something that Aristotle is trying to communicate to us about thought, when he claims that thought is unblended with the body, in passage (mm).

However, it would be a mistake for us to infer that images must be unblended with the body simply because they are immaterial. We know, for example, that although Aristotle regards the sensitive faculty as being intrinsically immaterial, he also regards it as being blended with the

body. Aristotle tells us as much in the following passage from *DA* 2.12

- (oo) The sense and its organ are the same in fact, but their essence is not the same. What perceives is, of course, a spatial magnitude [*megethos*], but we must not admit that either the having the power [*dunamis*] to perceive or the sense itself is a magnitude; what they are is a certain form or power in a magnitude (424a24-424b19).

And if we shift our focus from the formal *powers* which bring about the first-order actualization of the perceptual faculty¹⁴⁷ to the formal *qualities* whose acquisition constitutes the second-order actualization of the perceptual faculty, we get the same result. In *DA* 2.12, just prior to making his distinction between the sense and its organ and specifying that the sense, though not a magnitude itself, is in some way housed within the magnitude of the sensory organ, Aristotle defines a sense as,

- (pp) ...what has the power of receiving into itself the sensible forms of things without the matter, in the way in which a piece of wax takes on the impress of a signet-ring without the iron or gold (424a18-21).

Although Aristotle does not press the point explicitly, it seems reasonable to infer, given his claim that the sense is in some way housed within the magnitude (*megethos*) of the sensory organ, that the sense's reception of perceptible formal qualities into itself implies a reception of those same formal qualities into the corresponding sensory-organ. The second-order actualization of the perceptual faculty—i.e. the actual *perceiving*, as distinguished from the mere capacity for perceiving—would thus involve a qualitative change in the organ of sense.¹⁴⁸

We find, then, that perception is (firstly) made possible and (secondly) made actual, by formal causes which, although immaterial in themselves, are nevertheless bound up with the sensory organs. This illustrates that Aristotle's foregoing claim about images—that they contain no matter—is perfectly consistent with the proposition that they are intermingled with the body.

Of course, one might raise the objection that although there is nothing about the claim that images are immaterial which (in itself) necessitates their being unblended with the body, the

¹⁴⁷ i.e. The forms whose presence render the body capable of perception, thereby making it a distinctively *animal* body

¹⁴⁸ This inference also seems the best way to make sense of the bulk of the textual evidence indicating that images are contained within the sensory-organs. We know already that imagination is caused directly by perception. Therefore, if images are formal qualities which reside within the sensory organs, then the most complete explanation for their presence within the organs would be that the process whereby they came to reside there (i.e. perception) itself involved the uptake of these formal qualities into the sensory organs.

context in which the claim is delivered nevertheless requires that we understand the immateriality of images in this stronger sense.

The rationale behind this objection runs as follows: In passage (nn), Aristotle is citing the immateriality of images as a point of *dissimilarity* between images and perceptual contents. This tells us that whatever the sense is in which Aristotle thinks that images are immaterial, it needs to be a sense which is *not* applicable to perceptual contents; otherwise, Aristotle would be attempting—absurdly—to distinguish between sensuous contents and images by appealing to a common feature. But we have just seen that the faculty of perception—and indeed, perceptions themselves—are blended with the sensory organs, despite being immaterial in themselves. Therefore, a charitable reading of passage (nn) requires us to understand the immateriality which Aristotle ascribes to images as implying freedom from any admixture with the body.

The trouble with this objection is that it only considers “sensuous contents” in terms of the internal effects that they produce in the observer. And in this respect, it would be correct to say that they are similar to images, insofar as the internal effects of sensuous contents on the perceptual faculty are, like images, formal in nature, while also being expressed in the material substratum provided by the sensory-organs. However, in passage (nn), Aristotle is making a point about the difference between images and “sensuous contents,” considered in themselves, as potential objects of awareness. And in this respect, sensuous contents possess a material component which images do not—namely, the matter which the sense (and the organ that it inhabits) does not take on along with the sensible form. This is the external matter of the perceptible object.

Therefore, since we can explain Aristotle’s material-asymmetry claim as referring to the fact that perceptible objects (but not images) have a material component *external to the animal’s sensory organs*, it turns out that passage (nn) is not giving us any concrete reason to think that images aren’t bound up with the body.

Those wishing to salvage the strong Thinking-Model of Imagination will therefore need to adopt a more moderate position concerning the relationship between images and the bodily organs.

3.6.3. Can the Imaginative Faculty be Disengaged from Sensory-Organs?

Rather than attempting to dispute the textual evidence suggesting that images are unblended with the body from their inception, one might instead try to make a case for the more moderate view that images, though they do originate in the material substrate provided by the sensory organs, nevertheless have the capacity to *become* disengaged from the bodily substrate, thereby achieving a state of pure incorporeality. In addition to salvaging the coherence of the strong Thinking-Model of Imagination by retaining the notion of a one-to-one correspondence between the formal content of images and the formal content of apprehended

thoughts, this would also furnish Aristotle with a rather elegant (and badly needed) explanation as to how it is that incorporeal cognitive states such as thoughts can have their origin in bodily processes.¹⁴⁹ The idea would be that a learned thought is just an image that has become disengaged from the bodily substrate.

Such an argument would need to proceed, firstly, by establishing that the formal content of images has some resonance within the soul, which is distinguishable—at least by definition—from its resonance within the sensory organs. This criterion can be satisfied easily enough. We have seen already, in passage (oo), that Aristotle regards a given sensitive power as being essentially distinguished from its corresponding sensory organ, by virtue of the fact that the sense itself is not a spatial magnitude, whereas the organ is. And we have interpreted passage (pp) as implying that perception involves the uptake of formal qualities into both the sense and the corresponding sensory organ. Taken together, these two premises enable us to make the following definitional distinction between the uptake of a perceptible form into a sense, and its uptake into the corresponding sensory-organ: the former amounts to the uptake of a formal quality into something which is not itself a spatial magnitude, whereas the latter amounts to the uptake of that same formal quality into a spatial magnitude. And since imagination is so subtly distinguished from perception,¹⁵⁰ it would seem that imagination can likewise be parsed into two definitionally distinct facets: (1) the persistence of a formal quality in the sensory organ (which is a magnitude), and (2) the persistence of that same formal quality in the faculty of imagination itself (which is not a magnitude).

We can find further support for such a distinction in passage (hh). Rather than affirming Aristotle's claim, from passage (jj), that images reside within the sensory organs, this passage opts to focus on their presence "within the soul."

Of course, this is all perfectly consistent with the notion that the presence of an acquired formal quality within the soul merely supervenes on its presence within the particular sensory organ through which it entered the soul. This, if correct, would most likely entail that its presence within the soul, though distinguishable from its presence in the organ, is nevertheless dependent upon its presence within the organ. What we would need, in order to begin to motivate anything stronger than a mere supervenience claim, is some way of establishing that an image, having once been imprinted on the soul, is capable of persisting within the soul, following the destruction or removal of the sensory organ which facilitated its entry into the soul.

And there is some precedent for such a view, both in the secondary literature, and in the primary texts themselves. H.R. Robinson, for example, has cited the following passage, from *DA*

¹⁴⁹ That is, at least, on the supposition that Aristotle was not a strong dualist. As I will explain in more detail in the final chapter of my discussion, I subscribe to a naturalistic reading of Aristotle's psychology, and so I at any rate will require an answer to this question.

¹⁵⁰ Accounting for the *persistence* of perceptible forms in the agent, rather than their uptake.

1.4:

(qq) ...if the old man could recover the proper kind of eye, he would see just as well as the young man. The incapacity of old age is due to an affection not of the soul but of its vehicle, as occurs in drunkenness or disease (408b21-24).

Robinson's reasoning here is that if sight is restored by the old man's reacquisition of healthy eyes, then the power of sight must have still been present (albeit in a dormant state) during the interim between the destruction of the man's original eyes, and his acquisition of new eyes. Or, in other words, that although the destruction or removal of the organ of sight may be an impediment to the visual power's ability to proceed from first to second-order actuality, the power nevertheless persists as a first-order actuality,¹⁵¹ due to the man's possession of the right *kind* of soul.¹⁵² And that therefore, the power of sight—at least as a first-order actuality—must be proper to the soul itself, and separable from the organs of sight. Assuming that this holds true of the other senses as well, it would seem that Robinson's argument enables us to advance the claim that each individual sense is capable of being disengaged from its respective sensory organ.

And if this is right, then we ought to be able to extrapolate in order to make a similar point about each of the various manifestations of the imaginative faculty. The idea here would be that because imagination is directly predicated on perception—and because it is so subtly distinguished from perception¹⁵³—the destruction of the old man's eyes would have resulted not only in the termination of his ability to (actually) see, but also, simultaneously, in the termination of his ability to acquire visual images. And in the absence of any concrete reason for thinking otherwise, it seems reasonable to assume that the restoration of the man's ability to see, upon receiving new eyes, would be accompanied by a restoration of his ability to acquire visual images. From which we can draw the conclusion that each of the individual imaginative powers is separable from its respective sensory organ, by the same token that its underpinning sensory power is.

The problem with this strategy is that it assumes that if the imaginative faculty turns out to be separable from the sensory organs, then so too must be any images which had already been imprinted in the faculty, prior to its disengagement from the sensory-organs. And this assumption might not be warranted. It might rather be the case that, when the faculty itself is

¹⁵¹ Which is really just to say that the man is still the kind of organism which, in optimal condition, would have the capacity to actually perceive.

¹⁵² Namely, a perceptual or animal soul.

¹⁵³ Recall Aristotle's remark, from passage (II), that "the faculty of imagination is identical with that of sense-perception," though "different in its being."

disengaged from the sensory organs, its imprinted contents are reset, so that it is essentially a blank slate—i.e. a formal power containing no qualitative formal content.¹⁵⁴

In order to determine which of these two options is more plausible, we might consider posing the following question about the hypothetical old man with the transplanted eyes: What would the outcome be on Aristotle's view if, after having had his sight restored by the acquisition of new eyes, the old man were to be presented with objects which he had previously seen with his original eyes before they were destroyed? Would he recognize the objects? If so, then this would seem to confirm that images—which we know to be key to Aristotle's conception of memory—persist within the soul, independently of the organs through which they entered the soul. And since it seems uncharitable to suppose that Aristotle would not grant to blind individuals the capacity for remembering what previously viewed objects looked like,¹⁵⁵ we might therefore be inclined to draw the conclusion that images are indeed capable of being disengaged from the sensory organs, along with the faculty of imagination itself.

One potential problem with this line of thinking is that although images might very well be separable from the specific sensory organs through which they entered the soul, this might not entail their separability from the body as a whole. An alternative explanation of the persistence of images within the soul following the destruction of their specific entry-way organ might be that, having entered through the doorway provided by a particular sensory-organ, images are subsequently transferred to some other organ. If this is right, then the persistence of images within the soul following the destruction of their specific entryway-organ might not actually give us any reason for thinking that images are capable of attaining any persistence in the soul which isn't also, simultaneously, a persistence within the body.

And there are good reasons for thinking that images *are* transferred to another organ. Firstly, Aristotle seems to think that images, having once been introduced into the soul through one or another of the special sensory organs, are subsequently carried about in the blood. The following passage, from the third chapter of the *De Insomniis*, communicates this point nicely:

¹⁵⁴ A helpful analogy might be the "Magic Slate." This is a classic children's toy comprised of an acetate sheet placed over a wax surface, such that, when a stylus is pressed against the acetate (pushing it into more direct contact with the wax), impressions are made on the acetate. These impressions remain in the acetate until the sheet is lifted out of direct contact with the wax. When the acetate is lifted from the wax backdrop, the impressions disappear. In the scenario that I am suggesting, the acetate sheet would represent the imaginative faculty, and the wax surface would represent a sensory organ. The act of drawing on the slate would represent the stimulation of the sensory organ (together with the psychic faculties associated with it), by a perceptible object. And the impressions left on the acetate would represent images. The co-affection of the acetate together with the wax would represent the fact that the presence of images in the soul supervenes on their presence in the sensory organ. The lifting of the acetate sheet from the wax surface would represent the dissociation of the imaginative faculty from the sensory organ. And the vanishing of the impressions from the acetate sheet would represent the resetting of the imaginative faculty's store of intentional content, upon its dissociation from the sensory-organ.

¹⁵⁵ Though it may be perfectly reasonable to suppose that he might have thought that such recollection fades over time.

(rr) ...they [images] are within the soul potentially, but actualize themselves only when the impediment to their doing so has been relaxed; and according as they are thus set free, they begin to move in the blood which remains in the sensory organs, and which is now but scanty, and take on likenesses after the manner of cloud-shapes, which in their rapid metamorphoses one compares now to human beings and a moment afterwards to centaurs. Each of them is however, as has been said, the remnant of a sensory impression taken when sense was actualizing itself; and when this, the true impression, has departed, its remnant is still there... (460b28-462a7).

He also says, in *Somn. et Vig.* 3, that:

(ss) ...the veins are the place of the blood, while the origin of these is the heart" (456b1-2).

Taken together, these two claims open up the possibility that images, having entered the blood through a given sensory-organ, are capable of travelling, by way of the blood (as it travels through the veins), from the sensory organ to the heart.

We can construct a second, parallel argument for this view, beginning with Aristotle's claim, in the first chapter of the *De Mem et. Rem*, that:

(tt) ...the image is an affection of the common sense (450a11-12).

Recalling our discussion of Wallace, in the first section of this chapter, the common sense is what enables us to distinguish between the reports of the individual senses, to perceive common properties, and to recognize our perceptions *as our perceptions*. Together, these interlocking sub-functions satisfy the conditions necessary for the disparate reports of the individual senses to be synthesized into coherent representations of objects *as objects*. So that when Aristotle says, in passage (tt), that "the image is an affection of the common sense," he is referring specifically to the fully assembled image of an object. However, the passage can also be understood to be implicitly making a weaker claim about the more basic particulate-images (i.e. colours, tastes, sounds...etc.), out of which the object-image is assembled. Since the object image is comprised of particulate-images, and since the object-image is assembled by the common sense, it follows that, although they may have their origin in the individual special senses, the particulate-images must pass through the common sense in order to be processed by it and incorporated into the object-image.

From passage (tt), we can therefore derive the premise that all images bear some relation to the common sense; object-images are derived from it, whereas particulate-images pass through and are processed by it. In order to complete our argument, we need only combine

this premise with another of Aristotle's claims, from *Juv. et. Resp.* 3, that the heart is the locus of the common sense:

- (uu) Certainly, however, all sanguineous animals have the supreme organ of the sense-faculties in the heart, for it is here that we must look for the common sensorium belonging to all the sense-organs (469a10-12).

If the common sense is housed within the heart, then the fact that all images bear some relation to the common sense—either as input or output—illustrates that they must bear the same relation to the heart. Since object-images are assembled by the common sense, it follows that object-images (as such) come into being in the heart. And since particulate-images originate with the special sensory powers but are subsequently processed by the common sense, it follows that they must travel from the peripheral sensory-organs to the heart to be processed. The foregoing argument, based upon the mobility of images in the bloodstream, provides us with some insight as to how they complete this journey.

One might attempt to counter these arguments by citing the intervening period—during which an image is in transit from a peripheral sensory organ to the heart—as evidence that images don't necessarily require a sensory organ within which to be instantiated. However, the fact remains that during this interval of transit, the images are nevertheless expressed in a material substratum contained within the body (namely, the blood). So that this organless transit-period does not give us any reason for thinking that images are capable of attaining any persistence within the soul which isn't simultaneously a persistence within the body.

With that said, it seems to me that there is only one remaining strategy for motivating the idea that images can persist in the soul independently of the body: one would need to argue that images are capable of persisting within the soul, following the death of the body.

In order for an affirmative answer to this question to even be possible, a strongly dualistic reading of Aristotle—according to which the soul as a whole is capable of persisting independently of the body—would need to be on the table. Of course, it goes without saying that this cannot be true of soul *per se* in relation to body *per se*; Aristotle defines psyche as the form of the body in the second book of the *DA* and from this, he derives the conclusion that soul is, generally speaking, inseparable from body.¹⁵⁶ The question is whether the *human* soul might constitute some sort of an exception to this rule.¹⁵⁷ And Aristotle *does* entertain the

¹⁵⁶ Which rules out any notion that the souls of plants or nonrational animals might be capable of becoming disengaged from their bodies.

¹⁵⁷ And although I do not personally subscribe to such a reading, it must be acknowledged that there have been many notable commentators—even some relatively recent ones—who have defended such a reading. Robinson, for example, cites passage (qq) in support of a strong dualistic reading of Aristotle; his rationale being that if the perceptual powers are capable of persisting in the absence of functional sensory organs, then the same must be

possibility that the human soul—or at least a part of it—might be an exception; recall the conditional from *DA* 1.1, stating that:

- (vv) If there is any way of acting or being acted upon proper to soul, soul will be capable of separate existence; if there is none, its separate existence is impossible (403a10-11).

And as I'd also noted above, the antecedent of this conditional does appear to be satisfied by Aristotle's claim, in passage (mm), that thought involves no organ. The consequent is further corroborated by the following passage, from *DA* 2.2.

- (ww) ...it [i.e. thought or the power of reflection] seems to be a different kind of soul, differing as what is eternal from what is perishable; it alone is capable of being separated (413b25-27).

It would seem, then, that there is a reasonably strong *prima facie* case to be made that the human intellect is separable from the body. As to whether this would entail the mutual separability of the other psychic faculties (including the faculty of imagination), it will depend upon Aristotle's answer to the question of,

- (xx) ...whether each of these [i.e. the psychic faculties] is an attribute of the soul as a whole, i.e. whether it is with the whole soul we think, perceive, move ourselves, act or are acted upon, or whether each of them requires a different part of the soul? (411a29-b2).

If each psychic faculty is an attribute of the soul as a whole,¹⁵⁸ then it seems that the separability of *nous* would entail the mutual separability of all the other psychic faculties—most significantly for our purposes, the imagination. On the other hand, if each faculty requires a different part of the soul,¹⁵⁹ then the separability of *nous* would likely only entail the separability of the intellectual faculty.

true of the soul more broadly, in relation to the body more broadly. We might call this a bottom-up demonstration of Aristotle's dualism (as contrasted with the usual approach, which begins by illustrating the separability of the intellect).

¹⁵⁸ i.e. If the soul is a metaphysically simple unity.

¹⁵⁹ i.e. If the soul is composed of divisible parts.

Now, Aristotle does seem to genuinely struggle with the question of whether the soul is a metaphysically simple unity, or whether it is a composite of potentially divisible parts.¹⁶⁰ However, the bulk of the textual evidence seems to me to indicate that Aristotle preferred to think of a soul as a unity.¹⁶¹ In *DA* 1.5, between 411b5 and 411b31, Aristotle offers up a three-pronged argument *against* the idea that a given soul is composed of divisible parts.

Firstly, he reasons that if the soul were composed of divisible parts, then there would have to be some principle which holds all of these parts together. He rules out the body, on the grounds that it seems rather to be the case that the soul holds the body together.¹⁶² But he then observes that anything other than the body which could conceivably hold the parts of the soul together would be more appropriately termed “soul” than the things that it holds together. At which point we’d need to ask whether it too is composed of divisible parts (and if so, what holds those parts together, and so on *ad infinitum*). Secondly, Aristotle points out that if the whole soul holds together the whole body, and if it is composed of divisible parts, then we would expect each part of the soul to hold together a particular part of the body; which, as he has already pointed out, appears not to be the case with intellect, since thought corresponds to no organ. Thirdly, he points out that when certain animals and plants are divided into segments, the parts continue to exhibit all of the psychic capacities that characterised the entire organism, which suggests that souls are homogeneous.¹⁶³

Given the weight of the evidence suggesting that Aristotle regarded each soul as a unity rather than a composite of divisible parts, there seems to me to be a fairly strong presumption that the separability of nous *would* entail the separability of the entire human soul, along with all of its other psychic capacities—most significantly for our purposes, the faculty of imagination.

And so, given that there is a *prima facie* case to be made for the view that the intellect is separable from the body, it looks as though there is also (by the same token) a reasonably strong *prima facie* case to be made for the view that the faculty of imagination can persist in the absence of the body.

Of course, even if this is the correct view, it is still not obvious that this would necessitate the retention of the imaginative faculty’s store of previously imprinted images.¹⁶⁴ We can be sure,

¹⁶⁰ This tension is reflected in the inconsistency of Aristotle’s language, when referring to the soul and its faculties; he wavers in various places, between speaking of “parts” (*merē*) of the soul, and “kinds” (*genē*) of soul.

¹⁶¹ In other words, Alexander had it right. Aquinas and Robinson also held this view, but I want to emphasize Alexander here because he stands apart from these others in combining the unified-soul hypothesis with a naturalistic reading of Aristotle. I’m going to defend a variation on Alexander’s naturalistic thesis in the next chapter.

¹⁶² As evidenced by the fact that the body disintegrates once the soul departs.

¹⁶³ He repeats this point later on, in *DA* 2.2.

¹⁶⁴ Since, as we have discussed above, it is still possible that imaginative content might be reset upon the faculty’s separation from the body, like the Magic Slate.

at least, that disembodiment would cause the cessation of the imaginative faculty's capacity for acquiring new images, since this is predicated on the perceptual faculty's ability to proceed from first to second-order actuality, which we know to be impeded even when an individual perceptual organ such as an eye is compromised.¹⁶⁵

But the really pivotal question, if we wish to determine whether already-acquired images are capable of being separated from the body along with the human imaginative faculty itself, is whether we have any grounds for thinking that a disembodied human soul would, on Aristotle's view, retain memories of the perceptible objects that it had encountered during its embodied life.

The most plausible answer, based upon the available textual evidence, is that it would not. In spite of a substantial number of passages peppered throughout the *DA* which suggest that nous (and probably the rest of the human soul along with it) is separable from the body, Aristotle has very little to say about the character of its post-mortem existence; and what little he does say appears to disconfirm the idea that it retains previously imprinted images.

(yy) "When separated it is alone just what it is, and this above is immortal and eternal (*we do not remember* because, while this is impossible, passive thought is perishable)" (430a22-26).

Besides which, if the generation of learned thoughts simply consisted in the disengagement of the formal content of images from the matter of the bodily organs, and if images are only capable of becoming disengaged from the bodily organs when the entire soul becomes disengaged at the moment of bodily death, this would imply that people can only think when they die. This, in addition to conflicting with passage (yy), is a rather bizarre and unempirical notion.

Since we have been unable to motivate the notion that images can be disengaged from the matter of the body,¹⁶⁶ it would seem that a strong Thinking-Model of Imagination is definitively refuted by the fact that images, but not thoughts, are always blended with the body.

¹⁶⁵ We should probably infer from this that the capacities for nutrition, growth, reproduction, locomotion...etc. would also be disabled by the soul's disembodiment, since these seem to be activities which, by definition, are undergone by a body. That said, Aristotle's acknowledgement, in passage (qq), that the power of sight would be restored by the replacement of the faulty eye, seems to warrant the counterfactual supposition that these other more rudimentary activities would also be restored, were the soul as a whole to be re-embodied after death.

