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ARABIC INFLUENCES IN AQUINAS'S DOCTRINE OF INTELLIGIBLE SPECIES

by

Max Herrera

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ABSTRACT
ARABIC INFLUENCES IN AQUINAS'S DOCTRINE OF INTELLIGIBLE SPECIES

Max Herrera

Marquette University, 2010

In contemporary literature, one can find much information concerning Thomas Aquinas's doctrine of intelligible species. However, none of the literature takes into account how and why Aquinas developed his doctrine of intelligible species. Often, it is purported that Aquinas is just following Aristotle. However, this is not the case. There are *aporiae* in the Aristotelian corpus, and those who followed Aristotle tried to resolve the intellection and hylomorphism *aporia*, an *aporia* that arose as a result of denying Platonic forms and affirming hylomorphism. Among those who attempted to resolve this *aporia* were Avicenna and Averroes from whom Aquinas drew and developed his doctrine of intelligible species. Avicenna's and Averroes' influence on Aquinas's doctrine of intelligible species is the focus of this dissertation. In addition, Aquinas's hylomorphic doctrines and natural and supernatural psychologies are explicated, and the influence of Avicenna and Averroes on Aquinas's psychologies is highlighted. Finally, the arguments posed by contemporary scholars as to whether Aquinas is a direct realist or a representationalist are reviewed in light of the Arabic contributions and Aquinas's synthesis.

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ABBREVIATIONS

ATP	*Some Questions Regarding Avicenna's Theory of the Temporal Origination of the Human Rational Soul*
CM	*Averroes Cordubensis Commentarium Magnum in Aristotelis De Anima Libros*
CMT	*Long commentary on the de anima of aristotle*
CAV	*Tractus de unitate contra averroistas*
DeCausis	*Sancti thomae de aquino super librum de causis expositio*
DeEnte	*De ente et essentia*
DeSpiCr	*De spiritualibus creaturis*
DeA	*Sentencia de anima*
REP	*Intentional Transfer in Averroes, Indifference of Nature in Avicenna, and the Issue of Representationalism of Aquinas*
MMR	*Tradition and Innovation in Medieval Theories of Mental Representation*
Metaphysicam	*In Metaphysicam Aristotelis Commentaria*
Physicorum	*Commentaria in octo libros physicorum*
QDAnima	*Quaestiones disputatae de anima*
QDPot	*Quaestiones disputatae de potentia*
QDVer	*Quaestiones disputatae de veritate*
QDVirt	*Quaestiones disputatae de virtutibus*
QQ	*Quaestiones quodlibetales*
SCG	*Summa contra gentiles*
Sent	*Scriptum super sententiis magistri petri lombardi*
S.T.	*Summa theologiae*
TBV	*The Role of Arabic/Islamic Philosophy in Thomas Aquinas's Conception of the Beatific Vision in his Commentary on the Sentences IV, d.49, q.2, A. 1*
TLT	*Thomistic Realism and the Linguistic Turn: Toward a More Perfect Form of Existence*

Glossary of Subscripts

Hylomorphism and abstraction take on different meanings throughout the context of this paper. So, in order to assist the reader, this glossary may be detached and referred to throughout the dissertation.

Hylomorphism

Hylomorphism$_1$ refers to the kind of hylomorphism that both Averroes and Aristotle maintain. That is to say, the soul is the form of the body, and it is educed from the potency of matter. Therefore, at death, the soul does not continue to exist, for it is solely a material form, not a spiritual form. This type of hylomorphism precludes intelligibles from being received into the body because whatever is received into the soul is also received in matter and particularized. This kind of hylomorphism is that which was received by the Neoplatonic tradition.

Hylomorphism$_2$ refers to the kind of hylomorphism that is held by Avicenna. That is to say, the soul is *not* the form of the body. Instead, the form of corporeity is the form of the body. The form of corporeity is a material form that is bestowed on matter by the Agent Intellect. The soul, on the other hand, is a spiritual substance that is related to the body (a form-matter composite) by means of an accidental unity. This kind of hylomorphic unity also precludes the reception of intelligibles because whatever is received into the form of corporeity is also received in matter and particularized.

Hylomorphism$_3$ refers to the kind of hylomorphism that is held by Aquinas concerning non-rational animals. That is to say, the soul is the form of the body, and it is educed from the potency of matter. Therefore, at death, the soul does not continue to exist, for it is solely a material form, not a spiritual form. This type of hylomorphism precludes intelligibles from being received into the body because whatever is received into the soul is also received in matter and particularized. Aquinas's version is different from hylomorphism$_1$ inasmuch as there a two-fold composition. That is to say, form and matter give rise to an essence, and essence and existence gives rise to the hylomorphic entity. Because the composition of essence and existence is ontology subsequent to the composition of form and matter, the soul is not immortal in this scenario.

Hylomorphism$_4$ refers to the kind of hylomorphism that is held by Aquinas concerning rational animals. That is to say, the soul is the form of the body, and it is *created* by God. Therefore, at death, the soul *does* continue to exist, for it is a *spiritual form*. This type of hylomorphism does *not* preclude intelligibles from being received into the individual because there is an aspect of the soul that transcends the body although it is not separate from the body. This version is different from hylomorphism$_3$ in the order of composition . Whereas hylomorphism$_3$ has form and matter composed ontologically prior to the composition with existence, hylomorphism$_4$ has form and existence composed ontologically prior to the composition of form with matter. In this scenario, the soul is immortal.

Glossary of Subscripts

Abstraction

Abstraction$_1$ refers to the ***process*** that separates form from matter in sensation.
Abstraction$_2$ refers to an ***intentional form*** that has been separated from matter in sensation

In Avicenna

Abstraction$_3$ refers to the ***process*** of forms flowing from the Agent Intellect into the human soul. This kind of abstraction is found only in Avicenna.

Abstraction$_4$ refers to the ***intentional form*** that flows from the Agent Intellect to the individual soul. This kind of form is multiplied and is a ***means of cognition***, not an object of cognition. In other words, this kind of form is not that which is known, but that ***through which*** something else is known. This kind of form is found only in Avicenna.

Abstraction$_5$ refers to an intelligible in act that resides in the Agent Intellect. This kind of form *cannot* be multiplied and is an ***object* of cognition**. This is found only in Avicenna.

In Averroes

Abstraction$_3$ refers to the ***process*** of separating a form in the imagination from matter to produce an intelligible in act that resides in the Material Intellect. The process takes an imaginative form as input and produces an intelligible form. In other words, it transfers the *ratio*
from one mode of being to another.

Abstraction$_4$ refers to the ***intentional form*** that was produced by Agent Intellect and resides in the Material Intellect.

In Aquinas

Abstraction$_3$ refers to the ***process*** of separating a form in the imagination from matter to produce an intelligible in act that resides in the possible intellect. The process takes an imaginative form as input and produces an intelligible form. In other words, it transfers the *ratio*
from one mode of being to another.

Abstraction$_4$ refers to the ***intentional species*** that was produced by the agent intellect and resides in the possible intellect. This form is a ***means of cognition***; it is not an object of cognition except reflexively.

CHAPTER 1

INTELLIGIBLE SPECIES: OBSTACLES OR AIDS TO DIRECT COGNITION

Introduction

Questions concerning what is knowledge and how do we know can be seen as early as Plato's *Theaetetus*. These questions still plague philosophers today. Regardless of whether one is dealing with issues in contemporary philosophy of mind (e.g., type-type, token-token, etc.) issues, or the role of *sensible species* in medieval psychology,[1] inevitably obstacles arise when we try to given an account as to *how* we know. The role of intermediaries in the acquisition of knowledge is such an obstacle. Those who maintain that intermediaries are representations and are objects of cognition deny that things can be known as they are in themselves (i.e., only representations can be known).[2] Those who hold this view will be referred to as representationalists in this dissertation. Those who maintain that intermediaries do not preclude knowing things in themselves will be referred to as direct realists.[3] Similarly, obstacles can be seen in the psychology of

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1. Robert Pasnau, "Id Quo Cognoscimus," in *Theories of Perception in Medieval and Early Modern Philosophy*, Editted by Simo Knuuttila and Pekka Karkkainen (2008), pp. 131–50; Robert Pasnau, "What is Cognition? A Reply to Some Critics," *American Catholic Philosophical Quarterly* 76, no. 3 (Summer 2002): pp.483–90; John P. O'Callaghan, "Aquinas, Cognitive Theory, and Analogy: A Propos of Robert Pasnau's Theory of Cognition in the Later Middle Ages," *American Catholic Philosophical Quarterly* 76 (2002): pp. 451–82.

2. Gary Gutting, "Rorty," in *Cambridge Dictionary of Philosophy 2nd Edition*, edited by Robert Audi (New York: Cambridge University Press, 1999), p. 278.

3. John Heil, "Direct Realism," in *Cambridge Dictionary of Philosophy 2nd Edition*, edited by Robert Audi (New York: Cambridge University Press, 1999), pp. 237–38.

Thomas Aquinas, and one of the main obstacles is the intelligible species. The intelligible species *seems* to be an unnecessary intermediary that is affirmed by Aquinas. In addition, the concept, like the intelligible species also seems to be an unnecessary intermediary. As a result of affirming these "intermediaries," some contemporary philosophers of medieval studies maintain that Aquinas is a representationalist. That is to say, these philosophers maintain that Aquinas held the position that we can only know our internal impressions or internal sensations so that we only know things as they appear to us; we cannot know things as they are in themselves. In contradistinction, other contemporary philosophers of medieval studies maintain that Aquinas is a direct realist. That is to say, these philosophers maintain that Aquinas held the position that we know things as they are in themselves.

The primary objective for this dissertation is to show how the doctrine of intelligible species arose and why intelligible species are necessary to Aquinas's epistemology. My secondary objective is to show that Aquinas drew on Avicenna and Averroes to develop his natural epistemology and his super-natural epistemology.[4] My last objective is to examine cursorily the modern debate as to whether Aquinas is a direct realist or a representationalist in light of my primary and secondary objectives.[5]

In this chapter, I consider the positions taken on Aquinas by two schools of interpreters whom I call the representationalists versus the direct realists. After considering their assertions, I shall then look at how Aquinas may have contributed to the present misunderstanding. In light of Aquinas's contribution to the current

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4. Whereas Aquinas's natural epistemology accounts for how we know things in the natural world, Aquinas's supernatural epistemology accounts for how we know things beyond the natural world (e.g., prophesy and the beatific vision).

5. In a non-pejorative manner, I will label those who assert that Aquinas is a representationalist as *the representationalists*, and I will label those who assert that Aquinas is a direct realist as *the direct realists.*

misunderstanding, I consider Aquinas's major sources (Averroes, Avicenna, and Augustine) to defend my conclusion that *none* of his major sources held an intelligible species doctrine. Although Aristotle is a major source who did not hold an intelligible species doctrine, I defer my discussion of Aristotle until chapter two because I examine Aristotle's contribution in light of his response to Plato.

In chapter two, I examine Plato and the "Aristotelian aporia," a constructive dilemma that befuddled Aristotelians until Aquinas. In chapter three, I show that Avicenna and Averroes tried to resolve the Aristotelian aporia by grabbing different horns of the constructive dilemma. In chapter four, I argue that Aquinas resolves the Aristotelian aporia by grabbing both horns of the constructive dilemma, and by following Avicenna and Averroes, he develops his supernatural epistemology. Finally, in the fifth and final chapter, I summarize what has been accomplished, highlighting the important contributions of Avicenna and Averroes to the development of the new teachings of Aquinas and the reasoning that grounds those teachings. I then conclude by responding to the concerns of contemporary interpreters of Aquinas. With that said, let us examine how some representationalists understand Aquinas.

Aquinas According to the Representationalists

Among the representationalists are scholars such as Gyula Klima, Robert Pasnau, Houston Smit, Claude Pannacio, and Fernand Van Steenberghen. Although they agree that the direct objects of cognition are representations, there are nuances among their views.

Let us begin with Klima, whose account allows one to introduce some of the terminology of Aquinas. For Klima, "a representation is a form of a represented object or objects, existing in the thing representing the object or objects in question."[6] There is a

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6. Gyula Klima, "Tradition and Innovation in Medieval Theories of Mental Representation," in *Proceedings of the Society for Medieval Logic and Metaphysics*, vol. 4 (New York, 2004), 4:4,

formal identity between the thing existing in reality and that which exists in the mind asserts Klima since the intelligible species "is universal not in its being, for it is a singular act inherent in an individual mind, but in its mode of representation, insofar as it represents several individuals in respect of what is common to them all."[7] For Klima, a representation is not epistemologically problematic because the formal unity between the knower and the known is based on a relationship of formal causality. Moreover, the relationship of formal causality between the cause (i.e., in the prime case, the material thing existing in the world) and the effect (i.e., the intelligible species in the intellect) is grounded in some necessary relationship; namely, if there is a form in the knower, there must be some form in reality on which it depends. Klima writes:

> [I]n the earlier model (*via antiqua*), the formal unit of concept and object, that is, the sameness of information content, could secure a logically necessary connection between them, even if the entities carrying the same information content are themselves contingent and contingently related. . . . But on the newer model (*via moderna*) concept and objects cannot be characterized as formally identical, whence they become merely contingently related entities *without* some logically necessarily identical information content.[8]

In other words, Klima seems to imply that in the earlier model, the information content (i.e., the form) existed under various modalities of being. The idea of a form existing under various modes of being is a bit recondite, but it should not be to strange to us. Consider that a score of music, a DVD, and a hard disk all have the same song, yet how the song exists is different. In the score, only notes exist. On the hard disk, the song is stored as binary read-writable bits, and on the DVD, the song is stored as binary read-only bits. Furthermore, when the song is actually played, it exists ephemerally in the air.[9] That is why Klima can assert that representation is not epistemologically problematic

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[Continued from previous page]
HTTP://faculty.fordham.edu/klima/SMLM/PSMLM4/PSMLM4.pdf.

7. Klima, "Medieval Mental Representation," p. 5.

8. Ibid., p. 10.

9. Ibid., p. 8.

unless one denies the Thomistic notion of analogy of being; those who deny the analogy of being have

> no way to talk about the formal sameness of these acts and their objects, for there is no way to talk about the common information content of each as the direct object of some intellectual act of cognition. The intentionality of mental representation in their case therefore cannot be analyzed in terms of similarity or causality, whence it is reduced at best to some simple, unanalyzed feature of a mental concept, sometimes described as 'indifferent representation.' But this 'indifferent representation' cannot specify any formal aspect of the objects it is supposed to represent that would secure the logically necessary formal unity between concept and object.[10]

The notion of "analogy of being" is also foreign to those who do not study Aquinas, so let us briefly examine what is meant by "analogy of being." In Thomistic metaphysics, all being is analogical. That is to say, were being equivocal or univocal, one would be lead back to Parmenidian monism.[11] The only other choice is that being is analogical. By maintaining that being is analogical, one may have a multiplicity of beings as well as a formality existing under various modes of being. However, if one denies analogy of being, then the same formality cannot be spoken of as existing under different modalities. Thus, there could be no formal sameness between the knower and the known in one's account. Thus, a denial of the analogy of being entails the dismissal of a formal identity between the knower and the known. According to Klima, this opens the door for skepticism: " 'demonic' deception becomes a logical possibility, opening up the way to all the epistemological troubles of modern philosophy."[12] For Klima, the intelligible

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10. Klima, "Medieval Mental Representation," p. 7.

11. Parmenides argued that two things can either differ by being or non-being. They cannot differ by non-being, for there would be no difference between them. Furthermore, they could not differ by being because being was common to both. Consequently, it follows that there can only be one being. Parmenides presupposed that all being was univocal. In contradistinction to Parmenides, one could assert that being is equivocal, but the outcome would be the same, monism. This is the case because if there were one being, and all other beings were *totally other* than this being, they would not be.

12. Klima, "Medieval Mental Representation," p. 7.

species serves as a causal explanation for the formal likeness between the knower and the known. However, for Klima, what is present in the intellect is the intelligible species. The intellect does not have direct access to the material world; the only material thing to which the intellect has access is the phantasm. Thus, Aquinas, according to Klima, is a representationalist.[13]

Robert Pasnau agrees that Aquinas must be understood as a representationalist. Pasnau states, "Aquinas shares the presupposition . . . that the immediate and direct objects of cognitive apprehension are our internal impressions. His position on this question is subtle and interesting. But it is not radically distinct from modern theories."[14] Yet, Pasnau disagrees with Klima when it comes to formal identity. He asserts:

> So formal identity seems relevant to direct realism only if species are somehow themselves apprehended. I don't think that saying this is enough to end discussion of the identity doctrine, because there is a sense in which Aquinas does treat species as the objects of cognition . . .But we should notice that, even if the identity doctrine gives us a way to reject representationalism, this still isn't going to help us refute the associated skeptical difficulties . . .Because the species is identical with the object, apprehending the species is apprehending the object. This line of argument, however, rests on an invalid move. The argument assumes that we can substitute identical objects into claims about perceiving and apprehending while preserving the truth of those claims. . . the identity of knower and known is an embarrassment for Aquinas when he takes up the problem of whether sensible and intelligible species are the objects of cognition. . . . *Formal identity does not help Aquinas with the epistemological problem of getting from*

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13. Gyula Klima, "Intentional Transfer in Averroes, Indifference of Nature in Avicenna, and the Issue of Representationalism of Aquinas," Ancient and Medieval Conference (Fordham University, 2005), p. 3: "In this [pre-Ockhamist] framework, there are intermediary objects between cognitive acts and their ultimate objects. Indeed, there can be multiple intermediary objects between a cognitive act and its ultimate objects, as Aquinas certainly takes it to be the case in intellectual cognition, where an act of thought uses an intelligible species to form a concept to represent a common nature that in turn exists individualized in the ultimate objects of this act of thought, namely, in the members of the species, some of which provided the sensory information, the phantasms, from which their intelligible species was abstracted. *So, if what makes someone a representationalist is the mere positing of intermediary objects, then Aquinas is certainly "guilty" on several counts*." [emphasis added] For Klima, representationalism is benign because he affirms analogy of being.

14. Robert Pasnau, *Thomas Aquinas On Human Nature* (New York: Cambridge University Press, 2002), p. 308.

our ideas and impressions to the external world.[15]

Formal identity, according to Pasnau, *may* be able to support direct realism only if the intelligible species are objects that are cognized. However, contrary to Klima's assertion, formal identity does not safeguard against skepticism because one has no way of comparing the intelligible species with the thing existing in extra-mental reality. In other words, "Formal identity does not help Aquinas with the epistemological problem of getting from our ideas and impressions to the external world."[16]

Now, of course, one may think that Pasnau has confused second intentions, the intellect reflecting on its act of understanding, with first intentions, the intellect's grasping of the sensible thing by means of abstractions.[17] For Aquinas's epistemology seems to be aimed at giving an empiricist account of how the world is known. Yet, if one looks at Pasnau's understanding of Aquinas, it becomes evident why Pasnau is concerned with trying to get from our ideas to the external world. Pasnau writes:

> I now want to show Aquinas intends nothing less than to affirm Augustine's theory and place it at the very heart of his own account of intellective cognition. Aquinas's commitment to divine illumination is a consequence of the way he understands the opening words of Aristotle's *Posterior Analytics*. . . For, as is said in *Posterior Analytics* I, "all intellectual teaching and learning is brought about through pre-existing cognition." (*InDA* III.10.185.-192) Aquinas takes this to entail that knowledge cannot start up *ex nihilo*, and that the human intellect, if left unaided, would be incapable of having any knowledge" . . . Aquinas can still deny that we have innate knowledge. But on his view, we must possess the innate capacity to see the truth of certain principles. If our mind were entirely blank, our education could never begin. . . . In this sense, Aquinas is even willing to speak of the soul's having a prior knowledge of everything that it knows. . . . In a way, Plato was right: we do have what amounts to innate knowledge. . . . So much for empiricism.[18]

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15. Robert Pasnau, *Theories of Cognition in the Later Middle Ages* (New York: Cambridge University Press, 1997), pp. 300–03 [emphasis added]

16. Pasnau, *Theories of Cognition in the Later Middle Ages*, p. 303.

17. Joseph Owens, *An Elementary Christian Metaphysics* (Houston: Center for Thomistic Studies, 1985 reprint), pp. 237–39.

18. Pasnau, *Thomas Aquinas On Human Nature*, pp. 307–09.

According to Pasnau's reading of Aquinas, Aquinas is following Augustine, and in doing so, Aquinas is maintaining some form of divine illumination. Consequently, if ideas are in some fashion innate, albeit in an inchoate fashion, then the project does become understanding how these ideas correspond to extra-mental reality. One would have to rely on some other principle such as divine beneficence to safeguard that one's concept is indeed veridical. The demonic deception that Descartes and Klima speak about becomes logically possible given Pasnau's reading of Aquinas.

The notion that our ideas are provided by God and exist in some inchoate fashion is not something held only by Pasnau. Houston Smit's writes:

> the intelligible forms that come to inform our intellects are not propagated to our souls through our senses. Indeed, they are not present in any sensible cognition. They are, rather, forms produced through our share in the divine spiritual light. This connatural light of our souls produces these forms . . . . Moreover, it is capable of doing so [producing the forms] only because all scientia pre-exists in it [the soul] virtually and universally, in partial active potency.[19]

For Smit, intelligible species and forms are not things that are derived from sensation because intelligible forms are not present in sensation at all. Thus, the connatural light by which humans participate in the divine produces these forms in our intellect. Moreover, it is not the case that these forms are produced *ex nihilo*; instead, these forms already exist in our soul (i.e., in the agent intellect) in *"partial active potency*." In other words, our concepts are innate, and they exist in an inchoate fashion in the agent intellect. The role of the agent intellect is to illumine our intellect so that we can see what is already present in it. Thus, the content of intellection and the light by which one sees these intelligible forms are both given to us by God. Similar to Pasnau's account, our intellect would only be aware of intelligible forms, and the veridical nature of concepts to reality would depend again on a principle such as divine beneficence in order to avoid demonic skepticism.

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19. Houston Smit, "Aquinas's Abstractionism," *Medieval Philosophy and Theology* 10 (2001): p. 118.

Claude Pannacio makes it clear that neither the intelligible species nor the concept is the nature of the thing existing in reality, even though Aquinas says that the natures of things are known in the intellect. As a result, Pannacio concludes that the intelligible species and the concept have a relationship of similitude with the nature in a material thing; it is via knowing similitudes (i.e., representations) that the nature is known. Consequently, according to Pannacio, "Aquinas's representationalism thus turns out to be incompatible with direct realism after all."[20]

Last, but certainly not least, Fernand van Steenberghen says:

> It is again the natural orientation of the intellect toward the real which makes possible a certain knowledge of the singular [thing]. *Not a direct knowledge because the material individual (l' individu materiel), which owes its individuation to the material . . . is not intelligible to us.* But we are able to attain it indirectly by a return to cerebral images which represent the singular [thing] . . . As an immaterial and immanent, the act of the intellect is completely conscious: the first object of thought is the real [thing] delivered by the senses.[21]

For Van Steenberghen, the only cognitive object that is ontologically present to the intellect is the phantasm, and by means of the phantasm, which represents the singular, one has access to the real. Therefore, the intellect does not *know* things existing outside the mind *directly* because the matter in a hylomorphic composite precludes the intellect's ability to grasp the intelligibility of material objects. In other words, by means of the

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20. Claude Pannacio, "Aquinas on Intellectual Representation," in *Ancient and Medieval Theories of Intentionality*, ed. Dominik Perler (Leiden, Netherlands: Brill, 2001), p. 200.

21. Fernand Van Steenberghen, *Le Thomisme* (Paris: Presses Universitaires de France, 1992), p. 84: C'est encore l'orientation naturelle de l'intelligence vers le reel qui rend possible une certaine connaissance intellectuelle du singulier. *Non pas une connaissance directe, car 1'individu materiel, qui doit son individuation à la materiel... n'est pas intelligible pour nous.* Mais nous pouvons l'atteindre indirectement par un retour aux images cerebrales (phantasmata), qui represent le singulier....Acte immateriel et immanent, l'acte d'intelligence est pleinement conscient : le premier objet de la pensee est le reel livré par les sens. [emphasis added]

phantasm (a representation), the intellect knows singular, material objects, which are otherwise unavailable to the intellect.

One can clearly see that the representationalists agree that the human intellect cannot grasp extra-mental reality directly (i.e., only representations are present to the human intellect, and by means of these representation, one is made aware of the external world). For Klima and van Steenberghen, this is not problematic because they maintain that formal causality provides the ontological grounds that safeguard the veridical nature of knowing. For Pasnau and Smit, formal causality does not safeguard anything because, albeit in an inchoate fashion, concepts are innate to the human intellect by virtue of divine illumination. For them, Divine illumination, however, opens the door to demonic skepticism, and Aquinas has failed adequately to give an account explaining how our concepts or internal impressions correspond to reality. Pannacio make the ontological distinction between the nature of a thing that is intrinsic to a hylomorphic entity, and the concept of intelligible species, which is intrinsic to the intellect. Whereas the former exists as a substantial form in the extra-mental material entity, the latter exists as an accidental form in an immaterial intellect. Consequently, they cannot be the same thing. Thus, what is presented to the intellect is something other than, though similar to, the nature of the thing, a representation.

Although the representationalists agree that only representations are directly present to the intellect, they disagree as to the source of knowledge. Those who maintain some kind of formal causality will affirm that knowledge about the world comes from the world, whereas the group that denies formal causality will affirm that knowledge about the world comes from God by means of Divine illumination. Regardless of their difference, they would all affirm that Aquinas is not a direct realist.

Aquinas According to the Direct Realists

In contradistinction to the representationalists, the direct realists affirm that

Aquinas's epistemology is such that we know things outside of the mind. That is to say, humans are not limited to knowing only internal representations and images. Among the direct-realists, one can find scholars such as Joseph Owens, Eleanore Stump, Etienne Gilson, Anthony Kenny, Norman Kretzmann, John O'Callaghan, and Lawrence Dewan.

Joseph Owens maintains that Aquinas is a direct realist. He affirms:

> By its very nature it has to call upon much knowledge that has been attained in the sciences and in other philosophical disciplines. And by its nature as *human* cognition it shows why the myth of an obligatory direct bearing upon ideas, sensations, or sense data different from real existents, may today be exorcized from an acceptable philosophic procedure.[22]

For Owens, human cognition does not immediately pertain to ideas, sensations, or sense data (i.e., representations); rather, human cognition is directed towards real existents. Yet, Owens affirms:

> The concept . . . is something that is produced by the activity of intellection, while the thing known in it is not so produced but is presupposed. The concept is produced as a similitude of the thing in order that the thing itself may be known in and through it. Its whole purpose . . . is to enable you to know something else. Its knowable content is the same as the thing itself.[23]

Owens' statements appear contradictory. On one hand, he is affirming that one knows *real existents*, and on the other hand, he is affirming that the concept (i.e., a representation) is produced by the intellect. The purpose of the concept to allow one to know the real existent. The representationalist camp would say that if the concept is a similitude (i.e., a representation), then it is the concept that is known, not the thing existing in reality. Moreover, the representationalist would affirm that the concept stands in the way between the thing in reality and the knower. That is to say, the concept is an intermediary that precludes knowing reality. Nevertheless, for Owens, the concept

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22. Joseph Owens, *Cognition: An Epistemological Inquiry* (Houston: Center for Thomistic Studies, 1992), p. 53.

23. Joseph Owens, *An Elementary Christian Metaphysics*, p. 243.

enables one to know reality.[24]

For Owens, the concept is necessary for three reasons. First, the concept serves as the ontological basis for intellectual memory for things that have no real existence. The human imagination, a power residing in the brain, is able to construct images that it has never seen. For example, one may imagine a golden mountain although one has never seen one. Further, the intellect has to have the ability to produce a similitude that corresponds to what one has imagined.[25] Second, the concepts are the ontological basis in which the intelligible content is stored in intellectual memory.[26] According to Owens, "when intellection ceases, the concept in which it [intellection] took place remains stored in the intellectual memory."[27] Third, concepts are necessary because the intellect knows things as abstractions (i.e., without matter or the concrete conditions of matter). "Human intellect is of such a nature that it has to produce an intelligible similitude in which it may know its object."[28] For example, whereas Socrates is a person who is sitting, the intellect is able to form an abstraction regarding the one person who is sitting under various concepts. For example, one may consider "person", "sitting", "Socrates", "man", and

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24. Owens seems to focus primarily on the concept and not on the intelligible species. This may be the case because the intelligible species is not knowable directly but only reflexively. Owen states:

> *Species intelligibilis* is also used by St. Thomas for the form that actuates the intellect in first actuality and is not immediately known except by reflection: "Therefore the intelligible species that is the principle of the intellectual operation necessarily differs from the word of the heart that is formed through the operations of the intellect although the word itself can be called an intelligible species or form, as constituted by the intellect..." Joseph Owens, *An Elementary Christian Metaphysics*, pp. 242–43.

25. Joseph Owens, *An Elementary Christian Metaphysics*, p. 243.

26. Ibid., p. 244.

27. Ibid.

28. Ibid.

"animal". In other words, what is united in reality can be considered under multiple distinct abstractions in the intellect. Thus, each abstraction would require a concept which can be inspected by the intellect. Although Owens denies that one primarily knows internal objects inasmuch as he affirms that one knows real existents, how does he avoid the charge that the intellect is knowing the concept, an internal object with the aforementioned three roles?[29]

Owens asserts that "cognitional similitude or image" (i.e., the concept) should not be conceived in the manner of a material picture or a mirror.[30] Yet, he gives an example of one looking at a guard through a mirror, and then later realizing that one was not looking at the guard but at a reflection of a guard in a mirror. In other words, Owens' analogy is intended to imply that by looking at the concept, one is oblivious of the concept and only cognizant of the content that the concept makes present to the intellect. Unfortunately, this analogy, which is intended to support direct realism, can be used to demonstrated that the basis for direct realism is an illusion in which one confuses the representation (i.e., the concept), for the real thing. Moreover, in the example that is given, particulars are the basis for the example, but the intellect supposedly only has universals present to it. As Owens acknowledges, the very reason for abstraction was to remove the particularity to get at the intelligible content that is supposed to be universal and necessary.[31] Owens admits that the example is imperfect.[32] However, it is difficult to

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29. The notion of how one knows one self and what constitutes "self" are beyond the scope of the dissertation. In this context, "the denial of internal objects" means that real existents are the object of intellection as opposed to perception, sense data, or concepts.