¹⁶⁶ Neither in general (since the animal soul is inseparable from the body), nor in exceptional cases such as the human soul (since we have found that, even if the human soul is separable from the body, it is apparently incapable of retaining its store of memory-images following its dissociation from the body).

3.7. Revisiting Lowe's Apprehensive Thought.

In the third section of this chapter, I'd invoked Lowe's distinction between apprehensive vs. autonomous thought in order to cast doubt on the notion that non-human animals couldn't possibly be endowed with any form of thought for Aristotle. And in the fourth section, I'd relied on two claims about the nature of apprehensive thought—with which I think Lowe would agree—in order to illustrate that imagination and thought aren't necessarily incompatible for the reasons that Wedin cites: Firstly, apprehensive thought takes concrete particulars for its intentional content, and secondly, it does so in a way that needn't necessarily be construed as propositional.

But in so doing, I hadn't necessarily meant to commit myself to Lowe's understanding of apprehensive thought, nor to definitively endorse the strong Thinking-Model of Imagination.¹⁶⁷ The purpose of the aforementioned sections was to present the strongest possible case that could be made for the strong Thinking-Model, before acknowledging its insurmountable difficulties (sketched out in the previous section) and moving on to my discussion of the moderate Thinking-Model (forthcoming in Ch. 4). And this does not require a firm commitment to Lowe's conception of apprehensive thought; it only requires that this conception be defensible. And I still maintain that is defensible, for a number of reasons.

For one thing, Aristotle's sudden shift to the subject of essence-grasping, following his articulation of the distinction between apprehensive and autonomous thought, in passage (r), really *does* strike me as a plausible indication that he regards abstraction as a form of autonomous thinking. And if this is correct, then it would require that apprehensive thought, as a prerequisite for autonomous thinking, must concern concrete particulars.

For another, Lowe had theorized that apprehensive thought is caused and informed directly by perception (which would give us a pretty good explanation as to why it denotes particulars), whereas autonomous thought proceeds by means of images. And there is direct textual evidence to support both of these claims. As we've seen already, passage (ee) seems to affirm the former claim, specifying that it is *through perception* that *particulars*¹⁶⁸ come to be present *in the mind*. And passage (hh)—when read in its broader context—seems to affirm both claims simultaneously.

(hh) The faculty of thinking then thinks the forms in the images and as in the former case what is to be pursued or avoided is marked out for it, so where there is no sensation and it is engaged upon the images it is moved to pursuit or avoidance. E.g. *perceiving by sense that the beacon is fire, it [i.e. the mind] recognizes in virtue of the general faculty of sense that it signifies an enemy*, because it sees it moving; but sometimes by means of images or

¹⁶⁷ Though that was admittedly my aim in an earlier version of my thesis.

¹⁶⁸ Qua primitive universal.

thoughts which are within the soul, just as if it were seeing, it calculates what is to come by reference to what is present.”

Here, Aristotle contrasts the autonomous process of calculation (*logizetai*)—which is said to proceed by means of images (or thoughts)¹⁶⁹—with another form of thought, which proceeds by means of sensation. Moreover, Aristotle’s description of the intentional content of this perceptually informed species of thought matches Lowe’s description of the intentional content of apprehensive thought almost perfectly; he designates it as that by which we recognize “that the beacon is fire, [or]...that it signifies an enemy.”¹⁷⁰ Whereas Lowe had described apprehensive thought as that by which we “judge concrete examples of flesh to be flesh.” Granted, these do seem to be explicitly propositional judgments about particular objects that Aristotle and Lowe are attributing to the apprehensive mind. But as I’d established above, it is perfectly feasible to reframe this non-literally, as indicating some sort of a baseline recognition of the object,¹⁷¹ which may or may not be subsequently expressed in propositional terms, given the proper cognitive machinery.

Finally, it seems to me that Lowe’s conception of apprehensive thought (as concerning particular substances) fits much more comfortably into the gradational view of the animal world advanced by Aristotle between passages (o) through (q), than would the standard notion that Aristotelian thought necessarily concerns universals. Recall that according to the gradational view, “...all forms of life lead gradually up to man as the perfect development of what is contained implicitly and imperfectly in lower forms” (Wallace, li). But if this is really the case, then we should expect non-human animals to exhibit at least *some* sort of rudimentary thought-form, rather than there being an abrupt disconnect between non-human and human animals with respect to thought. And while there seems to be nothing particularly outlandish about the suggestion that non-human animals might possess an intellectual awareness of particulars, it strains credulity to suppose that they are capable of grasping essences. Thus, if we wish to make good sense of the gradational picture proposed between passages (o) through (q), it seems to me that we have a fairly strong motivation for adopting Lowe’s conception of apprehensive thought.

With all of that said, there are still some difficulties with Lowe’s understanding of apprehensive thought, which incline me to want to step away from it. For instance, although Aristotle does indicate, in passage (ee), that the faculty of perception is the initial point of entry through which particulars come to present themselves before the mind, he also indicates, in passage (ff), that it is imagination, rather than perception as such, which constitutes the *really* pivotal

¹⁶⁹ I’ll have more to say about this caveat in the final chapter of my discussion.

¹⁷⁰ Implying judgements of the form “This thing here is fire,” or “This thing here is enemy.”

¹⁷¹ “Aha, flesh!” aha, “fire!”

prerequisite for knowledge acquisition.¹⁷² But the story that Lowe tells about human cognition doesn't seem to assign any mediating role to the imagination in the activation of apprehensive thought whatsoever, let alone a pivotal one. Nor does this appear to be an oversight on Lowe's part; rather, as we have seen already, it appears to be a key feature of Lowe's narrative that apprehensive thought is directly sensory-induced, just as we know imagination to be, based on passage (a).

And to be fair to Lowe, passage (hh) does seem to reaffirm passage (ee)'s original suggestion that thought of particulars proceeds directly by means of perception; in fact, the entire point of passage (hh) is to stress that calculation is *unlike* apprehensive thought in that it proceeds by means of images (or thoughts)¹⁷³ *instead of* sensation. Which, again, is one of the main reasons why I maintain that Lowe's conception of apprehensive thought is still textually defensible, passage (ff) notwithstanding. But it also generates a rather serious conceptual difficulty for Lowe, which becomes evident when we recall the list of commonalities that I'd noted between imagination and apprehensive thought in the fifth section of this chapter, as well as the conclusion that I'd drawn in the foregoing section (i.e., that images cannot be identical with apprehended thoughts, because this would require that apprehended thoughts are registered in the bodily organs).

In the fifth section of this chapter, I had stressed that imagination and Lowe's apprehensive thought share, among other things, the properties of being sensory-induced and prerequisites for autonomous thought. Moreover, I'd opined, on the basis of these and all of their other similarities, that it was understandable that Wallace should have arrived at the conclusion that, "...the images of our imaginative faculty often *approximate* closely to the ideas of thought." (Wallace, xciii) However, I'd also entertained the possibility that imagination and apprehensive thought might be asymmetrical in that, whereas imagination is *directly* caused by sensation, apprehensive thought is only *indirectly* caused by sensation (meaning that it is in some sense mediated by the imagination, as passage (ff) seems to suggest).¹⁷⁴ If correct, this would enable us to draw a clear distinction between imagination and apprehensive thought. But such an addendum seems to be precluded for Lowe, by his conviction—which, again, in all fairness, does appear to be supported by passage (hh)—that apprehensive thought is *directly* sensory-induced. And without such an addendum, it is extremely difficult to fathom why Lowe should feel the need to posit the existence of apprehensive thought, in addition to the imagination.

For instance, if the imagination and apprehensive thought are both directly sensory-induced and bear no causal relation to one another besides sharing that common point of origin, then it would seem to follow that they share the same intentional content. But if this is true, then it

¹⁷² i.e. He'd argued that although perception is a prerequisite for knowledge acquisition in an indirect sense, animals without phantasia are incapable of acquiring any real knowledge.

¹⁷³ Again, more on this in the final chapter.

¹⁷⁴ Which would also mean that, whereas apprehensive thought is a direct prerequisite for autonomous thought, imagination is only an indirect prerequisite.

becomes rather challenging to explain why both should be necessary prerequisites for autonomous thought-forms.

The most intuitive account of their respective contributions to autonomous thought—at least to someone of Wedin’s sensibilities—would likely be that each makes a necessary but insufficient contribution to our ability to engage in autonomous thought-acts, thereby (together) filling out the necessary and sufficient conditions for autonomous thought-acts to occur. For example, in the case of deliberative action, the idea might be that the apprehensive mind provides the universal terms that the autonomous mind will make use of when deliberating about what is to be pursued or avoided in a given situation, whereas the imagination picks out the particular items about which such calculations are made. But this solution is unavailable to Lowe, since, on his view, apprehensive thought does not denote universals, but rather (like the imagination), particulars.

In light of this, it would seem that any contribution made to deliberative action by the apprehensive mind would have to pertain to the grasping of the particular items about which the calculations are being made. But since images are already capable of doing this, it is unclear why we should need to posit apprehensive thought as an additional prerequisite for these sorts of calculations—unless it contributes something to our awareness of the relevant particulars which the imagination is not equipped to contribute. For example, one might suggest that because apprehensive thought is an intellectual faculty, perhaps its singular contribution consists in furnishing us with an enhanced understanding (as opposed to mere awareness) of the particular objects under deliberation. But this solution isn’t available to Lowe either, since, on his view, apprehensive thought precedes abstraction and therefore (as I had pointed out in Ch. 3.4.3) cannot be said to entail any prior familiarity with the relevant essences, upon which we would expect such an understanding to be founded.

This all puts Lowe into a rather awkward position, as why should perception be thought to generate two distinct and otherwise causally unrelated by-products, particularly if they have the exact same intentional content, and make the exact same contribution to autonomous thought? Wouldn’t it be more economical to posit only one direct by-product of perception which mediates our ability to think autonomously by picking out the particular objects about which the autonomous mind makes calculations? Why draw any distinction at all between apprehensive thought and the imagination, if their relations to perception and autonomous thought are as Lowe describes them?¹⁷⁵

These observations—coupled with the foregoing list of commonalities between imagination and Lowe’s apprehensive thought—are why, from the earliest drafts of my thesis, I’d suspected that what Lowe calls “apprehensive thought” might simply be the imagination. In the earlier

¹⁷⁵ Recall that we had encountered this problem in the first chapter, while surveying Wedin’s claim that both images and noemata serve as simple terms helping to fill out the structure of linguistic propositional complexes. Wedin had resolved the problem by claiming that noemata denote universals, rather than particulars.

drafts, my inclination was to magnify this into a radical claim about the metaphysical status of images;¹⁷⁶ hence my earlier sympathies with the strong Thinking-Model of Imagination. But, given the finding of the previous section of this chapter—that the formal content of images is incapable of becoming fully disengaged from the matter of the body—it now seems clear that such a notion would be untenable.

In order to avoid the impossible conclusion that images and apprehended thoughts are the same, Lowe would need to do one of two things. Firstly, he might abandon the notion that apprehensive thought is directly sensory-induced and, in deference to passage (ff), specify some sort of causal relation between images and apprehended thoughts (as he conceptualizes them), by reference to which a clear distinction might be drawn between them, and distinct causal roles assigned to them in the enabling of autonomous thought-acts. Ideally, this causal relation would need to reflect at least *some* sort of differential in the intentional content of images and apprehended thoughts, as this would aid in the justification of their mutual necessity as distinct prerequisites for autonomous thought-forms. It also seems reasonable to expect that this causal relation should offer us some insight as to how an incorporeal cognitive state could emerge from corporeal ones (since we're trying to avoid the conclusion that thoughts are registered in the bodily organs).

But while I would not want to make any premature declarations about Lowe's inability to successfully bring off this first approach, I must say that I am at a loss as to how he might do so. Given that apprehensive thought denotes particulars on his view—and in a manner that cannot be said to be informed by any prior familiarity with essences (since it precedes abstraction)—any distinction that he attempts to draw between apprehended thoughts and images would have to be an extremely subtle one. Moreover, the project of explaining the emergence of an incorporeal intellectual faculty from corporeal origins is one that has eluded many historical commentators, and it seems improbable that Lowe will be able to accomplish this feat within the already very narrow strictures of his apprehensive vs autonomous thought dichotomy.

Alternatively, Lowe might abandon *both* the notion that apprehensive thought is directly sensory-induced, *and* the notion that it denotes particulars—passages (ee) and (hh) notwithstanding. This wouldn't require a total upheaval of the distinction between apprehensive and autonomous thought; insofar as it maps onto Aristotle's distinction between thought in its first-order actuality and thought in its second-order actuality, the apprehensive vs autonomous thought dichotomy still strikes me as a useful one. What it would require is a reconceptualization of the place that abstraction occupies, within this framework. Abstraction would no longer be relegated to the category of autonomous thought, but would instead be identical with apprehensive thought. Which would mean that apprehensive thought involves the distillation of essences directly from images of particulars.¹⁷⁷

¹⁷⁶ i.e. That they are intrinsically noetic.

¹⁷⁷ Interestingly, this would also entail that abstraction is involuntary.

This second approach would admittedly chafe against the aforementioned textual considerations in favor of Lowe’s notion of apprehensive thought as being directly sensory-induced and as denoting particular objects. However, it would also enable Lowe to avoid the difficulties with his theory, that I’ve outlined above. For one thing, it squares with passage (ff)’s claim that the imagination not only plays a role in the generation of thoughts, but indeed, a pivotal one.¹⁷⁸ In so doing, it also gives us a clear distinction between imagination and apprehensive thought, which would enable Lowe to avoid the impossible conclusion that apprehended thoughts are registered in the bodily organs. Moreover, since this distinction operates at the level of intentional content (images denote particulars, whereas apprehended thoughts denote essences), it would furnish him with a coherent explanation as to why both imagination and apprehensive thought are prerequisites for autonomous thought-acts: Whether or not images are strictly *required* to pick out the particular objects about which the autonomous mind deliberates (a question I’ll return to in the next chapter¹⁷⁹), there is certainly nothing to prevent them from performing this function. And in any case, they will still be indirect prerequisites for autonomous thought, since they are the pivotal causal precursors to apprehended thoughts (i.e., universals)—which themselves are directly indispensable to autonomous thought acts, since all autonomous thought acts make use of universals.

The only respect in which this reconceptualization of apprehensive thought would not constitute a clear improvement upon Lowe’s formulation is that it does not (in itself, anyway) provide us with any additional insight as to how an incorporeal faculty could emerge out of corporeal ones. But the relative ease with which it resolves the other problems with Lowe’s formulation strikes me as justification enough for adopting it. And besides, while it may not offer its own explanation of the intellect’s emergence, it seems to me that it at least opens a window for such an explanation, since it is perfectly consistent with the most plausible iteration of a moderate Thinking-Model of Imagination, which—as we will see in the next chapter—*does* contain an explanation of the intellect’s emergence. I turn my attention now to the moderate Thinking-Model of Imagination.

¹⁷⁸ i.e., it retains representations of perceptible objects, from which we are enabled to distill the corresponding essences once the perceptible objects have been removed from contact with our sensory-organs.

¹⁷⁹ Passage (hh) says that calculation may proceed by means of “images *or* thoughts,” and it’s worth remembering that passage (gg) says something similar.

Chapter 4: The Moderate Thinking-Model

4.1. A Disposition in the Imagination

We have found that a strong Thinking-Model of Imagination which simply identifies images with apprehended thoughts is untenable because the persistence of the formal content of images within the soul (which accounts for our first-hand experience of that formal content) supervenes on its persistence within the sensory-organs, whereas the persistence of the formal content of apprehended thoughts within the soul does not. We have also found that, although the formal content of images is capable of being transferred from one organ to another by way of the blood, it is incapable of becoming entirely disengaged from the matter of the body, which rules out the possibility that images might become apprehended thoughts in this manner.

That said, we might still entertain a hypothesis according to which images can contribute to the generation of apprehended thoughts, solely by virtue of their formal content. And, depending on how we choose to flesh this hypothesis out, it may provide us with support for the more moderate view—entertained by Aristotle in passages (c), (e) and (f)'—that images sometimes have a certain degree of authentic noetic status.¹⁸⁰

This final chapter will examine a hypothesis which treats the material intellect as a disposition residing specifically in the formal content of the activated imaginative faculty. To clarify, this hypothesis would not entail that the activation of the imaginative faculty is sufficient to activate the material intellect (otherwise we'd be back to the strong Thinking-Model). Rather, the hypothesis is that apprehended thoughts come into being in some sense *from* the formal content contained within the activated imaginative faculty, provided that certain additional conditions are met.

4.2. The History of the Dispositional View

Although he did not hold to it personally, the history of the idea that the material intellect is a disposition residing in the imagination begins with Alexander. As I had explained in the second chapter of my discussion, Alexander had construed the material intellect as a disposition in order to bolster his belief in its inseparability from the other psychic faculties (and the body), against the seemingly dualistic implications of Aristotle's remark, from *DA* 3.4, that intelligible forms must be potentially within the mind, "...just as characters may be said to be [potentially] on a writing-table on which as yet nothing actually stands written" (429b30-430a1). Rather than

¹⁸⁰ At least while they are making their contribution to the generation of learned thoughts.

interpreting this analogy as likening the mind to the writing-tablet itself (which would have entailed that the material intellect is a potentially separable subject that is acted upon when it apprehends intelligible objects), Alexander had read it as likening the mind instead to the tablet's disposition for being written upon.

But while this may have been an effective means of avoiding the implication that the material intellect is a potentially separable subject, it does generate an additional problem for Alexander, stemming from his identification of the subject within which the intellectual disposition inheres.¹⁸¹ As I'd also noted in my second chapter, Alexander had located the intellectual disposition in the soul (broadly construed), and since he regards the soul as an embodied unity, this makes it very difficult for him to avoid the implication that the material intellect makes use of the body when it apprehends intelligible objects. This seems to put Alexander's dispositional reading squarely at odds with Aristotle's main contention in *DA* 3.4, that there is no intellectual organ.

As to Alexander's proposed solution to this problem—i.e. invoking the notion of “common forms,” which result from the coalescence of other, inferior forms, and which, in so doing, achieve some manner of functional independence from matter—we had found that it was ill-equipped to explain why the intellect should be the *sole* exception to the rule that the activity of psychic faculties involves alterations in bodily organs. After all, on Alexander's understanding of hylomorphism, all formal powers except for those of the primary bodies fall under the category of “common forms.” And so we had found that, barring some additional explanation as to what is so special about the intellectual faculty (which Alexander seemed unable to proffer) each of the remaining psychic faculties would have a claim to functional independence from matter, by the same token that the intellect supposedly does.

The notion that the material intellect is a disposition inhering more specifically in the activated imaginative faculty was developed in response to these problems, as we shall see in the next section.

4.2.1. Ibn Bajjah (Avempace)

Ibn Bajjah (1085-1139)—known as Avempace in Latin—is the first commentator reported to have held the view that the material intellect is a disposition inhering specifically in the activated imaginative faculty, though it would be difficult to find any explicit statement of this position in his extant writings. This is likely due to the fact that the most pertinent text by Avempace¹⁸² has not survived in its entirety, and it is in precisely the missing section that we would expect to find this position laid out. As Herbert A. Davidson (1992) points out, “...the

¹⁸¹ i.e. The “tablet” with the capacity for being written upon.

¹⁸² i.e. The *Kitab al-Nafs*, also known as his *De Anima*. In the introduction to his 1958 translation of the text, M.S. Hasan describes it with only mild reservations as a paraphrase of Aristotle's *De Anima*. (pg. 2)

published text [of Ibn Bajjah's *De Anima*] ...breaks off tantalizingly in the middle of the discussion of intellect" (Davidson, pg. 261). Nonetheless, Averroes attributes this position to Avempace in his (Averroes') *Long Commentary on Aristotle's De Anima*, and Davidson speculates that this is because Averroes had found the position articulated in the now missing section of Avempace's *De Anima*, to which he would have had access.¹⁸³

Avempace's description of the material intellect as a "disposition" is reminiscent of Alexander's project, and Davidson confirms that Avempace was in fact sympathetic to Alexander: "A comment in one of Ibn Bajja's works, which is corroborated by Averroes' report of Ibn Bajja's position, places him close to Alexander" (Davidson, 258). That said, it would be misleading to suggest that Avempace was in complete agreement with Alexander; his construal of the material intellect "as a disposition located specifically in the imaginative faculty," constitutes a significant departure from Alexander, who had construed it, "more generally, as a disposition residing in the human subject or the human soul" (Davidson, 274).

According to Davidson, what Avempace means by saying that the material intellect is a disposition in the imaginative faculty is that the imaginative faculty serves, in some sense, as, "...the "substratum of intellectual thoughts" in man" (Davidson, 286).¹⁸⁴ From this, we can infer that learned thoughts emerge—on Avempace's view—as a result of a process of *change* undergone in some sense by images. And Davidson seems to confirm this when he attributes to Avempace the view that, "the 'notions it [the imagination] contains...become actual intelligible thoughts'" (Davidson, 286).¹⁸⁵ As to the question of *how* this transformative process is brought about on Avempace's view, a more detailed account can be found in the introduction to Richard C. Taylor's 2009 translation of Averroes' *Long Commentary on the De Anima*.

According to Taylor, the actualization of the material intellect from its potential state as a disposition in the imagination occurs, for Avempace, when, "The agent intellect illuminates the images of things in the imagination in such a way that human understanding of intelligibles comes about" (Taylor, xxvi). When this illumination occurs, the imaginative faculty, "...acquires the intelligible *as a second form*" (Taylor, xxvi). The idea here therefore seems to be something analogous to the manner in which a statue of Hermes, when painted, acquires a new form (i.e., a color), such that it remains a statue of Hermes, but is now a *colored* statue of Hermes.¹⁸⁶ Evidently then, Avempace wished to convey that the formal content of the image persists through the process by which the apprehended thought is brought about, making the thought

¹⁸³ Davidson also speculates that Averroes derived the position by drawing out the *implications* of certain comments made by Avempace in his *Treatise on the Conjoining of the Intellect with Man*.

¹⁸⁴ The wording here comes from Averroes' description of Avempace's position, in his *Long Commentary*. Notice also that no matter how this position is ultimately unpacked, it will serve as a confirmation of Aristotle's claim, from passage (ff), that there can be no knowledge acquisition without the imagination.

¹⁸⁵ Again, Davidson is quoting Averroes' exegesis of Avempace, from the *Long Commentary*.

¹⁸⁶ The analogy to the statue's acquisition of color is particularly appropriate, as the generation of intelligibles from the formal content of images is said by Avempace to be triggered by a process akin to illumination, and light, for Aristotle, is responsible for turning potential colors into actual colors.

effectively an image with some additional predicate.¹⁸⁷ Such, at least, appears to be the upshot of Taylor's attribution, to Avempace, of the view that each of the intelligibles which results from the agent intellect's illumination of the imagination is, "a form having *as its matter* the intermediate spiritual forms of the imagination" (Taylor, xxvii).

As to the question of *why* Avempace relocated the disposition of the material intellect specifically to the imaginative faculty,¹⁸⁸ Davidson suggests that he, "...wished to 'escape the absurdities attaching themselves to Alexander'" (Davidson, 286). By this he means Alexander's unintended construal of the material intellect, "...as a part of the human body or as a faculty inhering in it"¹⁸⁹ (Davidson, 286). This complaint should sound familiar, as it is essentially the same critique that I had raised against Alexander's position, above, in my second chapter (and which I reiterated at the beginning of this section). Recall that Alexander's construal of the material intellect as a disposition inhering in the soul (or the human subject) more broadly had placed him at odds with Aristotle's claim that the intellect makes no use of the body when it thinks. Given that the soul is an embodied unity for Alexander and given that the human subject is very much a bodily entity, to describe the material intellect as a disposition inhering in the soul or the human subject more broadly really isn't substantially any different from describing it as a disposition *of the body* for undergoing some sort of alteration. Recall also that Alexander's attempt to resolve this problem by appealing to the notion of "common forms" had been unsuccessful, since this concept is broadly applicable to most formal powers and is therefore ill-equipped to account for the supposed *uniqueness* of the intellect as a functionally incorporeal faculty.

Of course, some might worry that Avempace's revised formulation of the dispositional reading also leads to the impossible result that the material intellect is a faculty inhering in the body. After all, Avempace designates the images of the activated imaginative faculty as the proximate substrata for the generation of learned thoughts, and images are said in *DA* 3.3 to reside in the bodily organs. And so one might understandably expect that because the starting-point of the transformative process that gives rise to learned thoughts is bodily, then so too must be the product of this transformation.¹⁹⁰ But while this would follow on the supposition that it is by virtue of their complete hylomorphic composition¹⁹¹ that images serve as the substrata for the generation of learned thoughts, it needs to be pointed out that this supposition betrays a rather serious misunderstanding of Avempace's intention in locating the human intellectual

¹⁸⁷ i.e., the intellectual analogue of color.

¹⁸⁸ Rather than placing it more broadly in the human soul or human subject, as Alexander did.

¹⁸⁹ This is corroborated by Taylor. He explains Avempace's decision to relocate the material intellect as a disposition residing specifically in the imagination as an attempt to remedy what he saw as an "impossible result" of Alexander's more general location of it. Namely, that, "...the subject receiving the intelligible forms is a body made from the elements or a power in a body" (Taylor, xc).

¹⁹⁰ i.e., There doesn't seem to be any additional property that the statue of Hermes could acquire which would make it incorporeal.

¹⁹¹ i.e. The formal content of images, *in addition to* the matter of their sensory organ.

disposition within the activated imaginative faculty. In order to better understand how Avempace's reformulation of the dispositional reading succeeds in steering around Alexander's difficulty, it might therefore be helpful to unpack his notion of "intermediate spiritual forms" in more detail. In so doing, we should keep in mind the observation from the second-to-last section of our third chapter, that the formal content of images is capable of transit between the bodily organs by way of the blood.

As for Avempace's notion of "intermediate spiritual forms," Davidson's commentary contains a sustained treatment of the subject, which can guide us in our efforts to convey the full nuance of Avempace's position. Davidson begins by clarifying that Avempace uses the phrase "intermediate spiritual forms" to refer to, "...all levels of abstraction within the soul below the level of intellect. (Davidson, 266) From this, we can glean at least one sense in which the spiritual forms of the activated imaginative faculty qualify as "intermediate": namely, in that their intentional content serves as a sort of quasi-universal stepping-stone between our apprehension of particular objects via perception and our apprehension of essences via thought. Thus, at the level of intentional content, it would seem that Avempace is using "intermediate spiritual forms" in just the same way that Aristotle had used "primitive universals" in *Apo* 2.19.¹⁹² It is also worth underscoring that this sub-intellectual abstraction is said to occur *within the soul* itself. As we saw above in the third chapter, the activation of the imaginative faculty can be parsed into two definitionally distinct aspects: (1) the retention of a perceived form within a bodily organ (which is a magnitude), and (2) the retention of that form within the imaginative power itself (which is not a magnitude). And it would appear that Avempace was cognizant of this distinction. In addition to conveying intermediate intentional content, Davidson adds that, for Avempace, the spiritual forms of the activated imaginative faculty are also "intermediate" in the sense that they occupy an *ontological* status which falls somewhere in between bodily substance and disembodied substance.¹⁹³ And he indicates that it is by virtue of their being *contents of the soul* that they occupy this status¹⁹⁴—hence why Avempace calls them "spiritual."

Of course, one mustn't forget that the retention of an imaginative form within the soul supervenes on its retention within a bodily organ, and a genuine solution to the Alexandrian difficulty requires more than just the ability to *consider* the former retention in isolation from the latter; it requires that the formal contents of images—qua contents of the soul (i.e., qua "spiritual")¹⁹⁵—be capable of *doing* and *undergoing* things in their own right. And this is precisely the line that Avempace takes. The pivotal move of his position is to argue that it is *qua contents of the soul* (i.e., qua "spiritual") that imaginative forms serve as the subject of change

¹⁹² Aristotle states in *Apo* 2.19 that the perceptual faculty also makes us privy to primitive universals, but it is by virtue of the imagination that we are able to retain them and derive thoughts from them in the absence of the particularizing external matter of the perceptible object.

¹⁹³ This latter might best be typified by the agent intellect.

¹⁹⁴ Since the soul itself is neither a body nor an independent substance.

¹⁹⁵ Excluding their bodily facet.

in the generation of learned thoughts. Or, to frame this in terms of the writing-tablet analogy, the idea would be that it is neither the body as such, nor even images qua components of the body which correspond to the tablet (and which possess the ability to have intelligible forms “written” upon them) but rather, just images insofar as their formal content has been taken up by and incorporated into the soul.

Davidson credits Avempace with having arrived at this position by way of the following line of reasoning: while the subject of the human intellectual disposition cannot itself be a body (since according to Aristotle, there is no intellectual organ), neither can it be something wholly disembodied (viz. an intellect), as this would be tantamount to abandoning the dispositional view of the material intellect altogether, in favor of some version of the dualistic view.¹⁹⁶ Thus, he concludes that the subject of the human disposition for thought, “...being neither a body nor an intellect...must be the only [other kind of] entity remaining, namely, “a soul” (Davidson, 268)—specifically, the imaginative soul.

On the supposition that one may speak coherently of imaginative forms qua contents of the soul serving as a subject of change in their own right, this *would* enable Avempace to explain the dependence of the material intellect upon the body without inadvertently committing himself (as Alexander had done) to the absurd conclusion that the material intellect is itself body or a power inhering in a body. This is because the intellectual disposition would in this case inhere not in a bodily subject, but rather in a formal one which, though in the final analysis dependent upon the body, would still possess a sufficient degree of independence to be capable of serving as a subject of change in its own right. And it seems to me that the observation from the penultimate section of my previous chapter—that the formal content of images, insofar as it is registered in the body, is capable of transit between organs by way of the blood—can be invoked in defense of the claim that the spiritual forms of the imaginative faculty possess that requisite flavor of partial independence.¹⁹⁷

Moreover, since the spiritual forms of the imaginative faculty are *unique* in their partial independence from the matter of the bodily organs,¹⁹⁸ it seems to me that Avempace’s version of the dispositional reading is also well-equipped to explain the uniqueness of the material intellect’s functional incorporeality without inadvertently extending that property downwards to all the other psychic faculties, as Alexander had done. This is because, rather than appealing to a broadly applicable concept like “common forms” in order to account for the intellect’s

¹⁹⁶ This, incidentally, is why Avempace’s use of the term “spiritual” should not be interpreted in the colloquial sense, as signifying some sort of incorporeal substance.

¹⁹⁷ Although the resonance of an imaginative form within the soul does supervene on that form’s resonance within some part of the body, it needn’t supervene on that form’s resonance within any particular part of the body. So the “soul form” can to some extent be said to have its own life.

¹⁹⁸ This seems to be corroborated by José Puig Montada (2018), who notes that “spiritual forms” are, for Avempace, distinguished by their, “...having the capacity to move.”

functional incorporeality, he chooses to explain it as resulting from the fulfillment of a partial incorporeality which itself is unique to the spiritual forms of the activated imaginative faculty.

Thus, it seems to me that there is a fairly strong *prima facie* case to be made that Avempace's dispositional reading is in a better position than Alexander's to avoid the conclusion that the material intellect is functionally corporeal. I will have a bit more to say in a subsequent section about the defensibility of Avempace's claim that the "spiritual forms" of the imaginative faculty are *unique* in their partial independence from the matter of the bodily organs. But for now, I will close out this section by turning my attention to one final, rather awkward, aspect of Avempace's position. In addition to having construed the material intellect as a disposition seated in the imaginative faculty and fulfilled by the illuminating influence of the agent intellect, Davidson credits Avempace with having, "...held fast to the rule that intellect is identical with whatever thought it thinks, and [with having] therefore concluded that a human intellect having the active intellect as an object of thought [is] hence conjoined with the active intellect [and] is rendered identical with the active intellect" (Davidson, 322).

This means that the material intellect is, on Avempace's view, capable of transcending its naturalistic origins and attaining immortality,¹⁹⁹ though Davidson is careful to specify that this does *not* amount to *personal* immortality for each individual human being. Since each individual material intellect becomes *identical* with the agent intellect, this seems to require that, in so doing, all of the various material intellects become *one*. And this can only be construed as a loss of personal identity for each material intellect. Hence, Davidson writes that, on Avempace's view, "...individuality and all distinction between human intellects is inconceivable after the body's demise" (Davidson, 203).²⁰⁰

To summarize, then, we have seen that Avempace regarded the material intellect as a disposition inhering in the activated imaginative faculty, which is fulfilled by the illuminating influence of the active intellect, as it effects a sort of qualitative change in the spiritual forms of images, for which they serve as the "material" substrate. We have seen, moreover, that Avempace intended this as a solution to the difficulty faced by Alexander's emergentist reading of Aristotle, and that this solution does in fact have some *prima facie* plausibility. Finally, we have seen that Avempace regarded the material intellect as being capable of attaining a sort of impersonal immortality, by conjoining with the active intellect. The consistency of this last point with Avempace's conception of the material intellect as a disposition is debatable and, as we shall see below, induced considerable discomfort in his disciple, the early Averroes.

4.2.2. Averroes (early works)

¹⁹⁹ This is described by Davidson as having been the culmination of the intellect's development, on Avempace's view.

²⁰⁰ This is all corroborated by Taylor, who writes that, "In Ibn Bajjah's understanding, individual human beings employ the material intellect toward their realization of intellectual perfection in conjoining with the agent intellect and attaining happiness in a unity with it and all human intellects" (Taylor, xxv).

Davidson reports that Averroes, in his earlier period,²⁰¹ held much the same view of the material intellect that Avempace did.

For starters, he holds that, "...intelligible thoughts 'follow upon change'" (Davidson, 266), and that therefore, "...they are, after all, in a sense 'necessarily possessed of matter'" (Davidson, 267).²⁰² However, this should not be construed as meaning that thoughts derive directly from a *bodily* substrate, as this would seem to require that thoughts are themselves bodily, which we know to be impossible on Aristotelian terms, given his insistence that thoughts are not blended with any of the bodily organs. Nor should it be construed as meaning that the material substrate for the generation of learned thoughts is just the intellect, considered as a subject in itself.²⁰³ Such an idea would, on Averroes' view, violate Aristotle's stipulation that, "...whatever is some thing potentially cannot contain any of the same thing actually" (Davidson, 267). The material intellect is a pure potentiality, and Averroes understands this to require that, rather than being the subject for its own actualization, it is rather a disposition inhering in some other (incorporeal) substrate.

As on Avempace's view, "The substrata to which [thoughts] are "essentially" linked are," on the early Averroes' view, "the imaginative faculties of *individual human souls*" (Davidson, 267). I italicize "*of individual human souls*" here because Averroes intends to isolate the formal contents of images *only insofar as they are contents of the soul*²⁰⁴ as the substrata for the process of change which gives rise to intelligible thoughts. Intelligible thoughts therefore come into being as the result of a change undergone by a quasi-corporeal substrate provided by the activated imaginative faculty, within which those thoughts inhere (potentially) as a disposition. So far this is all in perfect accordance with Avempace.

As to the question of whether the material intellect possesses the capacity for attaining immortality by conjoining with the active intellect²⁰⁵ Davidson reports that, although Averroes did not have strong opinions one way or the other at this early stage in his career, he did leave open the possibility, and would grow more committed to the Avempacean answer, as his thought developed. Though it should be noted that Averroes would grow increasingly suspicious about the consistency of this position with his view of the material intellect as a mere disposition, as I'll discuss in more detail below.

Averroes' early position on the material intellect is therefore (excepting a tinge of uncertainty about the possibility of immortality through conjunction with the agent intellect) more or less

²⁰¹ Exemplified by his *Epitome of the De Anima*, and his *Epistle on the Possibility of Conjunction*.

²⁰² In accordance with the tenets of Aristotle's theory of the mechanics of formal alteration, which always posits a material substrate.

²⁰³ Though this would also satisfy the condition that the substrate for thought should be incorporeal.

²⁰⁴ i.e., Insofar as they constitute what Avempace had termed "spiritual forms." Davidson notes that Averroes calls them "soul forms" (*suwar nafsaniyya*).

²⁰⁵ Which was vigorously confirmed by Avempace, as we have seen above.

identical with Avempace's. Moreover, Davidson—citing a retrospective annotation attached to the *Epitome* by Averroes himself—reports that this is because Averroes was, initially at any rate, inspired by his reading of Avempace. Hence, Averroes was, during his early period, more or less a devotee of Avempace.

4.3. A Template for a Moderate Thinking-Model

Avempace's variation on the dispositional reading of the material intellect would—very plausibly, I think—line up with the more moderate noetic-speculations put forward by Aristotle about the imaginative faculty, in passages (c), (e), and (f).'

To reiterate, passage (c) had entertained two possible scenarios under which thought would be dependent upon the body: firstly, if thought turned out to be a kind of imagination (which, as I had pointed out above, would entail that imagination is sometimes a kind of thought). And secondly, if thought turned out to be impossible without imagination. Were the material intellect a disposition residing in the formal content contained within the actualized imagination, as Avempace suggests, then the latter of these two scenarios would *certainly* be confirmed, since—as I have noted above—Avempace's position plainly affirms Aristotle's claim, from passage (ff), that there can be no knowledge of any kind in the absence of phantasia.

As for the former scenario, it too will be confirmed by Avempace's position, provided we interpret its implication that imagination is sometimes a kind of thought charitably as suggesting that images are sometimes capable of being modified or recontextualized, in such a way that they can be said to acquire some degree of authentic noetic character.²⁰⁶ After all, Avempace explains the realization of the intellectual disposition as resulting from a process of change undergone by the forms of the imagination (insofar as they are contents of the soul), for which they serve as a kind of material substrate. To frame this in the language of the scenario's more explicit suggestion²⁰⁷ that thought is a kind of imagination, we might say that Avempace's position supports the view that learned thoughts are images in a certain modified state (which would also confirm passage (f),' since it too indicates that thought is a kind of imagination).

And if the forms of the imagination serve as the material substrate for the generation of learned thoughts such that learned thoughts can be described as images in a certain modified

²⁰⁶ Were we to interpret it more straightforwardly as implying that images sometimes just *are* thoughts, then we'd be back to the strong Thinking-Model (which was refuted in the previous chapter). Moreover, there seems to be something self-defeating about the notion that images are *only sometimes* identical with learned thoughts. If images just *were* learned thoughts, then this would have to be the case *all* of the time. The idea that imagination is *sometimes* a kind of thought makes sense only if we presume that there isn't a one-to-one correspondence between images and learned thoughts.

²⁰⁷ From which I'd derived the implication that images are sometimes thoughts.

state, then this implies that the formal content of images persists through the process whereby the material intellect becomes actualized, as I had noted in the previous section. This being the case, there seems to me to be a strong presumption that Avempace's position would also confirm passage (e)'s suggestion that images are component parts of thoughts. We need only specify that they constitute parts in the sense of material causes.

Thus, since Avempace's dispositional reading confirms each of Aristotle's more moderate remarks attributing noetic status to images, it seems to me that it could be revived and marshalled quite fruitfully in defense of a moderate Thinking-Model of Imagination. That said, certain modifications might need to be made to Avempace's basic position, in order to maximize the coherence of the resulting Thinking-Model. Specifically, it seems prudent to omit Avempace's claim that the human intellect is capable of acquiring immortality by forging a connection to the agent intellect. This seems to me a rather awkward addendum to any theory which describes the material intellect as a disposition, and it may even generate a contradiction (as Averroes would come to realize).

4.4. Benefits of the Moderate Thinking-Model

As I had stressed in the second chapter, naturalistic readings of Aristotle's *DA* have not enjoyed a great deal of currency in the time since Alexander's commentary was written, likely due to the inclination among many religious commentators to interpret Aristotle's theory of the soul as being consistent with their own beliefs concerning human immortality. In recent years, however, naturalistic readings have begun to enjoy something of a resurgence, with commentators such as Wedin (1988) and Victor Caston (1999) arguing vigorously in favor of the view that the *DA* contains no indication that Aristotle regarded any part of the human soul as being immortal or separable from the body.

It is principally as a contribution to this naturalistic revival that I would want to recommend my Avempacean moderate Thinking-Model of Imagination. It is my sense that, although both Caston and (obviously) Wedin would have their reasons for wanting to reject the moderate Thinking-Model, it would nevertheless offer real solutions to major problems with each of their readings, and without sacrificing the main meat of either of their overarching projects.

4.4.1. A Correction on Caston

In "Aristotle's Two Intellects: A Modest Proposal" (1999), Caston interprets Aristotle's philosophical project in the *DA* as being primarily a taxonomical one, aiming not so much to

describe the various faculties which are found within a given human soul,²⁰⁸ as to catalogue the various kinds of soul which populate the universe. He does this in order to avoid having to explain why there should be two intellects—one passive and perishable and another creative and imperishable—belonging to each individual human animal, as a *prima facie* reading of passage (g) might seem to suggest. On Caston's reading, this passage is not juxtaposing two distinguishable intellectual features of a given human soul, but rather, two distinct species of intellectual soul, one human, and another divine. This juxtaposition signals the termination of Aristotle's account of the human intellectual soul,²⁰⁹ and the commencement of his account of the unembodied divine intellect, which he also discusses in the *Metaphysics*. Thus, on Caston's reading, passage (g) gives us no reason whatsoever to suppose that Aristotle intended to identify any part of the human soul as divine. Its reference to an eternal *nous poietikos* simply refers to God, whereas the reference to a perishable *nous pathetikos* harks back to Aristotle's foregoing account of the human intellect in *DA* 3.4. As readers will recall, this was precisely the line adopted by Alexander in order to resolve the tension in passage (g). And Caston cites Alexander explicitly as his inspiration.

Of course, if the human intellect contains nothing divine but is rather derived from bodily mechanisms, then Caston owes us an explanation as to how it can also be the case that, as Aristotle insists in *DA* 3.4, its way of acting or being acted upon involves no alteration in a bodily organ. In other words, Caston owes us an explanation as to how a functionally incorporeal faculty can arise from bodily mechanisms, and why its functional incorporeality needn't necessarily imply literal separability from the body. And although Caston does not address that problem in this paper,²¹⁰ it seems clear from his other works that he would want to appeal again to Alexander for a solution.

In "Epiphenomenalisms, Ancient and Modern" (1997), Caston argues that the basic template of Aristotle's philosophy of mind is conducive to an emergentist reading, though he himself did not unpack the precise mechanisms which give rise to the human intellect's emergence. He adds that commentators such as Alexander can be credited with filling in the details of Aristotle's implicit vision: "Aristotle's...own tendencies are towards emergentism. But he never develops these views in a systematic or explicit fashion. Our unsung heroes are thus the later Aristotelians...Galen and Alexander, who develop the rich metaphysics that true emergentism

²⁰⁸Though this can to an extent be regarded as a secondary teaching, since Aristotle tends to regard an organism's possession of a higher psychic faculty as presupposing its possession of the lower ones.

²⁰⁹ Or perhaps of his survey of embodied soul-types more broadly.

²¹⁰ He focuses instead on justifying his claim that passage (g)'s *nous poietikos* refers to the divine intellect, by cataloguing the similarities between Aristotle's description of *nous poietikos* in this chapter, and his description of the divine intellect in the *Metaphysics*.

requires” (Caston, 1997, 354). And so it would appear that Caston’s naturalistic reading of Aristotle is modelled quite closely after Alexander’s.²¹¹

That said, it seems to me that Caston is somewhat overconfident in the coherence of Alexander’s emergentist reading. He does not appear to recognize the tension—which I’d unpacked in my second chapter—between Alexander’s belief in the functional incorporeality of the material intellect and his belief that it belongs, as a disposition, to the human soul or subject broadly construed. Nor, therefore, does he grapple with the inadequacy of Alexander’s attempt to resolve this problem by appealing to the notion of “common forms.”

And so it seems to me that Caston overlooks the very problem that Avempace had sought to rectify, by repositioning the material intellect as a disposition residing specifically in the “spiritual forms” of the imaginative faculty (namely, that despite his best efforts, Alexander had been unable to avoid construing the material intellect as a disposition *of* the body, which makes use of the body when it apprehends intelligible forms). This being the case, Caston sees no need to entertain the idea that the material intellect is a disposition residing specifically in the imaginative faculty. On Caston’s view,²¹² Aristotle’s main reason for introducing the imaginative faculty is not to secure any sort of “material” cause for the generation of thoughts, but rather to account for cognitive error, as neither perception nor thought can do this.

My overall impression of Caston’s position would therefore be that, by appealing broadly to Alexander’s schema without interrogating his take on the relation between the various psychic faculties, he winds up inheriting the difficulties implicit in Alexander’s position.

And as I had observed above, Avempace’s designation of the material intellect as a disposition residing specifically in the “spiritual forms” of the imaginative faculty seems to offer a real solution to Alexander’s difficulties, in that it enables Avempace to avoid the implication that the material intellect is a disposition inhering in a body, and in that it manages to account for the emergence of the material intellect as a uniquely incorporeal faculty, without appealing to any features which would be common to all the other psychic faculties. If this observation is correct, then it seems to me that Caston would do well to consider a moderate Thinking-Model of Imagination, modelled after Avempace.²¹³

This would not only resolve the problems which Caston has inherited from Alexander; it would do so without sacrificing any of what I take to be the fundamental tenets of Caston’s project. These are, to reiterate, (1) that the *nous poietikos* of *DA* 3.5 refers to the divine intellect rather than to any facet of the individual human intellect (whereas the perishable *nous pathetikos*

²¹¹ He also considers an epiphenomenal approach, but rejects it because it would render mental states ineffectual, which Aristotle would not accept.