30. Joseph Owens, *An Elementary Christian Metaphysics*, p. 244.

31. Ibid., p. 235.

32. Ibid., p. 244.

see how he can maintain a direct realist position when the concept is interposed between the thing in reality and the knower.

Concerning Owens' position, Eleanore Stump writes:

> In many passages, Aquinas is concerned to rule out the possibility that the intelligible form is itself the object of cognition in ordinary cases of cognition, in which people cognize external particulars. In his recent book *Cognition : An Epistemological Inquiry* (Houston, TX: Center for Thomistic Studies, 1992), Joseph Owens is similarly concerned to show that the direct object of the intellect is not an intelligible form but some extramental object. He is so concerned to rule out the possibility of skepticism, however, that he goes to the other extreme and maintains that for Aquinas there is unmediated awareness of things in the world. Aquinas 's position seems to stand somewhere between the position Owens ascribes to him and the position Aquinas himself is ruling out. Owens is right to hold that the object of ordinary intellective cognition is part of extramental reality and not some internal state of the intellect. But, on the other hand, it takes a process on the part of the intellect to reach the state in which it has cognition of some extramental object, and that process is mediated by intelligible forms. Pace Owens, then, an intelligible form is, therefore, the medium between the cognizer and the thing cognized . The nature of Aquinas's position can be seen clearly, e .g ., in QQ 7 .1 .1[33]

In the aforementioned text, Stump points out that Aquinas is a direct realist. However, the process by which one comes to direct knowledge of real existents requires some type of intermediaries, intelligible forms, and Owens seems to be denying that intermediaries are necessary. However, Owens is not denying that there are intermediaries; rather, he seems to be denying that we *only* know intermediaries; he may also deny that we must know the intermediary prior to knowing real existents. The second denial seems a little more difficult to maintain based on his discussion of concepts and their roles in human intellection because the concept must be first known before one knows what exists in extramental reality. Stump then quotes a text from QQ . 7. 1.1 to support the statement that Aquinas's epistemology does use intermediaries and she translates the text as follows:[34]

> One should know that in intellective vision there can be three sorts of intermediary . . . [The second sort of] intermediary is that by which it sees, and

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33. Eleanore Stump, *Aquinas* (New York: Routledge, 2003), p. 509.

34. Thomas Aquinas, *Quaestiones quodlibetales* (2003), 7.1.1.

> this is the intelligible species, which determines the possible intellect and is related to the possible intellect as the species of a rock is related to the eye [which sees the rock] . . . Consequently, the first and the second [sort of] intermediary do not produce mediated vision, for a person is said to see a rock immediately, although he sees it by means of a species of the rock received in the eye and by means of light.[35]

Stump has translated the Latin word "medium" as intermediary. However, the same word may be translated "means" or "instrument."[36] In this context, "means" seems more appropriate, for Aquinas says:

> I respond that it ought to be said that undoubtingly that the divine essence in heaven [*in patria*] may be seen immediately by the glorified intellect . . . In proof of this, it ought to be known that there are threefold means in intellectual vision. One under which the intellect is, and sees what disposes it for seeing, and this is the light of the agent intellect in us that is related to our possible intellect just as the light of the sun to the eye. Another means is that by which one sees, and this is the intelligible species which determines the possible intellect; it is related to the possible intellect just as the species of the stone to the eye. The third means is that in which something is seen; this is something though which we come to cognition of another just as we see the cause in the effect or [when] something else in one of similar things or contrary things, we see the other; this means is related to the intellect just as the mirror is to corporeal vision in which the eye sees something else. The first and second means do not cause a mediated vision: for someone is said to see the stone immediately although he sees through the species received in the eye. [This is] because by means of the light vision is not carried into these means just as into visible things, but rather though these media, one is taken into a visible thing, which is outside the eye. But in the third [mean] brings about mediated vision. For vision is drawn to the mirror as the visible thing, by which means it receives a species of the thing seen in the species or in the mirror; similarly the intellect knows the cause in the effect, it is drawn to the effect as an intelligible from which it moves into cognition of the cause.[37]

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35. Stump, *Aquinas*, pp. 509–10.

36. Roy. J. Deferrari, *A Lexicon of St. Thomas Aquinas* (Baltimore: The John D. Lucas Printing Co., 1949), p. 677.

37. Aquinas, *QQ*, 7.1.1: Respondeo. Dicendum, quod absque dubio tenendum est, quod divina essentia in patria immediate ab intellectu glorificato videatur. Ad cuius evidentiam sciendum est, quod in visione intellectiva triplex medium contingit esse. Unum, sub quo intellectus videt, quod disponit eum ad videndum; et hoc est in nobis lumen intellectus agentis, quod se habet ad intellectum possibilem nostrum, sicut lumen solis ad oculum. Aliud medium est quo videt; et hoc est species intelligibilis, quae intellectum possibilem determinat, et habet se ad intellectum possibilem, sicut species lapidis ad oculum. Tertium medium est in quo aliquid videtur; et hoc est res aliqua per quam in cognitionem alterius devenimus, sicut in effectu videmus causam, et in uno

If "intermediary" implies that something must be known before knowing something else, then neither the agent intellect nor the intelligible species are intermediaries because according to Aquinas, there are no forms in the agent intellect that can be cognized, and an intelligible species is not cognized immediately.[38] Moreover, although the intelligible species is cognizable, it is cognized only by means of reflection. That is to say, it does not have to be known before one knows the nature of some thing although it must be received into the intellect before knowing the nature of some thing. Hence, neither the agent intellect nor the intelligible species is an intermediary. On the other hand, if "intermediary" implies "media or means that are necessary conditions for cognition," then the agent intellect and the intelligible species are "intermediaries." The point is that without defining what constitutes an intermediary, one should avoid translating "medium" as "intermediary" because the latter term has a connotation that may imply some form of representationalism. However, it seems that the point of this text is not to establish what constitutes an intermediary, or whether intermediaries are being used; rather, Aquinas is contrasting knowing things immediately or knowing things mediately. His point is that in heaven, God will be known immediately by the intellect (i.e., without any other intermediaries like intelligible species) though he does not elaborate here how

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similium vel contrariorum videtur aliud; et hoc medium se habet ad intellectum, sicut speculum ad visum corporalem, in quo oculus aliquam rem videt. Primum ergo medium et secundum non faciunt mediatam visionem: immediate enim dicitur aliquis videre lapidem, quamvis eum per speciem eius in oculo receptam et per lumen videat: quia visus non fertur in haec media tamquam in visibilia, sed per haec media fertur in unum visibile, quod est extra oculum. Sed tertium medium facit visionem mediatam. Visus enim prius fertur in speculum sicut in visibile, quo mediante accipit speciem rei visae in specie vel speculo; similiter intellectus cognoscens causam in causato, fertur in ipsum causatum sicut in quoddam intelligibile, ex quo transit in cognitionem causae.

38. Thomas Aquinas, *Qvestiones dispvtate de anima* (Rome: Leonine Commission, 1996), q.5, a. 9: intellectus agens non sufficit per se ad reducendum intellectum possibilem perfecte in actum, cum non sint in eo determinate rationes omnium rerum, ut dictum est.

this will be the case. Furthermore, the example that Aquinas gives for knowing things immediately is that of natural knowing. Thus, Aquinas is asserting that our knowledge of the natural world is immediate albeit by use of certain media, means or tools.

As does Stump, Gilson asserts that our knowledge of the world is immediate, and he also asserts that there must be intermediaries. He writes:

> In every order of knowledge there exists a subject, an object, and an *intermediary* between the subject and the object. This holds for the most immediate types of sensation . . . and it is more and more manifest as we go up the ladder of knowledge. . . .The *species* has to play this role . . . . But it is important to understand that the species of an object is not one being and the object another. It is the very object under the mode of species.[39]

Gilson affirms that we have direct awareness of those things before us, but the species serve as intermediaries between the knower (the subject) and the known (the object). Having admitted that there are intermediaries, Gilson still wants to avoid representationalism, and so he says that the species is the very same object under the *mode of species*. Although the phrase "mode of speciei" is used by Aquinas, nevertheless it is not used in the sense that Gilson affirms.

Aquinas writes: "For just as every action is according to the mode of a form by which an agent acts, as heating is according to the mode of heat, so too cognition is according to the mode of a species by which the knower knows."[40] Following Aristotle, Aquinas accounts for the imparting of physical qualities (e.g., heat) by appealing to forms. For example, the form of heat would convey heat to its subject. In other words, by way of form (*secundum modum formae*), quality is conveyed to its subject. Similarly, by

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39. Etienne Gilson, *The Christian Philosophy of St. Thomas Aquinas* (Notre Dame, Indiana: University of Notre Dame Press, 1956), p. 227 [emphasis added]

40. Thomas Aquinas, *Summa theologiae* (Ottawa, Canada: Studii Generalis O. PR, 1941), Ia Q. 76, A. 2, ad 3: Sicut enim omnis actio est secundum modum formae qua agens agit, ut calefactio secundum modum caloris; ita cognitio est secundum modum speciei qua cognoscens cognoscit.

way of species (*modum speciei*) ,what is known is conveyed to the knower. The phrase "*modum speciei*" connotes the manner of conveyance of species, not its mode of being.

One way of avoiding representationalism is to avoid intermediaries as Anthony Kenny does.

Kenny agrees that our knowledge of the natural world is immediate and direct. He writes:

> In Aquinas's theory there are no intermediaries like sense-data which come between perceiver and the perceived. In sensation the sense-faculty does not come into contact with a likeness of the sense-object. Instead, it becomes itself like the sense-object, by
> taking on the sense-object's form; but it takes on the form not physically, but intentionally. This is summed up by Aquinas in a slogan which he takes over from Aristotle: the sense-faculty in operation is identical with the sense-object in action (*Sensus in actu est sensible in actu*)[41]
>
> Aquinas is indeed right that we 'perceive', that is to say, know without any intermediary, what we are thinking.[42]

Kenny, in contradistinction to Stump, is asserting that there are no intermediaries that stand between the extra-mental object that is being known and the knower. Yet, how is this possible when he asserts that the sense-faculty does not come in contact with a likeness of the sense-object but becomes like the sense-object by taking on its form? Given that the sense-object's form is ontologically distinct from the sense object, is it not the case that the sense-object's form is an intermediary? And if it is an intermediary, how can Kenny maintain that we have direct and immediate knowledge of the world around us?

Norman Kretzman would agree that we have direct and guaranteed access to extra-mental reality. He writes:

> The guaranteed access is utterly direct, to the point of formal identity between the extra-mental object and the actually cognizing faculty in its cognizing of that object (although Aquinas's terminology can be initially misleading on this score).... strong claims of formal identity are expressed in terms of "likeness"

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41. Anthony Kenny, *Aquinas on Mind* (New York: Routledge, 1993), p. 35.

42. Ibid., p. 125.

> might suggest that the foundations of Aquinas's theory of intellection contain a dubious mixture of direct realism and representationalism. Dispelling that impression depends on getting a clearer view of Aquinas's account of the data of cognition, their transmission, and their transformation.[43]

Kretzman affirms that Aquinas is a direct realist and that the ontological basis for the direct realism is a formal identity between the knower and the known. He admits that Aquinas's terminology can lead one to believe that Aquinas holds some form of representationalism, yet one can *dispel* such notions by getting a clearer view of Aquinas's account of cognition. It is "important to see that these intelligible species themselves are not proper objects of intellective cognitions any more than phantasms are; direct realism could hardly be sustained if either of those entities internal to the human being were identified as a proper object of ordinary, nonreflexive cognition."[44] For Kretzman, the key to understanding Aquinas's direct realism is found in the proper understanding of the role of the phantasm and the intelligible species. Failure to understand either or both of these would lead one to assert that Aquinas is a representationalist.

Kretzman is correct that improper understanding of the intelligible species or the phantasm would lead one to some form of representationalism. Yet, improper understanding of the concept or concept formation can lead one astray. According to Kretzman, the intellect's "first operation" consists in the formation of concepts of external objects.[45] If the first operation is concept formation, is this concept an internal object that must be cognized? Owens affirmed that the concept is cognizable. How can one maintain a direct realist epistemology and simultaneously assert the concept is a

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43. Norman Kretzman, "Aquinas's Philosophy of Mind," *Philosophical Topics* 2, no. 2 (Fall 1992): pp. 85–86 (Fayetteville, AR: University of Arkansas, 1992).

44. Kretzman, "Aquinas's Philosophy of Mind," p. 88.

45. Ibid., p. 89.

proper object[46] of the intellect?[47]

John O'Callaghan is well aware that based on textual grounds, one can maintain that the intelligible species is not a cognitive object except reflexively. Rather, the intelligible species is a formal principle of intellectual operations.[48] He is also aware, however, that the concept can be understood as an intermediary (i.e., a third thing) between the knower and the known.[49] In order to show that a concept is not a thing, O'Callaghan shows that the prepositions "in" and "outside" do not necessarily connote some spatial referent; instead, depending on the content, they may connote a *mode of existence*.[50] Thus, when one is saying that a nature exists in singular things or a nature exists in the intellect, one is not referring to its spatial location, but its mode of being.[51] Failure to make the distinction between spatial location and modes of existence opens the door to "classical representationalism."[52] Armed with the aforementioned distinction, O' Callaghan cites Aquinas:

> For in the first place the passivity of the possible intellect may be considered inasmuch as

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46. In this interrogative statement, "proper object" is not being used in an Aristotelian/Scholastic sense. That is to say, "proper objects" in an Aristotelian/Scholastic sense connote that which is proportioned to some power. For example, the proper object of vision is color, and the proper object of hearing is sound. Instead, "proper object" is being used to denote that the concept is an object of thought. In Scholatics terms, the concept is an object of thought (i.e., a second intention).

47. Kretzman, "Aquinas's Philosophy of Mind," p. 89.

48. John P. O'Callaghan, *Thomistic Realism and the Linguistic Turn: Toward a More Perfect Form of Existence* (Notre Dame, Indiana: University of Notre Dame, Press, 2003), p. 165.

49. O'Callaghan, *Thomistic Linguistic Turn*, pp. 165–98.

50. Ibid., p. 165.

51. Ibid.

52. Ibid.

> it is informed by the intelligible species. So informed, it forms in the second place either a definition or a division or a composition, which is signified through an articulated sound. Hence, the *ratio* which the name signifies is a definition, and the enunciation signifies a composition or division of the intellect. Therefore, articulated sounds do not
> signify the intelligible species, but rather that which the intellect forms for itself to judge of exterior things.[53]

The text itself states that articulated sounds refer to *those [things]* that the intellect forms for itself [*intellectus sibi format*]. That is, the text clearly implies that the intellect forms concepts that are the ontological grounds for speech. O'Callaghan states:

> What is interesting here is the last line. The passage seems to suggest that the possible intellect forms some being, some thing when it forms definitions, combinations, and divisions. Thus the first and second acts of the [possible] intellect do not bear upon *res extra animam*, but rather are productive acts that produce entities in anima; they produce concepts that are entities distinct from the productive acts, entities produced in order to
> judge external things.[54]

However, such a reading according to O'Callaghan is actually a misreading of the text. According to O'Callaghan, such a reading is committing the error of the Platonist that Aquinas had warned us about. That is to say, the Platonist mistook the mode of knowing for mode of the thing known.[55] According to Aquinas, Plato deviated from the truth because Plato asserted that all cognition happens by means of a similitude of being; thus, he believed that the understood intelligible form necessarily is in the knower in the same manner in which it is in the known.[56] According to O'Callaghan, Aquinas is considering

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53. O'Callaghan, *Thomistic Linguistic Turn*, p. 166; Aquinas, *S.T.*, Ia Q. 85, a. 2, ad. 3: Nam primo quidem consideratur passio intellectus possibilis secundum quod informatur specie intelligibili. Qua quidem formatus, format secundo vel definitionem vel divisionem vel compositionem, quae per vocem significatur. Unde ratio quam significat nomen, est definitio; et enuntiatio significat compositionem et divisionem intellectus. Non ergo voces significant ipsas species intelligibiles; sed ea quae intellectus sibi format ad iudicandum de rebus exterioribus.

54. O'Callaghan, *Thomistic Linguistic Turn*, p. 167.

55. Ibid.

56. Aquinas, *S.T.*, Ia Q. 84, A. 1, Response: Videtur autem in hoc Plato deviasse a

the features of human cognition separately, but it does not follow that these features are actually separate in reality. Failure to make these distinctions leads one to "the error of the Platonists."[57]

How should one then interpret this text? According to O'Callaghan, linguistically, one can nominalize that which is actually an action. For example, were one to say, "I am grasping the pen, and I have the pen in my grasp," both clauses mean the same thing. However, in reality, the activity of grasping the pen is what is occurring though I can express the same activity as the object of a preposition. That is to say, I can express the action as a substantive. It is not the case that there exists a third thing called a "grasp." Instead, there is only the hand and its activity. Similarly, O'Callaghan is asserting that there is no third thing called a "concept" that is interposed between the knower and the known. Instead, there is only the intellect and its activity, conceptualizing.[58] But how does one deal with the assertion that there is a formal identity between the *res extra anima* and *res in anima*?

When Aquinas asserts that the intelligible in act is the intellect in act, "it appears that the *res extra animam* is actually understood when it is converted into a *res in anima* that is directly related to the act of understanding."[59] In other words, there is a *third thing* interposed between the intellect and the thing outside of the intellect and this third thing has a formal identity with the thing existing outside the intellect. According to O'Callaghan, this is a misreading of Aquinas because the things outside the intellect are

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veritate, quia, cum aestimaret omnem cognitionem per modum alicuius similitudinis esse, credidit quod forma cogniti ex necessitate sit in cognoscente eo modo quo est in cognito.

57. O'Callaghan, *Thomistic Linguistic Turn*, p. 167.

58. O'Callaghan, *Thomistic Linguistic Turn*, p. 169: Similarly, there is no third thing other than conceiving intellect and the *res extra animam*.

59. O'Callaghan, *Thomistic Linguistic Turn*, p. 170.

only potentially intelligible. To become actually intelligible, *it* must be rendered actually intelligible. He asserts, "The intelligible in act is not a mental entity distinct from the act of intellect, but it is rather the act of intellect itself informed by the intelligible species."[60] Once again, the emphasis is on the activity of the intellect, not some third thing that is constructed. By interpreting Aquinas in this fashion, O'Callaghan is ensuring that what is conceived as an internal state or impression is actually a cognitive activity that gives one direct access to things without having to interpose any intermediaries.

O'Callaghan's reading of Aquinas allows one to make sense as to how Aquinas can be understood as a direct-realist. However, texts like the following, may cause problems for O'Callaghan's interpretation. Aquinas writes:

> I respond that it ought to be said that our intellect is not able to directly and primarily know the singular in material things. The reason for this is that the principle of singularity in material things is individual matter, whereas our intellect, just as was said above, understands by abstracting intelligible species from this kind of matter. But what is abstracted from individual matter is universal. Hence, our intellect is directly cognizant only of universals. However, indirectly, as through some kind of reflection, it is able to know the singular because, just as was stated above, after it has abstracted intelligible species, it is not able to understand according to these [species] except by turning itself toward phantasms, in which it understands the intelligible species, as is said in book 3 of the De Anima.... In this way, therefore, it understands the universal itself directly through the intelligible species. However, [it understands] indirectly the singulars of which there are phantasms. And in this manner, it forms this proposition, Socrates is a man.[61]

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60. Ibid.

61. Aquinas, *S.T.*, Ia Q. 86, A. 1, Response: Respondeo dicendum quod singulare in rebus materialibus intellectus noster directe et primo cognoscere non potest. Cuius ratio est, quia principium singularitatis in rebus materialibus est materia individualis, intellectus autem noster, sicut supra dictum est, intelligit abstrahendo speciem intelligibilem ab huiusmodi materia. Quod autem a materia individuali abstrahitur, est universale. Unde intellectus noster directe non est cognoscitivus nisi universalium. Indirecte autem, et quasi per quandam reflexionem, potest cognoscere singulare, quia, sicut supra dictum est, etiam postquam species intelligibiles abstraxit, non potest secundum eas actu intelligere nisi convertendo se ad phantasmata, in quibus species intelligibiles intelligit, ut dicitur in III de anima. Sic igitur ipsum universale per speciem intelligibilem directe intelligit; indirecte autem singularia, quorum sunt phantasmata. Et hoc modo format hanc propositionem, socrates est homo.

Aquinas is asserting that the intellect does *not* have *direct* access to singular material entities existing *outside* of the intellect. Even if *outside* means a different mode of existence, the intellect still does not have access to them *directly*. It only has direct access to universals, which could be interpreted as some kind of third object between the intellect and the material singulars existing outside the mind.

Furthermore, O'Callaghan's strategy for making Aquinas a direct realist shifts the debate from the text of Aquinas to the hermeneutical method that should be used to interpret Aquinas. Thus, if representationalists are going to argue against O'Callaghan position, they must show why their hermeneutical method should be preferred over O'Callaghan's hermeneutical method. Notwithstanding, a representationalist may argue that O'Callaghan is begging the question. For it seems that O'Callaghan employs a plain reading of Aquinas's text in order to obtain his hermeneutical principle (e.g., Aquinas's warning to avoid the error of the Platonist). Then he uses this hermeneutical principle to say that a plain reading of the texts that deal with concepts is incorrect. When to use a plain reading of the text and when not to use a plain reading of the text seems capricious.

Interpreting Aquinas in a fashion such that intermediaries are interpreted as acts of the intellect is not the only fashion of maintaining that Aquinas is a direct realist. In an article entitled "St. Thomas and Pre-Conceptual Knowledge," Lawrence Dewan explains how Aquinas is in part to blame, for the current misunderstandings of Aquinas's epistemology, and he offers a means for understanding Aquinas such that the concept and direct-realism are preserved.[62] According to Dewan, early in Aquinas's career, Aquinas apparently characterized intelligible species as what is primarily understood. On this account, extramental things are only understood secondarily. This is evident when, while addressing the question whether God knows something other than Himself, Aquinas says:

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62. Lawrence Dewan, "St. Thomas and Pre-Conceptual Knowledge," *Maritain Studies* 11 (1995): p. 220–33.

> What is first seen is the species of a visible thing existing in the pupil, which is also the perfection of the one seeing, and it is the principle of vision... what is seen second is the thing itself outside the soul. Similarly, the first thing understood is the thing's similitude, which is in the intellect, and the second thing understood is the thing itself [outside the intellect], which is understood through that similitude.[63]

Interestingly, in this text, Aquinas says that in the same manner that the sensible species is perceived prior to the perception of the extramental object, the intelligible species is understood prior to the understanding of the extramental object. In addition, Aquinas states that the extramental object is understood through the similitude, which had previously been understood. That is to say, by first cognizing the intelligible species, a similitude or mental object, one is said only then to cognize that which exist outside the intellect. Yet, how does cognizing a similitude of something give knowledge of something other than the similitude? According to Dewan, Aquinas tries to resolve this by changing his position on intelligible species.

On Dewan's reading, then, in the middle period, it is not surprising that Aquinas deals with the problem by asserting that the concept (i.e. the interior word) is that which is *per se* known or cognized, and the intelligible species is the principle for understanding. Aquinas says:

> That which is understood *per se* is not that thing through the intellect, since that [thing] sometimes is understood only in potency, and it is outside the one understanding, just as when man understands material things such as a stone or an animal or something else of this kind; since nevertheless it is necessary that the understood is in the one understanding and is one with him. Nor again is that which is understood *per se* the *similitude of the understood thing*, through which the intellect is informed for understanding. For the intellect is not able to understand except inasmuch as it comes to be in act *through this similitude* [i.e., the intelligible species], just as nothing is able to act upon another inasmuch as it is in potency, but [only] inasmuch as it comes to be in act through some form. Therefore, this similitude [i.e., the intelligible species] is related to understanding

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63. Thomas Aquinas, *Scriptum super sententiis magistri petri lombardi*, edited by Mandonnet (Paris: Lethielleux, 1929), Bk. I, d. 35, q. 1, a.2: Est enim primum visum quod est ipsa species rei visibilis in pupilla existens, quae est etiam perfectio videntis, et, principium visionis... et est visum secundum, quod est ipsa res extra animam. Similiter intellectum primum est ipsa rei similitudo, quae est in intellectu; et est intellectum secundum ipsa res, quae per similitudinem illam intelligitur.

> as the principle of understanding... not as the end of the understanding. Therefore, that is primarily and per se understood which the intellect conceives in itself concerning the understood thing.... What is conceived by the intellect in this way is called the interior word.[64]

As I understand Dewan, Aquinas affirms that the intellect does not have *per se* knowledge of material things, for material things are only potentially intelligible (*intellecta in potentia tantum*). In addition, he says that in order for the intellect to know two criteria must be satisfied: (1) what is known must be in the knower (*in intelligente*) and (2) what is known must have some type of identity with the knower (*unum cum ipso*). Thus, Aquinas's criteria preclude per se knowledge of material things, for material things are outside the knower (*extra intelligentem*) and what is *per se* and primarily known is in the knower (*in intelligente*). Hence, since material things are not what is *per se* and primarily known, one may be tempted to think that the intelligible species is *per se* known, for it meets the aforementioned two criteria. Yet, Aquinas denies that the intelligible species is *per se* known, for the intelligible species is that through which the intellect is informed for understanding. He writes, "Nor what is understood *per se* a similitude of the understood thing through which the intellect is informed for understanding."[65] In other words, the intelligible species is not what is understood *per se*,

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64. Thomas Aquinas, *Quaestiones disputatae de potentia*, 8th ed., edited by Marietti (Taurini-Rome, 1953), q. 9, a. 5, response: Id autem quod est per se intellectum non est res illa cuius notitia per intellectum habetur, cum illa quandoque sit intellecta in potentia tantum, et sit extra intelligentem, sicut cum homo intelligit res materiales, ut lapidem vel animal aut aliud huiusmodi: cum tamen oporteat quod intellectum sit in intelligente, et unum cum ipso. Neque etiam intellectum per se est *similitudo rei intellectae*, per quam informatur intellectus ad intelligendum: intellectus enim non potest intelligere nisi secundum quod fit in actu *per hanc similitudinem,* sicut nihil aliud potest operari secundum quod est in potentia, sed secundum quod fit actu per aliquam formam. Haec ergo similitudo se habet in intelligendo sicut intelligendi principium... non sicut intelligendi terminus. Hoc ergo est primo et per se intellectum, quod intellectus in seipso concipit de re intellecta... Hoc autem sic ab intellectu conceptum dicitur verbum interius.[emphasis added]

65. Aquinas, *QDPot*, Q. 9, A. 5, Response: Neque etiam intellectum per se est similitudo rei intellectae, per quam informatur intellectus ad intelligendum.

but it gives rise to understanding. Thus, Aquinas's two criteria are necessary conditions for *per se* knowing, but not sufficient conditions for *per se* knowing. It seems that because the intelligible species is a principle for knowing, it cannot be *per se* known. In order for something to be known *per se*, it must meet the two criteria; it must also be the term of the act of knowing.[66] The concept, which the intellect forms in itself, is that term of understanding. Thus, the concept is what is *per se* known.

On the basis of Aquinas's affirming in the middle period that the concept is *per se* known, one can infer that Aquinas may be unwittingly espousing some form of idealism such that what are known are concepts or ideas as opposed to material things in the world. Yet, as we will see in his mature writings, Aquinas affirms that we know material things in the world albeit not per se. Thus, whatever is meant by "*per se* known" does not, for Aquinas, preclude knowing that thing in some other way. For example, although Aquinas denies that species are *per se* known, he does not deny that they are known in some other way, which is not *per se*.

According to Dewan, in Aquinas's late and mature period, in the *Summa Theologiae*, Aquinas argues that intelligible species are not known primarily (i.e., per se), but they are known only reflexively. He says:

> If those things which we understand were only the species that are in the soul, it would follow that all knowledge would not be concerning things outside the soul, but only concerning intelligible species, which are in the soul.... But because the intellect reflects upon itself, according to that very same reflexive [act] it understands both its understanding and the species by which it understands. In this way, the understood species is that which is understood secondarily, but that which is understood primarily is the thing; the intelligible species of which is a

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66. Although Aquinas does not tell us why a principle of knowing cannot be per se known, Aquinas seems to be implying the following: Causes or principles are ontologically prior to their effects. An intelligible species is a formal cause or principle of knowing. Knowing is the effect. Therefore, knowing, the effect, must be ontologically consequent to the intellect's being informed by the intelligible species. If the intelligible species were known *per se*, then the intelligible species would be both the cause of knowing and the effect, that which is known.

similitude [of the thing].[67]

Unlike the senses, which cannot sense themselves sensing, the intellect can understand that it understands; thus, this intellectual act is called a reflexive act and is secondary. It is through a reflexive act that the intellect understands the intelligible species. In other words, intelligible species are understood only insofar as the intellectual act is itself considered as an object of the intellect. However, normally, the intelligible species is not an object of understanding any more than the act of understanding is an object of understanding. On this view, the object of understanding is the thing existing outside the intellect.