²¹² Articulated in other papers like, “Why Aristotle Needs Imagination” (1996) and “Aristotle and the Problem of Intentionality” (1998).

²¹³ Subtracting the bit about the material intellect attaining immortality through its conjunction with the agent intellect.

refers to the human intellect), and (2), that the project of the *DA* is principally a taxonomical one, aiming to catalogue the various kinds of soul which populate the universe. Avempace's reading²¹⁴ explicitly affirms (1) and is therefore compatible with (2).

4.4.2. A Correction on Wedin

A moderate Thinking-Model based upon Avempace would be more difficult for Wedin to accept, as his project is not modelled as closely after Alexander's interpretation of Aristotle as Caston's is. It would therefore constitute a more radical departure from Wedin's overall body of commitments. Most notably, Wedin does not subscribe to the view that the *nous poietikos* of *DA* 3.5 refers to the divine intellect of Aristotle's *Metaphysics*. He regards it instead as a facet of each individual human mind, alongside the material intellect.

That said, Wedin also does not belong to the camp of interpreters who'd attempted to marry the material intellect to the agent intellect in order to secure the holistic immortality of each individual human mind (i.e., Aquinas, Brentano). Quite the opposite, in fact. He argues vigorously that, despite the strong *prima facie* appearance to the contrary, the *nous poietikos* of *DA* 3.5 is *not* immortal.²¹⁵ He does this in order to *avoid* the conclusion—which might otherwise follow from his marriage of the two intellects—that the human mind is, as a whole, eternal, and capable of existing independently of the body. Recall that the express purpose of Wedin's project is to show, "...why [human] thinking is not, in any serious sense, divine" (Wedin, xi).²¹⁶ Recall also that Wedin's case for the inseparability of the human intellect had involved the conjunction of his view of the imagination as a functionally incomplete quasi-faculty which subserves the faculty of thought, with the conditional statement put forward by Aristotle in passage (c), to the effect that, if thought proves, "...to be impossible without imagination, it too requires a body as a condition of its existence." If the imagination really is only a functionally incomplete quasi-faculty and if it (therefore) subserves the rational faculty in the manner that Wedin describes, then this supports the second antecedent of passage (c)'s naturalistic conditional, that thought is dependent upon the imagination.

²¹⁴ Again, subtracting the bit about the material intellect attaining immortality through its conjunction with the agent intellect.

²¹⁵ His argument involves a number of steps. Firstly, he conceives of the agent intellect as a lower-level noetic subsystem, by appeal to which Aristotle seeks to explain the higher-order capabilities of the human mind (generalized in *DA* 3.4's description of thought). Next, he interprets Aristotle's apparent acknowledgement of the separability of the agent intellect as simply meaning that it is separable *by abstraction*. Finally, he explains away the alleged eternity of the agent intellect by drawing an analogy between it and mathematical objects, which (Aristotle says elsewhere), though they are not extensionally separate and changeless, can be considered as if they were.

²¹⁶ He remarks, in the preface to his book, that, "Providing Aristotle with a thoroughly naturalistic account of the soul's operations is recommended by his characterization of psychology as a part of physics (Wedin, xii).

But there are a number of internal problems with this narrative, which I believe could be resolved rather handily by adopting a moderate Thinking-Model based upon Avempace's theory of the material intellect. Moreover, this would *not* require us to sacrifice the bottom-line of Wedin's project, that the human mind is not divine. To the contrary, it might even have the effect of reinforcing Wedin's bottom-line.

Firstly, as I had established in my third chapter, Wedin is incorrect about *phantasia* not being a functionally complete faculty. This wouldn't necessarily undermine his claim about the type of subservience relation that obtains between the imagination and the rational faculty (though he does present this as a consequence of the imagination's functional incompleteness), because there is no contradiction between saying that the imagination is functionally complete, and that it subserves the rational faculty in the manner specified by Wedin; images can still appear as simple terms in propositional complexes articulated by the rational faculty, even if they also sometimes appear on their own in free-standing imaginative acts. Still, the notion that the imagination is functionally incomplete constitutes a minor inaccuracy in Wedin's position, which a moderate Thinking-Model rooted in Avempace's theory would help to resolve, since Avempace correctly treats the imagination as a fully-fledged, functionally complete faculty.

Secondly, even if we retain Wedin's claim about the type of subservience relation that obtains between the imagination and the rational faculty, this still will not provide a sufficiently robust demonstration of the mind's dependence upon the imagination to guarantee the consequent of passage (c)'s naturalistic conditional; and it seems to me that a moderate Thinking-Model based on Avempace would be of some help here, too. But in order to better understand how Wedin's narrative falls short in this respect (and how a moderate Thinking-Model based on Avempace would constitute an improvement), it might be helpful to elaborate on the various meanings that might be ascribed to the term "subservience" in this context, and attempt to situate Wedin's specific conception of the subservience relation that obtains between imagination and thought within this broader theoretical framework.

The claim that *imagination subserves thought* admits of at least two basic interpretations, only one of which would really do the work that Wedin's project requires of it. The first of these would treat the claim as an application of the Aristotelian principle that the possession of the higher psychic faculties presupposes the possession of the lower ones but not vice versa.²¹⁷ Interpreted in this manner, the claim that imagination subserves thought would simply entail that thought could never have arisen in an organism that was not at least sophisticated enough to possess imagination (in addition to perception and nutrition/growth). But of course, this claim—and the general principle from which it is derived—is primarily a claim about the generation and development of an organism's mortal, embodied life, and doesn't necessarily speak to the question at hand; namely, whether the intellectual soul mightn't be uniquely capable of persisting *in a post-mortem state*. Unless one is assuming from the outset that no

²¹⁷ i.e. Plants possess only the nutritive.

soul or part thereof can persist following the of the death of body—which would be question-begging in Wedin’s case, since this is precisely the conclusion that he is attempting to motivate with his claim that imagination subserves thought²¹⁸—this weak conception of subservience will not be sufficient to establish the mind’s dependence on the body.

To reach the desired conclusion more responsibly, one would need to adopt a second, more robust interpretation of subservience, which specifies a causal relationship that necessarily obtains between *each individual thought act* and a previously acquired image, thereby providing an explanation as to *why* the rational faculty could not be separated from the imagination, even in a post-mortem state. Interpreted in this stronger sense, the claim that imagination subserves thought would give us a *concrete reason* for concluding that there is no serious sense in which the faculty of thought can be said to enjoy post-mortem longevity; if every individual thought act is causally dependent upon a previously acquired image, and if the capacity for acquiring and retaining images ceases at the moment of bodily death, then there can be no post-mortem thought acts. And if there can be no post-mortem thought acts, then one struggles to imagine any meaningful sense in which the mind can be said to persist after death.

Now, as we have seen above in the second chapter, Alexander had also sought to establish the mind’s dependence upon the body. And in his defense of this position, he’d begun by postulating a weak subservience relation between the nutritive faculty and the perceptual faculty (i.e., “nothing can perform a sensory act without being nourished”),²¹⁹ before going on to postulate a strong subservience relation between the perceptual faculty and the imaginative faculty (i.e., “the imaginative faculty has as the object of its activity and function residual impressions produced by sensible objects”).²²⁰ Given the trajectory of this argumentative strategy, one might have expected Alexander to clinch his case for the dependence of the mind upon the body by arguing that, just as each individual imaginative act is caused and informed by a prior sensory stimulation, so too, each individual thought act is causally undergirded by a previously imprinted phantasm (i.e. strong subservience).

Instead, he drops the language of subservience at this point, and pivots to another argumentative strategy, which underscores conceptual difficulties with the notion that a given soul might consist of separable parts. The theme of imagination subserving thought does re-

²¹⁸ i.e., He’s attempting to demonstrate that the intellect is no exception to the rule that souls are inseparable from their corresponding bodies, by deploying his subservience hypothesis in order to satisfy the second antecedent of passage (c)’s naturalistic conditional, which states that if thought is dependent upon the imagination, then it too will require a body as a condition of its existence.

²¹⁹ This qualifies as a *weak* subservience relation because Alexander is not suggesting that each discrete perceptual act is causally undergirded by a discrete nutritive act. He’s simply saying that an organism must be at least sophisticated enough to take nourishment (viz. it must be an organism in the first place) in order to also be an organism that perceives.

²²⁰ This qualifies as a *strong* subservience-relation because Alexander is specifying a one-to-one causal relation between *each individual* imaginative act and a prior sensory act.

emerge in Alexander's broader account of the origin of the material intellect²²¹ as resulting from the coalescence of the other, lower formal powers. However, while this theory does satisfy the requirements of weak subservience,²²² it falls short of the strong conception of subservience, because it does not posit any sort of one-to-one causal relationship between individual thought acts and previously acquired images; recall that Alexander had described the material intellect as a disposition inhering in the soul or the human subject more broadly, rather than specifically in the contents of the imaginative faculty (which would have entailed a one-to-one causal relationship between images and individual thought acts). Recall also that—largely as a result of this move—he'd struggled to square the functional incorporeality of the human intellect with its dependence upon the body.

The question, then, is whether Wedin's conception of the subservience relation between imagination and thought fares any better than Alexander's. The answer is: somewhat, but not significantly. He does attest to the involvement of images in individual thought acts, and so his conception of the subservience relation between imagination and thought does—unlike Alexander's—at least *attempt* to advance beyond the weak subservience hypothesis to the strong one. However, his efforts are hampered by the following two problems:

Firstly, Wedin seems unable to assure us that the causal role that he assigns to images in thought-acts applies to *all* kinds of thought-act. Recall that on Wedin's view of the subservience relation between imagination and thought (or at least the most charitable rendering of it),²²³ images pick out the particular referents of propositional complexes which make references to particular substances (i.e., "this is drink"). And in so doing, they supposedly serve as a necessary condition for the mind's ability to affirm the pivotal premise in a chain of propositional reasoning leading to the conclusion that one will perform the action of drinking. But even if we accept this explanation as to why deliberative action relies on images, Wedin's subservience hypothesis still does not provide us with any insight as to why acts of propositional reasoning in more theoretical domains require images, since many of these contain no references to any concrete particulars. Nor does it strike me as a particularly helpful strategy for making sense of the role that images play in simpler types of thought-act, such as the grasping of essences, since these make no direct reference to concrete particulars, either. In short, then, Wedin's conception of the subservience relation between imagination and thought is simply too specific to be applicable to *all* the various kinds of thought act.

Secondly, it is not at all clear that we should accept Wedin's explanation as to why images constitute a *necessary* condition, even for acts of propositional reasoning within the domain of

²²¹ Which, it bears repeating, is the only kind of intellect that is authentically human for Alexander.

²²² In that the imaginative faculty contributes something to the coalescence from which the material intellect arises, thereby warranting the claim that an organism must be at least sophisticated enough to possess imagination (in addition to perception and nutrition) in order to be an organism that thinks.

²²³ i.e., Once having been corrected on his erroneous claim that there are no images of sensible substances, but only of special and common sensibles.

conduct. Granted, Wedin's subservience hypothesis is an elegant way of avoiding passage (gg)'s implausible *prima facie* suggestion that the imagination literally articulates propositional judgments about particular objects, while still retaining a softened sense in which the imagination can be credited with "saying" something to us about them. Moreover, passage (gg) does indeed appear to indicate that this "saying" at least sometimes plays a decisive role in the completion of propositional thought-acts within the domain of conduct.²²⁴ But the trouble is that the role that passage (gg) assigns to the imagination's "saying" is not an indispensable one, but rather, an auxiliary one. The passage states that imagination *or thought* may affirm the pivotal premise in a chain of propositional reasoning leading to the conclusion that one will perform the action of drinking,²²⁵ and that when the imagination does this, it is serving as a substitute for thought.²²⁶ This implies that, under ordinary circumstances, the mind is capable of doing this on its own. Which, if Wedin is correct about the limited sense in which the imagination "says" *this is drink* (when it does so), must mean that under ordinary circumstances, the mind itself is capable of picking out the particular referent of such a proposition.²²⁷

Much of this is corroborated by Mika Perälä, in "Aristotle on Singular Thought" (2015). Here, Perälä argues that, on Aristotle's view, the mind itself can "...[grasp] the singular item...in its own right" (Perälä, 365) and that this direct intellectual awareness of individuals serves, "...to determine the reference for composite thought" (Perälä, 373). Or, in other words, that the mind itself is able to "pick out" the individual items²²⁸ about which it will make assertions and denials.

That said, Perälä's broader discussion of "singular thought" is hardly free of difficulties. He errs, I think, in that he attempts to explain the necessity of this properly intellectual awareness of particulars by arguing that *phantasia* alone, "...is insufficient to determine which item the intellect picks out in making an assertion or a denial" (Perälä, 367). This is essentially the inverse of the mistake that Wedin had made with respect to passage (gg), and it fails to capture

²²⁴ Recall, from the third chapter, that passages (hh) and (ii) also credited the imagination with picking out the particular objects about which the mind will deliberate in the absence of direct sensory-experience.

²²⁵ Recall that passage (hh) had also allowed that "images or thoughts" are capable of picking out the particular objects about which the autonomous mind deliberates. Passage (ii) omits the caveat about thought being able to do so, but is otherwise making the same point as passage (hh). We can perhaps chalk the omission up to carelessness on Aristotle's part, given that passage (ii) is the outlier in this regard. In this case, passage (ii)'s claim that "the soul never thinks without an image" would mean something a bit broader—that the soul never thinks without a representation of the particular object about which it is deliberating, which can be provided either by the imaginative faculty or the mind itself.

²²⁶ In the specific context of passage (gg), Aristotle seems to have in mind situations in which the mind fails, out of simple hastiness, to really pause and consider the pivotal premise. But we might also include cases of *akratic* action, in which the mind's ability to do so has been impeded by a passion.

²²⁷ Perhaps, then, a part of Lowe's mistake had been to identify *both* images *and* thoughts (of particulars) as direct prerequisites for autonomous thought-forms. Perhaps he ought instead to have identified the disjunct of *either* images *or* thoughts of particulars as the prerequisite for autonomous thought.

²²⁸ Perälä clarifies that this "picking out" is itself "non-descriptive, i.e. non-predicative," but that it can be incorporated into predicative statements.

the nuance of the passage in just the same way. Whereas Wedin had overlooked passage (gg)'s affirmation of the mind's ability to pick out singular objects, Perälä overlooks its affirmation of the imagination's ability to do so. But passage (gg) plainly credits the imagination with "saying" *this is drink*; and while we have seen that this cannot be interpreted as indicating that the imagination itself literally articulates propositional judgements, it must, at the very least, be interpreted as indicating that the imagination is capable of picking out a "this." Otherwise, numerous other passages that we've encountered already—including passages (hh) and (ii), both of which suggest that the mind can make assertions and denials *about images*, as well as passage (m), which explains memory *of particulars* as a function of the imagination—would be rendered all but unintelligible. As would Aristotle's numerous indications—in passages like (f), (i), and (j)—that the imagination governs the actions of nonhuman animals by activating their faculties of desire (imagination can hardly specify an object of desire if it specifies no object at all).

Perälä also errs in that his conception of this "singular" thought is just a touch too similar to Lowe's conception of "apprehensive" thought. This manifests in a number of ways. For one thing, Perälä concedes that the intellectual grasping of individual objects will (like perception of individual objects) involve the grasping of universal formal qualities that those objects exhibit, but he resists Wedin's assertion that therefore, the mind would *really* only be grasping at the universals.²²⁹ Instead, he argues that "...the ultimate causal power [i.e. the primary object of apprehension] would be *the individual* insofar as it has form...not the form in its own right" (Perälä, 363). The idea being that even if there is a sense in which our intellectual awareness of particular objects involves universals, the universality in question will still be distinguishable from the pure universality of essences, by virtue of its being to some extent individuated. Which is an observation that I had made on Lowe's behalf, while attempting to anticipate how he might respond to Wedin's assertion that apprehensive thought would really only be about universals.

Granted, this alone is not sufficient to establish that Perälä's "singular thought" refers to the same phenomenon to which Lowe affixes the label "apprehensive thought." What *really* lends it that impression is Perälä's additional claim that "Aristotle does not assume that forming such a thought [i.e. a singular thought] requires knowledge *of the kind*²³⁰ in question" (Perälä, 362). By which he appears to mean that the mind's apprehension of singular items does not presuppose any familiarity with the corresponding essences—or, in other words, that it doesn't entail any genuine *understanding* of why the object in question is an exemplar of the kind of object that it is. This is precisely the same observation that I had made concerning Lowe's apprehensive

²²⁹Note that if Wedin's assertion were correct, then this would support his contention that imagination is always required to pick out the particular objects referenced in the pivotal premises of acts of reasoning in the domain of conduct, since in this case there could be no properly intellectual awareness of particulars.

²³⁰ My italics.

thought in Ch. 3.4.2, while drawing out the implications of his claim that apprehensive thought precedes and enables the mind's distillation of essences via abstraction.

But if Perälä does indeed conceptualize singular thought in the same way that Lowe conceptualizes apprehensive thought, then he will inherit all of the difficulties that accrue to Lowe's conception of apprehensive thought, which I'd cited in the closing section of my third chapter, as motivating my decision to recast apprehensive thought as being synonymous with the distillation of essences directly from images of particulars. Of course, if we were to apply this same solution to Perälä's "singular thought," it would undercut his central claim, that the mind itself is capable of picking out the particular objects about which it will make assertions and denials, as passage (gg)²³¹ appear to indicate. It might therefore be wise to reconceptualize "singular thought" slightly, as something which succeeds and is made possible by (my modified conception of) apprehensive thought, and which therefore *can* be said to entail a prior familiarity with the essence in question.

Such a reconceptualization of singular thought, when combined with my prior reconceptualization of apprehensive thought, would make for a very clean narrative, which not only accommodates passage (gg)'s²³² claim that the mind itself can pick out individual objects while carrying out acts of propositional reasoning within the domain of conduct, but which also situates this claim coherently within the broader framework established by passage (r), according to which apprehensive thought is a precondition for autonomous thought. The idea would be that the imagination makes us privy to representations of particular objects and enables us to retain them. From those retained representations, the mind is then able to distill the essences exemplified by the represented objects (i.e., engage in apprehensive thought), after which point the mind is then enabled to pick out and recognize a particular object as being of the kind that it is, and with a genuine understanding of *why* it is an exemplar of the kind that it is.²³³ This fully informed intellectual awareness of the particular object may then be incorporated into a chain of propositional reasoning in the domain of conduct (which we know to be a species of autonomous thought); though, of course, if the mind for whatever reason fails to take this additional step, the imagination can fill in and approximate it, however

²³¹ And passage (hh)

²³² And passage (hh)'s

²³³ The picture I am painting here is rather similar to the Thomistic notion of reflective apprehension of concrete particulars. As James B South (1996) tell us, Aquinas—in works like the *Commentary on the Sentences*, *Disputed Questions on Truth*, and the *Summa Theologiae*—argues that the intellect can only have direct knowledge of universals. However, he does allow that the intellect might still come to know particulars, "Indirectly...by a kind of reflection (*reflexio*)" (93). On South's telling, this reflection involves the mind's returning to that, "...from which the intelligible species is abstracted." However, on the Thomistic reading, this does *not* mean that direct knowledge of universals is temporally prior to the indirect knowledge of particulars. Rather these are two terms to the same cognitive act. The direct act terminates in the universal while the indirect act terminates in the singular" (96). I might be inclined to differ in this regard.

imperfectly.²³⁴ To summarize, then, we have found that Wedin’s particular conception of the subservience relation between the imagination and thought is ill-equipped to explain why thought acts falling outside of the subcategory of deliberative action should be reliant upon the imagination, and that furthermore, even thought-acts falling within this subcategory needn’t *necessarily* require images to fill the role that Wedin’s subservience hypothesis assigns to them, since we have good textual evidence (backed by a slightly modified understanding of Perälä’s “singular thought”) indicating that the mind is capable of filling this role itself—and that it typically does. This being the case, Wedin’s subservience hypothesis just doesn’t provide us with a sufficiently robust satisfaction of passage (c)’s second antecedent to warrant his desired conclusion, that thought simpliciter requires a body as a condition of its existence.

How, then, would my moderate Thinking-Model based upon Avempace’s theory of the material intellect constitute an improvement? Principally, in that the subservience relation that it postulates between the imagination and the rational faculty does not rely on the notion that images pick out the particular referents of propositional complexes.²³⁵ Recall that Wedin’s reliance on this notion had undermined his ability to unpack the causal relation between the imagination and various kinds of thought act which do not make any direct references to particular objects. These included, most notably, the grasping of essences via abstraction (i.e., apprehensive thought). Avempace, by contrast, offers us a clear answer as to the causal relation between images and acts of apprehensive thought: the formal content of images serves as the “material” cause for the generation of learned thoughts, which themselves come into being as a result of a noetic transformation²³⁶ undergone by those images. Moreover—unlike Wedin’s account of the role played by images in acts of propositional reasoning within the domain of conduct—Avempace’s view is equipped to explain why the contribution that the imaginative faculty makes to apprehensive thought is a *necessary* one: since abstraction is a generative process, it will naturally require a material cause, just like any other generative process.

²³⁴ This all coheres rather nicely with Aristotle’s account of akratic action in *EN* 7.3. Recall that Aristotle had described akratic action as a sort of disruption of one’s propositional reasoning capabilities by a bout of passion, which prevents one from ever reaching the correct conclusion about what ought to be done in a given situation, specifically by inhibiting the mind’s ability to affirm the particular premise (i.e. “this food here is such and such”). On my view, the passion exerts this effect, not by completely snuffing out the mind’s ability to articulate a propositional judgement about a particular substance (otherwise, why should the mind be able to articulate the other, universal propositions, whose combination with the particular premise results in the action?), but by impeding its ability to pick out the referent of that proposition via singular thought. When this happens, the imagination steps into its role as the auxiliary means by which the referent is picked out. But because imagination is not informed by any prior awareness of the relevant essence (as singular thought is), it will be subject to a degree of error, to which singular thought is not. Hence why we are prone to arriving at the wrong conclusion in such circumstances.

²³⁵ Though it doesn’t necessarily rule out the possibility that images can do this.

²³⁶ Initiated by the agent intellect.

One potential objection that critics might raise at this point would be that although Avempace's position does offer us a good explanation as to why the imagination makes a necessary contribution to our ability to grasp essences via apprehensive thought, this explanation is not applicable to acts of propositional reasoning—either in the domain of conduct or in the theoretical domain—since neither of these types of thought act can be said to be causally undergirded by images in the same way that the learned thoughts of the apprehensive mind are (otherwise, they'd be indistinguishable from acts of apprehensive thought). This would seem to leave me with no explanation as to why either of these two types of propositional reasoning is reliant upon the imagination, meaning that—just like Wedin's position—my Avempace-inspired moderate Thinking Model really only accounts for the reliance of one kind of thought-act upon the imagination. So that, *really*, I am no better situated than Wedin was to round out the strong subservience relation that would be required to give us a truly robust affirmation of the second antecedent of passage (c)'s naturalistic conditional, that thought is reliant upon the imagination.

My response to this objection is twofold: firstly, even were we to grant that my Avempace-inspired moderate Thinking Model is incapable of explaining why acts of propositional reasoning within the domain of conduct and within the theoretical domain are reliant upon the imagination, it would still have a slight advantage over Wedin's position, at least in that it establishes that the imagination makes a necessary contribution to apprehensive thought (whereas Wedin had only been able to establish that the imagination makes an *auxiliary* contribution to deliberative action). But secondly—and more importantly—while it may be true that neither acts of propositional reasoning within the domain conduct nor within the theoretical domain can be said to be causally undergirded by images in the same manner that our apprehension of essences is according to Avempace, this does *not* mean that Avempace's position is totally powerless to account for the reliance of these types of thought act upon the imagination. Both fall within the category of autonomous thought, which we know—based on passage (r)—to be causally dependent upon apprehensive thought, which itself is (according to Avempace) directly reliant upon the imaginative faculty for its “material” cause. Which means that, on Avempace's view, the imagination makes an *indirect* (but no less necessary) causal contribution to the various forms of propositional reasoning. It is by virtue of his focused exegesis of the dependence relation between the imagination and the *most basic, foundational* form of thought, that Avempace (unlike Wedin) is able to guarantee the dependence of all forms of thought upon the imagination.

Nor should the indirectness of the dependence relation that Avempace posits between the imagination and autonomous thought forms be regarded as diminishing the strength of the subservience relation that holds between them. While neither of these types of thought act may make any direct use of images in the articulation and affirmation of any of their premises

(at least not necessarily)²³⁷ it still remains possible to trace any universal terms that they do make use of back to the imaginative representations of particulars, from which they were derived. The Avempacean view therefore retains the notion of a causal correspondence between *discrete* autonomous thought acts and *discrete* imaginative acts (albeit at one step removed).²³⁸ This is still a much more finely-tuned conception of the subservience relation between the imaginative and rational faculties than the one posited by Alexander (according to which thought is a disposition inhering in the human subject more broadly, rather than specifically in the contents of the imaginative faculty).

This should suffice to illustrate that my moderate Thinking-Model based upon Avempace's theory of the material intellect improves significantly upon Wedin's position, as a means of establishing the sort of strong subservience relation between imagination and thought, that would be required to give us a truly robust satisfaction of the second antecedent of passage (c)'s naturalistic conditional, that thought is dependent upon the imagination. And this alone should be sufficient to illustrate that my moderate Thinking-Model succeeds where Wedin's position had failed in attempting to establish that, for Aristotle, human thought (simpliciter) requires a body as a condition for its existence. However, for good measure, I will highlight one additional sense in which a moderate Thinking-Model based upon Avempace would provide a more robust fulfillment of passage (c)'s naturalistic conditional than Wedin's position was able to. Recall, from our discussion in Chapters 1 and 3, that the scenario we've just been discussing (in which thought turns out to be dependent upon the imagination) is the second of *two* possible scenarios entertained by passage (c)'s naturalistic conditional, under which thought would require a body as a condition for its existence—the first being a scenario in which thought turns out to be a form of imagination. Recall also that Wedin had dismissed the idea that Aristotle had given any serious consideration to this first eventuality, arguing instead (via the notion of subservience) that he had only affirmed the second.

But I would urge that the two antecedent scenarios entertained in passage (c) are not mutually exclusive,²³⁹ and that, in addition to providing a robust satisfaction of Scenario 2 (for the reasons I've just finished unpacking) the moderate Thinking-Model based upon Avempace's position would also provide us with at least a partial satisfaction of Scenario 1. As I had noted in my first chapter, the claim that thought is a kind of imagination is effectively equivalent to the claim that imagination is sometimes a kind of thought. And as I had noted at the beginning of

²³⁷ My Avempacean thinking model does not deny that images may affirm the pivotal premise of a chain of propositional reasoning within the domain of conduct, when the mind fails to do so.

²³⁸ This holds even with instances of singular thought, in which the mind itself, rather than the imagination, picks out the particular referent of the pivotal premise in a chain of propositional reasoning within the domain of conduct. Recall that on our revised conception of singular thought, this properly intellectual awareness of the individual qualifies as genuine understanding, because it is informed by a prior apprehension of the essence that that object exemplifies. And this prior apprehension of the corresponding essence would have come about as the result of a noetic transformation undergone by the forms of the imaginative faculty.

²³⁹ I'd mentioned this above, in the final section of my second chapter.

this chapter, a moderate Thinking Model which treats the formal aspect of images as the “material” cause for the generation of apprehended thoughts does specify a context in which images are capable of becoming a kind of thought (namely, apprehensive thought). In other words, apprehended thoughts can, on the Avempacean account, be coherently regarded as (in a sense) a kind of imagination.

Granted, the same cannot be said of autonomous thought forms, since these cannot be said to be directly undergirded by images in the same way that the learned thoughts of the apprehensive mind are.²⁴⁰ Nevertheless, we still have—in apprehensive thought—one example of a species of thought-act which, when conceptualized in accordance with Avempace’s theory of the material intellect, satisfies *both* of the antecedent scenarios entertained by passage (c)’s naturalistic conditional. And of course, as we have seen already, the dependence relation between the imagination and apprehensive thought (i.e., Scenario 2) carries over to autonomous thought-forms, by virtue of the principle of transitivity. The upshot is that on the Avempacean account, one form of thought (i.e., apprehensive thought) satisfies both of the antecedent scenarios entertained by passage (c)’s naturalistic conditional, and all forms of thought (i.e., both apprehensive and autonomous thought forms) satisfy the second scenario. Whereas on Wedin’s account, neither of the two scenarios entertained by passage (c)’s naturalistic conditional is satisfied by any kind of thought.

4.4.3. A Correction on Averroes

As I discussed earlier in this chapter, Averroes, in his early writings, subscribed to Avempace’s position that the material intellect is a disposition residing in the spiritual forms²⁴¹ of the activated imaginative faculty. However, he would grow suspicious of this position during his middle period and would go on to reject it in his mature period, in favor of the position laid out in his *Long Commentary*, that the material intellect is a single, independent substance to which all human beings have shared but individuated access, by virtue of the connection forged between the material intellect and each of their individual imaginative faculties.

This move constitutes a total abandonment of the project which Avempace (following Alexander) had been engaged in, and which Caston and Wedin have attempted to revive—namely, the project of advancing a naturalistic reading of the material intellect. Whereas all of these commentators had been attempting to square Aristotle’s insistence upon the functional incorporeality of the material intellect with the premise that it, like all the other psychic faculties, is dependent upon the body, Averroes’ mature position treats the material intellect as

²⁴⁰ Meaning that they cannot be said to have come about as a direct result of images having undergone a sort of noetic transformation. Or, in other words, that they cannot be coherently described as a kind of imagination.

²⁴¹ Or “soul forms,” as he called them.

an eternal non-composite substance, which, though it is involved in each individual human's acts of cogitation, is not, strictly speaking, a part of any human soul at all.²⁴²

Now, Davidson provides a critical appraisal of the development of Averroes' thought, from his earlier, Avempace-inspired period, through to his mature position. Of Averroes' early position, Davidson notes with approval that, "It plainly...captures Aristotle's spirit when it opts for the naturalistic account of the human material intellect" (Davidson, 353). However, Davidson also points out that the early position, "...adds to Aristotle when it affirms the possibility of conjunction with the active intellect" (Davidson, 353). Clearly, then, Davidson regards the notion that the material intellect is capable of becoming conjoined with the agent intellect as something which cannot be found in Aristotle, and which is therefore an embellishment on Averroes' (or Avempace's) part.

This embellishment would, according to Davidson, prove to be the impetus for Averroes' gradual loss of faith in the project of interpreting the material intellect in a naturalistic way. The idea here seems to be that, as Averroes became more and more committed to the idea that the material intellect is capable of conjoining with the active intellect, he began to dwell more and more on the question of whether, "...a generated-destructible material intellect could...conceivably conjoin with an eternal active intellect" (Davidson, 355). His decision was that it ultimately could not.²⁴³ Hence, Averroes "abandons the earlier naturalistic conception of the human material intellect" (Davidson, 356), and, in its place, erects the aforementioned conception of the material intellect as "a single transcendent entity serving all mankind." (Davidson, 356)

Davidson's assessment of Averroes' mature view is that it, "...transforms the material intellect into something *wholly un-Aristotelian*," (Davidson, 356) and that, "Averroes should have dropped the experimental position, [and] returned to his original naturalistic construction of the material intellect" (Davidson, 355). The bottom line of Davidson's analysis therefore appears to be that Averroes' abandonment of his earlier, Avempace-inspired position on the material intellect was a mistake on his part.²⁴⁴ It is, however, a mistake which my Avempace-inspired moderate Thinking-Model is equipped to rectify. However, since the nature of

²⁴² Nor, therefore, is it dependent upon any bodily structure.

²⁴³ According to Davidson, the seed of this doubt was planted in Averroes' mind early on, by his reading of Alfarabi: "Whereas Averroes' earlier works devised stratagems to evade Alfarabi's challenge, the Long Commentary on the *De anima* concedes that Alfarabi's reasoning was watertight after all: 'Anyone who assumes the material intellect to be generated-destructible can, it seems to me, discover no natural way for man to conjoin with the incorporeal intelligences'" (Davidson, 331).

²⁴⁴ Here, then, is our motivation for excluding from our moderate Thinking-Model Avempace's claim about the human intellect attaining immortality through its conjunction with the agent intellect. Firstly, this premise is not supported by the primary texts. Secondly, it turns out to be incompatible with his conception of the material intellect as a disposition. And to drop the dispositional view in favor of Averroes' mature conception of the material intellect leads to a transparently un-Aristotelian conclusion.

Averroes' mistake is quite different from that of Caston or Wedin, my moderate Thinking-Model will offer him a different sort of solution than it offered to either of them.

The difficulty with Caston's Alexandrian reading had to do with his inability to square his view of material intellect as a disposition inhering in the soul (broadly construed) with its functional incorporeality, without appealing to any principle which, by virtue of its mutual applicability to the other, more rudimentary psychic faculties, would require us to extend the functional incorporeality of the intellect downward to all of those other psychic faculties as well. Or in other words, it had to do with his inability to account for the material intellect's supposed uniqueness among the psychic faculties (as being functionally incorporeal), from within the confines of his Alexandrian dispositional reading. My Avempace-inspired moderate Thinking-Model had succeeded in this regard, by recasting the material intellect as a disposition inhering specifically within the intermediate "spiritual forms" of the activated imaginative faculty, rather than in the human soul or subject more generally. As for Wedin's linguistic subservience hypothesis, it had proved incapable of establishing a sufficiently robust subservience relationship between the imagination and the rational faculty to satisfy the second antecedent of passage (c)'s naturalistic conditional, that thought is dependent upon the imagination. My Avempace-inspired moderate Thinking Model had succeeded in this regard too, by designating the spiritual forms of the imaginative faculty as the material cause for the generation of the most basic kind of thought (i.e., apprehensive thought), thereby guaranteeing that all the other kinds of thought (i.e., autonomous thought-forms) would be indirectly dependent upon the imagination as well.

In contrast with the shortcomings of Caston and Wedin—which were internal (though not inherent) to their project of advancing a naturalistic reading of the material intellect—Averroes' mistake was to abandon that project entirely. Thus, by attempting to return him to his roots in Avempace, my moderate Thinking Model of Imagination serves for Averroes less as a fine-tuning correction than as a course-correction. Moreover, by discarding Avempace's claim about the material intellect attaining immortality through its conjunction with the agent intellect, my moderate Thinking-Model also removes the impetus for Averroes' erroneous abandonment of the view that the material intellect is a disposition.

4.4.4. A Correction on My Own Past Research

Another, more personal, benefit of my Avempace-inspired moderate Thinking-Model is that it will serve as a correction on my own past research. In my master's thesis *Matter, Extension and Intellect in Aristotle* (2012), I had appealed to Aristotle's treatment of human thought as an explicable phenomenon,²⁴⁵ as well as his comparison of the mind's operation to that of the

²⁴⁵ In *Met.* 7.17, Aristotle claims that meaningful inquiry cannot ask why a thing is itself but must instead ask why something is predicated of something else. From this, Robert Sokolowski (1971) derived the conclusion that only

perceptual faculty in *DA* 3.4, in order to motivate the premise that the first actualization of the faculty of thought requires an internal material cause, just as the second actualization of the perceptual faculty does. However, I had also pointed out that this analogy is upset by the fact that, whereas Aristotle treats the perceptual faculty as a network of sensory powers embedded in bodily organs,²⁴⁶ he argues vigorously in *DA* 3.4 that the intellectual power cannot be regarded as being blended with the body. As a consequence of this asymmetry between the two faculties, we are unable to designate any bodily organ as the material cause of thought as we'd been able to do in the case of perception, because there simply is no bodily organ associated with thought. And yet our explanation of the mechanics of thought still requires a material substrate.

My answer to this problem was that we should designate the intellect itself as the material substrate for its own actualization²⁴⁷—the upshot being that Aristotle believed in an incorporeal²⁴⁸ species of matter; a conclusion which I took to be significant, in that it contradicted the position held by such commentators as S. Cohen (1984) and Robert Sokolowski (1970), that Aristotle was essentially a Cartesian with respect to his view of matter.²⁴⁹ The main takeaway of my master's thesis was therefore that Aristotle was not in fact a Cartesian with respect to his view of matter.

The main criticism from my examiners was that although I had provided a compelling defense of this position, I'd still made Aristotle into a Cartesian in another important respect: namely, in that, by treating the intellect as an incorporeal *subject*, I seemed to have committed myself to the view that Aristotle subscribed to a strong form of dualism, not unlike the one championed by Descartes, with respect to the human intellect. And that although such a reading of Aristotle is not totally indefensible, it is still fraught with difficulties.²⁵⁰

My Avempcean moderate Thinking-Model avoids this unintended consequence of my earlier project, while still retaining the key elements of its overall contribution. Its key elements were, again, (i) the idea that thought in its first actuality involves some sort of an alteration in a material substrate, and (ii) the idea that this substrate is incorporeal.

The central assertion of my moderate Thinking-Model—i.e. that the “spiritual forms” of the activated imaginative faculty serve as the substrate for the generation of learned thoughts—fulfills both of these premises, and the two, taken together, preserve my earlier thesis' point

materially composed things, “...call for an explanation of how they appear” (O'Hara, 56). On the basis of these considerations, I'd inferred that if human thought is explicable at all on Aristotle's view (which it appears to be), then it must have a material cause of some sort.

²⁴⁶ Recall his description of each sense as “a certain form or power in a magnitude,” in *DA* 2.12.

²⁴⁷ Small, M. “Matter, Extension and Intellect in Aristotle” (2012): pg. 60-61.

²⁴⁸ That is, unextended.

²⁴⁹ Meaning that Aristotle regarded spatial extension as an essential attribute of matter.

²⁵⁰ i.e. The bulk of evidence suggesting that Aristotle's definition of soul was a naturalistic one, his claim that thought depends upon images, the conditional from *DA* 1.1 stating that if thought is dependent upon images, then it will be inseparable from the body...etc.

about extension not being an essential attribute of matter for Aristotle.²⁵¹ However, by treating the intellect as a *disposition* inhering in the substrate whose alteration gives rise to learned thoughts (rather than making it the substrate for its own actualization), my moderate Thinking-Model is able to avoid the implication of my earlier project, that the intellect is an incorporeal *subject*. It therefore does not carry with it the unintended dualistic connotations that my previous work did.

This not only absolves me of the awkward task of having to defend a strongly dualistic interpretation of Aristotle in the face of all the textual evidence suggesting that he held a naturalistic view of the human soul. But it also enables me to advance my earlier thesis with much more consistency than I was able to in my master's project. Aristotle was no Cartesian, either with respect to his position on the intrinsic nature of matter, *nor* with respect to his position on the human intellect.

4.5. Objections

4.5.1. What to do with GA 2.3 (736b26-28)?

There is another passage external to Aristotle's *DA* discussion, which might potentially make trouble for the entire naturalistic project, to which I am offering my moderate Thinking-Model as a corrective contribution. I am referring here to Aristotle's reference to an intellect "from without" (*thyrathen*), in *GA* 2.3. The pertinent section of this book poses a "question of the greatest difficulty, which we must strive to solve to the best of our ability and as far as possible" (736b-4-6). The question is "When and how and whence is a share in reason acquired by those animals that participate in this principle?" (736b6-7)

A great deal of what Aristotle has to say in the first half of this chapter might lead us to suspect that he would want to answer that the rational power is already present (as a potentiality) in the embryo from the moment of its conception, and that it makes its presence known gradually, as the embryo develops into a fully-formed adult human being.²⁵² For example, his first observation, after posing the question of the intellect's origin, is that embryos which have been separated from their mother appear to live the life of a plant, and that from this, it follows that the nutritive soul must have already been present (as a potentiality) prior to the embryo's separation from the mother. He then speculates that, "...we must be guided by this in speaking of the sensitive and the rational soul" (736b12).

²⁵¹ Recall that on Avempace's view, it is qua contents of the imaginative power that imaginative forms serve as the substrate for learned thoughts, and the imaginative power is not a magnitude.

²⁵² In accordance with passage (q).

It may come as something of a surprise, then, to find Aristotle apparently settling on the following answer with respect to the origin of the rational power, midway through the chapter:

(zz) It remains, then, for the reason alone so to enter [i.e. from outside] and alone to be divine, for no bodily activity has any connexion with the activity of reason (736b26-28).

Rather than confirming our expectations that Aristotle will endorse some sort of a bottom-up, naturalistic entrance of the rational soul, this remark seems, *prima facie* at least, to mirror his observation, from passage (ww), that the power of thought, "...seems to be a different kind of soul, differing as what is eternal [differs] from what is perishable" (413b25-27). As such, it seems to constitute evidence that Aristotle subscribed to a hard-dualistic view, at least with respect to the human intellect. If left unanswered, this would seriously undermine the naturalistic project endorsed by Wedin and Caston, which would also make trouble for my moderate Thinking-Model of Imagination, since I am recommending it as a contribution to that naturalistic project.

Wedin attempts to resolve the problem posed by passage (zz) by applying the same solution that he applies to the reference to a separable and eternal *nous poietikos*, in *DA* 3.5. For Wedin, the *nous poietikos* of *DA* 3.5 refers not to the divine intellect of the *Metaphysics* as Caston would have it, but to a facet of each individual human soul. Given, then, that Wedin endorses a naturalistic reading of Aristotle's account of the human soul, he is unable to interpret the alleged separability and eternality of *nous poietikos* in a literal sense, as Caston was able to do. Instead, he explains these as properties which can be attributed to *nous* when considered in abstraction from the hylomorphic body. We might say, in other words, that *nous poietikos* is, for Wedin, "separable only in thought," or merely "definitionally distinct" from the other faculties. This is, at best, a kind of nominal or nonliteral separability.

Setting aside the question of whether this is a plausible solution to the tension in the *DA* discussion, Wedin's case for its applicability to the *GA* 2.3 discussion is rather weak. In support of its supposed applicability, he points to the fact that a part of passage (zz) repeats the sentiment, for which Aristotle had argued so vigorously in *DA* 3.4, that, "no bodily activity has any connexion with the activity of reason" (736b28). The trouble with Wedin's case is that he mostly ignores the context in which this remark is repeated in the *GA* 2.3 discussion. Although Aristotle does indeed repeat his point about the functional incorporeality of the intellectual power in *GA* 2.3, his reasons for doing so in this context are completely different. Here, his purpose is not to argue *for* the functional incorporeality of the rational power,²⁵³ but to draw out the implications of its functional incorporeality, *vis a vis* the *origin* of the intellectual power. His apparent answer is that because the intellectual power is functionally incorporeal, it must

²⁵³ This is treated as having already been established, presumably during his discussion in the *DA*.

therefore enter “from outside,” as something divine. And it is difficult to imagine any sense in which this “entering from without” can be plausibly interpreted as signifying that the intellectual power is merely separable in abstraction.

Caston is more attentive to the context of the *GA* 2.3 discussion, and so he recognizes that the dualistic challenge posed by passage (zz) requires a different solution from the one that he had applied to the challenge posed by *DA* 3.5. To reiterate, Caston’s solution to *DA* 3.5’s *nous poietikos* was that it referred not to any facet of the individual human mind,²⁵⁴ but rather to the divine intellect of the *Metaphysics*. This solution is inapplicable to the tension in *GA* 2.3, because in this chapter, Aristotle is clearly *not* engaged in the sort of taxonomical exercise²⁵⁵ that Caston attributes to him in the *DA*. His purpose in *GA* 2.3 is to account for the presence of the rational power *within a given human being*. Moreover, this chapter, unlike the *DA* discussion, does not distinguish between a passive, perishable *nous* and an eternal, active *nous*. It refers to only one kind of *nous*, whose presence is supposed to account for a given human being’s ability to cogitate. The upshot of all of this is that, unless Caston would be comfortable committing himself to something akin to (the later) Averroes’ view that all human beings acquire their share in rationality through a communal connection to a single, independent intellectual substance—which he clearly wouldn’t be—he cannot interpret passage (zz)’s *nous thyrathen* as referring to the divine intellect of the *Metaphysics*.

It must therefore refer to the intellect of each individual human being. Which means that, in order to avoid passage (zz)’s apparent implication that each individual human intellect comes to reside in its corresponding human compound through something akin to theological implantation,²⁵⁶ Caston needs to find a way of construing the intellect’s supposed entrance “from outside” as meaning something other than that it has an origin external to the biological processes which give rise to the individual human organism. His alternative explanation is that what “from outside” means in this context is *having an origin external to the female’s embryonic contribution*. Which is to say that it comes from the male contribution (i.e. semen).

The complete picture is as follows: The human embryo is a hylomorphic compound just like any other hylomorphic compound. As such, it has two components: a formal one and a material one. The material one is provided by the mother at conception, and the formal one is provided by the father, contained within his semen. Most of our psychic faculties, in their first-actuality, result from the interaction between the material and formal components, since it is by means of this interaction that the requisite organs come to be properly formed. However, as Aristotle had argued so vigorously in *DA* 3.4, the activity of the intellectual power involves no bodily organ, and so it does not depend (directly, at any rate) upon the interaction between the formal component of the embryo and the material component. Rather, the embryo is endowed

²⁵⁴ Which he regards as having been exhaustively covered by Aristotle’s description of *nous dunamis*, in *DA* 3.4.

²⁵⁵ Devoted to enumerating the *kinds* of soul that exist throughout the Aristotelian cosmos.

²⁵⁶ Thereby salvaging his naturalistic interpretation of Aristotle’s view of the human soul.

with the capacity for first-order thought, solely by virtue of the formal component, which is provided by the father. Hence, “...it alone of all human abilities comes entirely from outside the mother” (Caston, 1999, 215).