By parity of reason, if the intelligible species is not known primarily because it would entail that knowledge concerns only forms in the soul, it would seem that the concept cannot be known primarily because one would only know a form in the soul; in that case, knowledge would not be concerning things outside the soul, but would be about concepts existing in the mind. Though Aquinas does not explicitly argue this point in *Summa Theologiae* question 85, nevertheless, the same reasoning that applies to species can be applied to concepts. As a matter of fact, Lawrence Dewan makes this point citing texts from Thomas's *De Unitate Intellectus* to demonstrate that concepts are not primarily known.[68] According to Dewan:

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67. Aquinas, *S.T.*, Ia q. 85, a. 2, Response: Si igitur ea quae intelligimus essent solum species quae sunt in anima, sequeretur quod scientiae omnes non essent de rebus quae sunt extra animam, sed solum de speciebus intelligibilibus quae sunt in anima... Sed quia intellectus supra seipsum reflectitur, secundum eandem reflexionem intelligit et suum intelligere, et speciem qua intelligit. Et sic species intellecta secundario est id quod intelligitur. Sed id quod intelligitur primo, est res cuius species intelligibilis est similitudo.

68. Dewan, "St. Thomas and Pre-Conceptual Knowledge," p.230–31: "But it is true that the nature of the stone, as it is in singulars, is the 'understood in potency' [*intellecta in potentia*]; but it is rendered 'understood in act' through this, that the species come from sensible things, by the mediation of the senses, right to the imagination, and through the power of the agent intellect are abstracted the species intelligibles, which are

> the important thing for Thomas is to change the idea of understanding, so that it does not have as its target some pure intelligible existing within the intellect. Certainly, the mental word would only cause confusion in the presentation, since it can easily be taken for just such an inner object.[69]

In other words, according to Dewan, Thomas's reluctance to speak concerning the mental word (i.e., the concept) is evidence that for Thomas, the concept is not the understood thing; rather, extra-mental reality is that which is understood.

In addition to the aforementioned confusion, there is also confusion as to what the intelligible species makes present to the intellect. At times, Aquinas says that through the intelligible species the soul knows things existing outside the soul.

> If we therefore understand the species of earth in the place of earth, according to the teaching of Aristotle, who said that "the stone is not in the soul, but the species of the stone," it follows that the soul through intelligible species knows things that are outside the soul.[70]

That is to say, things [i.e., the nature] is known through the intelligible species. Yet, Aquinas also says that the natures of things without their individuating concomitants are known by the intellect. He says:

> Regarding the fifth [objection], it ought to be said that our intellect abstracts intelligible species from phantasms, inasmuch as it considers the natures of things universally, and nevertheless, it understands them in the phantasms because it is not able to understand those things whose species it abstracts [i.e., material things], except by reverting to phantasms as said above.[71]

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in the possible intellect. But these species do not stand related to the possible intellect as 'the understood' [*intellecta*], but as the species by which the intellect understands, just as also the species which are in [the sense of] sight are not the very [items] seen [*ipsa visa*], but those [factors] by which the sight sees [*ea quibus visus videt*]: save inasmuch as the intellect reflects upon itself, which cannot happen in the sense." Dewans' translation. Thomas Aquinas, De Unitate Intellectus 5 (Leonine line 164-185).

69. Dewan, "St. Thomas and Pre-Conceptual Knowledge," p. 231.

70. Aquinas, *S.T.*, Ia, q. 85, a. 2, Response: Si ergo accipiamus speciem terrae loco terrae, secundum doctrinam Aristotelis, qui dicit quod "lapis non est in anima, sed species lapidis"; sequetur quod anima per species intelligibiles cognoscat res quae sunt extra animam.

71. Aquinas, *S.T.*, Ia q. 85, a. 1, r.5: Ad quintum dicendum quod intellectus

So not only is there confusion as to how one knows, but there is also confusion as to what one knows. As a result of these conflicting views found in Aquinas, it is not surprising that there are various conflicting positions in contemporary Thomistic scholarship.

The Novelty of Intelligible Species

Although Aquinas is to blame for some of the confusion concerning his doctrine of intelligible species, not all the blame rests with Aquinas. Some of the mentioned interpreters of Aquinas are confused because they have failed to take into account the philosophical presuppositions that necessitated the doctrine of intelligible species. If one is to understand Aquinas, one needs to consider Aquinas's philosophical and historical context. Aquinas developed his psychology by considering the philosophical ideas and issues in his times and by accepting certain presuppositions and methods, methods and presuppositions that would determine his novel doctrine of intelligible species. I argue that his doctrine of intelligible species is novel because Aquinas's teaching on intelligible species is not found in any of his predecessors, as confirmed by Leen Spruit.[72] (e.g., Aristotle, Augustine, Avicenna, Averroes, who were major influences in the development of Aquinas's thought), yet neither is his doctrine of intelligible species developed apart from certain key predecessors: Avicenna, Averroes, Augustine, and Aristotle. I examine these sources in this order because I end with Aristotle who is the focus of our next

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noster et abstrahit species intelligibiles a phantasmatibus, inquantum considerat naturas rerum in universali; et tamen intelligit eas in phantasmatibus, quia non potest intelligere etiam ea quorum species abstrahit, nisi convertendo se ad phantasmata, ut supra dictum est.

72. Leen Spruit, *Classical Roots and Medieval Discussions*, in *Species Intelligibilis from Perception to Knowledge* (New York: E.J. Brill, 1994), pp. 156–57. "Thomas puts forward, for the first time in the Middle Ages, a theory of mental representation which is sufficiently complex and complete to bear scrutiny of its own. In this respect, Thomas' theory eclipses all its (possible) sources. No longer assimilating intelligible species to the intelligible form or to the object of intellectual cognition, Thomas offers a fundamentally new interpretation of this notion."

chapter. Moreover, the focus of the dissertation is not on the intelligible species *per se*, but on the influences that Avicenna and Averroes have on Aquinas, influences which will necessitate and aid Aquinas in the development of his novel doctrine.

Avicenna has no Intelligible Species Doctrine

When one examines Avicenna's *Philosophia Prima* and *De Anima*, one does not find the phrase *species intelligibiles* used at all. Nonetheless, Aquinas commenting on Avicenna and Plato says:

> and thus in this, Avicenna agrees with Plato that the intelligible species of our intellect
> flow from some separated forms.[73]

Both Plato and Avicenna agree that the forms that Aquinas calls intelligible species are known by the human intellect, but they disagree as to the ontological status of these forms. For Plato, the intelligible forms are subsistent, simple, immutable, and in act. Thus, for Plato, the form of Good subsists immaterially, immutably and distinctly; it is separate from the form of the Beautiful and from all the other forms.[74] For Avicenna, intelligible forms are simple, immutable, in act, but they exist in the agent intellect, an immaterial separate subsistent substance. In the agent intellect, each intelligible form is its own species,[75] and it exists per se. Avicenna says:

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73. Aquinas, *S.T.*, Ia q. 84, a. 4, Response: "Et sic in hoc Avicenna cum Platone concordat, quod species intelligibiles nostri intellectus effluunt a quibusdam formis separatis": quas tamen Plato dicit per se subsistere, Avicenna vero ponit eas in intelligentia agente. Differunt etiam quantum ad hoc, quod Avicenna ponit species intelligibiles non remanere in intellectu nostro postquam desinit actu intelligere, sed indiget ut iterato se convertat ad recipiendum de novo. Unde non ponit scientiam animae naturaliter inditam, sicut Plato, qui poinit participationes idearum immobiliter in anima permanere.

74. Plato, "Republic," in *Plato Complete Works* (Indianapolis: Hackett Publishing Company, 1997), 475e-476a.

75. Here, the term "species" is being used in a logical sense as a predicable. It is not being used in an epistemological sense.

> We shall say that these forms are things existing per se, each of which is a species and a thing existing per se, but the [human] intellect at times regards them and at times is turned away from them, and afterwards turns toward them [again], and the soul is as a mirror, whereas these [intelligible forms], are, as it were, things extrinsic [to the soul] which sometimes appear in it and other times do not appear. This occurs according to the relationships which exist between them and the soul; or from the agent principle one form after another emanates into the soul according to the request of the soul, from which principle when later on [the soul] has turned away, the emanation ceases.[76]

For both Plato and Avicenna, in order to attain knowledge, the human knower must come in contact with these intelligible forms, which do not come to be, but are. That is to say, intelligible forms do not belong to the realm of becoming but to the realm of being. Given the immutability and the actuality of intelligible forms, Plato and Avicenna understand intelligible forms to be objects of cognition. That is to say, intelligible forms are that which is known. In contradistinction, for the mature Aquinas, intelligible species are that by which something is known, but they are not that which is known. Thus, it is clear that Aquinas's doctrine of intelligible species is not found in Avicenna.

Averroes has no Intelligible Species Doctrine

In Averroes's magisterial work, his *Long Commentary on Aristotle's De Anima*, one does not find the phrase "*species intelligibiles*" anywhere. Nonetheless, Aquinas says:

> In Book III of De Anima, the Commentator claims this union to be through an intelligible species, which indeed has twofold subject: the possible intellect, and the other one is phantasms, which are in corporeal organs. And thus through an intelligible species, the possible intellect is continuous with the body of this or that man. But, this continuity or union does not suffice in order that the action of the intellect be the action of Socrates. And this is made manifest through a

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76. Avicenna, *Liber de anima seu sextus de naturalibus*, edited by Simone van Riet (Louvain: Editions orientalistes Brill, 1968), Bk. 5, Ch. 5, p. 146–47: Aut dicemus quod ipsae formae intelligibles sunt res per se existentes, quarum unaquaeque est species et res per se existens, sed intellectus aliquando aspicit illas et aliquando avertitur ab illis, et postea convertitur ad illas, et est anima quasi speculum ipsae vero quasi res extrinsecae quae aliquando apparent in ea et aliquando non apparent. Et hoc fiat secundum comparationes quae sunt inter eas et animam; aut ex principo agente emanet in animam forma post formam secundum petitionem animae, a quo principio postea cum avertitur, cesset emanatio.

> similitude in the sense power, from which Aristotle proceeds in order to consider those thing which belong to intellect. Therefore, just as species of colors are in sight, so species of phantasms are in the possible intellect. However, it is evident that from the fact that colors are in the wall, the similitudes of which are in vision, the action of vision is not attributed to the wall, for we do not say that the wall sees but rather that it is seen. From the fact that species of phantasms are in the possible intellect, it does not follow that Socrates in whom are the phantasms, understands, but that he himself or his phantasms are understood.[77]

Here, Aquinas argues that Averroes's notion of two-subjects cannot account for why one attributes an intellectual cognitive act to the human being who supplies the image for abstraction. By taking a closer look at what Aquinas is doing in this text, we will see that the doctrine of intelligible species is not found in Averroes, so let us consider what Aquinas is doing and contrast him with Averroes. With his remark, about the sensible species and the color of the wall, Aquinas addresses two issues: the role of the species and the numerical distinctness of the species. Let us first consider the role of the species before considering the numerical distinctness of the species.

Aquinas is explicit concerning the first issue, the role of the species. For Aquinas, seeing is the reception of a species into the sense organ. On the reception of a sensible species, the organ senses the colored thing that caused the species. In other words, a cognitive state is attributed to the subject that receives the species, not to the object that produces the species. The relation of the colored wall to the sense organ is a relation of

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77. Aquinas, *S.T.*, Ia q. 76, a. 1: Hanc autem unionem commentator, in III de Anima, dicit, esse per speciem intelligibilem. Quae quidem habet duplex subiectum: unum scilicet intellectum possibilem; et aliud ipsa phantasmata quae sunt in organis corporeis. Et sic per speciem intelligibilem continuatur intellectus possiblis corpori huius vel illius hominis - Sed ista continuatio vel unio non sufficit ad hoc quod actio intellectus sit actio Socratis. Et hoc patet per similitudinem in sensu, ex quo Aristoteles procedit ad considerandum ea quae sunt intellectus. Sic enim se habent phantasmata ad intellectum ut dicitur in III de anima, sicut colores ad visum. Sicut ergo species colorum sunt in visu, ita species phantasmatum sunt in intellectu possibili. Patet autem quod ex hoc quod colores sunt in pariete, quorum similitudines sunt in visu, actio visus non attribuitur parieti: non enim dicimus quod paries videat, sed magis quod videatur. Ex hoc ergo quod species phantasmatum sunt in intellectu possibli, non sequitur quod Socrates, in quo sunt phantasmata, intelligat; sed quod ipse, vel eius phantasmata intelligantur.

that which is sensed to that which is sensing. It would be inane to attribute *sensing* to the wall. Analogously, the relation of the intelligible species in the phantasm to the possible intellect is a relation of *that which is understood to that which understands*. It would be inane to attribute *understanding* to the phantasm, or to the subject who possesses the phantasm in virtue of possessing the phantasm alone. On Averroes' account, as analyzed by Aquinas, then, understanding belongs to the possible intellect, but it does not belong to any particular human.

Let us now consider the problem of numerical distinctness. Although in the quoted passage Aquinas is not explicit concerning the numerical distinctness of intelligible species, nevertheless, throughout his career, he maintains that numerically distinct intelligible species, one in the phantasm and one in the possible intellect, cannot constitute an individual act of understanding.[78] Before proceeding, I need to distinguish between two senses of form and formal unity. I shall use formal$_1$ or formal unity$_1$ to denote a likeness or unity of *ratio* between two numerically distinct things. I shall use formal$_2$ or formal unity$_2$ to denote a numerically individual form or unity, such as one that results from the reception of form into matter. For Aquinas, a species in the wall and a species in the sense organ are numerically distinct. That is to say, although the species in the wall and the species in the eye are formally$_1$ the same, the species vary in terms of their mode of existence. In modern terms, the species in the wall and the species in the eye are two distinct and separate objects with similar properties.[79] Consequently, to say

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78. Edward P. Mahoney, "Aquinas's Critique of Averroes Doctrine of the Unity of the Intellect," in *Aquinas and His Legacy*, edited by David M. Gallagher (Washington, D.C.: Catholic University of America Press, 1994), pp. 83–106: "Although it is said that the intelligible species is in the phantasm, the intelligible species is not actually in the phantasm; rather, the intelligible species is in the phantasm only in potency. That is to say, the ratio contained in the phantasm has the potential to be made intelligible by the agent intellect."

79. It is extremely difficult to talk about species in modern terms because modern philosophy denies the notion of formal causality. Species are actually formal causes. John

that the cognitive species are formally$_1$ the same as the objects that gave rise to the cognitive species is to say that they do not differ formally$_1$. Whatever does not differ formally$_1$ is formally$_1$ one, and whatever is one is some kind of unity.[80] However, the formal unity$_1$ provided by the species is not an ontological unity (i.e., formal unity$_2$). Aquinas is tacitly asserting that even if one grants that there is some formal$_1$ likeness between the intelligible species in the phantasm and the intelligible species in the possible intellect, the formal$_1$ likeness between intelligible species and the phantasm is not an ontological unity (i.e., formal unity$_2$). Thus, the intelligible species in the phantasm cannot be that which unites an individual to the possible intellect that is separate from us and numerically one for all humans. Therefore, Averroes's account cannot warrant an individual act of understanding to an individual human intellect. For Aquinas, what is required to constitute such an act is a formal unity$_2$ that is an ontological unity. That is to say, the formal unity$_2$ that is required to constitute an individual act of understanding is the unity that is found between the soul, the form of the body, and the body, for anything that acts, acts through its form$_2$. In other words, it is only the individuation of each human intellect that can account for individual acts of understanding.[81] Thus, if there is going to be understanding, it will happen by means of each person's individual intellect in his or her individual soul.

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Haldane concludes that in order to resolve some of the conundrums in contemporary philosophy of mind, one must "reintroduce a notion of formal causation that does not reduce to efficient causation;" John Haldane, "The Breakdown of Contemporary Philosophy of Mind," in *Mind, Metaphysics, and Value in the Thomistic and Analytic Traditions* (Notre Dame, Indiana: University of Notre Dame Press, 2002), p. 68.

80. I am not asserting that all species are formally the same as each other. That is to say, the species of a dog is not formally the same as the species of a tree. However, the species of a tree is formally the same as the form in the tree, and the species of a dog is formally the same as the form in the dog that gave rise to the species.

81. The individuation of the human intellect will be examined in Chapter 4.

One can see that there are substantial differences between Aquinas and Averroes. First and foremost, Averroes does not have a intelligible species doctrine like Aquinas because for Aquinas intelligibles species are *principles* for intellection, whereas for Averroes, intelligibles in act, which Aquinas will refer to as intelligible species, are objects of intellection; Second, for Averroes, intelligibles in act must be unique and cannot be multiplied, whereas for Aquinas intelligible species are multiplied and exist in a plurality of individual human intellects. For Averroes, the intelligible in act is that which is understood, yet for Aquinas, the intelligible species is that by which one understands. For Averroes the formal unity_1 between the phantasm and the intelligible in act is sufficient to permit acts of cognition in multiple subjects, whereas for Aquinas only a formal unity_2 would suffice so that so that the cognitive power that is intrinsic to each particular human knower in an ontological way, not separated from human nature. Thus, it is highly unlikely that Aquinas received his mature notion of intelligible species from Averroes. Still, it will be made clear in Chapter 3 and Chapter 5 that Avicenna and Averroes played an important role in the formation of the teaching of Aquinas on this issue.

In addition to the aforementioned reason why it is unlikely that Aquinas received his doctrine of intelligible species from Averroes, Leen Spruit states that it is incorrect to presume "that Thomas identifies the Averroistic notion of '*intellectum speculativum*' with his 'intelligible species.'"[82] According to Spruit, Carlos Bazán erroneously presumes this in his article entitled "Intellectum Speculativum: Averroes, Thomas Aquinas and Siger of Brabant on the intelligible object."[83] Spruit is not alone, for Edward Mahoney says, "According to his [Aquinas's] reading of Averroes -- and his claim that

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82. Spruit, *Classical Roots and Medieval Discussions*, p. 161.

83. Bernardo Carlos Bazán, "Intellectum Speculativum: Averroes, Thomas Aquinas and Siger of Brabant on the Intelligible Object," *Journal of the History of Philosopy* 19 (1981): p. 432.

Averroes maintained 'intelligible species' is surely doubtful -the latter holds that intelligible species have a twofold subject (*duplex subiectum*)."[84]

Augustine has no Doctrine of Intelligible Species

One finds that the phrase *intelligible species* has various connotations in the works of Augustine. For example, in *De Diversis Questionibus Octoginta Tribus*, Augustine argues against the existence of a highest (i.e., infinite) evil. He says:

> Each thing that exists is either corporeal or incorporeal. The corporeal is limited to the sensible [form, and] the incorporeal is limited to the intelligible form (*intelligibili specie*) nothing exists without some form. Where there is some form, necessarily there is some measure and measure is some kind of good. Therefore, the highest evil has no measure; it lacks every good. Therefore, it does not exist because it is limited by no form.[85]

In this text an intelligible species (i.e., form) is a metaphysical principle that limits incorporeal entities, but it is not a principle of intellection.

In *De Civitate Dei*, Augustine mentions that certain philosophers transcended all material things in search of God. On account of God's incommunicability and simplicity, these philosophers understood that all things were created by Him and that He had not been made by any. Concerning these philosophers, Augustine says:

> For they thought that whatever is, is either a body or life, and it is better to be life than to be a body; and the form of the body better is sensible, [whereas] life is intelligible. Hence, they preferred the intelligible form (*intellegibilem speciem*) to the sensible. We call sensibles those things which are perceived by vision or by touch of the body. We call intelligible [those things] which are to be understood

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84. Mahoney, "Aquinas's Critique of Averroes Doctrine of the Unity of the Intellect," p. 85.

85. Augustine, "De Diversis Questionibus Octoginta Tribus," in *Oeuvres de Saint Augustin*, Bibliotheque Augustinienne, Edited and Translated by J.A. Beckaert (Paris: Desclee de Brouwer, 1952), q. 6, p. 56: Omne quod est, aut est corporeum, aut incorporeum. Corporeum sensibili, incorporeum autem intelligibili specie continetur. Omne igitur quod est sine aliqua specie non est. Ubi autem aliqua species, necessario est aliquis modus, et modus aliquid boni est. Summum ergo malum nullum modum habet; caret enim omni bono. Non est igitur; quia nulla specie continetur.

by the perception of the mind.[86]

In this text, one sees that intelligibles are those things that are grasped by the mind and the intelligible was preferred to sensible form. Yet, the text does not affirm intelligible forms as principles in the mind ontologically other than principles in reality. Intelligible forms apparently connote metaphysical principles that constitute incorporeal entities separate from the mind.

Later in the same work, Augustine says that we judge by means of intelligibles forms. He says:

> So concerning these [things] we do not judge with the sense of the body. For we have another sense belonging to the interior man, far more present than [a bodily sense], by which we perceive just and unjust things, just things through an intelligible form and unjust things through its privation.[87]

In this text, Augustine maintains that acts of justice and injustice are perceived not by any sense of the body, but by the "inner man," which in scripture is a metaphor for the soul. That is to say, there is some power, which Augustine calls an interior sense, in the soul by which one can perceive justice. In addition, in order to judge whether an action is just one must cognize it through the intelligible form (*intellegibilem speciem*) of justice, and one judges injustices through the privation of the intelligible form. What Augustine means by privation of an intelligible form is not clear. What is clear is that an intelligible form is something that is knowable and serves as a standard by which one judges moral actions. In other words, for Augustine an intelligible form is that by which one judges

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86. Augustine, "La Cité De Dieu," in *Oeuvres de Saint Augustin*, Bibliotheque Augustinienne, Edited and Translated by G. Combes (Paris: Desclee de Brouwer, 1959), p. 254: Consideraverunt enim, quidquid est, vel corpus esse vel vitam, meliusque aliquid vitam esse quam corpus, speciemque corporis esse sensibilem, intellegibilem vitam. Proinde intellegibilem speciem sensibili praetulerunt. Sensibilia dicimus, quae visu tactuque corporis sentire querunt; intellegibilia, quae conspectu mentis intellegi.

87. Augustine, "La Cité De Dieu," p. 119–20: De his non sensu corporis iudicemus. Habemus enim alium interioris hominis sensum isto longe praestantiorem, quo iusta et iniusta sentimus, iusta per intellegibilem speciem, iniusta per eius privationem.

what something *ought* to be, whereas for Aquinas an intelligible species is that through which one comes to know *what is*.

Chapter Summary

The question "how do you know" has been a question that human beings have tried to answer for time immemorial. Whether the theory is contemporary, medieval, or ancient, each theory is fraught with problems that prevent it from comprehensively explaining how one knows. Among those who attempted to explain human cognition is Thomas Aquinas. Aquinas's teaching on human cognition is vast, and it extends over a protracted period of time. Changes in Aquinas's view on intelligible species may have contributed to wealth of diversity among his interpreters.

Contemporary philosophers of medieval are debating whether or not Aquinas is a direct realist or a representationalist. It is beyond the scope of this dissertation to settle the debate. My contribution towards the debate is much more modest. I intend to show that the doctrine of intelligible species is necessary for Aquinas because of his reformulation of hylomorphism. Furthermore, I intend to show that Avicenna and Averroes contributed to Aquinas's intelligible species doctrine as well as to Aquinas's related explanation of prophecy and the beatific vision. By examining Aquinas in his historical context and by examining the Arab influence on Aquinas, I hope to resolve some of the confusion that surrounds contemporary misunderstanding of Aquinas.

In this chapter, I have cursorily shown that the doctrine of intelligible species is not found in Averroes, Avicenna, or Augustine. The next chapter raises the question as to whether Aristotle has a doctrine of intelligible species. There I discuss how Plato has framed knowing and knower in immaterial terms. That is to say, the subject of knowledge and the object of knowledge must be immaterial. Consequently, for Plato, if knowledge is to be acquired, it cannot be derived from the natural world. In response to

Plato, Aristotle takes the immutable and unique forms found in Plato, and he ascribes them to individual humans. Thus, the substantial form (i.e., the immutable nature) is found in each particular. By grounding knowledge in particulars, Aristotle must come up with a way to account for universals, which does not appeal to separated substance and must appeal to the particulars. As will be shown, by accepting Plato's premises that intellect must be immaterial in order to receive intelligible forms, Aristotle agrees with Plato that the knower and the known must be immaterial. However, the immateriality of the knower and the known could not be reconciled with Aristotle's doctrine of hylomorphism. The irreconcilability of hylomorphism with intellection is the Aristotelian aporia, which I shall delineate in more detail in the next chapter. In order to try to resolve the Aristotelian aporia, the Aristotelian and Neoplatonic tradition affirm immaterial substances that were ontologically separate from the body; these immaterial substances were capable of receiving forms.

Among those who affirm immaterial substance were Avicenna and Averroes, which I examine in chapter three. Both philosophers agreed that hylomorphism as understood with the tradition was incompatible with intellection. Avicenna reformulated hylomorphism in a manner that denied that the soul is the form of the body, and by separating the soul from the body, he hoped to make the human soul (a spiritual substance) the subject of intelligibles. Although he is Aristotelian when it comes to sensation, as we will see, nevertheless, he is unable to bridge the gap between the material body and the immaterial intellect, so he needs to have intellection come from an immaterial source, the Agent Intellect. In contradistinction to Avicenna, Averroes holds fast to hylomorphism inasmuch as the soul is the form of the body. Consequently, it is not possible for intellectual powers (whether active or receptive) to inhere in an individuals' substantial form, for the reception of an intelligible in the soul would entail a

reception into matter; moreover, any form received into matter is no longer intelligible.[88] As a result of this view of hylomorphism, Averroes must affirm two separate immaterial entities, the Agent Intellect and the Material Intellect. By conjoining with these entities, humans can be denominated as rational *per accidens*. After examining Avicenna and Averroes on sensation, abstraction, and the subject of intelligibles, I shall offer a critique of both of their positions.

In chapter four I show how Aquinas agrees with Avicenna and Averroes. The subject of intellection must be a spiritual substance (i.e., an immaterial substance). However, Aquinas will do the unthinkable. He will assert that the soul is a spiritual substance *and* that the soul is the form of the body. Whereas Avicenna grabs one horn of the dilemma (the soul is a spiritual substance), and Averroes grabs the other horn of the dilemma (the soul is the form of the body), Aquinas grabs both horns. In doing so, he will need to reformulate hylomorphism in such a manner that allows both the active and passive powers to be inherent in the human soul, while simultaneously preventing these powers from being *immerse*d in matter. His reformulation of hylomorphism necessitates that Aquinas affirm intelligible species so that he can bridge the gap between a material body and an immaterial aspect of the soul. After examining Aquinas on sensation, abstraction, and the subject of intelligibles, I also examine Aquinas's supernatural epistemology, which relies on Avicenna to account for prophecy and relies on Averroes to account for the beatific vision.

In chapter five, I summarize the contributions made by Avicenna and Averroes to Aquinas's epistemology, and I examine the positions in chapter one in light of what was observed in chapters 2, 3, and 4. I end the dissertation with a return to the question of

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88. In this dissertation, I will only consider *Averroes' Long Commentary of Aristotle's DeAnima*, which was available to Aquinas.

direct realism and whether Aquinas is or is not a direct realist, and I look at some unexplained areas in Aquinas's epistemology.

CHAPTER 2

PLATO AND THE ARISTOTELIAN APORIA

Introduction

Thomas Aquinas asserted that in order to know the world, sensible *and* intelligible species are necessary.[1] According to Spruit, prior to Aquinas, it appears that no Aristotelian had affirmed such a doctrine.[2] Although Aristotelians like Averroes and Avicenna disagreed in their interpretation of Aristotle's psychology, neither philosopher affirmed the need for intelligible species.[3] When one looks at the aforementioned psychologies, Avicenna's psychology and Averroes' psychology are more similar to each other than they are different from each other, whereas Aquinas's psychology is radically different from theirs. According to Aquinas, he himself interpreted Aristotle correctly and Averroes and Avicenna had erred in their understanding of "the Philosopher."[4] Moreover, according to Aquinas, if anyone had perverted Aristotle's psychology, it was

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1. Thomas Aquinas, *Summa contra gentiles*, edited by Caramello (Marietti: Taurini-Romae, 1961), Bk. 2, Ch. 30, 1076d.

2. Spruit, *Classical Roots and Medieval Discussions*, vol 1. p.156–57.

3. Richard C. Taylor, "Intelligibles in Act in Averroes," in *Averroes et Les Averroïsmes Juif et Latin*, edited by J.-B Brenet (Paris: Brepols, 2007), p. 120–23: Although Averroes held to a *similar* view in his Middle Commentary, he did not hold to a *species* doctrine in the sense that it is the principle of knowledge. Instead, for Averroes, the intelligible forms would have been objects of knowledge. Furthermore, this dissertation focuses on the text that would have been available to Aquinas (i.e., Averroes' Long Commentary in Latin).

4. Aquinas, *SCG*, Bk. 2, Ch. 61–70.

Averroes.[5] However, as Alain de Libera has demonstrated, internal aporiae existing in the Aristotelian corpus sometimes make it difficult to adjudicate Aristotle's intended meaning.[6]

Nevertheless, although Avicenna, Aquinas and Averroes disagree as to the correct interpretation of Aristotle's psychology, they were in agreement inasmuch as they saw the Aristotelian aporia that would preclude a human being from being denominated as rational. In response, Avicenna, Averroes and Aquinas each came up with his own unique solution. But what is this Aristotelian aporia, and how did it come to be?

In order to answer these questions, one must go back in the history of philosophy and examine Plato, for it is he who frames the epistemic issues; furthermore, it is he who sets the stage and the conditions that will constrain his successors. After examining Plato, I consider Aristotle's response, for his response sets up one of the horns of the constructive dilemma that I call the Aristotelian aporia. I then examine the various senses in which hylomorphism may be understood, for if understood in the sense that most of Aristotle's successors had understood it, hylomorphism sets up the other horn of the constructive dilemma (i.e., sets up the Aristotelian aporia).

Plato and the Ontological Basis for Knowledge

For the purpose of this dissertation, I shall draw upon some representative and relevant texts from *The Phaedo*, and *The Republic*. These two works are sufficient to provide the background necessary to understand Aristotle's reaction to Plato's doctrine of forms. It is Aristotle's reaction to Plato that will give rise to the aporia.

In the *Phaedo*, one finds that Socrates has been condemned to death, and given his imminent demise, Socrates and his colleagues ponder whether or not the soul is

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5. Thomas Aquinas, *Tractus de unitate contra averroistas* (Rome: Leonine Commission, 1976), Cap. 5.

6. Alain de Libera, *La Querelle Des Universaux: De Platon à la Fin Du Moyen Age* (Paris: Éditions du Seuil, 1996), pp. 29–31.

immortal. During their discussions, several key concepts arise, such as the difference between the mutable world and the immutable forms, the nature of the soul, and the nature of knowledge. These concepts will have an indelible impact on everyone who follows Plato.

Concerning the source of knowledge, Plato makes a distinction between material objects and those that are not material. When inquiring into the source of knowledge, Socrates asks whether or not our knowledge was derived from perceivable objects, and he concludes that our knowledge of things such as equality and inequality could not have come from material objects. He reasons that without undergoing any change, material objects can simultaneously appear to be equal and unequal to different people. Nevertheless, one never confuses the concept of equality with the concept of inequality. He concludes that those *things* that can be confused to be equal and unequal simultaneously must be different from those things that cannot be confused.[7]After establishing that there is a difference between material things that can simultaneously appear to be equal and unequal to different observers and between those things that cannot appear equal and unequal to different people, Plato establishes that equal sticks are really not equal at all, but they fall short of being absolutely equal. In other words, the equal sticks are poor imitations of that which is absolutely equal.[8] Given that no two material entities are absolutely equal, material entities *cannot* be the ontological grounds from which we derive our concept of equality. Furthermore, in order to judge that the "equal sticks" were in fact not equal, one must have had prior knowledge as to what equality is. For example, one cannot affirm that a cat is not a dog unless one already knows what a dog is. Similarly, one cannot argue that two things are unequal unless one

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7. Plato, "Phaedo," in *Plato Complete Works* (Indianapolis: Hackett Publishing Company, 1997), 74b-74c.

8. Ibid., 74d-74e.

already knows what equality is.[9] Plato infers that our concept of equality could not have come from perception.[10] Furthermore, he infers that perception could not have give risen to the concepts of beauty, goodness, uprightness.[11] As a result of this reasoning, Plato concludes that prior to our birth, we may have acquired knowledge of beauty, goodness, et alia. In other words, we acquired our knowledge of what he names the *forms* while we were in a disembodied stated prior to birth.[12] However, in order to confirm that one does acquire knowledge prior birth, it is necessary to prove the separate existence of those forms. It is stated that if it could be proven that the forms exist, then it would logically entail that the soul exists prior to its being interred in the body.[13]

Although he does not directly give an argument for the existence of the forms, Plato argues indirectly for the immutability of the forms. He states that what is constant and invariable is incomposite (i.e., it is simple), and what is mutable is composite.[14] Given that these things (e.g., equality itself, beauty itself, righteousness itself) are unchanging, it follows that they too must be incomposite (i.e., simple). Note that Plato's argument has not established the existence of the form. Instead, it has established that if such forms *were* to exist, then they would necessarily have the following characteristics, simplicity, necessity, and immutability.

I do not think it is the case that Plato is committing a hypothetical counter-factual fallacy. That is to say, he is not arguing from a *possible state of affairs to an actual state*

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9. Ibid., 74d-74e.

10. Ibid., 75a.

11. Ibid., 75c-75d.

12. Ibid., 76e-77a.

13. Ibid., 76e-77a.

14. Ibid., 78c.

of affairs. Instead, I think Plato is asserting that, given our human experience of forming unchanging concepts (e.g., beauty, equality, etc.), there must be an *unchanging* ontological basis, the forms, that is the ontological grounds for these *unchanging* concepts.

If one holds to some form of univocal predication, one can understand how Plato can maintain his position. In other words, if one assumes that for any given term there must be one kind of thing that is existentially denoted, Plato's account is coherent and consistent. For example, when using the term *bird,* one can see that the term applies to at least one bird, and it does not apply to anything that is not a bird. Similarly, when one uses the term *beauty*, it would seem that there must be at least one entity that serves as its referent. Otherwise, terms like "beauty, "justice", and "good" would be vacuous terms that have no ontological referent. Moreover, without an ontological referent, the connotation of these terms would be subject to the mutability of human convention. Yet, it appears to be the case that beauty is always understood as beauty, and it is not misunderstood to mean ugly. There must be some reason for the consistency in our concepts. What could it be? Plato's answer is the forms are the unchanging ontological ground for our unchanging concepts.

The distinction between simple, immaterial forms and complex, material, concrete entities is important. Whereas the former are apprehended only by thought, the latter are apprehended only by sensation.[15] By bifurcating the immutable forms and the mutable concrete entities of perception, Plato intentionally creates an epistemological rift between sensation and intellection. Plato's rift, however, is not only epistemological. It is also ontological, for the material world cannot causally act on the soul to produce knowledge in the soul. At best one can only sense the material world and by virtue of

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15. Ibid., 79a.

sensation, form *opinions* concerning the material world;[16] but, one cannot acquire intellectual knowledge from the material world. Knowledge can only be attained from the immutable, eternal forms.

Further along in the *Phaedo*, Plato gets to his original purpose, proving the immortality of the soul. Having shown that concepts are immutable and assuming that concepts have an ontological referent, Plato uses the forms, the ontological referent for thought, as the basis for proving that the human soul is immortal. He argues that there are two classes of things, the visible and the invisible. Whereas the visible are mutable, the invisible are immutable. He then asserts that humans are part body and part soul. He likens the body to the visible and the soul to the invisible. The soul uses the instrumentality of the body for inquiry by means of sensation, and when the soul is drawn away by the body into the realm of mutable, the soul loses its way and becomes confused and dizzy. However, when the soul investigates itself, it passes into the realm of the pure, everlasting, immortal, immutable, and it is free from interference from the body. In this state, the soul does not stray, but remains in the realm of the absolute, constant, invariable through contact with beings of a similar nature. This condition of the soul is called wisdom.[17]

Although Plato's affinity argument is fallacious because one cannot conclude just because two things have *some* properties in common that they have *all* properties in common, nevertheless, this passage tells us some things about Plato's conception of the soul. Inasmuch as the soul is like the forms, the soul is simple, immaterial, intelligible, and accidentally related to the body. It is evident that the soul is intelligible, for it is able to reflect upon itself, and it is able to understand that which is intelligible. One sees

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16. Nicholas P. White, "Plato's Metaphysical Epistemology," in *Cambridge Companion to Plato*, edited by Richard Kraut (Cambridge: Cambridge University Press, 2006), p. 284.

17. Plato, "Phaedo," 79a-79d.

already that knowing has been framed in such a manner that spiritual substances must be both the object and the subject of knowledge. For example, when the soul reflects upon itself, it is capable of understanding because it is an immaterial substance; it is also capable of being understood because it is an immaterial substance. As a matter of fact, all objects of knowledge (e.g. the forms) must be immaterial, for matter precludes knowledge.

In addition to being immaterial, the object and subject of knowledge must be simple. The metaphysical simplicity of the forms is necessary to safeguard their immutability. During the sort of non-essential change that Aristotle will later call an accidental change, there must be one part that remains constant throughout the change, and another that is changing; otherwise, one would have annihilation and creation. By having no parts, the forms are indivisible, so they cannot be destroyed, and they cannot undergo change. Also, the immutability of the forms entails that they are ontologically necessary, for necessity means that a thing cannot be other than it is. Thus, if a form is an object of knowledge, it will never present itself to be other than it is. In other words, the necessity of the form entails the necessity of knowledge.

In this account by Plato, knowing has been framed in such a way that both the objects and subjects of knowledge must be simple. The object and subject of knowledge must be immaterial. The object and the subject of knowledge must be necessary in terms of their being. Implicit is that knowing is veridical because of the immateriality of the object and subject of knowledge. As a matter of fact, all of these conditions are conditions that will be accepted by many philosophers following the Greek tradition. What remains to be seen is why the material world cannot be an object of knowledge.

In *The Republic*, Plato argues that everything that is perceptible appears simultaneously beautiful and also ugly. He then infers that perceptible things no more

"are than they are not," in the sense that they are between being and non-being.[18] Plato is alluding to their mutability, for everything that changes ceases to be what it is in one sense, and it comes to be what it is not in another sense. Given that only *that which is* is knowable (for *that which is not* cannot be an object of knowledge), it follows that material entities are not knowable, for although they exist, they are constantly ceasing to be what they are (i.e., they are always changing).[19]

In brief, Plato has framed knowing in such a way that only immaterial entities are knowable, and only immaterial entities can be knowers. Furthermore, both knower and known must be simple entities, and the mutability of material objects prevents them from being objects of knowledge. Also, Plato has bifurcated sensation and intellection, and he has created an ontological rift such that sensation cannot causally give rise to knowledge. This is simply because only the immaterial and transcendent forms can be the ontological basis for knowing.

The Aristotelian Aporia

For an empiricist like Aristotle, who was given to classification of animals and study of nature, knowledge, if it is going to be obtained, must come from the natural world. There should be no need to affirm immaterial entities as the ontological grounds for knowledge. Thus, in order to deny that first principles (i.e., Platonic forms) are primary substances, Aristotle appeals to language and to the nature of knowledge. For Aristotle, a primary substance is a concrete entity (in Greek a *tode ti*). That is to say, a primary substance is a particular (i.e., "a this").[20] Universals, on the other hand, are not

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18. White, "Plato's Metaphysical Epistemology," p. 284.

19. Plato, "Republic," 479b9–10.

20. Aristotle, *Metaphysics*, vol. 2 of *The Complete Works of Aristotle*, edited by Johnathan Barnes (Princeton, N.J.: Princeton University Press, 1984), Bk. 7, Ch. 15, 1039b20.

particulars, for they do not denote a concrete entity; rather, they denote a kind (i.e., "a such").[21] Linguistically, universals are expressed as common predicates, whereas particulars are identified inasmuch as they cannot be predicated of another particular (e.g., "Plato is Socrates.").[22] Were particulars predicable of other particulars, then *the* subject of predication would be multiple things (i.e., the *one* subject would be *many*).[23] For example, "Socrates will be several things: himself, and man, and animal."[24] However, a subject cannot simultaneously be one and many in the same sense. Thus, Aristotle concludes, "It is plain that no universal attribute is a substance, and this is plain also from the fact that no common predicate indicates a 'this' , but rather a 'such'. If not, many difficulties follow and especially the 'third man.'"[25]

In order to deny that Platonic forms are first principles of knowing, Aristotle also appeals to the nature of knowledge. For Aristotle, "the knowledge of anything is universal."[26] For example, if what one knew about the human heart only applied to a particular heart, Aristotle would deny that one has knowledge of human hearts. For Aristotle, in order to have knowledge of human hearts, that knowledge must have an extension that includes other human hearts. For example, knowing that a human heart has two ventricles and two atriums would count as knowledge inasmuch as it extends to other hearts. By reason of analogy, Aristotle argues that if first principles (i.e., Platonic forms)

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21. Aristotle, *Metaphysics*, Bk. 7, Ch. 13, 1038b1-1039a3.

22. Ibid.

23. The unstated premise is that a subject is a singular thing, so it cannot be many things.

24. Edward Booth, *Aristotelian Aporetic Ontology In Islamic and Christian Thinkers* (New York: Cambridge University Press, 1983), p. 10.

25. Aristotle, *Metaphysics*, Bk. 7, Ch. 14, 1038b30-1039a3.

26. Aristotle, *Metaphysics*, Bk. 3, Ch. 6, 1003a7-1003a14.

were substances, they would be particulars. Moreover, if a thing is a particular, it is not knowable, for the knowledge of anything is universal. Consequently, if first principles were substances, then they would not be knowable. It is not the case that first principles are not knowable, therefore, first principles cannot be substances.

It is important to note that Aristotle is arguing that if Platonic forms *were* to exist, they would actually be particulars, and that which is actually a particular cannot be actually a universal. Given that particulars and universals are mutually exclusive in terms of their mode of being, it does not follow that a particular cannot be the *basis* for universals even if it cannot be the basis *qua* particular. As a matter of fact, later we will see that Aristotle will argue that particulars are the basis for universals. Furthermore, there seems to be some ambiguity as to whether universality is referring to the *mode of being* of a thing or to the *extension* of that thing. For example, if a universal is to exist in a human mind, it would be particular in terms of its mode of being, yet it would be a universal in terms of its extension because it would existentially denote all the particulars of which the universal may be predicated. For example, assume that the universal 'dog' existed in some intellect. In Aristotle's ontology, it could exist as a particular accident in that intellect, yet it could be predicated of all dogs; thus, it would be universal in terms of its extension. However, Aristotle's argument proves too much. If the particularity of anything excludes it from being knowable, it would follow that neither the sensibles of the world nor Platonic forms are knowable, for according to Aristotle, both the sensible world and the Platonic forms (were they to exist) are particulars. In addition, were an intelligible form to exist in the intellect, it too would be a particular, and by virtue of its particularity, it would not be knowable. On the other hand, if the particularity of sensible things does not preclude one from acquiring knowledge, neither should the particularity of a Platonic form.

Notwithstanding, having denied that first principles are substances, Aristotle seems to have backed himself into a corner because knowledge concerns universals, but only particular (i.e., non-universals) subsist. How can one have knowledge of universals, when universals are not objects of sense experience? Is it not the case that all knowledge starts with the senses? Aristotle realizes that "true universal knowledge should entail corresponding universal principles of beings; he knew that by making universal knowledge a creation of the mind he still needed to find an explanation of the universality in things."[27] Thus, if there is going to be an ontological basis for universals, it is to be found in the particular.

Aristotle proposes that principles of existing things must be universal, and not separated substances, yet he affirms:

> The statement that all knowledge is universal, so that the principles of things must also be universal and not separate substances, presents indeed, of all points we have mentioned the greatest difficulty, but yet the statement is in a sense true, although in a sense it is not. For knowledge, like knowing, is spoken in two ways - as potential and as actual. The potentiality, being, as matter, universal and indefinite, deals with the universal and indefinite; but the actuality being definite, deals with a definite object - being a 'this.' But *per accidens* sight sees universal coulour, because this individual colour which it sees is colour, and this individual *a* which he grammarian investigates is an *a*. For if the principles must be universal, what is derived from them must also be universal, as in demonstrations; and if this is so, there will be nothing capable of separate existence - i.e., no substance. But evidently in a sense knowledge is universal, and in a sense it is not.[28]

Realizing that universals need some ontological grounding (other than Platonic forms), Aristotle in the aforementioned text suggests that the universals are ontologically grounded in the particular. Aristotle mentions that knowledge can be considered either as actual or potential. In actuality that which exists are particulars; however, when one examines the particular, one becomes cognizant of the universal. Therefore, in some manner, the universals exist potentially in the particular.

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27. Booth, *Aristotelian Aporetic Ontology In Islamic and Christian Thinkers*, 5.

28. Aristotle, *Metaphysics*, Bk. 13, Ch. 10, 1087a10–25.

The notion that universals are derived from the particular is an affront to the Platonic separated substance, and it will require a new metaphysical framework.[29] Realizing that particulars are mutable and contingent, Aristotle must somehow give an account explaining how immutable, necessary and universal knowledge is derived from the particulars. Aristotle seems to have accepted from Plato that form is the principle of intelligibility.[30] Whereas Plato had one form per species existing separated from matter, Aristotle revamps the concept of form and embeds the form into each particular, whereby the form is multiplied.[31] By virtue of an intrinsic form, each hylomorphic entity is determined and specified, and although each hylomorphic entity in a species is numerically different, nevertheless they are specifically one.[32] The fact that the members in a species are specifically one will allow Aristotle to assert that the universal is formed from the particular. Moreover, by virtue of an educed form, a substance arises that only undergoes accidental change until it undergoes corruption. Therefore, although hylomorphic beings are mutable, they are only mutable in terms of their accidents. In terms of their substance, they remain the same. In other words, Aristotle's metaphysical framework has an unchanging basis that can serve as the basis for unchanging, necessary, and universal knowledge.[33] The problem, however, becomes how does one get to the intelligible portion (i.e., the form) when that form is intrinsic to the hylomorphic being?

According to Aristotle, experience allows one to do so. Memory is consequent upon perception, and by encountering the same thing multiple times, one derives

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29. Booth, *Aristotelian Aporetic Ontology In Islamic and Christian Thinkers*, p. 1.

30. Johnathan Lear, *Aristotle: The Desire to Understand* (New York: Cambridge University Press, 1988), p. 54.

31. Booth, *Aristotelian Aporetic Ontology In Islamic and Christian Thinkers*, p. 3.

32. Lear, *Aristotle: The Desire to Understand*, p. 275.

33. Ibid., p.73.

experience, and from experience, "the whole universal has come to rest in the soul (the one apart from the many, whatever is one and the same in all those things)."[34] In other words, by repeated exposures to particulars in the same species, one comes to know the universal, which comes to rest in the soul. Aristotle uses the analogy of a rout during a battle. He says, "if one man makes a stand another does and then another, until a position of strength is reached. And the soul is such as to be capable of undergoing this."[35] Aristotle tells us *that* universals comes to rest in the soul, but the analogy does not tell us *how*. For a more detailed account of how perception gives rise to the universal, let us examine Aristotle's *De Anima*.

For Aristotle, all knowledge begins with the senses, so let us examine Aristotle's account of sensation, imagination, and intellect. According to Aristotle, two conditions must obtain for sensation to occur. First, the sense organ must receive a form without matter so that the sense organ is specified and determined in an intentional manner. Aristotle gives the analogy of a signet ring being impressed on wax, and his emphasis is not on the material aspect of the ring (i.e., its gold); rather, it is the shape of the ring that is impressed into the wax. The shape of the ring is supposed to be analogous to the formula (i.e., the *ratio) that specifies and determines the sense. The second condition that must obtain is that the sense organ in the primary sense of the term* must be able to receive the form. I say "in a primary sense" because the sense organ and its receptivity are not necessarily co-extensive. For corpses have organs, but the organs are only called so in a secondary sense because they no longer are receptive to these sensible forms.[36]

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34. Aristotle, *Posterior Analytics*, vol. 1 of *The Complete Works of Aristotle*, edited by Johnathan Barnes (Princeton, N.J.: Princeton University Press, 1984), Bk. 2, Ch. 19, 100a3-a9.

35. Aristotle, *Posterior Analytics*, 100a10–14.

36. Aristotle, *On the Soul* (Cambridge, Mass.: Harvard University Press, 1957), Bk. 2, Ch. 12, 424a18–19.

Aristotle determines that there must be a sense that adjudicates among the various senses, for we compare the various sensations to each other. For example, when we perceive a cube of sugar, we can taste that it is sweet and simultaneously know that it is white. Yet, each sense only knows about its proper object (i.e., vision is informed with color, hearing with sound, etc.). Thus, there must be a sense to which all sensations are present, and this sense which asserts the difference must be one sense. Furthermore, the sense that adjudicates among the various sensations accounts for the co-temporal nature of sensation. In other words, the sense is presently coordinating the sensation from the five senses so that one is aware that the sweetness that is being tasted and the white of the sugar are both occurring simultaneously and belong to the same object, the sugar cube.[37]

Having given an account of how sensation occurs, Aristotle distinguishes between sensation, imagination and thought. He asserts that imagination is distinct from sensation, for one does not say that one has imagined a person that one is sensing; rather, one says that one senses a person.[38] Furthermore, the fact that one can see images when the eyes are shut (e.g., when one dreams) is evidence that imagination is distinct from sensation.[39] Primarily, imagination is a movement that is caused by sensation. Without sensation, there would be nothing stored in imagination. Yet, the imagination is receptive inasmuch as it is able to store representations that resemble sensation.[40] Imagination is also distinct from thought because non-rational animals have imagination, but they do not have reason.[41] After discussing imagination, Aristotle proceeds to "thought" and how it comes

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37. Aristotle, *On the Soul*, Bk. 3, Ch. 2, 426b15–30.

38. Aristotle, *On the Soul*, Bk. 3, Ch. 3, 427a7–429a9.

39. Aristotle, *On the Soul*, Bk. 3, Ch. 3, 428a15–17.

40. Aristotle, *On the Soul*, Bk. 3, Ch. 3, 429a1–10.

41. Aristotle, *On the Soul*, Bk. 3, Ch. 3, 428a22–23.

about.

Analogous to sensation, two conditions are necessary for thinking to occur. First, there must be an object of thought. Aristotle tells us that the part of the soul that thinks is analogous to perceiving, and that it is acted upon by that which is *thinkable*.[42] He tells us that the *thinkable* is the form of an object, but at this point, he does not mention what that object might be.[43] Later in the *De Anima*, he tells us that it is not the stone that comes to reside in the soul; rather, it is the form of the stone.[44] Further still in the text, Aristotle asserts that nothing has separate existence (i.e., this is a denial of Platonic forms), and the objects of thought (i.e., the thinkable) *reside in sensible forms*.[45] Because the objects of thought reside in sensible forms, Aristotle asserts that understanding would not be possible without the images in the imagination which serve an analogous role to the objects of perception.[46] In other words, the objects of thought are found in the sensible forms that have been propagated to the senses and to the imagination. The second condition that must be satisfied is that soul (or the part of the soul, which is called intellect and is responsible for intellection) must be receptive of all intelligible forms. In order to be receptive of all intelligible forms, intellect must have no actual existence until

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42. Aristotle, *On the Soul*, Bk. 3, Ch. 3–4, 429a1–15.

43. Aristotle, *On the Soul*, Bk. 3, Ch. 4, 429a18.

44. Aristotle, *On the Soul*, Bk. 3, Ch. 8, 431b29.

45. Aristotle, *On the Soul*, Bk. 3, Ch. 8, 432a1–10. "[T]he soul, then, acts like a hand; for the hand is an instrument which employs instruments, and in the same way the mind is a form which employs forms, and sense is a form which employs the forms of sensible objects. But since apparently nothing has a separate existence, except sensible magnitudes, the objects of thought -both the so-called abstractions of mathematics and dependent all states and affections of sensible things-reside in the sensible forms."

46. Aristotle, *On the Soul*, Bk. 3, Ch. 8, 432a4–12.

it thinks.[47] It must be like a tablet in which nothing has been written.[48] That it is to say, it must be devoid of any innate forms. Aristotle agrees that the soul is the place of forms not as a whole, but only the part that thinks.[49] However, Aristotle proceeds to tell us that in order for the second condition to be met, the soul (at least the part of the soul, mind, that is receptive of intelligible forms) must be unmixed with the body. If the mind were mixed with a body, then the reception of any intelligible form would be received as a quality or a quantity inhering in a body.[50]

Unlike sensation, the aforementioned two conditions are not sufficient to bring about thought. In addition to the aforementioned two conditions, Aristotle asserts that mind also has an active component that functions like a light. This active component of mind is separable, unmixed, and is essentially an activity, and it alone is immortal and everlasting, and without this active component nothing thinks.[51] By asserting that the receptive and active components of the mind are not mixed with the body, Aristotle opens Pandora's box as it relates to the nature of knowledge, the nature of the soul, and the nature of knowing.

But what is meant by asserting that the active and passive components are unmixed with the body? Are they ontologically separate from the body? Given that Aristotle denies the immortality of the soul,[52] and given that the active component alone

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47. Aristotle, *On the Soul*, Bk. 3, Ch. 4, 429a21.

48. Aristotle, *On the Soul*, Bk. 3, Ch. 4, 430a1.

49. Aristotle, *On the Soul*, Bk. 3, Ch. 4, 429a27–30.

50. Aristotle, *On the Soul*, Bk. 3, Ch. 4, 429a24–26.

51. Aristotle, *On the Soul*, Bk. 3, Ch. 5, 430a17–26.

52. For Aristotle form-matter composites are generable and corruptible. Inasmuch as form is educed from matter, a new form-matter composite is generated, and as soon as the form-matter union is dissolved, the entity ceases to exist.

is immortal and everlasting, the active component would seem to have to be ontologically separate from the human being. Moreover, if these powers are ontologically separate from the body, it seems to suggest that the subjects of intelligible forms are immaterial substances. According to Aristotle, the active component is able to think itself; thus, the active component would need to be intelligizing and intelligible, which is not possible if the active component were mixed with a body. Yet, this position is similar to Plato's position, for Plato asserted that the subject of knowledge and object of knowledge are immaterial, and that the soul is able to investigate itself. It seems that Aristotle is in agreement that the object and subject of intellection must be immaterial.

In addition to the ontological status of the receptive and active component of the intellect, has not Aristotle bifurcated sensation and intellection like Plato? If the active and passive components of the intellect are in fact separate and unmixed from the body, and sensation occurs in the body, how do the *objects of thought* found in the imagination come to exist in the receptive portion of the intellect? Also, given that the objects of thought are only potentially in the imagination (i.e., the objects of thought are not *actually* in the imagination), how can Aristotle affirm that the objects of thoughts are "found in sensible forms," when he simultaneously affirms: "In things which have matter, each of the objects of thought are only potentially present"?[53] This affirmation implies that there is no place in the body where the objects of thought can be located. Furthermore, Aristotle uses light as an analogy, which suggests that the intelligible forms are potentially "visible" to the receptive part of the intellect, and they become actually "visible" to the receptive part of the intellect.[54] Yet, there is no account as to *how* they are

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53. Aristotle, *On the Soul*, Bk. 3, Ch. 4, 430a6–7.

54. Aristotle, *On the Soul*, Bk. 3, Ch. 5, 430a14–18; "Mind in the passive sense is such because it becomes all things, but mind has another aspect in that it makes all things ; this is a kind of positive state like light ; for in a sense light makes potential into actual colours. Mind in this sense is separable, impassive and unmixed, since it is essentially an activity."

made visible. Does the active component provide the intelligible forms to the receptive component? If so, does it provide the intelligible content from itself or does it provide the intelligible content from another (e.g., the forms of the imagination)? Does the intelligible content already exist potentially in the receptive part of the intellect, and does the Agent Intellect merely educe intelligible forms from the potency found in the receptive component of the intellect? How far should the analogy between receptive intellect and prime matter be taken? Moreover, has not this intelligible form taken "on the detached character of the rejected separate forms of Plato"?[55]

Given the insurmountable gap between the body and a separate intellect, Aristotle's account seems deficient and reminds us of Plato's epistemology, which also bifurcated the material and unintelligible world from the immaterial and intelligible world. It is not any wonder that some have understood Aristotle to be a dualist.[56] But perhaps, I have pushed Aristotle beyond his intended meaning. Perhaps, separate and unmixed does not mean ontologically separated from the body. Yet, historically most of Aristotle's successors understood "separate" to mean ontologically separate.[57] Prominent among them is Aquinas who will unequivocally assert that "separation" means able to operate without the use of a bodily organ.[58] In order to understand why most of Aristotle's successors understood intellect as ontologically separate, let us examine the

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55. Booth, *Aristotelian Aporetic Ontology In Islamic and Christian Thinkers*, p. 2.

56. Christopher Shields, "Soul and Body in Aristotle," in *Oxford Studies in Ancient Philosophy* (Oxford: Oxford University Press, 1988), p. 135.

57. Richard Sorabji, *The Philosophy of the Commentators* (London: Duckworth, 2004), pp. 102–17.

58. Aquinas, *SCG*, Bk. 2, Ch. 69: Nec tamen per hoc quod substantia intellectualis unitur corpori ut forma, removetur quod a philosophis dicitur, intellectum esse a corpore separatum..... Si autem operatio eius non compleatur per organum corporale, potentia eius non erit actus alicuius corporis. Et per hoc dicitur intellectus esse separatus: non quin substantia animae cuius est potentia intellectus, sive anima intellectiva, sit corporis actus ut forma dans tali corpori esse.

various ways that hylomorphism may be understood. Historically, hylomorphism and intellection were seen as incompatible.[59]

Hylomorphism$_1$

For Aristotle, all natural substances are composed of two entitative principles: form and matter; these natural substances arise as a result of natural causes. Aristotle understood prime matter to be infinite, inchoate, and receptive of form.[60] On the other hand, he understood form to be that which specifies and determines matter such that the form determines the species of what comes to be, and the matter individuates the form such that a *this* arises. Furthermore, because the notion of creation does not exist in Aristotle, generation is the result of an efficient cause *educing* form from matter. In an Aristotelian framework, it is unintelligible to affirm that something should arise from nothing *simpliciter*. Instead, if something comes to be, it must exist in potency before it exists in actuality. For example, for Aristotle, a human being comes to be as a result of matter, the female secretion and the male semen, the formal principle, and the efficient cause, the motion of the semen.[61]

Like any other natural substances, Aristotle understood human beings to be composed of form and matter. For Aristotle, the soul is the form of the body, and the body is the matter.[62] When addressing whether "the soul and the body are one," Aristotle

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59. Howard Robinson, "Form and the Immateriality of the Intellect from Aristotle to Aquinas," in *Aristotle and the Later Tradition*, edited by Henry Blumenthal and Howard Robinson (Oxford: Clarendon Press, 1991), pp. 207–14.

60. Shields, "Soul and Body in Aristotle," p. 107.

61. Aristotle, *Generation of Animals*, A. L. Peck (Cambridge, Mass.: Cambridge University Press, 1963), 766b10–25.

62. Joseph Owens, "Soul as Agent in Aquinas," *The New Scholasticism*, no. 48 (1974): 53: "Why Aristotelians would use the terms 'matter' and 'body' interchangeably is rooted in Aristotle's problematic definition of the soul In *De Anima* Book 2, the soul is defined as the first actuality of a physical organic body. However, the term 'body' already includes the notion of soul because according to Aristotle, the term "body" is

responded, "we must describe it [the soul] as an actuality of the first kind of a natural organized body. That is why we can dismiss as unnecessary the question whether the soul and body are one: it is as though we were to ask whether the wax and its shape are one."[63] Aristotle seems to imply that if one understood the relationship between the shape and the wax, one would understand the relationship between the soul and the body. So, let us analyze said relationship.