This solution provides a far more satisfying account than Wedin was able to give of what Aristotle might have meant when he said that the rational power enters “from outside.” And since this solution makes no appeal to theological principles, construing the “entrance” of the rational power in biological terms instead, it seems to do the work that Caston’s naturalistic project requires. It also strikes me as a very strong solution in terms of textual defensibility. Immediately after posing the question of the rational principle’s origin (to which passage (zz) provides the answer), Aristotle actually specifies that, if it does enter “from outside,” then what this will mean is that it “com[es] into being in the male” (736b20). Which is to say, from *outside* of the mother.²⁵⁷

The only remaining loose-end would be that Caston requires some naturalistic account of Aristotle’s remark—in passage (zz)—that the rational power is alone among the psychic faculties, in being “divine.” This might seem like a rather tall order, given the explicit nature of Aristotle’s language (*theion*) in this passage. However, as Caston points out, there is some precedent in the *EN*, for interpreting the human intellect’s supposed “divinity” in a non-literal way. In *EN* 10.7, just after naming the life of contemplation as the “complete happiness of man,” he addresses an objection which points out that, because man is by nature a composite being, it seems inappropriate to designate the only non-composite activity in which he is capable of engaging as his final end and happiness. This seems to lead to a contradiction: namely, that the complete happiness of man is to live a life which is not really human at all, but rather, divine.

Aristotle answers that our composite nature must not be used as an excuse for restricting our scope of concern to “human” and “mortal” things. Rather, we must, “...so far as we can, make ourselves immortal, and strain every nerve to live in accordance with the best thing in us; for even if it be small in bulk, much more does it in power and worth surpass everything” (1178a-1861).

The point here seems to be that, although we are indeed composite beings and although we are therefore tethered to a bodily existence (and thus, not literally divine), we are nevertheless able to *approximate* a divine life²⁵⁸ by living in accordance with the best thing in us, and devoting ourselves, as much as we can, to the contemplation of the eternal things. In short,

²⁵⁷ Had Wedin applied himself more carefully to the question of just what “entering from outside” means in the context of *GA* 2.3, he might well have realized that passage (zz), when read properly, presents no special difficulty for his materialistic project, and that he needn’t have even bothered importing his abstractionist solution from his analysis of the *De Anima*, which is of no use in any case.

²⁵⁸ That is, come as close as a composite being can to attaining immortality.

“divinity,” insofar as it applies to the individual human intellect, is just shorthand for “the best thing in us.”

Having established that Aristotle’s *EN* 10.7 discussion is applying the term *theion* to the human intellect in this non-literal way, Caston argues that it is also applied in this way during Aristotle’s discussion in *GA* 2.3. And if we pause to consider the context in which Aristotle attributes “divinity” to the human intellect in this chapter, we will find that this interpretation gives us a much more coherent overall picture than a literal interpretation could. Given that the main point of the chapter is to emphasize that the intellectual power is contributed by the male parent, it makes far better sense to interpret the supposed “divinity” of the intellectual power in the soft sense of meaning “the best thing in us,” than it would to interpret it as meaning that the intellectual power is literally divine. The latter interpretation would almost seem to generate a contradiction—namely, that something divine has biological origins. Whereas the former interpretation makes the perfectly coherent (albeit sexist²⁵⁹) point that the “best thing in us” is contributed by our male parent.

And so it turns out that the seemingly dualistic implications of passage (zz) can be dealt with easily enough. *GA* 2.3 therefore does not pose a serious challenge to the naturalistic reading of Aristotle’s theory of the human soul, nor, therefore, does it undermine my moderate Thinking-Model of Imagination.²⁶⁰

4.5.2. Are Imaginative Forms *Really* Unique in their Partial Independence?

Given, then, that the project of advancing a naturalistic reading of Aristotle’s theory of the material intellect has turned out not to be undermined by the foregoing objection, we can now move on to discuss objections which target specific aspects of my moderate Thinking-Model, rather than seeking to undermine the naturalistic framework within which I am recommending it.

The first such objection takes issue with my claim that the Avempacean roots of my moderate Thinking-Model constitute a real improvement over the Alexandrian roots of Caston’s emergentist reading. To reiterate, my position was that Caston’s emergentist reading inherits a rather serious weakness from Alexander, to which Avempace had offered a solution—and that, consequently, my moderate Thinking-Model, being heavily-influenced by Avempace, would

²⁵⁹ There is a consistent pattern of misogyny in Aristotle’s thought. See *Insomn* 2, *EN* 8.10, *Pol* 1.13, *Rhet* 1.9, *Poet* 15.

²⁶⁰ Aristotle does follow up on his remark about *nous thyrathen* by claiming that, in fact, all of the psychic faculties “...have a connexion with a matter different from and more divine than the so-called elements,” and which is “analogous to the element of the stars” (736b29). However, he also states that this “vital heat” is contained within the semen of all animals, which suggests that he is not speaking of the faculties of the human soul in particular, but of animal souls in general. And since he certainly wouldn’t be wanting to suggest that animal souls are in general independent of bodily mechanisms, we probably shouldn’t make too much of this follow-up remark.

inherit that solution. To be more specific, I had argued that Alexander's positioning of the material intellect as a disposition inhering in the soul or the human subject more broadly had made it difficult for him to avoid the conclusion that the mind makes use of the body when it apprehends intelligible objects, and that his attempt to work around this difficulty by appealing to the notion of "common forms" had undermined his ability to account for the supposed uniqueness of the intellect as a functionally incorporeal faculty, since *all* formal powers (save those of the primary bodies) are "common forms," for Alexander. And it seemed to me that Avempace's repositioning of the material intellect as a disposition inhering more precisely in the "spiritual forms" of the activated imaginative faculty had enabled him to avoid both of these difficulties. On the one hand, the "spiritual forms" of the activated imaginative faculty can be said with much more plausibility than the soul or (certainly) the human subject more broadly, to be endowed with the capacity to serve as purely formal subjects of change in their own right. Moreover, since this capacity is (on Avempace's view) *unique* to the spiritual forms of the activated imaginative faculty, Avempace cannot be accused of attempting to explain the material intellect's functional incorporeality by appealing to a principle that would be broadly applicable to all the other psychic faculties, as Alexander had done. Rather, he's explaining it as the fulfillment of an intermediary property which is localized to only one other faculty.

Now, as I had noted in the previous section of this chapter, Caston does not appear to have appreciated the difficulty that I have noticed with Alexander's dispositional reading. This being the case, he would have no explicit motivation for challenging my claim that he has inherited that difficulty, nor my claim that an Avempace-inspired Thinking-Model would constitute an improvement. That said, it does appear that he would have independent reasons for disputing the premise (upon which my case for the preferability of the Avempacean reading largely pivots) that the spiritual forms of the activated imaginative faculty are *unique* in possessing the requisite degree of independence from the body, to be able to serve as formal subjects of change in their own right. Recall that I'd defended this premise by appealing to the observation from the penultimate section of my third chapter, that the resonance of an imaginative form within the body—upon which its resonance within the soul (i.e. the "spiritual form") supervenes—is capable of travelling between the peripheral organs and the heart by way of the blood.²⁶¹ But while Caston acknowledges that it is not uncommon for commentators to assume that, "...any change that travels from the peripheral organs to the central organs is *eo ipso phantasia*, sensation proper being something that occurs only in the peripheral organs" (Caston, 1996, pg.46), he insists that this is a mistake.

On his view, perceptual stimulations themselves travel from the peripheral sensory organs to the central sense, where they cause perceptual experiences. They also produce images as a kind of residual side-effect, and these images travel in tandem with them from the peripheral

²⁶¹ Again, the idea here was that although the presence of an imaginative form within the soul (i.e. the "spiritual form") does supervene on its presence within the body, it doesn't necessarily supervene on its presence within any particular part of the body, which grants it a certain degree of independence within the soul.

sensory organs to the central organ, where they cause a second experience, in much the same way that an echo follows behind the disturbance of air which causes our initial auditory experience. The upshot of Caston's echo-hypothesis would be that, not only are the spiritual forms of the activated imaginative faculty *not* unique in possessing the requisite degree of independence to enable them to serve as subjects of change in their own right, but that, furthermore, their possession of this partial independence ought properly to be regarded as incidental to²⁶² the partial independence possessed by the spiritual forms contained within the activated perceptual faculty.

If this is correct, then one might well argue that contrary to what I had suggested in the previous section, Avempace's account of the material intellect actually does fall prey to the second of Alexander's two shortcomings—namely, that it winds up appealing to features which are common to multiple psychic faculties, in its attempt to account for the uniqueness of the material intellect. And if this is right, then it would appear that my suggestion, that an Avempace-inspired moderate Thinking-Model constitutes a significant improvement over Caston's Alexandrian reading, was greatly exaggerated.

My response to this objection is twofold. Firstly, even if the objection does go through, it still will not generate as severe a problem for my Avempacean reading as the Alexandrian difficulty does for Caston's emergentist reading. The reason why Alexander's attempt to explain the uniqueness of the intellect's functional incorporeality by appealing to the notion of "common forms" had been so troublesome for him was because on his view, it was by virtue of *being* a common form itself that the material intellect could be said to enjoy functional independence from the matter of the bodily organs. But since *all* the other psychic faculties are common forms as well, this forced him to fall back on the notion that functional independence is a matter of gradation, which introduced an element of arbitrariness into his explanation as to why the material intellect should stand alone in enjoying total functional independence.

Caston's objection, by contrast, would not have a comparable effect on my Avempacean reading. This is because, on my view, it is not by virtue of *being* an "intermediate spiritual form" itself that the material intellect is endowed with functional incorporeality, but rather, by virtue of being the product of a change undergone by intermediate spiritual forms whose partial independence from the matter of the body enables them to serve as subjects of change in their own right. And although I'd theorized this partial independence as belonging solely to the spiritual forms of the imaginative faculty,²⁶³ it would only require a minor tweak to my position to accommodate the view that that it also belongs to the spiritual forms of the perceptual faculty.²⁶⁴ This would simply require me to take a slightly broader view of the kinds of spiritual forms that are capable of serving as the substrata for the process of change by which thoughts come about. But because the nutritive faculty would be in no way implicated in the relevant

²⁶² Or, to use Caston's language, a "residual side-effect of."

²⁶³ i.e., imaginative forms qua contents of the soul.

²⁶⁴ i.e., perceptual forms qua contents of the soul.

flavor of partial independence, the central move of the Avempacean position—i.e., construing the material intellect’s functional incorporeality as the fulfillment of an intermediary property—would still be salvageable.²⁶⁵

This is all beside the point, however, as Caston’s objection does not go through. In fact, the only reason it has any surface-level plausibility at all is because it conflates two distinct kinds of perceptions and two distinct kinds of images.

We have seen, during our reading of Wallace in the third chapter, that the special senses are incapable of grasping anything other than special sensory-impressions, and that the central sense is responsible for translating these into perceptual representations of concrete objects, in part, by, “...grasping the common properties which are involved in the existence of the qualities of the body” (Wallace, lxxx). Given that the central sense is located in the heart, this does seem to require that the special sensory impressions (qua components of the body) are capable of travelling between the peripheral sensory organs and the heart. As this occurs, a parallel journey is undergone by images of the special sensory impressions. These particulate-images also begin their existence in the peripheral organs as the direct causal byproducts of the special sensory impressions, and piggyback on their causal antecedents as they travel to the central organ. The result is that, as the special sensory impressions are assembled into perceptual representations of objects by the synthesizing functions of the central sense, their imaginative counterparts are also assembled into representations of objects, as an incidental byproduct of this process.

And so it would appear that Caston is correct that both imaginative and perceptual forms (qua components of the body) are mobile between the peripheral and sensory organs—that is, at least, if we’re referring to perceptions and images of the special sensibles. The problem, for Caston, is that, when Avempace says that the material intellect derives from the agent intellect’s illumination of the intermediate spiritual forms contained within the activated imaginative faculty, he’s not talking about particulate images of the special sensibles; he’s talking about images *of objects*. And so in order to really undermine Avempace’s notion that the spiritual forms of the activated imaginative faculty are unique in possessing the requisite degree of independence from the body to enable them to serve as subjects for the generation of learned thoughts, one would need to be able to show that both imaginative *and perceptual* experiences *of objects* supervene on corresponding imaginative and perceptual object-representations retained within the body, which are capable of travelling between the peripheral and central organs.

²⁶⁵ In this case, we’d simply need to conceptualize the perceptual and imaginative faculties as a sort of package-deal, which together embody the quasi-corporeality which bridges the gap between the thoroughgoing corporeality of the nutritive faculty, and the functional incorporeality of the material intellect. And this does not strike me as a particularly outlandish move, given the subtlety of Aristotle’s definitional distinction between the two faculties at *De Insomniis* (459a15-459a22). Recall his remark that the perceptual and imaginative faculties are identical, but different in their being.

Unfortunately for Caston, this premise simply isn't defensible; perceptions and images of objects (qua components of the body) are decidedly asymmetrical with respect to bodily mobility. Neither can be said to have travelled from the peripheral organs to the central organ in the first place, as both are wrought from the synthesizing functions of the central sense. And so the pertinent question is whether they both possess the ability to move about in the blood after being assembled in the central organ. The answer is that while *images* of objects (qua bodily) can certainly be said to possess this sort of longevity,²⁶⁶ *perceptions* of objects (qua bodily) cannot. Images of objects remain imprinted in our system long after the perceptible objects which caused them are removed from contact with us, whereas properly *perceptual* representations of objects vanish as soon as this contact is interrupted.

Caston's claim about mobility between the peripheral and central organs being a common feature of perceptible and imaginative forms (qua bodily) therefore does not have the impact on the Avempacean account of the material intellect that it might initially appear to. Again, its initial veneer of plausibility results from the conflation of perceptions and images of the special sensibles,²⁶⁷ to which Caston's symmetry-claim is applicable, with perceptions and images of objects,²⁶⁸ to which it is not applicable.

This conflation is evident in the following passage, wherein Caston expands on his comparison of images to perceptual echoes, by explaining that these echoes don't necessarily retain their resemblance to the perceptions which cause them, during their journey to the central sense:

My observations of a salamander, for example, might produce echoes which remain in my system unnoticed for many hours. But when they finally reactivate later in the evening, the effects of a half-bottle of whiskey have so altered them that I dream, not of a salamander, but an immense fire-breathing dragon. A dragon could not have been a causal ancestor of my dream, of course—dragons don't exist. But my phantasmata have the ability to affect my central organ the way it *would* be affected *were* I to see such a dragon (Caston 1996, 49).

This passage glosses over the distinction between images of the special sensibles and images of objects—as well as the process by which the latter are constructed out of the former—and casually assumes that images of objects come pre-assembled, *prior* to their arrival at the central organ. This is clear from Caston's choice of examples; the image of a salamander couldn't transform into an image of a dragon on its way to the central organ unless it had already been assembled as an image of a salamander prior to reaching the central organ. And if the original image of a salamander is indeed the echo of a perception which preceded it causally, as

²⁶⁶ Otherwise we'd have no memory of them.

²⁶⁷ Qua bodily.

²⁶⁸ Qua bodily.

Caston's echo-theory would have it, then it stands to reason that the perception of a salamander was also already assembled prior to its arrival at the central sense. Caston's expanded echo-theory therefore presents us with the following overall sequence of events: firstly, a perception *of an object* travels from one of the peripheral organs to the central organ, where it causes an experience of that object. Then, after some delay, the echo-image of that perception (or possibly some distorted version of it) reaches the central sense and stimulates it again, causing a second experience.

Were this the correct sequence of events, Caston's claim that perceptual and imaginative forms (qua components of the body) are symmetrical with regard to their mobility between the organs would be applicable to perceptions and images *of objects*. In which case, Caston's echo-theory really would pose somewhat of a problem for my suggestion that Avempace's account of the material intellect has an advantage over his preferred Alexandrian account, since in this case, the kind of corresponding soul-forms which supposedly serve as the "material" cause for the generation of learned-thoughts (i.e. imaginative soul-forms) would not be unique in their partial-independence from the matter of the bodily organs.²⁶⁹

But it should be clear, given what we know about the role that the central sense plays in the construction of perceptions and images of objects, that this is *not* the correct sequence of events. As we have seen several times now, the central sense is supposed to play an integral role in synthesizing perceptions and images of the special sensibles into perceptions and images of objects. But by glossing over the distinction between these two categories and effectively treating all perceptions and images as representations *of objects* from the outset, Caston's expanded echo-theory erases the central sense's synthesizing functions, leaving it with no significant role to play, other than as a passive receptacle for perceptions and images of objects. A more plausible exegesis of the salamander example would be that particulate sensations caused by the salamander's contact with our peripheral sensory organs travel to the central organ, where they are assembled into a coherent perceptual representation of a salamander. As this happens, the residual impressions of those particulate sensations travel in tandem with them to the central sense where they are assembled into coherent imaginative representations of a salamander. Once the salamander has ceased to make contact with our peripheral organs, the perceptual representation of the salamander vanishes, leaving behind its residual salamander phantasm, which can then reenter the blood and lay dormant in our system, possibly becoming distorted by the effects of a half-bottle of whiskey, and subsequently affecting our central organ again in the likeness of a fire-breathing dragon.

²⁶⁹ Though, again, it should be noted that I could work around this problem easily enough by reconceptualizing perception and imagination as a package-deal, as I have established above.

4.5.3. Illumination by the Productive Intellect.

Another objection to the plausibility of my moderate Thinking-Model of Imagination might take aim at the idea—which is central to the Avempacean view, after which I’ve modelled it—that the productive intellect literally triggers the generation of learned thoughts by illuminating the images contained within the activated imaginative faculty.

For example, Caston argues that, if the productive intellect is to be identified with the Aristotelian God (a belief that he shares with Avempace, as we have seen), then it cannot enter directly into the causal mechanisms of human thought, in the manner in which Avempace’s theory would require it to. In defense of this claim, Caston points to Aristotle’s account of the divine intellect’s role in bringing about the eternal motion of the universe, in *MA* 6-7. Recall that Aristotle had explained the motion of the universe as being “for the sake of” the prime mover, whose unqualified and eternal goodness guarantees that the motion of the universe is without beginning or end. According to this account, the prime mover serves as the *final* cause for the motion of the universe, and Caston is careful to underscore that a cause of this sort “does not make direct physical contact” with the things it moves (Caston, 1999, 219).

Moreover, on Caston’s view, what is true of the relationship between the prime mover and the universe in general must also be true of the relation between the prime mover and the human intellect. Which is to say that, to the extent the prime mover can be credited with playing any role in the generation of human thought, it must be as a final cause, which he claims does not involve any direct contact. Thus, “...while God is a productive cause, he does not literally trigger our first thought any more than he gives the outermost sphere a first spin. God directs us, as he does the universe, by being the point towards which we all tend” (Caston, 1999, 222). If correct, this would seem to topple Avempace’s theory of the material intellect, and my moderate Thinking-Model of the Imagination, along with it.

We might reasonably wonder, though, how Caston makes sense of Aristotle’s deployment of the light-analogy, during his explanation of the productive intellect’s contribution to human thought, in *DA* 3.5. Aristotle *does* say that the productive intellect actualizes potential intelligibles in a manner analogous to the sense in which light “makes potential colours into actual colours” (430a16). And this seems, *prima facie*, anyway, to favor Avempace’s notion that the productive intellect (here identified as God) plays a direct causal role in the generation of learned thoughts. Thus, Caston must answer the following two questions, in order to convincingly incorporate the light-analogy into his vision of the productive intellect as playing only a teleological role in human thought. Firstly, he needs to explain why the light-analogy does not in fact favor Avempace’s notion that the productive intellect plays a direct causal role in the generation of learned thoughts. Secondly, he needs to explain how it functions as an illustration of his alternative view, that the productive intellect only plays a teleological role in the generation of learned thoughts.

Caston's response to the first question is that the apparent harmony between the light-analogy and the idea that the productive intellect (i.e. God) plays a direct causal role in human thought is the result of a faulty understanding of Aristotle's conception of light. He concedes that, if we're assuming that it is by virtue of "its reflection and absorption by the surfaces of bodies" that light produces actual colours, then the analogy between light and the productive intellect would imply that the productive intellect plays a direct causal role in human thought. However, Caston cautions, this is *not* how Aristotle understood the role of light in actualizing colors. Rather, "...light is [for Aristotle] a static condition, the actuality of the transparent medium; it is what allows colors to produce sensation and so make themselves actual colors, by being seen as they actually are" (Caston, 1999, 223). Caston therefore concludes that if Aristotle conceived of the productive intellect as playing a direct causal role in human thought, then he, "has not chosen apt analogies" (Caston, 1999, 223).

How, then, does the light-analogy better illustrate Caston's view of the productive intellect as the final cause of human thought? Caston doesn't have very much to say about this,²⁷⁰ except to argue that Aristotle's use of the light-analogy is an allusion to Plato's use of the sun-analogy in *Republic VI*, and that in this context what is salient about the sun-analogy, "...is precisely its teleological character: it is the Form of the Good that is compared to the Sun and said to be the explanans of intelligibles being what they are and being known" (Caston, 1999, 224).

Of course, even if we accept Caston's claim that Aristotle's invocation of the light-analogy is an allusion to Plato's sun-analogy, there are a number of stark dissimilarities between Aristotle's productive intellect and Plato's Form of the Good, which seem to undermine the notion that the analogy functions the same way in Aristotle's hands as it does in Plato's. Firstly, it needs to be acknowledged that the teleological salience of Plato's Form of the Good is—at least on Aristotle's view—far narrower than that of the productive intellect. As Gail Fine (2003) points out, a part of the reason why Aristotle rejected the existence of Platonic Forms is that he didn't think that they were capable of serving either as the material, formal, efficient, or final *aitiai* of sensible particulars.²⁷¹ Which is to say that he didn't think they had any real explanatory power, "...at least...as far as the sensible world goes" (Fine, 350). And so it would seem that the teleological role that Plato assigns to the Form of the Good in relation to human cognition cannot, unlike that which Aristotle assigns to his productive intellect, be expressed as a function of any broader teleological role that it plays in relation to the motion of the universe.

Secondly, there is a strong case to be made that the teleological role that Plato assigns to the Form of the Good in relation to human cognition is really only applicable to the cognitive acts of a small subset of human beings. Although Fine questions whether Plato really subscribes to the

²⁷⁰ In fact, he seems downright disinterested in unpacking the light metaphor. He suggests a number of times that the metaphor is too vague and interpretively malleable to be of much help in clarifying Aristotle's intentions.

²⁷¹ She adds that, with the possible exception of formal *aitiai*, Aristotle would have expected Plato to agree with this assessment.

Two-Worlds hypothesis which is commonly attributed to him,²⁷² she acknowledges that cognizance of the Forms is a necessary condition for knowledge on Plato's view, and that the overall aim of the *Republic* is, "...to persuade us that philosophers should rule, since only they have knowledge" (Fine, 86). If cognizance of the Forms is a necessary condition for knowledge, and if only philosophers can attain knowledge, then the implication appears to be that only philosophers are capable of grasping the Forms. And if the Form of the Good is what accounts for the rest of the Forms being what they are and being knowable to those who are capable of knowing them, it seems to follow that the Form of the Good is only epistemically relevant to would-be philosopher kings. By contrast, the third book of Aristotle's *DA* purports to offer a generalized account of human cognition.²⁷³ Thus, if Aristotle does indeed identify the productive intellect as a final cause of human thought in *DA* 3.5, he means everyone's thought, not just that of philosophers.