There is a sense in which the wax and the shape are one, and there is another sense in which they are not one. Inasmuch as the wax and the shape are not two ontologically separate existents, the wax and shape are one, for there is only one thing existing, the wax with the impressed shape. On the other hand, the wax and the shape are not one inasmuch as the shape is distinct from the wax, such as provided by a given seal. That is to say, it is not metaphysically necessary for the wax to have a particular shape since it may take on any shape; also, it is not metaphysically necessary for the particular shape to be impressed in wax, since the same shape may be impressed in anything capable of receiving its impression.[64] Hence, if it is not metaphysically necessary that the wax have a particular shape, nor is it metaphysically necessary that a particular shape be received into wax, the wax and the shape are not one, for the shape is capable of specifying and determining the wax, whereas the wax is capable of being specified and determined. That is to say, they are related as action is to passion.

Similarly, Aristotle is intimating that form and matter are in fact one in one sense; yet there is another sense in which they are not one; consequently, some have understood

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[Continued from previous page]
predicated equivocally of a corpse."

63. Aristotle, *On the Soul*, Bk. 2, 412a27-412b9.

64. Aristotle, *Metaphysics*, Bk. 5, 1015b10–15; For Aristotle, simple entities, are metaphysically necessary because they cannot be other than what they are inasmuch as they do not admit any changes in state.

Aristotle to be espousing some form of substance dualism.[65] However, matter *qua* matter is actually nothing although it is potentially anything after it has been specified and determined by form, whereas form *qua* form is nothing unless it is specifying and determining matter. That is to say, form and matter are not two separate existents; inasmuch as they are not two separate existents, they are one. Yet, in another sense, it seems that Aristotle is intimating that form and matter are not one; for although they are not separate, they are distinct inasmuch as they have different metaphysical roles (i.e., they are distinct because form specifies matter, whereas matter is specified by form.).

The notion that form and matter are distinct though not separate gives rise to the question of precisely how form and matter are related. Logically there are eight possible relationships between form and matter:

1: All of the form actualizes matter.
2: None of the form actualizes the matter.
3: Some of the form actualizes the matter.
4: Some of the form does not actualize matter.
5: All of the matter is actualized by the form.
6: None of the matter is actualized by the form
7: Some of the matter is actualized by the form.
8: Some of the matter is not actualized by the form.

Yet, although there are eight logical possibilities, there are several possibilities that can be excluded based on Aristotelian principles. Proposition two and six can be excluded based on the Aristotelian principle that form actualizes matter, and matter is that which is actualized by form. Proposition eight can be excluded based on the Aristotelian principle that non-actualized matter does not exist. Proposition four can be excluded because for Aristotle, nature never does anything superfluously.[66]

1: All of the form actualizes matter.
3: Some of the form actualizes the matter.
5: All of the matter is actualized by the form.

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65. Shields, "Soul and Body in Aristotle," p. 106.

66. Aristotle, *Parts of Animal*, vol. 1 of *The Complete Works of Aristotle*, edited by Johnathan Barnes (Princeton, N.J.: Princeton University Press, 1984), Bk. 3.61b17–1b26.

7: Some of the matter is actualized by the form.

By parity of reason, because nature does not do anything superfluously, then it follows that all of the form actualizes all of the matter, and all of the matter is actualized by all of the form. Were this not the case, some of the form would not be actualizing the matter. Consequently, propositions one and five must be true based on Aristotelian principles, and by sub-alternation, proposition three and seven must also be true. Thus, by process of elimination, hylomorphism is the conjunction of propositions one and five: all of the matter is actualized by all of the form, and all of the form actualizes all of the matter.

Hylomorphism conceived in this manner seems to precludes knowledge. Why is this the case? Considering that form does not exist *per se*, form cannot perform any operation *per se*. Similarly, considering that matter does not exist *per se*, matter cannot perform any operations *per se*. If neither form nor matter can perform operations *per se*, and natural substances perform operations, neither form *nor* matter can be the *per se* cause of any operations each taken alone. In other words, form and matter may be *necessary conditions* for an operation by a form-matter composite, but neither is a *sufficient condition*. Consequently, it appears that every operation performed by a natural substance arises because of the form *and* the matter, not because of the form *or* the matter alone. However, if every operation arises because of the form *and* the matter, the human soul, the form of the body, cannot receive intelligibles without receiving said forms into matter (i.e., the body) because if reception were an operation, it would depend on matter, and if reception were not an operation, the receiving subject would be material. Moreover, any form received into matter is not intelligible.[67]

If hylomorphism is understood as stated above, then there are only two ways of asserting that humans are rational. First, one can deny that an individual is a hylomorphic

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67. Aristotle, *On the Soul*, 429a25–30.

composite. That is to say, one can assert that an individual is an immaterial soul that is related accidentally to a body. Consequently, the individual is able to receive intelligible forms into an immaterial soul which would be the subject of intelligible forms. Second, one can affirm that a man is a hylomorphic composite who is unable to receive intelligible forms; consequently, one needs to look for an immaterial subject capable of receiving intelligible forms. As will be made clear in subsequent chapters, Avicenna will opt for the first, whereas Averroes will opt for the second. Aquinas, in contradistinction, will deny that the aforementioned conception of hylomorphism applies to rational composite substances although he will affirm that the aforementioned conception of hylomorphism applies to non-rational composite substances.[68]

Four Distinct Conceptions of Hylomorphism

Thus, hylomorphism will take on four distinct meanings in the analyses in this dissertation. I shall denote the different types of hylomorphism by using subscripts (e.g., hylomorphism$_1$). In the first sense of hylomorphism$_1$, the soul and the body are united in such manner that the soul is the form of the body. Hylomorphism$_1$ in this sense entails that the separation of form (i.e., the soul) and matter result in the destruction of the substantial form (i.e., the soul). In addition, this sense of hylomorphism precludes the reception of intelligible forms, for the reception of any intelligible form would involve reception into matter, which is the subject of the substantial form. Instead, if intelligible forms are to be received, the subject of those intelligible forms will have to be a substance separate from matter which, in the case of Averroes, is the separated material intellect. Furthermore, the substantial form must be educed from the potency of matter. Consequently, the composite is generable and corruptible; therefore, at the dissolution of the composite, the substantial form is destroyed and matter takes on a different

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68. The positions maintained by Avicenna and Averroes are examined in detail in chapter three. Aquinas's position is examined in chapter four.

substantial form. Last, but not least, given that a substantial form is a necessary condition for performing operations but not a sufficient condition for performing operations, all operations performed by this form-matter composite are performed via a physical organ. Thus, if intellection is to happen, it must happen outside the form-matter composite. In other words, hylomorphism$_1$ precludes the reception of intelligibles, it denies the immortality of the soul, and every operation performed by a hylomorphic$_1$ being must be performed by a bodily organ. This sense of hylomorphism$_1$ apparently applies to both Aristotle and Averroes.

The second sense of hylomorphism, hylomorphism$_2$, shares all of the characteristics of hylomorphism$_1$ except two. Hylomorphism$_2$ differs in that the substantial form is not educed from matter; instead, the substantial form arises from a separated immaterial substance, the agent intellect.[69] Hylomorphism$_2$ also differs in that the substantial, corporeal form is not the soul. Rather, the substantial form is the form of corporeity, which actualizes the matter. Given that the form of corporeity communicates actuality to matter, the role of the soul, a separated substance[70], is to communicate life to the body. However, given that the body is a substantial form, and the soul is a substantial form, these two substantial forms are related in a non-essential sense that we can characterize as accidental to each other. Moreover, as in hylomorphism$_1$, the form-matter composite is unable to receive intelligible forms. Instead, the soul is the subject of intelligible forms. Any operations performed by form-matter composites require a physical organ; hence intellection must happen outside the form-matter composite. This sense of hylomorphism$_2$ applies to Avicenna.

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69. This separated substance, the Agent Intellect, is an immaterial substance that necessarily emanates substantial forms to the form-matter composites. The Agent Intellect will be treated in more detail in Chapter 3.

70. This notion of separated substance will be discussed in chapter 3 when I examine the various notions of substance in Avicenna.

The third sense of hylomorphism, hylomorphism$_3$ is like hylomorphism$_1$. The only difference is that there is a composition of form and matter that gives rise to essence, and this essence in turn is in potency to an act of existence.[71] Apart from that distinction, all the characteristics of hylomorphism$_1$ pertain to hylomorphism$_3$. Hylomorphism$_3$ is the type of hylomorphism that Aquinas will attribute to all non-rational entities.

The fourth sense of hylomorphism, hylomorphism$_4$ shares characteristics common to hylomorphism$_1$ and hylomorphism$_2$. Like hylomorphism$_1$, the soul is the substantial form of the body. However, unlike in hylomorphism$_1$ and hylomorphism$_2$, in hylomorphism$_4$, when the substantial form (i.e., the soul) is separated from matter (i.e., the body), the substantial form of the body, the soul, is not destroyed.[72] Hylomorphism$_4$ does not preclude the reception of intelligible forms[73] into the form-matter composite, yet the subject of intelligible forms is immaterial and distinct from matter although not ontologically separated from matter, as I show in Chapter 4.[74] That is to say, there are operations that can be performed by the soul independent of the body. Unlike hylomorphism$_1$ and hylomorphism$_2$, the substantial form for hylomorphism$_4$ is not educed from matter, but rather it is created by God. Consequently, the form-matter composite does not have a material existence (i.e., an existence that can only be realized

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71. The composition for hylmorphism$_3$ will be addressed in chapter 4.

72. Although hylomorphism$_2$ does not have the soul as the substantial form of the body, nevertheless the separation of the substantial form, the form of corporeity, from matter does result in the ceasing to be of that substantial form, but it does not entail the destruction of the soul, whose existence is not dependent on matter.

73. Intelligible forms in this sense are not intelligibles in act existing in separated substances. Instead, intelligible forms connote intelligibles which are mechanisms that communicate a *ratio* from a material subject to an immaterial subject. These intelligibles are called intelligible species.

74. The term "subject" will be used analogically in this dissertation, and it should be understood as "that which is capable of receiving a form." For example, matter is said to be the subject of form. The form-matter composite is said to be the subject of accidents. The eye is said to be the subject of sensible forms. The intellect is said to be the subject of intelligible forms. A person is said to be the subject of knowing.

when it is existing materially); instead, it is a spiritual existence. This sense of hylomorphism$_4$ is the kind of hylomorphism that Aquinas attributes to humans.

Chapter Summary

In the *Phaedo* and in *The Republic*, we ascertain that Plato maintains that *forms*, immaterial separated substances, are the objects of cognition. The immutability, simplicity, and necessity of the forms safeguard the immutability, simplicity, and necessity of human thought. The material world cannot be an object of knowledge; at best, it can be an object of opinion. This is the case because material entities are constantly ceasing to be what they are, and they are coming to be what they are not; given that only *that which is* is knowable, the material world is unknowable. Further, one finds that for Plato both the object and subject of knowledge must be immaterial. In addition, the soul is an immaterial substance that is intelligible and intelligizing. By holding the aforementioned view, Plato has framed what it means to know, what is the subject of knowledge, and what is the object of knowledge. In response to Plato, Aristotle denies that the forms of corporeal things exist as substances. Thus, Platonic forms are not the ontological ground for thought, and, given that knowledge concerns universals, Platonic forms are not the ontological grounds for universals. Having denied that universals exist, Aristotle needs to give an account as to how particular existents can serve as the ground for thought and knowledge, which is universal. In the *De Anima*, Aristotle works his way through various epistemic issues. Yet, when Aristotle must account for how thought takes place, he uses analogies to explain how intellection occurs. However, the analogies are broad enough to allow multiple interpretations. Moreover, by affirming that active and passive components of the intellect must be separate and unmixed from the body, Aristotle opens up an epistemological and a metaphysical gap that seems to bifurcate sensation and intellection. Given that subsequently hylomorphism and intellection are held to be incompatible, his successors

are led, as we shall see, into affirming that either the active intellectual component or the passive intellectual component (or both) are ontologically separate substances. On the other hand, contemporary philosophers deem Aristotle's position so tenuous that some have charged Aristotle with being a substance dualist in order to reconcile the tension between hylomorphism and intellection.

Although based on Aristotelian principles, there are eight logically possible interpretations of hylomorphism, one can conclude that hylomorphism as understood by Aristotle's successors means that form and matter are co-extensive in such a manner that it precluded the reception of intelligible forms, for on the reception of an intelligible form, said form would be received into matter, rendering it unintelligible. The Aristotelian aporia, then, can be summarized as follows:

> P1: If the human soul is the form of the body, it is unable to receive intelligible forms.
> P2: If the human soul is not the form of the body (i.e., it is a separated substance), it is able to receive intelligibles.
> P3: Either the human soul is the form of the body, *or* it is not the form of the body (i.e., it is a separated substance).
> C: Therefore, either the human is unable to receive intelligibles, or the human soul is able to receive intelligibles.

In other words, hylomorphism as understood by Aristotle's successors precludes reception of intelligibles into a hylomorphic entity.

In order to resolve the aporia, one can hold to hylomorphism$_1$ as understood by the tradition. Averroes will opt for this solution. Hylomorphism$_1$ requires that the subject of intelligibles is ontologically distinct from the hylomorphic entity. One can also try to resolve the aporia by reformulating hylomorphism. Both Avicenna and Aquinas will take this approach. Avicenna will espouse a new form of hylomorphism: hylomorphism$_2$. In the same manner that hylomorphism$_1$ precludes the reception of intelligibles into the hylomorphic entity so does hylomorphism$_2$. However, hylomorphism$_2$ differs in that the

soul is not the form of the body; instead, the form of corporeity functions as the substantial form in hylomorphism$_2$. Thus, hylomorphism$_2$ allows for the human soul to be the subject of intelligibles. Aquinas, as we shall see, will espouse a new form of hylomorphism, hylomorphism$_4$ that will allow him to maintain that the soul is the form of the body (like hylomorphism$_1$), and that the soul is the subject of intelligibles. However, in this case, Aquinas's reformulation of hylomorphism$_4$ will necessitate intelligible species because hylomorphism$_4$ is a two-edged sword that brings with it the strengths and weaknesses found in hylomorphism$_1$ and hylomorphism$_2$. Having looked at the historical background, let us turn to Avicenna and Averroes to see how they uniquely try to resolve the Aristotelian aporia.

CHAPTER 3

THE ARABIC TRADITION'S SOLUTIONS

Introduction

Although Alexander of Aphrodisias, Themistius and Theophrastus had tried to resolve the aporia, much of their work was directly unknown to Aquinas, and it is by means of the philosophers of the Arabic tradition, particularly Averroes' Long Commentary on the *De Anima*, that Aquinas became familiar with the historical attempts to resolve the Aristotelian aporia.[1] In this chapter, for Avicenna and Averroes, I shall proceed in the following order: the solution to the aporia, hylomorphism, sensation, abstraction, subject of intelligibles, and a summary and critique of the position of each.

Avicenna's Solution to the Aristotelian Aporia

Avicenna tries to reconcile the Aristotelian Aporia with a solution requiring that he affirm several aspects of hylomorphism, while at the same time rejecting one crucial Aristotelian aspect of hylomorphism. Affirming that hylomorphism gives rise to a singular subject, the form-matter composite, Avicenna also asserts that matter cannot exist unless it is informed by a substantial form. In addition, he holds that the form of the body pervades matter in such a fashion that the form of the body is impressed into matter. Yet insofar as the form of the body is impressed into matter, it is rendered a material form; consequently, it is unable to receive intelligible forms. In other words, a properly hylomorphic entity is a single subject that is unable to receive intelligible forms. On this

1. Aquinas, *Sent*, Bk. 2, D. 17, Q. 2, A. 1: [H]orum autem qui ponunt unum intellectum possibilem in omnibus, duplex est opinio. Una est themistii et theophrasti, ut Commentator eis imponit in 3 de anima.

response to the strong hylomorphism account that was outlined in the previous chapter, Avicenna resolves one side of the aporia, but his approach gives rise to other *aporiae*.[2]

For Avicenna the rational soul is not the form of the body, but a separated, immaterial, and simple substance. Given that intelligible forms can only be received into immaterial, separated, simple substances, Avicenna crafts a conception of the human soul as a suitable subject for the reception of intelligible forms. As we shall see, while for Avicenna the human soul is not properly speaking the form of the body in the full Aristotelian sense, it is nevertheless importantly connected with the body while at the same time being a separate, immaterial and simple substance. As a consequence of this doctrine, Avicenna fails to solve the aporia, for he has failed to make a hylomorphic entity the subject of intelligibles. The Agent Intellect is the only suitable subject for intelligible forms because intelligible forms cannot be multiplied. In this section, I show (1) that Avicenna has crafted a new kind of hylomorphism; (2) that his psychology remains Aristotelian inasmuch as sensation is a necessary condition for intellection; (3) that abstraction has many meanings in Avicenna, but excludes the extraction of intelligible forms from sensible forms; and (4) that although he attempted to make each person a suitable subject for the reception of intelligibles, he fails to do so; instead, he introduces the notion of representation, and (5) I shall critique Avicenna's psychology.

Avicenna's Hylomorphism$_2$

In his *Liber de Philosophia Prima Sive Scientia Divina*, Avicenna denies that the soul is the form of the body.[3] While discussing the many ways that the term "substance" can be predicated, Avicenna writes:

> First, therefore, we say that each substance is either a body, or it is not a body. If, however, it were not a body, either it will be part of a body, or it will not be part of a body, but *completely separated from the body*. If, however, it were part of the

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2. See page 66.

3. I will be using the Latin works of Avicenna.

> body, then it will be formal or material. If, however, it were something separate, which is not part of the body, it will have a link in some way with bodies on account of the motion by which it moves them, and it is called "soul," or it will be in every way separated from matter, and it is called "intelligence."[4]

According to Avicenna, the term "substance" may be predicated of a body, or of intrinsic parts of the body, or of entities that are completely separated from bodies. The parts that are intrinsic to the body are formal and material, whereas those entities that are separate from the body are the rational soul and the intellect.[5] Although rational soul and intellect are separate from the body, they differ from one another in that the soul is related to a body inasmuch as it moves the body, whereas intellect is not related to the body in any way. That the form of the body is intrinsic to the body, while the soul is extrinsic, indicates that the soul itself cannot be the form of the body.

Avicenna often remarks that the soul is not the form of the body. First, he writes, "If you will remember that which we said concerning the soul, it will be shown to you to be a separated substance, not a body."[6] Second, he affirms that the soul is a substance

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4. Avicenna, *Liber de philosophia prima sive scientia divina*, edited and translated by Simone Van Riet (Louvain: E. Peeters, 1980), Bk. II, Ch. 2, p.68–69: Primum, igitur dicimus quod omnis substantia vel est corpus vel non corpus. Si autem fuerit non corpus vel erit pars corporis vel non erit pars corporis, sed est separatum omnino a corpore. Si autem fuerit pars corporis, tunc vel erit formalis vel materialis. Si autem fuerit separatum quod non sit pars corporis, vel habebit ligationem aliquo modo cum corporibus propter motum quo movet illa et vocatur anima, vel erit separatum a materiis omnimodo et vocatur intelligentia. [emphasis added]

5. Given that this dissertation focuses on intellection and how Avicenna and Averroes influence Aquinas's doctrine of intelligible species, unless otherwise stated, when I use the term "soul" in Avicenna, it means the rational soul. Discussion concerning the vegetative and sensitive soul are outside the scope of this dissertation. Notwithstanding, following Aristotle, Avicenna does make the distinctions between vegetative, sensitive, and rational soul. For more information on the vegetative and sensitive soul in Avicenna see Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 1, Ch. 4, pp. 76–79.

6. Avicenna, *Liber de philosophia prima sive scientia divina*, Bk. 3 Ch. 1, p.104: Si autem memineris id quod diximus de anima, certificabitur tibi esse substantiam separatam, non corpus.

that stands alone.[7] Third, he argues that the substance that is the subject of intelligible forms (that is to say, the rational soul) is not a body, neither does it have being on account of the body in any way, nor does it have being on account of a power in the body, nor does it have being in any way by being a power in [the body] or its form.[8] In other words, the soul's existence is not dependent on the body in any way. Lastly, he writes:

> When there is a thing which is existing per se but is just as is from something or with the being of something other than itself -- but the first is just as is the body which is of matter and form, the second is just as are rational souls with the generation of bodies -- then the possibility of that thing's own being will depend on that: not because that thing is in potency to be a white body through a potency, nor because in that there is impressed the potency of being the possibility of whiteness in a subject in which white is impressed, but rather in such a way that either it has being with it or when a certain disposition accrues to it.[9]

In other words, Avicenna is contrasting two ways in which a subsisting entity may come to be. That is to say, a subsisting entity may come to be *from* another or *with* another. An entity that comes to be as a result of entitative principles (e.g., form and matter) is said to come *from* another. For example, bodies, hylomorphic$_2$ entities, come to be *from* another, for they arise as a result of form's being received into matter. In contradistinction, there are entities that do not come to be *from* another; instead, they come to be on the *occasion* that other entities come to be, and they are said to come to be *with* another. For example, the rational soul does not pre-exist the body, but it comes to

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7. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 1, p.80 anima est quod habet has virtutes et est, sicut postea declarabimus, substantia solitaria.

8. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 2, p. 82: substantia quae est subiectum intelligibilium non est corpus, nec habens esse propter corpus ullo modo eo quod est virtus in eo aut forma eius.

9. Avicenna, *Liber de philosophia prima sive scientia divina*, Bk. 4, Ch. 2, p. 204: Cum autem fuerit res quae est existens per se, sed est ex aliquo vel cum esse alterius a se --primum vero est sicut corpus quod est ex hyle et forma, secundum est sicut animae rationales cum generatione corporum, --tunc possibilitas sui esse pendebit ab illo, non quod illa res in potentia sit esse corpus album per potentiam, nec quod in illa sit impressa potentia essendi possibilitatem albedinis in subiecto in quo imprimitur albedo, sed sic ut vel habeat esse cum eo vel cum advenerit ei aliqua dispositio.

be only when a body comes to be.[10] This example of the way a subsisting entity comes to be shows that the body and the soul come to be separately from each other, and entities that come to be and continue to exist separately cannot be hylomorphically united. In his own words, "The human soul, however, is not related to the body as form, as we will demonstrate afterwards."[11] Yet, Avicenna does not completely reject hylomorphism, even in the case of humans.

Avicenna maintains that the body is a hylomorphic$_2$ entity, and as such it is generable and corruptible. According to his view, the body is a substance composed from something that has potency, and from something through which it has actuality. That which has actuality is its form, but that which has potency is its matter.[12] However, for Avicenna, the first form of the body is the form of corporeity. Without the form of corporeity, the body could not exist, nor could the form of corporeity exist devoid of matter.[13] It is by virtue of the form of corporeity that a body has three dimensions.[14]

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10. Robert Wisnovsky, *Avicenna's Metaphysics in Context* (Ithaca, New York: Cornell University Press, 2003), p. 140.

11. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 1, p. 113: Anima autem humana non habet se ad corpus ut forma, sicut postea ostendemus; Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 2, p. 111: Ergo anima non est una, sed est multae numero... illud autem non est impression animae in materia.

12. Avicenna, *Liber de philosophia prima sive scientia divina*, Bk. 2, Ch. 2, p.77: Corpus igitur est substantia composita ex quodam per quod habet potentiam, et ex quodam per quod habet effectum. Id autem per quod habet effectum est forma eius, vero habet potentiam est materia eius, et hoc est hyle.

13. Avicenna, *Liber de philosophia prima sive scientia divina*, Bk. 2, Ch. 2, p.82: Forma vero corporeitatis, inquantum est corporeitas, est un natura simplex acquisita non habens in se diversitatem, et ideo forma corporeitatis simpliciter non differt a forma corporeitatis simpliciter per differentiam intrantem in corporeitatem... Impossibile est ut sit corporeitas egens materia... Manifestum est quod corpora composita sunt ex materia et forma.... Dicemus nunc quod haec materia corporalis non potest esse in effectu spoliata a forma.

14. John McGinnis, "A Penetrating Question in the History of Ideas: Space, Dimensionality and Interpenetration in the Thought of Avicenna," *Arabic Sciences and Philosophy* 16 (2006): p. 61; Arthur Hyman, *Averroes' De Substantia Orbis* (Israel:

Moreover, having acquired the form of corporeity, a body may acquire several higher forms (e.g., the vegetative soul and the sensitive soul).[15] The form of corporeity acts as a substratum that allows the immaterial rational soul to act on the material body; via this substratum the soul may act upon the principle organ, the heart, by virtue of which powers emanate to all the other organs.[16] What remains to be seen is whether a hylomorphically$_2$ composed body can unite with the soul, a spiritual substance, to give rise to a hylomorphic entity.

According to Avicenna, two substances cannot unite. He argues that if two substances were to unite, each of the substances still existing, then there would be two substances, not one. And if they were to unite such that one of these would cease to exist and the other would continue to exist, then it would be impossible to unite an existing substance with nothing. Lastly, if the two substances cease to be and a *tertium quid* arose from these two, then the two substances have not united, but they have been annihilated. Hence, Avicenna declares that the notion of uniting two substances is an absurdity.[17]

In sum, Avicenna has denied that the soul is the form of the body, and in doing so he has given a decidedly new twist to what we find in Aristotle's account of hylomorphism. Yet, he still maintains that the body is a hylomorphic$_2$ entity that arises from the composition of the form of corporeity and matter in relation to the rational soul.

[Continued from previous page]
Medieval Academy of America, 1986), p. 41.

15. Michael Marmura, "Some Questions Regarding Avicenna's Theory of the Temporal Origination of the Human Rational Soul," *Arabic Sciences and Philosophy* 18 (2008): p. 135.

16. Ibid., p. 129.

17. Avicenna, *Liber de philosophia prima sive scientia divina*, Bk. 2, Ch. 3, p. 88–89: Si autem dixerint quod prima duo, quamvis duo sint, uniuntur tamen et fiunt unum, dicemus absurdum esse duas substantias uniri. Si enim uniuntur et unaquaeque earum habet esse, tunc sunt duo, non unum. Si autem uniuntur ita ut unum eorum desinat esse et alterum habeat esse, tunc quomodo potest esse ut id quod non est uniatur cum eo quod est? Si vero utrumque desinit esse in unione et provenit aliquid tertium ex eis, tunc sunt non unita, sed annihilata.

Moreover, given that the body is a substance and the soul is a substance, it is impossible for two substances to undergo composition. Hence, the body and the soul will remain ontologically separate from each other. But the separation of the soul and the body is a two-edged sword. On one hand, Avicenna has made the human soul an adequate subject for the reception of intelligible forms, as will demonstrated in the section that addresses the subject of intelligibles. Yet, for Avicenna, the acquisition of knowledge begins with the external world via the external and internal senses; the separation of body and soul, however, create an ontological chasm that Avicenna's psychology cannot bridge. Having examined Avicenna's hylmorphism$_2$ and his substance dualism, let us turn to his account of sensation.

Avicenna and Sensation

Apart from first principles, the acquisition of knowledge begins with the external world via both the external and internal senses. In this section, I explicate Avicenna's account of sensation starting with (a) what is meant by sensation; (b) what are the various ways that abstraction is used in Avicenna; and (c) what are internal senses and their roles. Precisely what is meant by sensation by Avicenna? Further, what are the various ways that abstraction is used by Avicenna? To answer these questions, we must examine his teachings on internal and external senses.

Before delving into the topic of sensation, it is important to recall two things: Avicenna is working in an Aristotelian framework in which (i) form accounts for both immanent and transient operations, and (ii) intentions are a kind of form. For Aristotle and Avicenna, the form of a non-rational animal accounts for its formal, final, and efficient cause. That is to say, it is by virtue of its intrinsic form that a thing is what it is, is able to act, and acts in a certain manner. For example, a salmon is a salmon by virtue of the form that was received into matter. Moreover, each salmon acts like a salmon (e.g.,

returning to the river where it hatched, it swims) because of its form. Lastly, without its form, a non-rational animal is dead, unable to act. Not only does form serve as principle of immanent operations in non-rational animals, but form also accounts for transient motion. Following Aristotle, all transient motion requires two things: (a) contact between the mover and the movable and (b) the transmission of a form from the mover to the movable.[18] For example, when a ball is thrown, the hand communicates motion to the ball, and the ball communicates motion to the air, and via the transmission of form and contact with the air, the ball is kept aloft.[19] However, the communication of form may be sufficient to account for transient motion, but it is insufficient to account for sensation.

Aristotle and Avicenna can account for the transfer of motion and certain qualities (e.g., heat) by means of forms. However, when it comes to sensation, these forms are insufficient because they only transfer a quantity or quality. For example, were one to get struck in the eye with a torch, the form of heat would be conveyed to the eye, and the qualities that are conveyed (i.e., heat and motion) are apt to destroy the sense organ instead of informing the sense organ. So, if the sense organ is to be informed for the sake of sensation, it must be by virtue of some other mechanism. An intentional form is a kind of form that conveys the intention of a physical thing such that it can move a sense from potentially sensing to actually sensing. Yet, it does so in a manner that informs the sense organ without damaging the sense organ or without actualizing the sense organ with the same material form in the same way that is found in the physical world.

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18. Aristotle, *Physics*, vol. 1 of *The Complete Works of Aristotle*, edited by Johnathan Barnes (Princeton, N.J.: Princeton University Press, 1984), Bk. 3, Ch. 2, p.344.

19. I am aware that there are problems with having forms account for motion, especially in light of inertia. However, it is important to note that formal causality was used not only to account for motion but for perception and intellection. Averroes and Aquinas will work in a similar framework, and I will need to refer to the formal causality to point out the problems with Pasnau and Smit's understanding of Aquinas.