Thirdly, the *Republic* describes the Form of the Good as the *conscious* end of philosophical thought; philosophers are said to require knowledge of the Good before they can be qualified to govern the state, and so they must seek out this knowledge explicitly, as the crowning jewel of their philosophical training. The Form of the Good is therefore, quite explicitly, that *for the sake of which* philosophers think. By contrast, Aristotle's productive intellect is not (at least on Caston's reading) consciously pursued as an object of thought at all. Of course, there must still be *some* sense in which it can be described as "that for the sake of which" we think;²⁷⁴ it just needs to be expressible in terms which do not imply that all acts of human thought are conscious attempts to get to know the productive intellect. What they are, on Caston's view, are "emulations" of the productive intellect. The idea here is that, when we engage in acts of thought, our potential intellects become actualized in a manner which—however imperfectly and temporarily—resembles the perfect and eternal actuality of the productive intellect, which is forever engaged in thought. In short, the productive intellect serves as the final cause of our thought, simply by being the paradigm of intellectual activity, toward which we all tend, by resemblance, when we actualize our own intellectual natures.

This brings us to the final—and perhaps the most significant—dissimilarity between Plato's Form of the Good, and Aristotle's productive intellect. Our coming to know the Form of the Good cannot be described as an act of emulation on Platonic terms, because this would require the Form of the Good to be the paradigm of intellectual activity. And there is no serious indication that Plato regarded the Form of the Good as being an intellect at all, let alone the

²⁷² And which precludes any knowledge of particulars, relegating them to the domain of mere belief.

²⁷³ Though he does state in the *EN* that only certain people are suited to a life of sustained philosophical reflection, this doesn't mean he agrees with Plato that only philosophers are capable of knowing anything at all.

²⁷⁴ After all, the productive intellect is said by Aristotle to be that "for the sake of" which the entire universe moves.

paradigm of intellectual activity.²⁷⁵ Throughout the discussion in the *Republic*, Plato treats the Form of the Good as something mysterious, whose nature can only be approached indirectly (hence Plato's reliance on metaphor). Aristotle's description of human thought as an emulation of the productive intellect therefore cannot have been carried over from Plato.

Given all these points of dissimilarity, it seems to me that Caston's appeal to Plato can only be of very limited use in helping us to understand what Aristotle was up to, when he compared the productive intellect to light. Although Plato may also have been using the analogy to illustrate a point about the teleological salience of his first principle, the teleological salience of his first principle just isn't similar enough to Aristotle's for the analogy to function the same way in Aristotle's hands. We may therefore need to look elsewhere for elucidation.

On that note, we should recall that, in addition to praising Alexander for his receptivity to the naturalistic leanings of Aristotle's definition of the soul,²⁷⁶ Caston had also credited Alexander with fleshing out the "rich metaphysics" of the emergentist picture of the material intellect, which Aristotle had only begun to sketch in broad strokes. And so, given that Caston seems to regard Alexander's commentary as a fulfillment of what is contained prototypically in Aristotle's writings,²⁷⁷ one might reasonably expect that—if pressed—he would want to appeal to Alexander once again for a more enriched explanation of how Aristotle's use of the light-analogy is supposed to illustrate the teleological role that the productive intellect plays in actualizing human thought.

In order to suit Caston's purposes, Alexander's exegesis of the light-analogy would need to encapsulate each of the aforementioned features which distinguish the productive intellect from the Platonic Good. Which is to say that it would need to illustrate (1) the idea that the productive intellect is the final cause of the motion of the entire universe and only derivatively the final cause of human thought, (2) the idea that the productive intellect is epistemically relevant to *everyone's* thought acts,²⁷⁸ (3) the idea that the productive intellect is *not* consciously pursued as the object of every thought act, and (4) the idea that the productive intellect is the paradigm of intellectual activity in the Aristotelian framework, which we *emulate* when we think. It would, moreover, need to do all of this without losing sight of (5) the peculiar Aristotelian conception of light as the actuality of the visual medium.

And there is a text in which Alexander appears to unpack the light-analogy in a manner which (more or less) satisfies these criteria. I am referring here to the *De Intellectu*. According to

²⁷⁵ There is a passage in *Republic* book X, in which Plato seems to suggest that the Forms are created by a god. However, as Christopher Janeway (2006) points out, this passage is anomalous, and really doesn't align with the theory of Forms as it is usually articulated (including in the foregoing books of the *Republic*).

²⁷⁶ As evidenced by his framing of the productive intellect as something divine and independent of each individual human soul.

²⁷⁷ It was presumably for this reason that he opted to model his own interpretation of Aristotle after Alexander's.

²⁷⁸ Not just to those of philosophers.

Frederic M. Schroeder and Robert B. Todd (1990),²⁷⁹ the *De Intellectu* treats light as something which is “seen along with its concomitants.” By which they mean that, “when we see visible objects, we see at the same time the light by which they are illuminated” (Schroeder & Todd, 72). The idea here seems to be that, although light is certainly a necessary condition for our perception of visible objects, and although its visibility must therefore in some sense be considered to have primacy, it is not itself the primary—viz. most direct—object of our vision. What we see most directly is the illuminated object, and our vision of the light itself is incidental to or implicit in our vision of the illuminated object.

One might paraphrase this by saying that it is *within* (or against the backdrop of) the light’s visibility that we see the illuminated object. And so the *De Intellectu*’s conception of light does seem to harmonize rather well with Caston’s emphasis on (5) light’s status as the actuality of the visual *medium*. Moreover, once the light-analogy is carried over to the productive intellect, the incidental nature of our perception of light does seem to capture the idea that the productive intellect, while certainly playing a necessary role in our cognition of intelligible objects, is (3) not itself a conscious object of every thought-act. Rather, what we think most directly is the intelligible object which the productive intellect illuminates, and our cognitive awareness of the productive intellect itself is incidental to or implicit in our cognition of the illuminated intelligible object. Or, one might say, it is within (or against the backdrop of) the productive intellect’s intelligibility that we think the illuminated intelligible object.

This backdrop of illuminating intelligibility is also said to be an abiding presence throughout the course of the human intellect’s development, serving as an indirect object in all of its individual thought-acts, “...while it is being completed and increased and is in that way the [final] cause of its development” (Schroeder & Todd, 72). This seems at once to capture (2) the idea that the productive intellect plays a role in every person’s thought-acts, at every level of their intellectual development,²⁸⁰ and also the idea that the productive intellect is (4) the paradigm of intellectual activity, which we come more and more to resemble, as we actualize our own natures as intelligent beings.²⁸¹

Really, the only thing that doesn’t appear to be explicitly confirmed by the *De Intellectu*’s exegesis is the idea that (1) the productive intellect’s role as the final cause of human thought is just one facet of a broader role that it plays as the final cause of the motion of the universe. But the *De Intellectu* is a focused treatise on the ins-and-outs of human cognition—not of the motion of the entire universe—and so it probably isn’t fair to expect this point to come out in its treatment of the light-analogy. On the whole then, it would seem that the *De Intellectu*’s treatment of the light-analogy is quite consistent with Caston’s understanding of the productive-intellect’s teleological function, in relation to human thought.

²⁷⁹ In the commentary to their translation of the text.

²⁸⁰ Not just the thought-acts of fully-fledged philosophers.

²⁸¹ i.e. It is that toward which we tend, as our intellects develop and grow to completion.

The problem, for Caston, is that the authenticity of the *De Intellectu* has been seriously contested. This began with Moraux (1942), who is reported to have, "...detected such a divergence of doctrine between [the *De Intellectu* and Alexander's *De Anima*] that he concluded that they could not both be by the same author, even if we made allowance for intellectual development" (Schroeder & Todd, 6). And since the *De Anima* is certainly authentic, this led Moraux to the conclusion that the *De Intellectu* could not have been written by Alexander. Some²⁸² have attempted to salvage the Alexandrian authorship of the *De Intellectu* by relegating it to Alexander's early period (the upshot being that in this case, the divergence between the *De Intellectu* and the *De Anima* could in fact be accounted for by intellectual development). However, Schroeder and Todd find this approach to be unpersuasive. The *De Intellectu* reads to them like a paraphrase of some other work, and so they argue that if we were to place it on the same developmental continuum as the *De Anima*, the natural place for it would be *after* the *De Anima*, rather than before it. But, given the severity of the doctrinal disagreement between the two texts, it is difficult to imagine how the *De Intellectu* could be construed as a paraphrase of the *De Anima*. Hence, Schroeder and Todd concur with Moraux that, in the absence of some supplemental text which is capable of explaining how the contents of the *De Intellectu* are derivable from those of the *De Anima* (which we do not have), "...we must seriously doubt whether the *De Intellectu* is an authentic part of the Alexandrian corpus" (Schroeder & Todd, 20).²⁸³

Schroeder and Todd also stress that one of the key areas in which the *De Intellectu* and the *De Anima* diverge is in their handling of the light-analogy. The *De Anima*—whose authorship, again, is not disputed—tells a *very* different story than the *De Intellectu* does, about how the light-analogy is supposed to illustrate the productive intellect's role in generating human thought. Here, the source of light is not said to merely provide a luminescent backdrop (i.e. medium) within which we come to see visible objects. Rather, the illumination is described as, "...a joint effect produced both by the source of light and by the illumined object" (Schroeder & Todd, 16). This entails that the luminescent field is not itself sufficient to produce visibility; the illuminated object must also, "...be regarded as making its own [necessary] contribution to the production of visibility when the illumined object and the source of light are juxtaposed" (Schroeder & Todd, 16). This seems to imply some sort of a direct causal interaction between the luminescent field and the illuminated object.

²⁸² For example, Domini (1974) and Sharples (2004).

²⁸³ F. Edward Cranz (1960) concurs that, "The two books of the *De Anima* [that is, the *De Anima* proper, and the *Mantissa*, a supplemental collection of psychological treatises which contains the *De Intellectu*] differ markedly in form and content, and they were not originally a single work." He adds that although the *De Anima* is generally recognized as authentic, the *Mantissa* "...is almost certainly not by Alexander of Aphrodisias in its present form, though much of the material may be his or from his school" (pg. 84). Dorothea Frede (2017) also acknowledges that, "The 'Mantissa' may not be by Alexander" and speculates that it may actually be a compilation of lecture notes taken by his students. If this is right, it might account for the severe philosophical discrepancies between the *De Anima* and the *De Intellectu*, in addition to explaining why the *De Intellectu* has the appearance of being a paraphrase. Perhaps the students just took bad notes and/or misunderstood the lectures.

Carrying the analogy over to the productive intellect, the upshot would be that, rather than merely providing a noetic field populated by intelligible objects for our minds to grasp at—and serving as the telos toward which we tend, but with which we never actually make contact—the productive intellect of Alexander’s *De Anima* actually makes some sort of direct contact with individual human knowers, when they think. Such, at least, appears to be the inference drawn by Schroeder and Todd: “...the natural and metaphysical orders meet when the human mind advances to the omega point of noetic illumination” (Schroeder & Todd, 19). They specify, moreover, that the human intelligence is the “locus” for this contact between the natural and intelligible orders, and they even go so far as to characterize the contact as a juxtaposition of two distinct kinds of forms: “immanent forms” (that is, forms which are enmattered, presumably in the human subject) and “transcendent forms” (that is, eternal and immaterial intelligibles).

This all seems to align much more closely with Avempace’s understanding of the productive intellect’s noetic luminescence as effecting a sort of formal alteration in the contents of the imaginative faculty, than with Caston’s notion that the productive intellect only makes an indirect contribution to human thought, by serving as its final cause. This should probably not surprise us much. We have seen already that Avempace’s account of the material intellect was intended as a minor correction on Alexander’s position, to which Avempace was generally sympathetic; and so it is to be expected that Avempace’s understanding of the role of the productive intellect should bear a close resemblance to Alexander’s.

Given, then, that the *De Anima* is the canonical Alexandrian account of the human intellect, this seems to put Caston in a rather awkward position. He has (as we have seen) credited Alexander not only with being generally loyal to the primary Aristotelian texts on the soul, but also, with having fleshed out their true implications, in those areas in which they are found to be underdeveloped. And, on the basis of this glowing appraisal of Alexander’s “Aristotelianism,” he has generally been quite happy to model his own interpretation of Aristotle after Alexander’s. And yet, when it comes to his explanation of the role of the productive intellect in bringing about human thought, Caston is forced to accuse Alexander of having lapsed into flagrantly un-Aristotelian territory.

Of course, up to this point, we’ve been granting Caston’s claim that the Alexandrian/Avempacean perspective on the role of the productive intellect is un-Aristotelian. But we may want to take a closer look at his motivation for making this assertion. The first thing to notice is that he is not, as we might expect, motivated by a sense that the productive intellect’s status as a final cause precludes it from also being an efficient cause. In fact, Caston acknowledges numerous times that, “Aristotle regards such final causation as an efficient cause” (Caston, 1999, 200), and that he regards the productive intellect as being *genuinely* productive of human thought, at least in the broad sense of “mak[ing] what undergoes the change similar to itself” (Caston, 1999, 220). This is reflected in Caston’s aforementioned emphasis on the principle that we emulate the productive intellect when we think, and his

acknowledgement that “our [intellectual] actualizations are truly like God’s” (Caston, 1999, 223).

That said, Caston does not think that the productive intellect can be productive of human thought in a *direct mechanistic* sense, as this sort of causation, “...can take place only if the [productive] agent belongs to the same genus as what it affects.” On Caston’s reading, this requires that the agent have the same matter as that which it affects—a condition that the productive intellect cannot satisfy, since it is, “without matter entirely” (Caston, 1999, 220).

But while this line of reasoning does give us compelling reasons for thinking that the productive intellect couldn’t make direct mechanistic contact with *physical* objects, it is far less clear that it precludes the productive intellect from making such contact with the human intellect. For one thing, the productive intellect does, by Caston’s own admission, belong to the same genus as the human intellect. As we’ve seen above, Caston reads the overall program of Aristotle’s *DA* as a taxonomical one, meaning that Aristotle’s intent isn’t to enumerate the various faculties which manifest in an individual human soul, but rather, to catalogue the various *kinds* of soul which can be found throughout the universe.²⁸⁴ In accordance with this interpretation of the *DA*’s overall program, Caston reads Aristotle’s distinction between the receptive and productive intellects not as concerning two intellectual components of an individual human soul, but as, “...concern[ing] two separate species of mind,” i.e. human and divine (Caston, 1999, 224). Moreover, direct contact between the productive intellect and the human intellect needn’t require the productive intellect to traverse the sort of dualistic barrier that Caston worries about, because the human intellect is also incorporeal.

A likely response from Caston would be that although the human intellect is not itself a corporeal entity, it is nevertheless ultimately derived from a material substrate, which still implies that if the productive intellect were to play a direct causal role in the production of human thought, it would have to do so by effecting changes in the body, which, again, it cannot do, because it has no matter.

And it is difficult to dispute the power of this response, at least insofar as it applies to the *Alexandrian* account of the human intellect. Recall that although Alexander treats the human intellect as a disposition (which itself is not anything corporeal), he’d struggled, on account of his overbroad conception of the subject of that disposition, to avoid the implication that the intellect’s actualization results from a change undergone by the body. It follows that, in order for the productive intellect to play a direct mechanistic role in the actualization of human thought on the Alexandrian view, it would have to do so by stimulating change in some part of the body. Hence, the notion that the productive intellect plays a direct causal role in the

²⁸⁴ Including both the physical and the metaphysical realms.

actualization of human thought does indeed appear to be incompatible with the Alexandrian account of the emergence of the human intellect.²⁸⁵

But what about the Avempacean variant on the Alexandrian account? Recall that Avempace had managed to avoid Alexander's difficulty by construing the material intellect as a disposition inhering not in the soul or the human subject broadly construed, but more specifically in the "spiritual forms" of the activated imaginative faculty,²⁸⁶ which are capable of serving as a subject of change in their own right. This also enables Avempace to square his account of the human intellect with the idea that the productive intellect makes a direct mechanistic contribution to its emergence. Since the substrate for this alteration is itself purely formal, it follows that the productive intellect—which is also without matter—wouldn't need to traverse an impossible dualistic barrier in order to make the necessary contact with it.

Thus, the notion that the productive intellect makes a direct mechanistic contribution to human thought is compatible at least with Avempace's account of the emergence of the material intellect. And since we have independent reasons for preferring Avempace's account anyway, we can conclude that, contra Caston, the notion that the productive intellect makes a direct mechanistic contribution to human thought is not flatly un-Aristotelian, though it certainly seems to be incompatible with Caston's preferred interpretation of Aristotle.

²⁸⁵ Since Alexander seems to intend to construe the divine intellect as playing a direct causal role in the actualization of human thought, we'll have to count this as a further inconsistency on his part, connected with his inability to square the human mind's dependence upon the body with its functional incorporeality.

²⁸⁶ That is, with imaginative forms qua contents of the soul.

Conclusion

I began by noting a curious tension in Aristotle's account of the imagination in *DA* 3.3. On the one hand, he seems to describe imagination as a motion in the soul which is initiated by sensation, and which is similar in character to it. But on the other hand, he also seems to flirt with the idea that imagination is a kind of thinking. My first chapter posed the question of whether the imagination might be said to answer to both descriptions, and if so, what this might mean. In order to attack the question in a systematic way, I'd specified three possible variants of a "Thinking-Model" of imagination and proposed to examine each one in turn. These were: (1) the strong Thinking-Model, which holds that images are intrinsically noetic, (2) the moderate Thinking-Model, which holds that images can sometimes be noetic, and (3) the superficial Thinking-Model, which holds that Aristotle only applied noetic terminology to the imagination in a loose, non-literal sense. The strong and moderate Thinking Models initially struck me as enjoying equal textual support, with passages (d) and (f) supporting the strong Thinking-Model, and passages (c) and (e) supporting the moderate Thinking-model. The superficial Thinking-Model did not seem to me to enjoy any direct textual support.

In an effort to dispose of the least interesting variant first, my second chapter focused on the superficial Thinking-Model. Here, I examined two claims. The first was that there is in fact direct textual support for the superficial Thinking-Model in *DA* 3.5. The second was that *EN* 6.11 contains a broader precedent for superficial applications of noetic terminology, which ought to inform our interpretations of passages (c) through (f). With regard to *DA* 3.5, the suggestion—advanced by numerous historical commentators—was that its mention of a perishable *nous pathetikos* in passage (g) can only have been referring (superficially) to the imagination, since the material intellect is imperishable on Aristotle's view. In response to this claim, I'd cited Alexander's emergentist reading, in order to cast doubt on the supposition that Aristotle regarded the material intellect as imperishable. I'd also noted that, while Alexander's reading is not without its flaws, his overall project of advancing a naturalistic interpretation of Aristotle's account of the material intellect has enjoyed a resurgence in recent years. This being the case, I argued that there is no particular need to interpret passage (g)'s *nous pathetikos* as a reference to the imagination.

As for *EN* 6.11, the suggestion here was that its application of the term *nous* to the perceptual faculty provides us with a clear precedent for the non-literal use of noetic terminology in the Aristotelian corpus, and that because Aristotle's distinction between the perceptual and imaginative faculties is so subtle, our natural assumption ought to be that Aristotle was doing something similar when he applied noetic terminology to the imaginative faculty in passages (c) through (f). In response to this claim, I'd argued that even if *EN* 6.11 contained a superficial application of the term *nous* to the perceptual faculty (which I am somewhat skeptical about), it would still require a careful case-by-case analysis to determine whether Aristotle is making a similar move in passages (c) through (f). And the contextual markers in and around these

passages simply don't bear it out. I'd closed this chapter by making one small concession: namely, that on closer inspection, passage (f)'s apparent support for the strong Thinking Model does appear to be downgraded, by the end of *DA* 3.10, into support for the moderate Thinking-Model. This leaves only one of the four key passages—i.e. passage (d)—in support of the strong Thinking-Model.

That said, the ramifications of the strong Thinking-Model are the most interesting of the three models, and so I'd endeavored, in my third chapter, to make the strongest possible case that could be made for it. Focussing in on the strong Thinking-Model's implication that non-human animals can be credited with possessing some capacity for thought, I'd acknowledged that, to many, this might seem so radical as to constitute a self-refutation, given the many passages in the corpus—(i) through (n)—which indicate that it was precisely by reference to the intellectual capacities that Aristotle had distinguished humans from the lower animals. However, I maintained that the notion of non-human animal thought in Aristotle isn't as far-fetched as it might initially sound. In defense of this claim, I'd pointed to a thread from *HA* 8.1, in which Aristotle suggests that the animal world exists on a continuum, with the lower animals possessing faint traces of psychic capacities which find their fullest expression in humans. I'd then observed that this gradational picture seems perfectly capable of accommodating the notion that non-human animals might possess a form of thought, provided that thought itself admits of gradations, with the more paradigmatic forms (i.e. practical and theoretical reasoning) being undergirded by a more rudimentary form of intellectual awareness. And I'd noted that Malcolm Lowe's distinction between apprehensive and autonomous thought seems to satisfy this condition, since, on his reading, the more paradigmatic thought-forms belong to the category of autonomous thought, which itself is predicated on apprehensive thought. Finally, I'd argued that this gradational picture can be harmonized with passages (i) through (n), insofar as these passages all refer specifically to autonomous thought-forms as the distinguishing mark of the human animal.

Having established that the non-human thought implication can be viewed as a genuinely interesting ramification of the strong Thinking Model rather than as a self-refutation, I'd then turned my attention to three a priori objections raised by Michael Wedin, against the strong Thinking-Model's central assertion. These were (1) that imagination (unlike thought) is functionally incomplete, (2) that thought (unlike imagination) is always propositional, and (3) that thoughts (unlike images) always denote universals. In response to the first objection, I'd noted that the imagination seems to parallel Aristotle's paradigmatic example of functional completeness (i.e. thought) even more closely than the perceptual faculty does. I'd then addressed Wedin's other two objections, by elaborating on the nature of Lowe's apprehensive thought. On Lowe's telling, apprehensive thought denotes particular objects and is arguably non-propositional; and so as long as Lowe's apprehensive vs autonomous thought dichotomy (or something like it) remains on the table, the category of apprehensive thought can be invoked as a plausible-counter example against Wedin's claims that Aristotelian thought is necessarily propositional, and that it necessarily denotes universals.

With Wedin's three objections addressed, I'd then gone on to unpack what I take to be the *real* problem with the strong Thinking-Model: namely, that images are registered in the bodily organs, whereas there is no organ associated with thought. But rather than attempting to challenge the textual evidence indicating that images are registered in the bodily organs, I'd attempted to work around it, by introducing the notion that images might be capable of becoming disengaged from the matter of the bodily organs, and that this de-corporealizing process might serve as the basis for an account of the generation of learned thoughts, which retains the strong Thinking-Model's notion of a one-to-one intentional correspondence between images and thoughts.