In his *Liber de Anima seu Sextus de Naturalibus*, Avicenna dedicates several chapters to discuss each of the five senses; however, before beginning his exhaustive treatment of each sense, he discusses what is common to all sensation. He writes:

> Let us now speak concerning the sensible and apprehending powers, but let us speak of them in general words, saying that it seems that to apprehend is nothing but to apprehend the form of the apprehended [thing] in some of these ways; but if apprehending means to apprehend a material thing, then apprehending is to apprehend the form of something abstracted from matter by some [kind of] abstraction. The kinds of abstraction are diverse, and the degrees of these [abstractions] are quite distinct from each other.[20]

Note that the three characteristics that underpin sensation are: (a) apprehending is nothing more than the reception of some form; (b) if the apprehension pertains to a material object, then the form is received as an intentional form devoid of matter; (c) there are various degrees of abstraction. With these three characteristics in mind, we come to the first question. What is sensation?

Sensation is the reception of a form into the sense organ of a sentient being.[21] The intentional form is received into the sense organ denuded of matter; by virtue of the intentional form the sentient entity is informed.[22] In the case of sensation, these intentional forms are necessary for sensation. Following Aristotle, sense organs are passive powers; as such in themselves, they have sensation only in potency. A medium is required between the sensible object and the sense organ; moreover, that which is in potency can only be rendered actual by means of something that is already in act. By

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20. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 114: Loquamur nunc de virtutibus sensibilibus et apprehendentibus, sed loquamur de eis verba generalia, dicentes quia videtur quod apprehendere non sit nisi apprehendere formam apprehensi aliquo modorum; sed si apprehendere est apprehendere rem materialem, tunc apprehendere est apprehendere formam alicuius abstractam a materia aliqua abstractione. Species autem abstractionis diversae sunt et gradus earum multum distantes.

21. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 121: sentiri extrinsecus est quod eius forma assimilata est in meo sensu.

22. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 120: sentire etenim est recipere formam rei nudam sua materia, ita ut informetur per eam sentiens.

means of the medium, the intentional form conveys actuality to the sense organ and specifies and determines the sense organ, so that not only does sensation arise, but it is the sensation of a particular thing (e.g., brown, sweet, hot, etc.).[23] Given that the intentional form determines the sense organ, one can say that the sense organ has the ability to become formally what the sensible thing is in actuality.[24] This formal identity is important because it ensures that sensing is veridical. Having defined sensation, one can see that the apprehending of a form without matter is essential to sensation. Yet, the various ways that intentional forms are abstracted remain to be seen.

For Avicenna, the term "abstraction" is predicated analogically based on the type of sensation that is occurring; for example, he writes:

> Vision needs these accidents when it apprehends a form inasmuch as it does not abstract form from matter by a true abstraction. Rather it is necessary that matter be present so that this form may be apprehended in that [organ].[25]

The term "abstraction" may refer to either (1) the process or activity by which a form is separated from matter, or it may refer to (2) the intentional form that has been denuded from its matter in some sense. To avoid equivocation, I shall be using "abstraction$_2$" to denote the intentional form that has been denuded from matter in some sense, and I shall be using "abstraction$_1$" to denote the process or activity by which a form is denuded from matter. For example, in the sentence "An abstraction$_2$ results when abstraction$_1$ occurs," the word "abstraction" has both connotations. As we proceed from the external world

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23. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 128: Ergo verum est quod sensibus necessaria sunt instrumenta corporalia, et aliquibus eorum media, quia sentire est passio aliqua, quae est receptio formae sensati et permutatio in similitudinem sensati in effectu. Et sentiens in effectu est sicut sensatum in effectu.

24. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 120: Dicemus autem quod sentiens habet in sua potentia fieri sicut sensatum in effectu.

25. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 116: Visus autem indiget his accidentibus cum apprehendit formam, eo quod non abstrahit formam a materia abstractione vera, sed est necessarium materiam adesse ad hoc ut haec forma apprehendatur in illa.

through the external senses and the internal senses, one need to be mindful of abstractions$_2$ (i.e., intentional forms) and abstractions$_1$ (i.e., process) performed by the sense organs.

In the text above, Avicenna is affirming that the process of abstraction is not performed by the eye, consonant with the notion that the senses are passive.[26] Given that prior to the sense organ there is no active power that is able to separate form from matter, one must conclude that sensible objects emit sensible, intentional forms to their environment, and the environment transfers the sensible species to the sense organ. This is most obvious in the case of vision which occurs in the presence of light.

These sensible, intentional forms are the lowest grade of abstraction$_2$ because they are dependent on matter in two says. First, the sensible object must be material in order for sensible, intentional forms to be transmitted to the sense organ. For example, an immaterial angel could be present before a sense organ, and because of its immateriality, no sensible species would inform the sense organ; consequently, one would be oblivious to the angel's presence. Second, sensible, intentional forms are dependent on matter inasmuch as the presence of the material object to the sense organ is necessary for sensation. For example, when the ice cream is removed from the presence of one's eyes, one can no longer sense the ice cream. Try as one may, one cannot force oneself to see the ice cream when it is not present to the eyes. Similarly, each sense only receives intentional forms appropriate to it, and each of these intentional forms is dependent on matter. For this reason, vision sees, but it cannot hear, taste, touch or smell. The same applies to all other senses, which have their own proper object.[27] Yet, the reception of the

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26. In addition to the formal identity mentioned above, the passivity of the sense organ contributes to the veridical nature of sensation because it is not the case that the sense organ is able to specify or determine itself without the reception of some species.

27. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 3, Ch. 8, p. 269: volo autem dicere quod virtus visibilis videt et non audit nec olfacit nec tangit nec gustat.

intentional, sensible form is not sufficient to account for the unity of the perceived object. For example, when one lights a match, one hears the crackle, smells the sulfur, sees the flame, and feels the heat. Nevertheless, one does not attribute the four distinct sensations to four distinct objects; rather, one attributes all of these sensations to the match. Something must account for the unified perception.

The common sense is an internal sense organ that coordinates and unifies the various sensations, which consist of the reception of sensible forms into the sense organs. The common sense is able to do so because the sense organs are extensions of it. Avicenna tells us that vision is outside of the common sense, and vision is a power emanates from the common sense.[28] Similarly, it would seem that all the other senses are outside the common sense, but they emanate from it. Being grounded in the common sense, the sense organs are able to transfer to the common sense sensible, intentional forms that they have received. For this reason, the common sense is said to see, hear, touch, taste, and smell.[29] Like the sense organs, the common sense can only perform its role when the sense organs are sensing, for it receives intentional forms from the sense organs. However, it does not retain the intentional forms.[30] It seems to be the case that the common sense is also dependent on matter just like the external senses, for when a material entity is not present to the senses, the senses do not sense, nor does the common sense retain forms. It cannot be the case that all of our senses are dependent on matter because when one dreams, one can see images that are not being sensed. Moreover, one can imagine where the refrigerator is even when the refrigerator is not being sensed.

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28. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 3, Ch. 8, p. 269: Virtus autem visibilis est extra sensum communem, quamvis emanet ab eo.

29. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 3, Ch. 8, p. 269 virtus vero sensus communis videt et audit, et cetera.

30. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 3, Ch. 8, p.270: Sensus etenim communis est recipens formam, sed non retinens.

Therefore, there must be a power in the body that retains the sensible images that were constructed by the common sense; otherwise animals would not be able to locate the resources necessary for their survival.

The imagination allows an animal to retain images when the object of sensation is no longer present. That is to say, the imagination has a better abstraction$_2$ because it is less dependent on matter than the common sense and the external senses. For example, even when the ice cream is not present before me, I can imagine that it is in the refrigerator. Yet, I am unable to sense that the ice cream is in the refrigerator, for I am in another room. These images that are retained in the imagination are called imaginable forms because they have been impressed in the imagination by the common sense.[31] Although the imaginable forms are a better abstraction$_2$, nevertheless, they are not denuded from the vestige of matter, for they still have time, location, quality and quantity adjoined to them.[32] The imagination not only has the role of retaining imaginable, intentional forms, but it transmits these forms to the estimative power, a power located in the back part of the brain.[33]

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31. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 3, Ch.8, p. 269: [S]ensus communis. . . reponit eam ibi apud virtutem formalem, quae est imaginativa, sicut postea scies, quae recipit formam et conservat eam.

32. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 117: Sed imaginatio non denudat eam ab accidentibus materialibus... formae etenim quae sunt in imaginatione, sunt sensibiles et secundum quantitatem et qualitatem aliquam et situm.

33. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 3, Ch. 8, p. 270–71: Deinde forma quae est in imaginatione penetrate posteriorem ventriculum, cum voluerit virtus aestimativa et elevaverit vermem... forma quae erat in imaginativa imprimetur in spiritu virtutis aestimationis, et virtus imaginationis servit virtuti aestimationis, reddens ei quod est in imaginativa. Avicenna will maintain that the imaginative power is not only passive inasmuch as it receives intentional forms, but it is also active inasmuch as it has the power of composing intentions. For example, one has seen a horse, and one has seen a man, and consequently, the imagination is able to compose these two images to create a centaur. However, an adequate treatment of the active power of the imagination is beyond the scope of this paper; See Deborah Black, "Imagination and Estimation: Arabic Paradigms and Western Transformations," *Topoi* 19, no. 1 (2000): pp. 59–75; Deborah Black, "Estimation (*Wahm*) in Avicenna: The Logical and Psychological Dimensions," *Dialogue* 32 (1993): pp. 219–58; Herbert A. Davidson, *Alfarabi, Avicenna, and Averroes*

For Avicenna, the estimative power has the highest level of abstraction$_2$ among the internal and external sense organs because it is able to apprehend non-sensible intentions (e.g., danger or goodness) that are not in matter although they are concomitant with matter.[34] Whereas shape, color and location are only found in material things, non-sensible intentions such as danger and goodness can belong to material and immaterial things, and they can be understood without a reference to a body. Therefore, they must be non-sensible intentions that are concomitant with material things.[35] For example, when a lamb senses a wolf, it also senses danger, which is an non-sensible intention. These types of intentions are more pure and simpler than the intentions found in the senses or in the imagination.[36] The estimative power is the first power that actually performs an abstraction$_1$ and separates non-sensible intentions from the imaginable forms that were transferred from the imagination. Nonetheless, the abstraction$_1$ performed by the estimative power is always related to something sensible, and it does not denude these intentions from the conditions of matter.[37]

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on Intellect Their Cosmologies, Theories of the Active Intellect, and Theories of Human Intellect (New York: Oxford University Press, 1992), p. 95.

34. Black, "Imagination and Estimation: Arabic Paradigms and Western Transformations," pp. 2–5.

35. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 118–19: Sed aestimatio parum transcendit hunc ordinem abstractionis, eo quod apprehendit intentiones materiales quae non sunt in suis materiis, quamvis accidat illis esse in materia, quia figura et color et situs et his similia sunt res quas non est possibile haberi nisi a materiis corporalibus, bonitas vero et malitia, et convenients et inconveniens et his similia sunt in se res non materiales, quibus tamen accidit esse materiatas. Ratio autem quod hae non sunt materiales, haec est scilicet quod si hae essent materiales ex seipsis, non intelligeretur bonitas vel malitia vel conveniens vel inconveniens nisi accidens corpori; intelliguntur autem sine corpore; constat ergo quod hae in se sunt non materiales, sed accidit eis esse materiatas.

36. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 119: Ergo haec abstractio purior et vicinior est simplicitati quam duae primae.

37. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 2, Ch. 2, p. 119: Ergo haec abstractio purior et vicinior est simplicitati quam duae primae, sed cum hoc

In sum, the term "abstraction" can refer either to the process of abstraction$_1$ or to an intentional form (abstraction$_2$) that has been separated from matter in some fashion. Abstractions$_2$ vary in degrees. Sensible, intentional forms, which are produced by sensible objects, are the least abstracted because they depend on matter in two ways. They depend on a material object that must be present to the sense organ for sensation to occur. Each of the sense organs has a sensible, intentional form that is specific to its receptive capacity. In addition, the ability to unify the various kinds of sensible, intentional forms is found in the common sense from whence the senses emanate. Like the senses, the common sense can only operate inasmuch as the senses are receiving intentional, sensible forms. In addition to unifying the intentional forms from the various sense organs, the common sense is responsible for transferring the unified intentional forms to the imagination. The imagination is said to have a better abstraction$_2$ because it is not dependent on matter inasmuch as the sensible object does not need to be present for the sensible object to be imagined. Yet, it is not the case that the imagination actually performs an abstraction$_1$. The imagination, unlike the common sense, retains the imaginable intentions that it received from the common sense, and it transfers those intentions at the request of the estimative power, which is able to perform an abstraction$_1$ that separates non-sensible intentions such as danger or goodness. Properly speaking, only the estimative power performs an abstraction$_1$. Nonetheless, the abstraction$_1$ still results in abstractions$_2$ that remain particular. Consequently, although there are various degrees of abstractions$_2$, nevertheless, only the estimative power actually performs an abstraction$_1$. In other words, there is no power in the human body that is able to give rise to intelligibles in act because only that which is material is able to apprehend that which

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tamen non exspoliat formam hanc ab accidentibus materiae, eo quod particulariter apprehendit ea et secundum propiam materiam et secundum comparationem eius ad illam, et ligatam cum forma sensibili et stipatam accidentibus materiae et cum convenientia imaginationis in illa.

is material, and only that which is immaterial is able to apprehend that which is immaterial.[38] Intelligibles in act (which will be discussed next) are immaterial, and given the substance dualism found in Avicenna, there can be no transference of intentional forms between the material world and the immaterial world. Consequently, if the rational soul is to be informed it must be informed by the Agent intellect, an immaterial separated substance.

The Many Meanings of Abstraction

As it pertains to the senses, abstraction has two senses: (1) the process that separates form from matter; (2) the product of a process that separates form from matter. In addition, abstractions vary in degree.[39] At one end of the spectrum, there is the abstraction$_2$ that can only arise from a material object and it is ineluctably dependent on matter. That is to say, not only is matter a necessary condition for the production of that species, but the material object must also be present to the sense organ. Higher degrees of abstraction$_2$ are less dependent on matter; although they arise from material objects, material objects are not necessary for them to persist in an organ. Even higher still are abstractions$_2$ that arise from intentions that are concomitant with matter, yet in themselves these abstractions$_2$ are not material (e.g., good and evil). At the level of sensation, the latter abstractions$_2$ are the highest form of abstraction$_2$. Only as apprehended by the estimative power is there a process of abstraction$_1$. Even though the intentions in the estimative power are the highest level of abstraction$_2$ at the level of

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38. Meryem Sebti, "Le Statut Ontologique de l'Image dans la Doctrine Avicennienne de la Perception," *Arabic Sciences and Philosophy* 15 (2005): p. 139: "La doctrine psychologique repose sur le postulat d'une similitude entre l'agent et le patient; seul ce qui est matériel peut saisir ce qui est matériel et seul ce qui est immatériel peut saisir ce qui est immatériel; Recall that Plato has bifurcated the material from the immaterial, and Avicenna has adopted this principle."

39. Cristina D' Ancona, "Degrees of Abstraction in Avicenna," in *Theories of Perception in Medieval and Early Modern Philosophy*, edited by Simo Knuuttila and Pekka Karkkainen (Dordrecht: Springer, 2008), pp.53–56.

sensation, nonetheless, they along with all the other abstractions$_2$ never are intelligible because all of the aforementioned abstractions$_2$ exist in matter and denote a particular thing that exists at a particular time, in a particular place, and with a particular quantity. That is to say, all the abstractions$_2$ at the level of sensation fail to attain the role of intelligible forms.

Given the principle that only the material can apprehend the material and given that only the immaterial can apprehend immaterial, sensible and imaginable intentional forms are unable to affect the rational soul, an immaterial separated substance. It would seem that sensible and imaginable intentional forms are superfluous as it pertains to intellection, but this is not the case. The reception of sensible and imaginable intentional forms disposes the soul for the reception of intelligible forms. If sensible and imaginable intentional forms cannot affect the rational soul, are they not superfluous when it comes to intellection? No, for the activity of comparing and contrasting the images is an exercise which prepares the soul for the reception of the intelligible forms.[40] Consequently, since the rational soul receives intelligible forms, the source of these intelligible forms must be immaterial. This immaterial source of forms is the Agent Intellect. By examining Avicenna's texts, I show that the term "abstraction" expands its semantic range to include in addition to the two aforementioned senses: (3) the process of emanating an intelligible form from the Agent Intellect into the rational soul; (4) the intelligible form that the Agent Intellect emanates, and (5) the intelligible forms contained in Agent Intellect. First, I examine the text where Avicenna describes abstraction$_3$ and abstraction$_4$. Second, I examine the texts that allow one to make the distinctions between abstraction$_4$ and abstraction$_5$.

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40. F. Rahman, *Avicenna's Psychology: An English Translation of Kitab al-Najat, Book II, Chapter VI, with Historico-Philosophical Notes and Textual Improvements on the Cairo Edition* (Westport, Conn.: Hyperion Press, 1981), p. 15.

In the chapter titled *Capitulum de intelligentia agente in nostris animabus et de patiente ex nostris animabus*, Avicenna writes:

> We say that the human soul first is knowing in potency, then it becomes knowing in act. However, everything which goes from potency to act, only does so through a cause which has that in actuality and draws out to that [actuality what is in potency]. Therefore there is a cause through which our souls go from potency to act in intelligible things. But the cause of giving intelligible forms is none other than the intelligence in act, to whom belongs the principles of abstracted intelligible forms. Its relation to our souls is just as the relation of the sun to our sight, because just as the sun is actually seen *per se* and is actually seen by its light, which was not actually seen, thus is the disposition of this intelligence in relation to our soul. For when the rational power considers singular things which are in the imagination and when the rational power is illuminated by the light of the agent intellect in us, which we mentioned, they become denuded from matter and the concomitant factors of matter, and they are impressed on the rational soul, not as if they may have moved from the imagination to our intellect, nor because an intention resulting from many (since in itself is considered denuded per se), makes [something] similar to itself, but because from consideration of these [particular things impressed in the imagination] the soul is rendered fit so that an abstraction may emanate into it [the rational soul] from the agent intellect.[41]

In this text, Avicenna applies the metaphysical principle that anything that is in potency can only be moved to actuality by a cause already in actuality. For example, a billiard ball will remain at rest although it has the potential to move. Not until something that is actually moving comes into contact with the billiard ball (e.g., the billiard stick) will the billiard ball go from potentially moving to actually moving. In the billiard example, the principle applies to efficient causality. Avicenna, however, does not limit this principle to

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41. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 5, p. 126–27: Dicemus quod anima humana prius est intelligens in potentia, deinde fit intelligens in effectu. Omne autem quod exit de potentia ad effectum, non exit nisi per causam quae habet illud in effectu et extrahit ad illum. Ergo est hic causa per quam animae nostrae in rebus intelligibilibus exeunt de potentia ad effectum. Sed causa dandi formam intelligibilem non est nisi intelligentia in effectu, penes quam sunt principia formarum intelligibilium abstractarum. Cuius comparatio ad nostras animas est sicut comparatio solis ad visus nostros, quia sicut sol videtur per se in effectu, et videtur luce ipsius in effectu quod non videbatur in effectu, sic est dispositio huius intelligentiae quantum ad nostras animas. Virtus enim rationalis cum considerat singula quae sunt in imaginatione et illuminatur luce intelligentiae agentis in nos quam praediximus, fiunt nuda a materia et ab eius appendiciis et imprimuntur in anima rationali, non quasi ipsa mutentur de imaginatione ad intellectum nostrum, nec quia intentio pendens ex multis (cum ipsa in se sit nuda considerata per se), faciat similem sibi, sed quia ex consideratione eorum aptatur anima ut emanet in eam ab intelligentia agente abstractio.

that of mere efficient causality. Like sensation, which was the reception of some form that specified and determined the sense organ, intellection is the reception of an abstraction$_4$ (i.e., an intelligible form) into the human soul. It is important to note that the process of abstraction$_3$ is not the transference of the abstractions$_2$ contained in the imagination to the rational soul, a separated immaterial substance. Rather, the process of abstraction$_3$ is the emanating of an abstraction$_4$ from the agent intellect to the human soul (i.e., from one immaterial substance to another immaterial substance). The abstraction$_4$ does not arise from considering the intention that is common to many particulars, for it is the nature of the abstraction$_4$ to be in itself free or denuded of matter. Instead, the abstractions$_4$ emanate from the Agent Intellect into the human rational soul. Thus, human souls are prepared to receive abstractions$_4$ based on considering the content of their imagination. For example, were I considering a particular human, and another person were considering a particular cow, I would receive an abstraction$_4$ that connotes humanness, whereas the other person would receive an abstraction$_4$ that connotes cowness. In other words, I would come to know humanness (i.e., human essence), and the other person would come to know cowness (i.e., cow essence). Yet, what if more than one person were considering the same particular (e.g., we are both considering a human)? One must ask oneself, wouldn't this entail that the form of humanness would exist in multiple souls? And if it did, wouldn't this imply that there is a multiplicity of intelligible forms for humanness? Moreover, if there were a multiplicity of intelligible forms for humanness, they would either differ by something or nothing. They cannot differ by something (i.e., the form of humanness, which is common to all), nor can they differ by nothing, for to differ by nothing is not to differ. Consequently, there can only be one form of humanness, and if there is only one form of humanness, what is this abstraction$_4$ that emanates from the Agent Intellect? In order to understand, abstraction$_4$, we need to introduce abstraction$_5$.

Let us recall that in a broad sense the term "abstraction" denotes a form that is separate from matter. In the aforementioned text, Avicenna tells us that the principles of intelligible abstract forms exist in the intelligence (i.e., in the Agent Intellect). Not until later in his work does he reveal their ontological status[42].

> By now, however, we have said that the body of these [humans] and that which results from the body of these [humans] is not suited . . . suited as subject of intelligible forms, because it is not fitting that intelligible forms have a location; but the conjunction of these [intelligibles] with the body would make them have location; if,however, they were in a body having location, they would not be intelligibles. We say that these very same intelligible forms are things existing *per se*, each of which is a species [i.e., a kind] and a thing existing *per se*, but the [human] intellect sometimes views them and sometimes turns away from them, and afterwards turns to them [again], and the soul is as it were a mirror, these [intelligible forms] are as things extrinsic [to the soul], which sometimes appear as it were in [the soul] and sometimes do not appear. And this happens according to the relations which exist between them and the soul; or from the principle agent [i.e., the agent intellect], one form after another emanates into the soul according to the request of the soul; and later when the soul turns away from the principle, the emanation ceases.[43]

Avicenna makes it clear that intelligible forms cannot exist in a body, nor can they be related to a body in any way, for they would then have location, and thus, they would be rendered non-intelligible. The immateriality of the form is crucial to its intelligibility and qualifies the form to be called an abstraction$_5$ inasmuch as it is a form that is separate from matter. Moreover, he tells us that each intelligible form exists *per se*, and that each intelligible form existing in the Agent Intellect is its own species. In other words, these

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42. Although Avicenna will use metaphors such as "mirror" and "light," I will explicate his account in non-metaphoric terms.

43. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 6, p. 146–47: Iam autem diximus quod corpus earum et quod pendet ex corpore earum non est dignum ad hoc, nec est dignum ut sit subiectum intelligibilium, quia non est dignum ut formae intellectae sint habentes situm, sed coniunctio earum cum corpore faciet eas habere situm; si autem essent in corpore habentes situm, non essent intelligibiles. Aut dicemus quod ipsae formae intelligibles sunt res per se existentes, quarum unaquaeque est species et res per se existens, sed intellectus aliquando aspicit illas et aliquando avertitur ab illis, et postea convertitur ad illas, et est anima quasi speculum ipsae vero quasi res extrinsecae quae aliquando apparent in ea et aliquando non apparent. Et hoc fiat secundum comparationes quae sunt inter eas et animam; aut ex principio agente emanet in animam forma post formam secundum petitionem animae, a quo principio postea cum avertitur, cesset emanatio.

intelligible forms cannot be multiplied. Otherwise, there would be multiple intelligible forms for a given species. For example, if the intelligible form of humanness exists *per se*, one cannot multiply this form; otherwise, it would be one of many within the species; it would not be the species. Moreover, the principle of multiplication of forms is matter, but these intelligible forms exist immaterially in the Agent Intellect, so there is no metaphysical principle that allows the multiplication of these forms. Consequently, there can be no multiplication of intelligible forms (i.e., abstractions$_5$). Hence, Avicenna is not cordoned into the dilemma of how one abstraction$_5$ differs from another abstraction$_5$ in multiple human intellects, for properly speaking there is only one abstraction$_5$ per species, and each abstraction$_5$ resides in the Agent Intellect. Nevertheless, Avicenna does need to resolve another problem. How can multiple human intellects apprehend the abstractions$_5$ that exist in the agent intellect without multiplying the abstractions$_5$?

Avicenna tells us that the human intellect sometimes regards these abstractions$_5$ and sometimes it does not. He uses a metaphor to describe the process by which these abstractions$_5$ come to appear in the soul. By functioning as a mirror, the soul is able to have abstractions$_5$ appear and disappear. For in the same manner that a reflection only appears when the original object is before the mirror, the abstraction$_5$ only appears in the soul when the abstraction$_5$ is presented to the soul. Similarly, in the same manner that a reflection ceases to appear when the original object has been removed from the mirror, the abstraction$_5$ ceases to appear when the abstraction$_5$ is no longer present to the soul.[44]

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44. In other words, in Avicenna there is no intellectual memory. Only when abstractions$_4$ are flowing from the Agent Intellect can one know intelligibles. As soon as the abstractions$_4$ cease, the intelligibles are not present to the human soul. See Avicenna, *Livre Des Directives et Remarques*, A.M. translated by Goichon (Paris: Librairie philosophique J. Vrin, 1951), p. 330–31: "Reste donc qu'il y ait là une chose extrinsèque à notre substance, en laquelle sont les formes intelligibles elles mêmes, car c'est une substance intellectuelle en acte telle, que lorsqu'il se produit entre nos âmes et elle une certaine jonction, d'elle en nos âmes s'impriment les formes intellectuelles appropriées, par cette préparation particulière, à des jugements qui leur sont propres. Et lorsque l'âme s'éloigne de cette substance intellectuelles [pour se tourner] vers ce qui avoisine le monde corporel, ou bien vers une autre forme, *la similitude qu'il y avait d'abord s'efface*, comme

At the behest of the human soul, these abstractions$_5$ are made to appear or disappear from the soul. The mirror metaphor allows Avicenna to ensure that the abstractions$_5$ are not multiplied, and at the same time, he gives an account how these abstractions$_5$ can appear in each human soul. However, his account is problematic because what actually exists in the human is not the abstraction$_5$, which properly speaking only exists in the Agent Intellect. What exists in the soul is a reflection or representation, which is a *ratio* that has been impressed on the soul by the Agent Intellect. That is to say, what exists in the human intellect is an abstraction$_4$, a formal sign that is not known in itself, but points to something other than itself, the abstraction$_5$. In other words, by the process of abstraction$_3$, an abstraction$_4$ is transferred from Agent Intellect to the human soul, and by means of this abstraction$_4$, the human soul is able to behold abstractions$_5$ that exist in the Agent Intellect. Abstraction$_4$ are *means of cognitions*; they are not *objects of cognition*. The *objects of cogition* are abstraction$_5$, which ontologically reside in the Agent Intellect.[45] The notion that abstraction$_5$ can only reside in the Agent Intellect brings us to our next topic, the subject of intelligible forms.

The Subject of Intelligible Forms (*Substantia Solitaria Spiritualis*)

Earlier I stated that the term "subject" is used analogically, yet what is common among the analogates in the case of this term is the notion that a subject is that which is capable of receiving some form.[46] Avicenna attempts to make the soul a suitable subject for receiving intelligible forms. But what does it mean to be a suitable subject for intelligible forms? A suitable subject for intelligible forms is one that is immaterial,

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si le miroir par lequel l'âme faisait face au côté de la sainteté, en avait été détourné [pour s'orienter] vers le côté des sens ou vers quelque autre chose sainte." [emphasis added]

45. For Aquinas, intelligible species are means of cognitions, not objects of cognition. The object of cognition, for Aquinas, is the nature of things existing *extra animam*. See note 116 on page 172.

46. See page 67 note 74.

simple, and capable of receiving intelligible forms. In section *(1) Avicenna's Hylomorphism*, it was shown that Avicenna took great pain to ensure that the soul was not the form of the body. By doing so, he was able to safeguard the immateriality of the human soul. The immateriality of the human soul is necessary, for intelligible forms cannot be received into a body or into a power in a body as was stated above. Given that intelligible forms are simple and cannot be divided,[47] so too the soul must be simple.[48] The subject of intelligibles must be simple; otherwise, the intelligible form would be distributed over many parts.[49] Last, but not least, the soul must be able to receive intelligible forms, for all apprehending occurs via the reception of some form.

For Avicenna, although the soul has the potency for receiving intelligible forms (i.e., abstraction$_4$ and abstraction$_5$), the intelligible forms (abstraction$_5$) cannot be multiplied, and given that this is required in his psychology, the consequence is that the objects of intellection are these intelligible forms (abstraction$_5$). The only adequate subject for intelligibles (abstraction$_5$) is the Agent Intellect. In other words, Avicenna has gone to great lengths to ensure that the human intellect is able to receive intelligible forms only to be stymied by the ontological status of the intelligibles, which precludes multiplication. Consequently and properly speaking, no human soul is the subject of intelligible forms (abstraction$_5$); only the agent intellect has intelligibles in act (abstraction5).

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47. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 5, pp. 85–85: Ergo, impossibile est dividi formam intellectam.

48. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 4, p. 122: Manifestum est igitur quod in eo quod est simplex non compositum aut radix compositi, non conveniunt effectus permanendi et potentia destruendi comparatione suae essentiae : si enim fuerit in eo potentia destructionis, impossibile est esse in eo effectum permanendi ; si autem fuerit in eo effectus permanendi et habuerit esse, tunc non est in eo potentia destruendi : ergo manifestum est quod in substantia animae non est potentia corrumpendi.

49. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 2, pp. 93–95 Cf. Plato, "Parmenides," in *Plato Complete Works* (Indianapolis: Hackett Publishing Company, 1997), 131b-131e.

Summary, Comments and Critique of Avicenna's Solution

To Avicenna's credit, he is well aware of the difficulties in holding that hylomorphic entities are suitable subjects for the reception of intelligibles. He must decide whether to hold onto hylomorphism$_1$ as espoused by Aristotle or to reject it. By modifying hylomorphism$_1$ so that it pertains only to the body, he crafts a new form of hylomorphism, hylomorphism$_2$. This new form of hylomorphism$_2$ allows him to separate the soul from the body, thus rendering it a suitable subject for intelligibles. As an Aristotelian, he asserts that knowledge begins with the senses, and he gives an Aristotelian account of sensation. This account allows us to understand the various ways in which Avicenna uses the term "abstraction"; there are various grades of abstraction, which depend on their association to matter. Properly speaking, however, only the estimative power performs an abstraction$_1$ in Avicenna's psychology.

Given the dichotomy between the body and the soul, Avicenna cannot bridge the gap between the material and immaterial world. Thus, there is no transfer of intentions from the imagination to the soul. One finds that the abstractions$_4$ that are transferred to the soul come from the Agent Intellect; these abstractions$_4$ serve as the means by which the intelligible forms (abstractions$_5$) in the Agent Intellect are made to appear in the human soul. The ontological status of the intelligibles preclude multiplication of these intelligibles, so the abstractions$_4$ are meant to safeguard the unity of intelligibles present in the Agent Intellect while introducing a means by which the intelligible can appear in a multiplicity of human souls. What comes to exist in the soul is a representation (i.e., an intention [ma^c nà] or a *ratio*) whose formal content is similar to the intelligibles in act in the Agent intellect. This representation points to the intelligibles in the separated intellect.[50]

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50. Following Avicenna, for Aquinas, intelligible species are means of cognitions, not objects of cognition. The object of cognition, for Aquinas, is the nature of things

Consequently, if intellection is the receiving of intelligible forms (i.e., abstraction$_5$) into the human intellect, Avicenna unequivocally sets forth an account that requires the subject of intelligibles as abstractions$_5$, something outside the soul. The soul itself can only be a mirror consisting of representations with intentional content, abstractions$_4$, that are derivative upon the intelligibles in the AI, abstractions$_5$.[51] Moreover, given his principle that material substances cannot affect immaterial substances, the soul cannot receive knowledge from the world, nor can it receive abstractions$_5$ from the Agent Intellect. Instead, Avicenna has created a new category of abstractions, abstractions$_4$, which are representations with intentional content based on abstractions$_5$. But as such these abstractions$_4$ are not the intelligibles in act themselves. Hence, if knowing requires the ontological presence of intelligibles in act in the rational soul, Avicenna's account does not meet that requirement. Rather, what are in the soul are representations with intelligible content somehow, something quite different from the intelligibles required for knowing, yet nevertheless, they are somehow similar to these intelligibles. This disparity between intelligibles and the abstractions$_4$ raise the issue of formal identity.

Typically, medieval epistemology appeals to some kind of formal causality to account for formal identity between the knower and the known, and it presupposes that every effect is like its cause in some way.[52] Avicenna establishes formal identity by using

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existing *extra animam*. See note 116 on page 172, whereas for Avicenna, abstraction$_4$ is a means of cognition pointing to abstraction$_5$, which is the object of cognition, the intelligibles in act in the Agent Intellect.

51. I realize that this interpretation of Avicenna is novel. However, I put it forth in an attempt to reconcile the ontological status of the intelligibles, and the multiplication of intelligibles into multiple souls. Otherwise, the multiplication of intelligibles into multiple intellects stands in conflict with the uniqueness of intelligibles in the Agent Intellect.

52. The principle that every effect is like its cause does not pertain to all of the cause. It is applicable to efficient and formal causes.

two distinct mechanisms. First, he appeals to formal causality between an effect and its cause to account for formal identity, and there are three different scenarios in which he appeals to formal causality. In scenario one, the world is informed by the Agent Intellect; therefore, there is formal identity between the intelligibles in the Agent Intellect and the hylomorphic entities in the world.[53] In scenario two, human intellects are informed, so there is formal identity between the intelligibles in the Agent intellect and the abstractions$_4$ in the human intellect. In scenario three, there is formal causality between the sensible things in the world and the external and internal senses, so there is formal identity between the hylomorphic entities in the world and the intentional forms in the body. Nevertheless, formal causality does *not* safeguard formal identity between the intentional forms in body and the forms in the soul because the formal chain of causality that begins in the sensible and terminates in the estimative power is not able to bridge the gap between two incommensurate substances.

In order to safeguard formal identity, Avicenna must appeal to the second mechanism: the common nature and the plurality of modes of being. For Avicenna, if a form is considered in itself, it is neither one nor many, neither spiritual or material, neither particular nor universal, neither intelligible or unintelligible. Considered in itself, a form is indifferent to these various characteristics that are accidental to it. Nevertheless, forms can only exist with these various accidents under a particular mode of being. For example, in a hylomorphic entity a form has a physical mode of being. In the imagination, a form has a more spiritual mode of being, and in the intellect a form has the most spiritual mode of being. Nonetheless, all these forms share a common nature that safeguard the formal identity regardless of the mode of being.[54]Thus, by appealing to a

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53. Davidson, *Alfarabi, Avicenna, and Averroes on Intellect Their Cosmologies, Theories of the Active Intellect, and Theories of Human Intellect*, p. 78.

54. Avicenna, *Liber de philosophia prima sive scientia divina*, pp.227–38.

common nature, Avicenna is able to maintain that there is formal identity between the intentions in the soul and the abstractions$_4$ that are placed in human intellects. Discounting Aristotelian hylomorphism$_1$ and making the rational soul the subject of intelligibles yields a severely problematic account, so let us turn to Averroes's solution, who maintains a version of hylomorphism$_1$ that is apparently much closer to Aristotle's version.

Averroes' Solution To The Aristotelian Aporia

Unlike Avicenna who discards Aristotelian hylomorphism$_1$ in order to solve the aporia, Averroes holds fast to it.[55] That is to say, Averroes affirms that the soul is the form of the body;[56] consequently, on the dissolution of the hylomorphic$_1$ entity, the form of the body ceases to exist as does the hylomorphic$_1$ entity. Moreover, Averroes is well aware that a hylomorphic entity, thus construed, is unable to receive intelligible forms. The form of the body pervades matter in such a fashion that intelligible forms cannot be received into the soul without also being received into matter according to material conditions, such as particularity, which would preclude intelligibility. Hence, while a hylomorphic entity is not a suitable subject for the reception of intelligible forms, it is a suitable subject for sensible and imaginable forms.

Insofar as a hylomorphic entity is unsuitable for the reception of intelligible forms, Averroes needs to affirm a subject for intelligible forms that does not fall within the Aristotelian metaphysical categories (i.e., it is a "fourth kind of being"[57] that is

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55. In the footnotes, I use all capital letters to denote that Averroes is quoting Aristotle.

56. When I refer to soul in Averroes, I refer to the human soul, which is sensitive and includes the vegetative power.

57. Taylor, "Intelligibles in Act in Averroes," p. 130. Averroes states *iste est quartum genus esse*. Averroes, *Averroes Cordubensis Commentarium Magnum in Aristotelis De Anima Libros*, Edited by F. Stuart Crawford (Cambridge, Mass.: The Mediaeval Academy of America, 1953), Bk. 3, 429a10, p.409; Averroes Commentary will be referred to as *Commentarium Magnum* henceforth; any English block quotations

neither form nor matter nor the composite of form and matter.), the Material Intellect. In other words, the subject of intelligible forms will be something other than the hylomorphic entity. Furthermore, because the Aristotelian account asserts that nothing corporeal can affect something that is incorporeal, Averroes must affirm a separated substance, the Agent Intellect, whose role is two-fold: (1) to perform a genuine abstraction from the sensible intentions stored in the imagination, and (2) to fecund the Material Intellect with an intelligible in act, which is the object of knowledge. For Averroes, there are two subjects: (a) the subject of truth, which is the imaginative power in the hylomorphic entity, for the imagination contains the intentions that originated through sensation. And (b) the subject of intelligibles in act, the Material Intellect.[58] Although Averroes' solution preserves hylomorphism$_1$, nonetheless, Averroes, just as Avicenna, chooses not to make the individual hylomorphic entity the subject of intelligible forms, which for him are intelligible acts that come to be in the Material Intellect. Once again, the Aristotelian aporia prevents intellection from being a power inherent in the hylomorphic entity. By examining (1) Averroes on Hylomorphism, (2) Averroes on Sensation, (3) Averroes and the Many Meanings of Abstraction, and (4) Averroes on the Subject of Intelligible, I shall show that Averroes' solution prevents intellection from being wholly inherent in man as an intrinsic form. I shall end this

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will be drawn from Averroes, *Long Commentary on the De Anima of Aristotle*, trans. & intro Richard Taylor, subeditor Therese-Anne Druart (New Haven: Yale University Press, 2009).

58. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.400: Quoniam, quia formare per intellectum, sicut dicit Aristoteles, est sicut comprehendere per sensum, comprehendere autem per sensum perficitur per duo subiecta, quorum unum est subiectum per quod sensus fit verus (et est sensatum extra animam), aliud autem est subiectum per quod sensus est forma existens (et est prima perfectio sentientis), necesse est etiam ut intellecta in actu habeant duo subjecta, quorum unum est subiectum per quod sunt vera, scilicet forme que sunt ymagines vere, secundum autem est illud per quod intellecta sunt unum entium in mundo, et istud est intellectus materialis. Nulla enim differentia est in hoc inter sensum et intellectum, nisi quia subiectum sensus per quod est verus est extra animam, et subiectum intellectus per quod est verus est intra animam.

section with (5) comments and critique of Averroes' solution.

Averroes on Hylomorphism$_1$

According to Averroes, the soul is a substance inasmuch as it is form, [59] and matter is a substance inasmuch as it is a subject.[60] However, matter, which is the subject of form, does not exist in actuality unless it has been informed, for matter cannot exist independent of form.[61] If matter were to exist in actuality and form were to exist in actuality, then the form-matter composite would only be called one in the same manner that things that are united via contact or bundled together are called one (i.e., there would only be an accidental unity between the form and the matter).[62] Therefore, it would be a mistake to think of form and matter existing as distinct in actuality. Instead, matter only differs from form in the composite potentially, and the form-matter composite is only a being in actuality because of the form. Thus, the form-matter composite is only called one because its form is one.[63] In other words, form accounts for the unity and actuality of

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59. Averroes, *Commentarium Magnum*, Bk. 2, 412a21, p.133: Quoniam vero est substantia secundum formam manifestum est ex hoc quod est substantia in subiecto.... Et differt ab accidente, quoniam accidens non est pars huius substantie composite forma autem est pars huius substantie composite.

60. Averroes, *Commentarium Magnum*, Bk. 2, 412a21, p.134: Et ex hoc declarabitur perfecte quod anima non est substantia secundum materiam. Materia enim est substantia secundum quod est subiectum, anima autem secundum quod est in subiecto.

61. Averroes, *Commentarium Magnum*, Bk. 2, 412a21, p.134: Subiectum enim accidentis est corpus compositum ex materia et forma, et est aliquod existens in actu et non indiget in suo esse accidente; subiectum autem forme non habet esse in actu, secundum quod est subiectum, nisi per formam, et indiget forma ut sit in actu.

62. Averroes, *Commentarium Magnum*, Bk. 2, 412b9, p.139: si materia et forma essent in composito existens in actu, tunc compositum non diceretur unum nisi sicut dicitur in rebus quae sunt unum secundum contactum et ligamentum.

63. Averroes, *Commentarium Magnum*, Bk. 2, 412b9, p.139: Modo autem, quia materia non differ a forma in composito nisi potentia, et compositum non est ens in actu nisi per formam, tunc compositum non dicitur unum nisi quia sua forma est una.

the form-matter composite. Averroes does not err when he speaks in this manner, for following Aristotle, Averroes predicates "substance" in a qualified and equivocal sense when he speaks of form and of matter, and he predicates "substance" in an unqualified and proper sense when he refers to hylomorphic entity, the animate body.[64] Moreover, every hylomorphic entity is generable and corruptible, and it is a particular determinate thing.[65] That is to say, all hylomorphic entities are contingent beings that come to be and cease to be. In addition to being contingent beings, hylomorphic beings cannot be the subject of intelligibles because, as will be seen, the soul's pervading matter precludes it from being the subject of intelligible forms. Reception into matter necessitates that the human soul perform all of its functions via a bodily organ.[66] Consequently, there are no acts that are performed solely by the soul. Rather, all acts are performed by the hylomorphic entity by means of some corporeal organ, and essential to intellection are the corporeal organs of sensation, which include the inner organs in the brain.

Averroes on Sensation

The vocabulary of sense and sensation in Averroes is different from that of Avicenna examined above. Instead of mentioning forms, Averroes mentions sensibles. Notwithstanding, although different terms are used, he is working in a similar

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64. Following Aristotle, the term "body" when used of what has soul implies living, for a corpse is only called a body "equivocally."

65. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.389: Omne enim generabile et corruptibile est hoc.

66. Averroes, *Commentarium Magnum*, Bk III, 429a29**,** p.413–14: Deinde dedit secundam rationem super hoc. Et dixit: SI ENIM ESSET ADMIXTUS, etc. Idest, si enim esset virtus in corpore, tunc esset aliqua dispositio et aliqua qualitas corporalis; et si haberet qualitatem, tunc illa qualitas aut attribueretur calido aut frigido (scilicet complexioni in eo quod est complexio), aut esset qualitas existens in complexione tantum addita complexioni, sicut est de anima sensibili et sibi similibus, et sic haberet instrumentum corporale; The all caps text indicate that Averroes is quoting Aristotle.

metaphysical paradigm when it comes to sensation. In this section, I examine (1) sensation, (2) the external senses, and (3) the internal senses.[67]

For Averroes, sensation is the reception of a sensible without matter. In this context, the term "sensible" is used in three different ways. First, it may connote the proper object of the sensing organ (e.g., color is the sensible that pertains to vision.). Second, it may connote common sensibles (e.g., movement, rest, and number). Last, the term "sensible" may connote that which is sensed accidently (e.g., the white thing that is seen is John Doe.)[68] In sum, the term "sensible" connotes that which is capable of being sensed by a sense organ whether *per se* or *per accidens*.

Now a sensible cannot be received into the sense organ with the same mode of being that it has outside of the sense organ.[69] Were any of the sense organs to receive sensibles as they are in themselves, the sense organs would be destroyed, as mentioned in the Avicenna section. Thus, the sense organs must receive the sensibles in an immaterial mode of being, whereas the body receives forms in a material mode of being. For example, if someone were to throw paint at me, my vision would sense the color (i.e., it would receive the color immaterially), and my body would wear the color.[70] Note that

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67. Averroes, *Commentarium Magnum*, Bk. 2, 418a7–418a17, p.224:Antequam incipiamus loqui de unoquoque sensuum, loquamur de sensibilibus. Dicamus igitur quod sensible dicitur tribus modis, quorum duo dicuntur sentiri per se, et tertius accidentaliter. Et alter duorum proprius est unicuique senssum, et alter est communis omnibus. et est dicere propius quem non potest alter sensus sentire, et illud quod impossibile est ut ei contingat error, v.g. visus apud colorem, et auditus apud vocem, et gustus apud saporem. Sensus autem plures modos uno habet, sed unusquisque eorum iudicat ista, et non errat in colore quis color sit, neque in voce que vox sit, sed in colorato quid est et ubi est, et in audito quid est et ubi est. Quod igitur est tale est proprium.

68. Averroes, *Commentarium Magnum*, Bk. 2, 418a7–418a17, p.224.

69. Averroes, *Commentarium Magnum*, Bk. 2, 426a1, p.341: modus esse sensibilis extra animam differat a modo sui esse in sentiente.

70. Averroes, *Commentarium Magnum*, Bk. 2, 426a1, p.340: Visus itaque recipit colorem quem recipit corpus extra animam; sed differunt in hoc quod receptio sentientis est non materialis, et receptio corporis extra animam est materialis.

although Averroes will use the term "immaterial" when referring to sensation, he is not denying that there will be a physical change in the sense organ.[71] Rather, he is denying that the matter that is part of the hylomorphic sensible comes to exist in the sensing organ. If the matter does not come to exist in the sense organ, what causes the sense organ to move from not sensing to sensing?

Averroes states that a thing that is potency can only be moved to actuality by something that is already in act, and the forms of things existing outside the soul move the sense organs from a state of potentiality to actuality.[72] It cannot be the case that the sensibles existing in the hylomorphic entity cease to exist in the hylomorphic sensible and come to exist in the sense organ. Otherwise, one would be sensing that which no longer exists in the hylomorphic entity, for all things exist by virtue of forms. Nor is it the case that sensibles such as colors are beings in act as if they subsisted. Hylomorphic entities have one substantial form, and they have a multiplicity of accidental forms. In an Aristotelian metaphysics, a substance exists by virtue of its substantial form and can change accidentally by acquiring and losing accidental forms. For example, Socrates has one substantial form by which he is human; yet, he can be lighter or darker by acquiring different accidental forms. These accidental and substantial forms, not only convey existence to the hylomorphic entity, but inasmuch as they are actual, they also convey intentional forms to the sense organs. These intentional forms are nothing more than *abstracted* sensibles, which are received immaterially into the sense organ; consequently, they specify and determine the sense organ so that the sense organ not only goes from potentially sensing to actually sensing, but it goes from potentially sensing to actually

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71. I will address the notions of "spiritual" and "immaterial" later in this section.

72. Averroes, *Commentarium Magnum*, Bk. 3, 428b14, p.372–73: Et quia res non movent nisi secundum quod est in actu, et movetur secundum quod est in potentia, necesse est, inquantum forme rerum sunt in actu extra animam, ut moveant animam rationalem secundum quod comprehendit eas, quemadmodum sensibilia, inquantum sunt entia in actu, necesse est ut moveant sensus et ut sensus moveantur ab eis.

sensing a specific and determinate sensible.[73] By implication, it follows that the senses themselves are passive, for they can only be moved from potentially sensing to actually sensing inasmuch as they receive an *abstracted* sensible (i.e., an intentional form). Averroes, like Avicenna, uses the term "abstraction" to denote either (1) the process by which a form is separated from matter, or (2) the intentional form that has been denuded from its matter in some sense.[74] Thus far, these immaterial sensibles are abstractions$_2$ that are caused from hylomorphic beings and inform the sense organ.

In addition to having similar usage of terminology concerning abstraction, Avicenna and Averroes are in agreement that abstractions vary in their degree of immateriality.[75] On one extreme is the hylomorphic entity, which is the most material and least spiritual, and at the other extreme is the intelligible in act, existing immaterially and spiritually in the Intellect.[76] While discussing color, Averroes writes:

> What he said concerning sight, that the intermediate nature which {277} serves sight is not air insofar as it is air or water insofar as it is water, but a common nature, this should be understood here in this way in regard to the nature which is the medium, namely, because it is a nature common to water and air. And [it should further be understood]that smells are extrinsic to that nature and that that nature lacks smells just as the transparent [lacks] colors, in such a way that, just as color has a twofold being colored body (this is corporeal being) and being in the transparent (this is spiritual being), so too smell has twofold being, namely, being in the body which is odorous and being in the medium. The former is corporeal being and the latter

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73. Averroes, *Commentarium Magnum*, Bk. 2, 426a1, p.340: CUM FUERINT SENSIBILIA ABSTRACTA,Deinde dixit: ET IDEO, CUM FUERINT SENSIBILIA ABSTRACTA, etc. Idest, et quia sensus recipiunt sensibilia extra materiam, ideo, quando sensibilia fuerint abstracta a materia, efficiuntur in sentientibus sensus et ymaginationes, non colores sensibiles neque sapores neque alie qualitatum sensibilium que sunt extra animam in materia.

74. See note 20 of the present chapter.

76. For Avicenna who rejects abstraction of intelligibles from the data of sensation, the intelligibles exist in the Agent Intellect, whereas for Averroes who accepts abstraction of intelligibles from the data of sensation, the intelligibles exist in the Material Intellect.

extrinsic.[77]

So one finds that natural and corporeal being is the being that a sensible has when it is existing as an accident in a hylomorphic entity, whereas spiritual and external being is the mode of being that a sensible has when it exists outside that body. Hence, one finds that the abstractions$_2$ that come to exist in the sense organs are already more immaterial and more spiritual in their mode of being than they are when existing in the body where they are accidents that specify and determine a hylomorphic being. Moreover, abstractions$_2$ also differ in their spirituality (i.e., immateriality) inasmuch as they can be affected by physical impediments, for both sound and smell can be impeded by wind, and both sound and smell are not moved from one part to another without the aid of wind, whereas color is not affected by wind and does not depend on anything else other than the medium in order for it to be transmitted from one place to another.[78] Last, but not least, abstractions$_2$ also are more spiritual as they progress through the external and internal sense organs: the five senses, the common sense, imagination, cogitation, and memory where memory is the most spiritual and senses are the least spiritual.[79]Regarding

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77. Averroes, *Commentarium Magnum*, Bk. 2, 421b12, p.227: Et quod dixit de visione, quod natura media que servit visui non est aer secundum quod est aer, aut aqua secundum quod est aqua, sed natura communis, ita est intelligendum hic in natura que est media, scilicet quia est natura communis aque et aeris; et quod odores sunt extranei in ista natura, et quod ista natura caret odoribus sicut diaffonum coloribus, ita quod, sicut color habet duplex esse, scilicet esse in corpore colorato (et hoc est esse corporale) et esse in diaffono (et hoc est esse spirituale), ita odor habet duplex esse, scilicet esse in corpore odorabili et esse in medio; et illud est esse corporale et hoc spirituale, et illud naturale et hoc extraneum.

78. Averroes, *Commentarium Magnum*, Bk. 2,421b12, p. 278**:** Sed tamen apparet quod esse coloris magis est spirituale quam esse odoris. Venti enim videntur adducere odores, et hoc est ex quo fuit existimatum odorem esse corpus. Sed ita est de odore in hac intentione sicut de sono. Sonus enim fit a passione in aere, sed etiam impeditur a ventis; sed tamen non consequitur ex hoc ut sit corpus. Quasi igitur necesse est in hiis duabus passionibus, scilicet soni et odoris, cum fuerint in aere, ut non sint motus illic in aere ad aliquam partem sine alia.

79. Richard C. Taylor, "Cogitatio," in *Averroes and the Aristotelian Tradition*, edited by Gerhard Endress and Jan A. Aersten (Boston: Brill, 1999), p.223; Averroes,

the external senses, there are only five, namely sight, hearing, smell, taste and touch.[80] Following Aristotle, the predominant sense is touch, which is found concomitant with the other senses. That is to say, if other senses are found in an animal, it must have also have touch, but it does not follow that if an animal has touch that it must any other senses.[81] As for the proper objects of touch, they are humidity and temperature, for every living thing is nourished by that which is dry or moist, warm, or cold. Without touch, animals would not be able to survive.[82] Following touch is taste, which is a kind of touch,[83] and the purpose of taste is to inform an animal whether or not a particular food is beneficial or injurious to the animal.[84] Flavors that are pleasing to the animal are related to food that

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Commentarium Magnum, 429a29, p. 415–16: Virtus igitur cogitativa est de genere virtutum existentium in corporibus. Et hoc aperte dixit Aristoteles in illo libro, cum posuit virtutes distinctivas individuales in quatuor ordinibus: in primo posuit sensum communem, deinde ymaginativam, deinde cogitativam, et postea rememorativam. Et posuit rememorativam magis spiritualem, deinde cogitativam, deinde ymaginativam, et post sensibilem.

80. Averroes, *Commentarium Magnum*, Bk. 2, 424b22, p.324: QUONIAM AUTEM NON EST ALIUS SENSUS PRETER ISTOS QUINQUE, SCILICET VISUS ET AUDITUS ET OLFACTUS ET GUSTUS ET TACTUS.... Cum complevit sermonem de unoquoque sensuum quinque existentium in animali perfecto, incepit declarare quod impossibile est invenire animal habens sextum sensum.

81. Averroes, *Commentarium Magnum*, Bk. 2, 413b4–9, p.156: ET PRIMUS SENSUS EXISTENS IN EIS OMNIBUS EST TACTUS. ET QUEMADMODUM NUTRITIVUM POTEST SEPARARI A TACTU ET AB OMNI SENSU, ITA TACTUS POTEST SEPARARI AB ALIIS SENSIBUS.... Et prima virtus sensus, que est prior naturaliter in esse aliis virtutibus sensus, est sensus tactus.

82. Averroes, *Commentarium Magnum*, Bk. 2, 414b14, p.171: Idest, et quia omne vivum non nutritur nisi per siccum et humidum et calidum et frigidum, cum nutrimentum est loco eius quod dissolvitur ex elementis ex quibus componitur, necesse est ut sensus nutrimenti sit sensus qui innatus est comprehendere has qualitates, et iste est sensus tactus.

83. Averroes, *Commentarium Magnum*, Bk. 2, 414b14, p.171: Sensus gustus est aliquis tactus.

84. Averroes, *Commentarium Magnum*, Bk. 2, 414b14, p. 170: Idest, et etiam necesse est ut omne animal habeat sensum per quem comprehendat conveniens et inconveniens ex nutrimentis, ut expellat nocivum et attrahat iuvativum.

are beneficial to the animal, and flavors that are displeasing to the animal are related to what is dangerous to that animal. Like taste, smell has a proper object, odor, and odor is related to sound inasmuch as both arise from air being affected by abstracted sensibles, and both require wind to propagate them.[85] Last, but not least, vision is the fifth sense, and its proper sensible is color.[86] All senses have one thing in common: a sense cannot err concerning its proper sensible.[87] As stated above, sensibles may also refer to common sensibles, which are proper to the common sense.[88]

The common sense, the first of the internal organs of sensation, receives abstractions$_2$ from the external sense; it is responsible for coordinating the multiple sensations (i.e., the reception of *abstractions*$_2$ in each of the senses). Were it not for the common sense coordinating the various sensations from the various sense organs, the various sensations would not be temporally synchronized, nor would we be able to ascribe various sensations to one and the same object.[89]

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85. Averroes, *Commentarium Magnum*, Bk. 2, 421b12, P. 278: Sed ita est de odore in hac intentione sicut de sono. Sonus enim fit a passione in aere, sed etiam impeditur a ventis; sed tamen non consequitur ex hoc ut sit corpus. Quasi igitur necesse est in hiis duabus passionibus, scilicet soni et odoris, cum fuerint in aere, ut non sint motus illic in aere ad aliquam partem sine alia.

86. Averroes, *Commentarium Magnum*, Bk. 2, 426a1, p.340: Visus itaque recipit colorem quem recipit corpus extra animam; sed differunt in hoc quod receptio sentientis est non materialis, et receptio corporis extra animam est materialis.

87. Averroes, *Commentarium Magnum*, Bk. 2, 418a10–15, p.224: illud quod impossibile est ut ei contingat error, v.g. visus apud colorem, et auditus apud vocem, et gustus apud saporem. sensus autem plures modos uno habet, sed unusquisque eorum iudicat ista, et non errat in colore quis color sit, neque in voce que vox sit, sed in colorato quid est et ubi est, et in audito quid est et ubi est. quod igitur est tale est proprium.

88. Averroes, *Commentarium Magnum*, Bk. 2, 418a25, p.228: sensibilia communia, ut declarabitur, sunt propria sensui communi.

89. Averroes, *Commentarium Magnum*, Bk. 2, 425b4, p.333: mediante colore. Deinde dixit: ET HOC EST QUIA EST NOBIS SENSUS, etc. Idest, et accidit nobis talis comprehensio, scilicet iudicare per aliquem sensum super sensibile alterius sensus, quia contingit quod illi duo sensus fuerint coniuncti in comprehendendo illa duo sensibilia ex eodem in aliquo tempore. Et cum post acciderit ut comprehendamus per alterum duorum

The imaginative power follows the common sense. Inasmuch as the sensible intentions affect the common sense, the common sense in turn affects the imagination, and moves the imagination from potency to actuality.[90] Unlike the senses, the imagination retains these sensible intentions even when the sensible object is no longer present. These sensible intentions are needed by the animal to aid the animal in seeking what is beneficial and avoiding that which is dangerous.[91] Imagination is not only moved from potency to act by sensibles, but at times, when dreaming, imagination is in act though not moved by the senses. The fact that the imagination can at times act independent of sensation may be a reason that Averroes asserts that the imagination is a more spiritual power than the common sense, which is more spiritual than the senses.[92]

More spiritual than the imagination is the cogitative power, which is only found in rational animals. Whereas the intentions in the imagination represent the accidental characteristics of given object (e.g., color, height, width, etc.), the cogitative power works

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sensuum alterum sensibile ex eadem re, iudicabimus per illum sensum super sensibile alterius per coniunctionem precedentem, v.g. quoniam nos non scimus per visum quod hoc est dulce, nisi prius acciderit nobis in aliquo tempore quod comprehendimus per visum quod mel est citrinum, et per gustum esse dulce.

90. Averroes, *Commentarium Magnum*, Bk. 3, 429a20, p.384–85: Quoniam, si sunt quedam que moventur ab aliis et movent alia, et ymaginatio videtur esse virtus mobilis et passiva ab alio, et impossibile est ut sit sine sensu, sed est in rebus sensibilibus et in animalibus habentibus sensum perfectum, et possibile est ut motus fiat a sensu qui est in actu, necesse est ut ymaginatio in actu nichil aliud sit nisi perfectio istius virtutis per intentiones sensibiles existentes in sensu secundum modum secundum quem sensus perficiuntur per sensibilia que sunt extra animam.

91. Averroes, *Commentarium Magnum*, Bk. 2, 429a9, p.377: Idest, et quia sensationes figuntur et remanent in animali ymaginanti post absentiam sensibilium in eo modo secundum quem erant apud presentiam sensibilium, ideo animal movetur ab istis sensationibus per hanc virtutem apud absentiam sensibilium multis motibus ad sensibilia et non sensibilia, querendo utile et fugiendo nocivum.