I began this line of inquiry by establishing that the faculty of imagination—like that of perception—is not itself a magnitude, but rather a power housed within a magnitude (i.e. the sensory organ), and that its activation involves the retention of formal qualities into both the power and the magnitude. The upshot being that the formal content of a retained image has a resonance within the soul which is, at least theoretically, distinguishable from its resonance within the sensory organ. The next step was to determine whether that form's resonance within the soul might be capable of persisting independently of its resonance within any bodily organ. Initially the prospects had looked quite promising, for two reasons: Firstly, Aristotle states in *DA* 1.4 that a blind man would regain the ability to see, were he to be fitted with new eyes; and if he'd regain the ability to see, then it seems reasonable to suppose that he'd also regain the ability to acquire new visual images. This suggests that the imaginative *power* at any rate is, along with the perceptual power, separable from the corresponding sensory organ. Secondly, the blind man must surely be able to recollect the objects he'd perceived prior to going blind, and since the imagination is central to Aristotle's account of memory, it seemed to follow that the formal content of those previously acquired images must continue to resonate within the soul independently of any resonance it might have had in the eyes. However, this proved insufficient to establish the desired conclusion that the resonance of images within the soul needn't supervene on any bodily process, as Aristotle does allow that images can travel between the peripheral sensory organs and the heart by way of the blood. The upshot of this is that although an image's resonance within the soul needn't necessarily supervene on its continued resonance within the sensory organ through which it originally entered, it may still supervene on its resonance within the blood or the heart.

I'd therefore concluded that the strong Thinking-Model is implausible, not necessarily because of its implications concerning the cognitive capacities of non-human animals, nor for any of the reasons that Wedin gives, but rather, because images cannot be said to possess or to be capable of acquiring the same functional independence from the bodily organs that thoughts enjoy. Whereas the mind's apprehension of an intelligible form does not supervene directly on any alteration in a bodily organ, it seems necessary that the imaginative faculty's retention of an image must supervene directly on some sort of a bodily alteration, if not in the specific sensory organ which was initially stimulated, then in some other bodily substrate, such as the blood or the heart. That said, although my third chapter was unable to successfully defend the

strong Thinking-Model, its explorations were still fruitful in that they provided a more accurate diagnosis of the strong Thinking-Model's deficiencies than had been previously advanced, and in that they yielded the following provocative insight: although images are not wholly dis-engageable from the substrate of the bodily organs, they are at least *partially* dis-engageable, in that they are not restricted to any one organ, but can travel between various organs by way of the blood.

With the superficial and strong Thinking-Models ruled out, I'd turned my attention to the moderate Thinking-Model in my fourth and final chapter. As previously stated, this was the variant that had enjoyed the greatest amount of textual support, with passages (c) and (f) indicating that images are sometimes a kind of thought, and passage (e) indicating that images are in some sense components of thoughts. I'd conjectured that these two seemingly distinct suggestions can be harmonized, if we interpret the former as meaning that images are capable of becoming thoughts as the result of some sort of alteration process; in which case images would constitute components of thoughts in the sense of serving as a kind of "material" substrate for their coming into being. I'd then pointed to the interpretive commentaries of Avempace and the early Averroes, as historical precedents for this sort of reading. On their view, the images of the activated imaginative faculty—or to be more precise, the "intermediate spiritual forms" contained therein—actually do become intelligible thoughts through a process of illumination by the agent intellect. Moreover, Avempace and the early Averroes conceptualized this illuminative process as a formal change undergone by the intermediate spiritual forms of the imagination, for which they serve as a kind of material substrate.

As to the benefits of the moderate Thinking-Model, my primary assertion had been that because Avempace offers a constructive critique of Alexander's naturalistic reading of Aristotle, while retaining most of its key features and overall trajectory, a moderate Thinking-Model patterned after Avempace might serve as a helpful contribution to the recent efforts to revive Alexander's naturalistic reading. Like Alexander, Avempace had identified the agent intellect with the divine intellect of the *Metaphysics*, and had sought to advance a naturalistic account of the material intellect, by conceptualizing it as a disposition inhering in the lower, embodied psychic faculties, and which is actualized by the illuminating influence of the divine intellect. However, he'd noticed (as had I) that Alexander had been unsuccessful in squaring the functional incorporeality of the human intellect with its corporeal origins, owing in part to his overbroad conception of the subject for the actualization process, as well as his reliance on the notion of "common forms," which would be equally applicable to all the other psychic faculties. Avempace had sought to resolve this difficulty by specifying the "intermediate spiritual forms" of the imagination as the proximate substrata for the generation of learned thoughts, and I'd found this to be a compelling solution, as it seemed to offer a cleaner account of how a functionally incorporeal material intellect might emerge from the lower, embodied psychic faculties, by expressing it as the fulfillment of a sort of partial independence possessed only by the "spiritual forms" of the activated imaginative faculty. Moreover, the uniqueness of this partial independence to the "spiritual forms" of the activated imaginative faculty seemed to me

to be supported by the closing observation of my third chapter, that imaginative impressions contained within the body (upon which the “spiritual forms” supervene) are themselves mobile between—and hence, partially separable from—the bodily organs. In light of all of this, I’d reasoned that Alexandrian revivalists like Caston would inherit a problem from Alexander, to which supporters of an Avempacean moderate Thinking-Model, like myself, would inherit a solution.

As secondary and tertiary benefits, I’d noted that the moderate Thinking-Model would also assist Wedin in his efforts to establish the mind’s dependence upon the body (since it accounts for the dependence of a broader range of thought-acts upon the imagination than Wedin’s reading was able to) and that it would serve as a badly needed course-correction for the later Averroes, who’d abandoned the project of advancing a naturalistic reading of the material intellect altogether. Finally, I’d noted that the moderate Thinking-Model serves as a correction on my own past research, in that it enables me to maintain my earlier view that Aristotelian thought requires some sort of a “material” cause, but without requiring me to commit myself to the dualistic position that the mind itself is the subject for this process of change.

Coupled with the efficiency with which it enables us to make sense of passages (c), (e) and (f)’ without requiring us to posit that Aristotle changed his mind multiple times mid-text, the various contributions that the moderate Thinking-Model seems capable of making to the project of advancing a naturalistic interpretation of Aristotle renders it very attractive.

Appendix: List of Passages Cited

- (a) "But since when one thing has been set in motion another thing may be moved by it, and imagination is held to be a movement and to be impossible without sensation, i.e. to occur in beings that are percipient and to have for its content what can be perceived, and since movement may be produced by actual sensation and that movement is necessarily similar in character to the sensation itself, this movement cannot exist apart from sensation or in creatures that do not perceive, and its possessor does and undergoes many things in virtue of it, and it is true and false" (DA 3.3, 428b10-17).
- (b) "If then imagination presents no other features than those enumerated and is what we have described, then imagination must be a movement resulting from an actual exercise of a power of sense" (DA 3.3, 429a-3).
- (c) Thinking seems to be the most probable exception; but *if this too proves to be a form of imagination* or to be impossible without imagination, it too requires a body as a condition of its existence" (DA 1.1, 403a8-10).
- (d) That *this activity is not the same kind of thinking* as judgment is obvious. For imagination lies within our power whenever we wish (e.g. we can call up a picture, as in the practice of mnemonics by the use of mental images), but in forming opinions we are not free: we cannot escape the alternative of falsehood or truth" (DA 3.3, 427b14-20).
- (e) "*Thinking* is different from perceiving and is *held to be in part imagination*, in part judgment" (DA 3.3, 427b28).
- (f) "These two at all events appear to be sources of movement: appetite and thought (*if one may venture to regard imagination as a kind of thinking*; for many men follow their imaginations contrary to knowledge, and in all animals other than man there is no thinking or calculation but only imagination)" (DA 3.10, 433a9-12).
- (g) "When separated it is alone just what it is, and this above is immortal and eternal (we do not remember because, while this is impossible, *passive thought is perishable*); and without this nothing thinks" (DA 3.5, 430a20-26).
- (h) "If actual imagination and actual sensation were the same, imagination would be found in all the brutes: this is held not to be the case; e.g. it is not found in ants or bees or

grubs” (DA 3.3, 428a8-10).

- (i) “Lastly, certain living beings—a small minority—possess calculation and thought, for (among mortal beings) those which possess calculation have all the other powers above mentioned, while the converse does not hold—indeed *some live by imagination alone*, while others have not even imagination” (DA 2.3, 415a8-12).
- (j) “And because imaginations remain in the organs of sense and resemble sensations, animals in their actions are largely guided by them, some (i.e. the brutes) *because of the non-existence in them of thought*, others (i.e. men) because of the temporary eclipse in them of thought by feeling or disease or sleep” (DA 3.3, 429a5-8).
- (k) “But perhaps it is not the whole soul, nor all its parts collectively, that constitutes the source of motion; but there may be one part, identical with that in plants, which is the source of growth, another, namely the sensory part, which is the source of change of quality, while still another, and this not the intellectual part, is the source of locomotion. For other animals than man have the power of locomotion, but *in none but him is there intellect*” (*Parts of Animals* 1.1, 641a41-45).
- (l) “Life seems to be common even to plants, but we are seeking *what is peculiar to man*. Let us exclude, therefore, the life of nutrition and growth. Next there would be a life of perception, but it also seems to be common even to the horse, the ox, and every animal. There remains, then, an active life of the element that has a *rational principle*” (*Nicomachean Ethics* 1.7, 1097b32-36).
- (m) “It also follows that this is the reason why the lower animals are not incontinent, viz. because *they have no universal beliefs* but only imagination and memory of particulars” (NE. 7.3, 1147b3-5).
- (n) “And what we said before will apply now; that which is proper to each thing is by nature best and most pleasant for each thing; for man, therefore, the life according to intellect is best and pleasantest, *since intellect more than anything else is man*. This life therefore is also the happiest” (NE 10.7, 1178b2-6).
- (o) “In the great majority of animals there are traces of psychical qualities which are more markedly differentiated in the case of human beings” (*History of Animals* 8, 588a16-17).
- (p) “Some of these qualities in man, as compared with the corresponding qualities in animals, differ only quantitatively: that is to say, a man has more of this quality...”

(*History of Animals* 8, 588a21-23).

- (q) “The truth of this statement will be the more clearly apprehended if we have regard to the phenomena of childhood; for in children may be observed the traces and seeds of what will one day be settled habits, though psychologically a child hardly differs for the time being from an animal...” (*History of Animals* 8, 588a26-b1).
- (r) “When thought has become each thing in the way in which a man who actually knows is said to do so (this happens when he is now able to exercise the power on his own initiative), its condition is still one of potentiality, but in a different sense from the potentiality which preceded the acquisition of knowledge by learning or discovery; and thought is then able to think of itself” (DA 3.4, 429b6-429b9).
- (s) “Now *life is defined in the case of animals by the power of perception*, in that of man by the power of perception or thought” (NE 9.9, 1170a15-17).
- (t) “There [i.e. in the case of thinking and inferring about the immovable objects] the end is the truth seen (for, when one thinks the two propositions, one thinks and puts together the conclusion), but here [i.e. in the case of thinking in the domain of conduct] the two propositions result in a conclusion which is an action—for example, whenever one thinks that every man ought to walk, and that one is a man oneself, straightaway one walks; or that, in this case, no man should walk, one is a man: straightaway one remains at rest” (*De Motu Animalium* 7, 701a8-13).
- (u) “Now about eternal things no one deliberates, e.g. about the universe or the incommensurability of the diagonal and the side of a square...We deliberate about things that are in our power and can be done” (NE 3.3, 1112a21-31).
- (v) “The same man is thought to be continent and ready to abide by the result of his calculations, or incontinent and ready to abandon them” (NE 7.1, 1145b10-11).
- (w) “...the last proposition both being an opinion about a perceptible object, and being what determines our actions, this a man either has not when he is in the state of passion, or has it in the sense in which having knowledge did not mean knowing but only talking, as a drunken man may utter the verses of Empedocles” (NE 7.3, 1147b9-12).
- (x) “...it is the most continuous, since we can contemplate truth more continuously than we *do* anything” (NE 10.7, 1177b29-30).
- (y) “For while a wise man, as well as a just man and the rest, needs the necessaries of life, when they are sufficiently equipped with things of that sort the just man needs people

towards whom and with whom he shall act justly, and the temperate man, the brave man, and each of the others is in the same case, but the wise man, even when by himself, can contemplate truth" (NE 10.7, 1177b35-40).

- (z) "...he can reflect when he wants to, if nothing external prevents him" (DA 2.5, 417a28-29).
- (aa) "For imagining lies within our own power whenever we wish (e.g. we can call up a picture, as in the practice of mnemonics by the use of mental images)" (DA 3.3, 427b19-20).
- (bb) "...a man can think when he wants to but his sensation does not depend upon himself—a sensible object must be there" (DA 2.5, 417b25-26).
- (cc) "In the case of what is to possess sense, the first transition is due to the action of the male parent and takes place before birth so that at birth the living thing is, in respect of sensation, at the stage which corresponds to the possession of knowledge" (DA 2.5, 417b17-20).
- (dd) "...as to knowledge of the immediates, one might puzzle...whether the states are not present in us but come about in us, or whether they are present in us but escape notice. Well, if we have them, it is absurd; for it results that we have pieces of knowledge more precise than demonstration and yet this escapes notice" (*Posterior Analytics* 2.19, 99b26-27).
- (ee) "...there is a primitive universal in the mind (for though one perceives the particular, perception is of the universal—e.g. of man but not of Callias the man); again, a stand is made in these, until what has no parts and is universal stands—e.g. such and such an animal stands, until animal does" (*Posterior Analytics* 2.19, 100a15-100b1).
- (ff) "...for those [animals] in which it [retention] does not come about, there is no knowledge outside perceiving (either none at all, or none with regard to that of which there is no retention); but for some perceivers [i.e. those with imagination], it is possible to grasp it in their minds" (*Posterior Analytics* 2.19, 99b38-40).
- (gg) "For the actualizing of desire is a substitute for inquiry or thinking. I want to drink, says appetite; *this is drink, says sense or imagination* or thought: straightaway I drink" (*De Motu Animalium* 7, 701a31-32).

- (hh) “The faculty of thinking then thinks the forms in the images and...sometimes by means of images or thoughts which are within the soul, just as if it were seeing, it calculates what is to come by reference to what is present” (DA 3.7, 431b2-7).
- (ii) “To the thinking soul images serve as if they were contents of perception (and when it asserts or denies them to be good or bad it avoids or pursues them). That is why the soul never thinks without an image” (DA 3.7, 431a15-17).
- (jj) “...because imaginations remain in the organs of sense and resemble sensations, animals in their actions are largely guided by them, some (i.e. the brutes) because of the non-existence in them of thought, others (i.e. men) because of the temporary eclipse in them of thought by feeling or disease or sleep” (DA 3.3, 429a5-429a8).
- (kk) “That the affection is corporeal, i.e. that recollection is a searching for an image in a corporeal substrate, is proved by the fact that some persons, when, despite the most strenuous application of thought, they have been unable to recollect, feel discomfort, which even though they abandon the effort at recollection, persists in them none the less...the reason why the effort of recollection is not under the control of their will is that...he who tries to recollect and hunts sets up a process in a material part, in which resides the affection” (*De Memoria et Reminiscentia*, 453a14-453a31).
- (ll) “But since we have, in our work on the soul, treated of imagination, and the faculty of imagination is identical with that of sense-perception, though the being of a faculty of imagination is different from that of a faculty of sense-perception” (*De Insomniis*, 459a15-459a22).
- (mm) “...cannot reasonably be regarded as blended with the body: if so, it would acquire some quality, e.g. warmth or cold, or even have an organ like the sensitive faculty: as it is, it has none” (DA 3.4, 429a22-26).
- (nn) “When the mind is actively aware of anything it is necessarily aware of it along with an image; for images are like sensuous contents except in that they contain no matter” (DA 3.8, 432a7-9).
- (oo) “The sense and its organ are the same in fact, but their essence is not the same. What perceives is, of course, a spatial magnitude, but we must not admit that either the having the power to perceive or the sense itself is a magnitude; what they are is a certain form or power in a magnitude” (DA 2.12, 424a24-424b19).
- (pp) “...what has the power of receiving into itself the sensible forms of things without the matter, in the way in which a piece of wax takes on the impress of a signet-

ring without the iron or gold" (DA 2.12, 424a18-21).

(qq) "...if the old man could recover the proper kind of eye, he would see just as well as the young man. The incapacity of old age is due to an affection not of the soul but of its vehicle, as occurs in drunkenness or disease" (DA 1.4, 408b21-24).

(rr) "...they are within the soul potentially, but actualize themselves only when the impediment to their doing so has been relaxed; and according as they are thus set free, they begin to move in the blood which remains in the sensory organs, and which is now but scanty, and take on likenesses after the manner of cloud-shapes, which in their rapid metamorphoses one compares now to human beings and a moment afterwards to centaurs. Each of them is however, as has been said, the remnant of a sensory impression taken when sense was actualizing itself; and when this, the true impression, has departed, its remnant is still there..." (*De Insomniis*, 460b28-462a7).

(ss) "...the veins are the place of the blood, while the origin of these is the heart—" (*De Somno et Vigilia*, 456b1-2).

(tt) "...the image is an affection of the common sense" (*De Memoria et Reminiscentia*, 450a11-12).

(uu) "Certainly, however, all sanguineous animals have the supreme organ of the sense-faculties in the heart, for it is here that we must look for the common sensorium belonging to all the sense-organs" (*De Juventute et Senectute, De Vita et Morte, De Respiratione*. 469a10-12).

(vv) "If there is any way of acting or being acted upon proper to soul, soul will be capable of separate existence; if there is none, its separate existence is impossible" (DA 1.1, 403a10-11).

(ww) "...it [i.e. thought or the power of reflection] seems to be a different kind of soul, differing as what is eternal from what is perishable; it alone is capable of being separated" (DA 2.2, 413b25-27).

(xx) "...whether each of these [i.e. the psychic faculties] is an attribute of the soul as a whole, i.e. whether it is with the whole soul we think, perceive, move ourselves, act or are acted upon, or whether each of them requires a different part of the soul?" (DA 1.5, 411a29-b2).

(yy) “When separated it is alone just what it is, and this above is immortal and eternal (*we do not remember* because, while this is impossible, passive thought is perishable)” (DA 3.5, 430a20-26).

(zz) “It remains, then, for the reason alone so to enter [i.e. from outside] and alone to be divine, for no bodily activity has any connexion with the activity of reason” (Gen An 2.3, 736b26-28).

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- *Mind and Imagination in Aristotle*. New Haven: Yale University Press, 1988.

Curriculum Vitae

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Education	
M.A. Philosophy. University of Alberta, 2012. B.A. Philosophy, with distinction. Minor in biological sciences. University of Alberta, 2009.	
Grants/Fellowships/Awards	
Ontario Graduate Scholarship, 2016-2017 (\$15000) Western University entrance scholarship, Fall 2013 (\$2000) Alberta Graduate Student Scholarship, 2010 (\$3000) Alexander Rutherford High School Achievement Scholarship 2004 University of Alberta Academic Excellence Scholarship 2004	
Areas of Specialization	
Ancient Philosophy	
Areas of Competence	
Philosophy of Religion, Bio-Ethics, Philosophy of Film.	
Refereed Publications	
<p>“Scorsese and Plato: A Philosophical Method for Cinematic Analysis and Discovering Divine Revelation.” In William H.U. Anderson (ed.) <i>Film, Philosophy and Religion</i>. Vernon Press (2021).</p> <p>“Why Atheists Should be Anti-natalists: The Argument from Evil and the Ethics of Procreation.” In William H.U. Anderson (ed), <i>Atheism and the Christian Faith</i>. (Vernon Press, 2017).</p> <p>“Lucretius on the Finality of Death: The Problem of Self-Recollection.” <i>Gnosis</i> 14.1 (2015)</p>	
Other Publications	
<p>“Matter, Extension and Intellect in Aristotle.” University of Alberta, Faculty of Graduate Studies and Research, Theses and Dissertations 2012.</p>	
Papers Presented	

"Fundamental Bio-ethical Questions: Contingent on One's Theological Commitments." *King's University College Philosophy Club*, London Ontario. Nov 15, 2019.

"Imagination as Thought in Aristotle's De Anima." *Canadian Philosophical Association Annual Congress 2016*. University of Calgary. May 31st, 2016.

"Why Atheists Should be Anti-natalists: The Argument from Evil and the Ethics of Procreation" *Canadian Society of Christian Philosophers Annual Meeting, Congress 2016 of the Humanities and Social Sciences*. University of Calgary. May 30th, 2016.

"Why Atheists Should be Anti-natalists: The Argument from Evil and the Ethics of Procreation" *Atheism and the Christian Faith 2016 Conference*. Canadian Centre for Scholarship and the Christian Faith, Concordia University of Edmonton. May 7th, 2016.

"Imagination as Thought in Aristotle's De Anima" *Philosophy Graduate Student Association Colloquium Series*. University of Western Ontario. October 21st, 2015

"Aquinas on the Separability of the Human Soul: A Debt to Aristotle or a Distortion of Aristotle?" *Canadian Society of Christian Philosophers Annual Meeting, Congress 2015 of the Humanities and Social Sciences*. University of Ottawa. June 1st, 2015

Teaching Experience

Philosophy 2715: Healthcare Ethics (Teaching Assistant, Western University, Winter 2021)

Philosophy 2700: An Introduction to Ethics and Value Theory (Teaching Assistant, Western University, Fall 2020)

Philosophy 2715: Healthcare Ethics (Teaching Assistant, Western University. Winter 2019)

Philosophy 2730: Media Ethics (Teaching Assistant, Western University. Winter 2017)

Philosophy 2061: Science vs. Religion: The Epistemological Conflict (Teaching Assistant, Western University. Fall 2016)

Philosophy 1130: Big Ideas (Teaching Assistant, Western University. Winter 2016)

Philosophy 2061: Science vs. Religion: The Epistemological Conflict (Teaching Assistant, Western University. Fall 2015)

Philosophy 1020: Introduction to Philosophy (Teaching Assistant, Western University. Fall 2014-Winter 2015)

Philosophy 1200: Critical Thinking (Teaching Assistant, Western University, Fall 2013-Winter 2014)

Philosophy 101: Introduction to Philosophy: Values and Society (Teaching Assistant, University of Alberta, Fall term, 2011)

Philosophy 102: Introduction to Philosophy: Knowledge and Reality (Teaching Assistant, University of Alberta, Winter term, 2011)

Philosophy 230: Greek Philosophy to Plato (Teaching Assistant, University of Alberta, Fall term, 2010)

Philosophy 200: Metaphysics (Teaching Assistant, University of Alberta, Winter term, 2010)

Philosophy 101: Introduction to Philosophy: Values and Society (Teaching Assistant, University of Alberta, Fall term, 2009)

Professional Activities

Welcoming Committee, Western Philosophy 2014