92. Averroes, *Commentarium Magnum*, Bk. 3, 429a29, p.416: Et hoc aperte dixit Aristoteles in illo libro, cum posuit virtutes distinctivas individuales in quatuor ordinibus: in primo posuit sensum communem, deinde ymaginativam, deinde cogitativam, et postea rememorativam. Et posuit rememorativam magis spiritualem, deinde cogitativam, deinde ymaginativam, et post sensibilem. See: Taylor, "Cogitatio," p.223.

to remove the accidental characteristics that belong to the sensible intentions and deposits the denuded intention in memory. Consequently, the cogitative power is deemed less spiritual than memory because it does not retain the denuded intentions. In other words, the cogitative power performs an abstraction$_1$, and the result of this process is an abstraction$_2$ that is deposited in memory.[93] The abstraction$_2$ placed in memory is the individual intention that denotes the individual form of a thing. For example, when the cogitative power performs an abstraction$_1$ of Socrates, the abstraction$_2$ placed in memory is the individual form by which Socrates exists as a human.[94] This abstraction$_2$ denotes the human substantial form, yet it is not a universal because the abstraction$_2$ cannot denote an indefinite extension.[95] This abstraction$_2$ remains potentially intelligible, but it is not actually intelligible.[96] In order for the abstraction$_2$ to be actually intelligible (i.e., an intelligible in act), the form must have an extension that includes all particulars. In addition, the form must not exist in that which is material, nor in that which is particular; nevertheless, its intelligible content must come from that which is a particular. Furthermore, it must exist necessarily, eternally, and uniquely. In other words, an intelligible in act is an abstraction$_2$ of a different kind, and requires an abstraction$_1$ different from anything that any power in the body is able to perform.[97]

Averroes and the Many Meanings of Abstraction

In the previous section, we saw that the term "abstraction" is spoken about in two

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93. Taylor, "Cogitatio," p. 224.

94. Taylor, "Cogitatio," p. 225. Thanks to Dr. Taylor from whom I borrowed an analogous example.

95. Richard C. Taylor, "Cogitatio, Cogitativus and Cogitare: Remarks on the Cogitative Powers in Averroes," in *L'Elaboration Du Vocabulaire Philosophique au Moyen Age*, edited by Jacqueline Hamesse and Carlos Steel (Turnhout, Belgium: Brepols, 2000), p.121.

96. Ibid., p. 122.

senses: (1) as a process that separates form from matter, and (2) as a form separated from matter in some sense. Furthermore, the cogitative power was the only power that performs an actual abstraction$_1$, yet the abstraction$_2$ that it produces is still a particular.[98] In this section, the term "abstraction" will have an extended semantic range. Abstraction$_3$ denotes the process of separating a form completely from matter. What results from abstraction$_3$ is an abstraction$_4$ that is universal and immaterial. Abstraction$_1$ and abstraction$_3$ are similar inasmuch as they both have abstraction$_2$ as an input, but they differ in what they produce. Abstraction$_1$ produces an abstraction$_2$ with the following characteristics: (1) it exists in a particular organ; (2) it has an intentional extension limited to *one* particular; and (3) it is an intelligible in potency. In contradistinction, Abstraction$_3$ produces an abstraction$_4$ with the following characteristics: (1) it exists in an immaterial subject that is not a particular (i.e., the Material Intellect);[99] (2) it has an intentional extension that includes *every* particular;[100] and (3) it is an intelligible in act.

According to Averroes, the Agent Intellect is an eternal substance.[101] This substance and its activity are one and the same, for in it there is no receptivity of any kind. Its activity is to think itself, and inasmuch as it thinks itself, it does not receive any

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97. Ibid., p. 121.

98. The abstractions$_2$ found in the medium, the external senses, the common sense, and the imagination existed as abstractions$_2$ with any abstraction$_1$ having to be performed by any sense organ. Not until one gets to the cogitative power, does one find that a sense organ separates an intention form the accidental characteristics that are concommitant with the abstraction.

99. The universal nature of the Material Intellect is safeguarded because it is neither form, nor matter, nor constituted from form and matter.

100. The universal natures of the intelligibles act safeguard that they cannot be one among many particulars. Whereas particular belong to a species, intelligible in acts are their own species.

101. Averroes, *Commentarium Magnum*, Bk. 3, 430a17, p.439–40: fuit necesse attribuere has duas actiones anime in nobis, scilicet recipere intellectum et facere eum, quamvis agens et recipiens sint substantie eterne.

intelligible content from the world.[102] Yet, inasmuch as humans use the Agent Intellect and its power of intellectual abstraction$_3$ for intellection, it must garner the potentially intelligible intentions that are stored in the imaginations of humans, for the Agent Intellect does not contain intelligible forms that are used for human intellection.[103] Given that the Agent Intellect has no receptivity, it cannot receive potentially or actually intelligible forms; thus, it would seem unnecessary that the Agent Intellect would have to garner anything from the imagination. Yet, this is not the case, for the Agent Intellect performs a genuine abstraction$_3$ for a subject other than itself.

Although the Agent Intellect does not receive intelligible forms, whether in potency or in act, nevertheless, the Agent Intellect does perform an abstraction$_3$. Averroes uses the analogy of light to illustrate abstraction$_3$. He says just as light makes a color in potentiality to become color in actuality so that it is able to move the transparent medium, so too, the Agent Intellect makes the potentially intelligible intentions to become actually intelligible so that they may be received in the Material Intellect.[104] Now, the analogy falls short inasmuch as the color in potency *does become* the color in actuality, whereas the intelligible in potency *does not become* the intelligible in actuality. This is the case because the intelligible in act is numerically and specifically different

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102. Averroes, *Commentarium Magnum*, Bk. 3, 430a20, p.440: ET EST IN SUA SUBSTANTIA ACTIO, idest quod non est in eo potentia ad aliquid, sicut in intellectu recipienti est potentia ad recipiendum formas. Intelligentia enim agens nichil intelligit ex eis que sunt hic.

103. Averroes, *Commentarium Magnum*, Bk. 3, 430a17, p.438–39: Non enim possumus dicere quod proportio intellectus agentis in anima ad intellectum generatum est sicut proportio artificii ad artificiatum omnibus modis. Ars enim imponit formam in tota materia absque eo quod in materia sit aliquid existens de intentione forme antequam artificium fecerit eam. Et non est ita in intellectu; quoniam, si ita esset in intellectu, tunc homo non indigeret, in comprehendendo intelligibilia, sensu neque ymaginatione. Refer to Taylor, "Intelligibles in Act in Averroes," p. 128.

104. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p. 410–11: Et quemadmodum lux facit colorem in potentia esse in actu ita quod possit movere diaffonum, ita intellectus agens facit intentiones in potentia intellectas in actu ita quod recipit eas intellectus materialis.

from the intelligible in potency. The intelligible in act is numerically different in two senses. In the first sense, it is numerically different because the intelligible in act resides in the Material Intellect, whereas the intelligible in potency continues to reside in the imagination (i.e., they are ontologically distinct, for one is not the other; they reside in different subjects). In the second sense, the intelligible in act is not multiplied, for it exists uniquely in the Material Intellect,[105] whereas the intelligible in potency is multiplied according to the number of imaginations that contain this imaginative form (i.e., an intelligible in act is one, whereas intelligibles in potency are many).[106] They are specifically different because the intelligibles in potency are not actually intelligible, nor does their extension include all the individuals in a species; they also have a particularized mode of being, for they exist in a particular organ, as was stated in the previous section. In contradistinction, the intelligibles in act have an extension that includes all the particulars and yet, they are distinct because they cannot be included among the particulars. According to Averroes, if the intelligibles in act were members of a species, then the members in the species would have an intelligible common to both members, and if the intelligible that is common to both also is included in the species, it too would have an intelligible common to all, and this would proceed *ad infinitum*.[107] Consequently, an intelligible in act cannot be a member of a species. Also, they are

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105. Taylor, "Intelligibles in Act in Averroes," p.126: "In the *Long Commentary*, however, Averroes was swayed by the reasoning of Themistius that there must ultimately be a unity of intelligible notions shared by all human beings and came to assert the existence of a single Material Intellect containing intelligibles in act shared by all human beings."

106. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p. 404–05: remanet ut continuatio intellectorum cum nobis hominibus sit per continuationem intentionis intellecte cum nobis (et sunt intentiones ymaginate), scilicet partis que est in nobis de eis aliquo modo quasi forma.

107. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.411: Et si posuerimus eum esse multa, continget ut res intellecta apud me et apud te sit una in specie et due in individuo; et sic res intellecta habebit rem intellectam, et sic procedit in infinitum.

specifically different because their modes of being differ. Intelligibles in potency have a particular mode of being, whereas intelligibles in act have a universal mode of being.[108] So, if the intelligible in potency does not *become* the intelligible in act, in what sense does the Agent Intellect perform an abstraction$_3$?

Averroes states:

> For to abstract is nothing other than to make imagined intentions intelligible in act after they were [intelligible] in potency. But to understand is nothing other than to receive these intentions. For when we found the same thing, namely, the imagined intentions, is transferred in its being from one order into another.[109]

The Agent Intellect performs an abstraction$_3$ by acting upon the potentially intelligible intentions in the imagination. By separating that which is essential from that which is not essential, the Agent Intellect is able to identify and isolate the *intention* (the essential formal content) in the imagined intention. Having identified the *intention,* the Agent Intellect *produces* an abstraction$_4$ (i.e., an intelligible in act) whose *intention* is identical to the *intention* found in the imagined intentions, yet whose mode of being is like the Agent Intellect's mode of being: eternal, immaterial, necessary, and simple. Yet, in order for this abstraction$_4$ to have a universal extension, it needs to reside in a subject whose mode of being is universal. It is not the case that these abstractions$_4$ can exist outside an intellect; otherwise, the Agent Intellect would not be needed.[110] Nor is it the case that

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108. Averroes, *Commentarium Magnum*, Bk. 3, 420a17, p.438–39: Neque etiam possumus dicere quod intentiones ymaginate sunt sole moventes intellectum materialem et extrahentes eum de potential in actum; quoniam, si ita esset, tunc nulla differentia esset inter universale et individuum, et tunc intellectus esset de genere virtutis ymaginative.

109. Averroes, *Commentarium Magnum*, Bk. 3, 430a17, p.439–40: Abstrahere enim nichil est aliud quam facere intentiones ymaginatas intellectas in actu postquam erant in potentia; intelligere autem nichil aliud est quam recipere has intentiones. Cum enim invenimus idem transferri in suo esse de ordine in ordinem, scilicet intentiones ymaginatas. cf. Averroes, *Commentarium Magnum Taylor*, p. 351.

110. Averroes, *Commentarium Magnum*, Bk. 3, 430a17, p. 440: Et omnia dicta ab Aristotele in hoc sunt ita quod universalia nullum habent esse extra animam, quod intendit Plato. Quoniam, si ita esset, non indigeret ponere intellectum agentem.

these abstractions$_4$ can reside in the Agent Intellect because the Agent Intellect has no receptivity. In order for these abstractions$_4$ to have a universal extension, they must exist in a subject that is not a particular; however, in an Aristotelian metaphysics, all existents are particulars. As indicated earlier, one of the contributing factors that gave rise to the Aristotelian Aporia is Aristotle's denying the subsistence of universals, while asserting simultaneously that knowledge is universal. The challenge that Averroes faces is making the objects of knowledge universal without giving rise to Platonic forms.

Averroes and The Subject of Intelligibles (*Intellectus Materialis*)

Averroes is well aware of the Aristotelian aporia, and he is well aware of the conditions that gave rise to the aporia. He knows that he needs to avoid hypostatizing intelligibles in act; if these intelligibles in act subsist, there would be no need of an Agent Intellect, nor would Aristotelian psychology be warranted. This is the case because the objects of knowledge would already exist in act. Consequently, the senses would not need to contribute anything to the acquisition of knowledge, for there would be no need to convert sensible intentions (i.e., abstractions$_2$, intelligibles in potency) to intelligibles in act. Averroes' challenge is to account for intelligibles in act that do not subsist and whose mode of being precludes them from being particulars or part of a species. For example, let us say that Human$_1$, Human$_2$... Human$_{n-1}$ comprise the set of all Human individuals. Each member of that species has a particular mode of being; consequently, none of these particulars has a form that is able to denote the entire species. An intelligible in act cannot be another member of that species (e.g., Human$_n$). An intelligible in act must have a mode of being that is able to denote the entire species (Human$_1$... Human$_n$) while simultaneously excluding it from the species. Each intelligible in act must be its own species.[111] In order to meet this challenge, Averroes must affirm a

111. Note that Avicenna and Averroes share a similar conception concerning intelligibles in act inasmuch as both them maintain that an intelligible in act must be its own species.

subject of intelligibles that is able to receive intelligibles without particularizing them.[112]That is to say, he must affirm a subject that is able to confer a universal mode of being on the intelligibles in act. What follows are the characteristics that Averroes requires for the subject of intelligibles.

Averroes states that the subject of intelligibles in act (i.e., intelligible forms) cannot be a body or a power in a body.[113] Were the subject of intelligibles a body, or a power in a body, then what would exist in the body would be a sensible or imaginative form. As mentioned before, Aristotle stated that any form received into a body is a quality or a quantity. The intelligible form would inform an intellect concerning heat, whereas a sensible form would make a body hot. As a result, the subject of intelligibles does not have quality or quantity, for it is not mixed with a body.[114] Moreover, it does not contain form-matter composites within itself. In addition, subject of intelligibles is not a material form (i.e., the type of form found in hylomorphic entities) because the material forms are not separable from matter. Its being is other than form, matter or the composite of form and matter. The subject of intelligibles cannot be form (i.e., immaterial substance) because that substantial form would prevent the reception of intelligible form. The subject of intelligible cannot be matter because matter would particularize the intelligible form. In addition, its being is unlike the simple first forms, which are pure actualities.[115] It does not have an essence or nature by which it may be constituted

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112. Taylor, "Intelligibles in Act in Averroes," p. 130.

113. Averroes, *Commentarium Magnum*, Bk. 3, 429a20, p. 386: Quoniam autem substantia recipiens has formas necesse est ut non sit corpus neque virtus in corpore manifestum est ex propositionibus quibus Aristoteles usus est in hoc sermone.

114. Averroes, *Commentarium Magnum*, Bk. 3, 429a29, p.414: sed non habet qualitatem attributam calido et frigido, neque habet instrumentum; ergo non est mixtum cum corpore.

115. Averroes, *Commentarium Magnum*, Bk. 3, 429a20, p.386: Quoniam autem substantia recipiens has formas necesse est ut non sit corpus neque virtus in corpore manifestum est ex propositionibus quibus Aristoteles usus est in hoc sermone. Quarum una est quod ista substantia recipit omnes formas materiales; et hoc notum est de hoc

material except for the nature of receptivity *(possibilitatis)*, and its nature lacks all material and intelligible forms.[116] In addition to the aforementioned characteristics, the Material Intellect must be simple.[117] Averroes goes as far to define the Material Intellect as "that which is in potency to the intentions of universal material forms, and it is not any of the beings in act before it understands them (i.e., the universal intentions of material forms).[118] When Averroes asserts that the Material Intellect is not any of the beings in acts before it understands, he is not asserting that the Material Intellect is non-existent.

[Continued from previous page]
intellectu. Secunda autem est quod omne recipiens aliquid necesse est ut sit denudatum a natura recepti, et ut sua substantia non sit substantia recepti in specie.... Et ex hiis duabus sequitur quod ista substantia que dicitur intellectus materialis nullam habet in sui natura de formis materialibus istis. Et quia forme materiales sunt aut corpus aut forme in corpore, manifestum est quod ista substantia que dicitur intellectus materialis. neque est corpus neque forma in corpore; est igitur non mixtum cum materia omnino.... quia ista substantia est, et quod est recipiens formas rerum materialium vel materiales non habet in se formam materialem, scilicet compositam ex materia et forma. Neque est etiam aliqua forma formarum materialium; forme enim materiales non sunt separabiles. Neque est etiam ex formis primis simplicibus; ille enim sunt separabiles, sed non...recipit formas nisi diversas, et secundum quod sunt intellecte in potentia, non in actu. Est igitur aliud ens a forma et material et congregato ex eis.... Et cum talis est dispositio intellectus materialis, scilicet quod est unum entium, et quod potentia est abstracta, et non habet formam materialem, manifestum est ipsum esse non passivum, cum passiva, scilicet transmutabilia, sunt sicut forme materiales, et quod est simplex, sicut dicit Aristoteles, et separabilis. Et sic intelligitur natura intellectus materialis apud Aristotelem.

116. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.387: Idest, illud igitur ex anima quod dicitur intellectus materialis nullam habet naturam et essentiam qua constituatur secundum quod est materialis nisi naturam possibilitatis, cum denudetur ab omnibus formis materialibus et intelligibilibus. The text indicates that the material intellect does not have a nature and essence by which it may be construed as material. However, as previously stated, the material intellect cannot have any matter. That is to say, it must be immaterial. Hence, the reference to matter here must be alluding to the passive potency inherent in matter, and passive potency allows a thing to be acted upon (i.e., receptivity). Futhermore, *possibilitas* cannot denote pure potency; otherwise, the Material Intellect would be non-existence because pure potency cannot exist because since potency is that which is capable of coming into being, but is not.

117. Averroes, *Commentarium Magnum*, Bk. 3, 429a20, p.386: quod est simplex, sicut dicit Aristoteles.

118. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.387–88: Idest, diffinitio igitur intellectus materialis est illud quod est in potentia omnes intentiones formarum materialium universalium, et non est in actu aliquod entium antequam intelligat ipsum.

Rather, he is stating that its being is unlike any other kind of being, for it is neither prime matter (i.e., being in potency), nor is it form (i.e., being in actuality), nor is it the composite of form and matter (i.e., being in actuality and in potency as a hylomorphic entity). Instead, he is asserting that the Material Intellect is a "fourth kind of being."[119] This "fourth kind of being" has a universal mode of being (i.e., its mode of being is not that of a particular),[120] which allows the material intellect to receive universal forms (i.e., abstractions$_4$, intelligibles in act).[121] This universal mode of being puts the Material Intellect in class of its own, for that which receives something else must be devoid of the nature of the thing received, and it substance must not be the same in species as the substance of the thing received.[122] In other words, its lack of all the material and intelligible forms may be necessary for the subject of intelligibles, but it is not sufficient. The subject of intelligibles must have a mode of being that is different from any particular. Thus, the Material Intellect is able to receive the form of all things, for it alone is universal in its mode of being; it is not a determinate particular and so is able to receive forms in a universal way.

Furthermore, the Material Intellect, the subject of intelligibles, is unique in two senses: In the first sense, it is unique, for the kind of being that it has is unlike any other existent. All material beings are *hoc aliquid*, for no material existent is its species, but it

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119. Taylor, "Intelligibles in Act in Averroes," p. 130; Averroes, *Commentarium Magnum*, Bk. 3, 429a10, p.409:..iste est quartum genus esse.

120. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.387–88: Et ex hoc apparet quod ista natura non est aliquid hoc.

121. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.387–88: Et causa propter quam ista natura est distinguens et cognoscens, prima autem materia neque cognoscens neque distinguens, est quia prima materia recipit formas diversas, scilicet individuales et istas, ista autem recipit formas universales.

122. Averroes, *Commentarium Magnum*, Bk. 3, 429a20, p. 386: omne recipiens aliquid necesse est ut sit denudatum a natura recepti, et ut sua substantia non sit substantia recepti in specie.

is a member of a species. In contradistinction, immaterial beings are not *hoc aliquid*, for each immaterial being is a species unto itself. Moreover, all immaterial intellects except the Material Intellect have no receptivity. Second, it is unique because it cannot be multiplied. There is no metaphysical principle by which the Material Intellect can be multiplied, for it is neither form, matter, nor the composition of form and matter. Moreover, it is imperative that the Material Intellect is not multiplied. Were the Material Intellect multiplied, it would be a particular within a species. That is to say, it would be a member in a set. Furthermore, if it were multiplied, so would the intelligibles in act that reside in the Material Intellect, and this would give rise to the third-man argument.[123] Furthermore, if the Material Intellect were enumerated according to the number of people related to it, then it would be related to each individual such that when one person acquired an intelligible in act, then all will have acquired that intelligible in act.[124] Yet, when one person understands by the reception of an intelligible in the Material Intellect, it is not the case that all understand. Most importantly, if intelligibles were not in one

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123. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p. 411: Et si posuerimus eum esse multa, continget ut res intellecta apud me et apud te sit una in specie et due in individuo; et sic res intellecta habebit rem intellectam, et sic procedit in infinitum. Aristotle refers to the third man in *Metaphysics* 1079a13. For any pluralitiy of a property (x), there exists one and only one form of X-ness in which the properties partake, and by partaking in X, they are x's. Every form of X is itself X, and no form partakes in itself. No form can have contrary properties, and the property of being one and being many are contraries. If one presumes that there exists the form of Human by which all humans are human, it follows that the form of Human share a property common to each individual human. Consequently, the form of Human is not one above the many, but one among many. Yet, if each human and the form of Human shares a common property, then there must exist another form of Human by which the original form of humaness and the individuals are human. This process continues *ad infinitum*. This problem is called the third man argument, and it is also found in Plato, "Parmenides," 132a-135c.

124. Averroes, *Commentarium Magnum*, Bk. 3, 429a24, p.402: Et si posuerimus quod non numeratur per numerationem individuorum, continget ut proportio eius ad omnia individua existentia in sua perfectione postrema in generatione sit eadem, unde necesse est, si aliquod istorum individuorum acquisierit rem aliquam intellectam, ut illa acquiratur ab omnibus illorum.

intellect that all people shared, then people would not be able to understand each other.[125] By affirming the Material Intellect, he navigates through the Aporia and avoids hypostatizing intelligibles in act. Moreover, he has an ontological foundation that safeguards inter-subjective discourse.

Summary, Comments, and Critique of Averroes' Solution

Like a true Aristotelian, Averroes asserts that knowing begins with the objects of sensation. Given their actuality, the objects of sensation act upon the senses via intentional forms (i.e., abstraction$_2$). These intentional forms are gathered in the common sense and propagated to the imagination, which retains the images and the intentional forms of external things even when the external things are no longer present. The cogitative power then performs an abstraction$_1$ and produces an abstraction$_2$ that is deposited in memory, which retains the individual form by which a thing is the kind of thing that it is. Yet, the individual form in memory resides in a particular, and has a limited extension, for it only denotes one member in a species even if somehow abstracted or separated from the material subject from which it arose and from the accidents that characterized it. In order for an intelligible form to arise, it must reside in a subject that is universal in its mode of being. That is to say, in a subject that is not a particular. The Agent Intellect is able to isolate the intention in abstraction$_2$ found in the imagination, and creates an abstraction$_4$ (i.e., an intelligible in act). The intelligible in act has an identical intention, and its mode of being is like that of the Agent Intellect: immaterial, eternal, and simple. Yet, the Agent Intellect is unable to confer a universal mode of being on the intelligible in act, for the Agent Intellect has no receptivity. For universality to be conferred upon the abstraction$_4$, it must exist in a subject that is not a

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125. Taylor, "Intelligibles in Act in Averroes," p. 138. Given Averroes acceptance of Themistius, the intelligibles in act cannot be multiplied, for human discourse would be impossible.

particular; it must exist in an intellect whose mode of being is universal, not a determinate particular, that is, the Material Intellect.[126] The Material Intellect's mode of being precludes it from being multiplied, for there is no metaphysical principle by which it may be multiplied. Moreover, the fact that the Material Intellect cannot be multiplied makes it the perfect storehouse for abstractions$_4$ that have a universal extension.

Averroes resolves the Aristotelian aporia by affirming two eternal substances, the Agent Intellect and the Material Intellect. The former substance is responsible for performing a genuine abstraction$_3$, and the latter is responsible for conferring a universal mode of being on the abstraction$_4$ that the former generates. However, separating these powers from individual humans seems to imply that individual humans are not *per se* rational, for only by conjoining to the Agent Intellect and the Material Intellect can people acquire knowledge. Although Averroes asserts that the Agent Intellect is "form for us," and is our "final form,"[127] it is difficult to reconcile such a notion with Aristotle's notion that substantial form is principle that is intrinsic to a hylomorphic being.[128] If the rational powers must be extrinsic to a hylomorphic human being, then a human being is nothing more than the highest form of non-rational animal. Moreover, if the subject that receives intelligibles is that which is knowing, then it would follow that the Material Intellect would know intelligibles, and humans would never have knowledge of universals. At best humans would know the form by which a particular thing is what it is because of the cogitative power. There could be no syllogistic reasoning or demonstration.

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126. When asserting that the mode of being is universal, I am denying that the Material Intellect is a particular existent.

127. Taylor, "Intelligibles in Act in Averroes," p. 131.

128. Aristotle, *Physics*, Bk. 2, 193b7–8, 1.

In order to draw a valid conclusion in a demonstrative syllogism, three conditions must be met. First, the middle term in a syllogism must be distributed at least once in either the minor or major premise. Second, whatever term is distributed in the conclusion must be distributed in a premise. Third, the number of negative propositions in the conclusion must be the same number of negative propositions in the premises. The first two conditions presuppose that terms are distributed. A distributed term is one that either includes or excludes every member in a group. However, in order to exclude or include every member in the group, the term must be universal, which arises as a result of abstraction.

Although such charges could be easily leveled at Averroes' doctrine, such a charge presupposes one of three kinds of participation. In an article entitled "Intelligibles in Act in Averroes," Richard Taylor asserts that there are three kinds of participation.[129] The first kind is participation in likeness. In this example, the agent that is participating has an action that is similar and inferior to a superior agent. For example, St. Thomas Aquinas asserts that God does not reason discursively, but by means of knowing His own essence, God knows all things. Angels, likewise, know by means of intelligible species that God has placed in them at their creation. Although Angels are rational like God, what they know and how they know is inferior to God's way of knowing: eternal, necessary, and immutably.[130] The second kind of participation is that in which an external agent performs an activity on a passive subject. For example, were the Agent Intellect to act on a subject in such a manner that there is only one actor, the Agent Intellect, then the subject would not be *per se* rational, for the ability to act would be

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129. Taylor, "Intelligibles in Act in Averroes," p. 137.

130. Aquinas, *S.T.*, Ia, q. 55, a. 1, co: Hoc autem proprium est essentiae divinae, quae infinita est, ut in se simpliciter omnia comprehendat perfecte. Et ideo solus deus cognoscit omnia per suam essentiam. Angelus autem per suam essentiam non potest omnia cognoscere; sed oportet intellectum eius aliquibus speciebus perfici ad res cognoscendas.

extrinsic to the subject. This is the view that Aquinas will attribute to Averroes.[131] The third kind of participation I shall label "an inverted primary and secondary causality."[132] In an "inverted primary and secondary causality," an ontologically superior and an ontologically inferior agent share in one and the same act, and the act is *attributed* primarily to the ontologically *inferior* agent, and secondarily to the ontologically *superior* agent; yet from a human perspective it is attributed to the *superior* agent. For example, in the case of Averroes, the Agent Intellect is an ontologically superior Agent, and the human being is the inferior agent who shares in one and the same act of abstraction$_3$. The act of abstraction$_3$ is primary attributed to the ontologically *inferior* agent, the human; yet from a human perspective, the act is attributed to the ontologically superior Agent, the Agent Intellect. If this view applies to abstraction$_3$ then the individual is *primarily* an agent and the Agent Intellect is *secondarily* an agent; yet, the act is attributed to the Agent Intellect. If this is in fact Averroes view, it becomes easy to reconcile how Averroes can maintain that man is *per se* rational and simultaneously ascribe the power by which we know to the Agent Intellect. Nonetheless, that is not how Aquinas understood Averroes. Hence, even if this is the correct view of the position of Averroes himself, the primary concern of this dissertation is with the understanding of

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131. Aquinas, *SCG*, Bk. 2, Ch. 76: Si intellectus agens est quaedam substantia separata, manifestum est quod est supra naturam hominis. Operatio autem quam homo exercet sola virtute alicuius supernaturalis substantiae, est operatio supernaturalis: ut miracula facere et prophetare, et alia huiusmodi quae divino munere homines operantur. Cum igitur homo non possit intelligere nisi virtute intellectus agentis, si intellectus agens est quaedam substantia separata, sequetur quod intelligere non sit operatio naturalis homini. Et sic homo non poterit definiri per hoc quod est intellectivus aut rationalis.

132. In a typical primary and secondary causality, an ontologically superior agent and an ontologically inferior agent share in one and the same act, and the act is attributed primarily to the ontologically *superior* agent, and secondarily to the ontologically *inferior* agent. The act from a human perspective is attributed to the *inferior* agent. For example, when one moves one's arm, motion comes into being, but bringing something into being is action that can only be performed by God. Thus, when people moves their arms, the act of moving the an arm is attributed primarily to God and secondarily to the people; yet from a human perspective, it is the people who move their arms.

Aquinas of sources influential in his formation of the doctrine of intelligible species.[133]

Chapter Summary

The Aristotelian aporia has forced Avicenna and Averroes to take diametrically opposed positions. Knowing that intelligibles cannot reside in a body, Avicenna separates the soul from the body so that it is also accidentally united to the body. In doing so, he has safeguarded rationality by allowing the individual person to be the subject of intelligibles. However, he has had to deny that the soul is the form of the body, and he had to introduce the form of corporeity to account for the body's hylomorphic composition. For Avicenna, personal identity is found in the rational soul, not in the body. Averroes also knows that intelligibles cannot reside ontologically in a body, but he will not deny that the soul is form of the body. Thus, he must affirm immaterial entities capable of abstracting and conferring universality on intelligibles.

For Averroes, personal identity is found in the hylomorphic composite, and the Aristotelian aporia has forced him to affirm two separate immaterial substances. The actuality and immateriality of the first substance, the Agent Intellect, allows it to transfer the *ratio* from the material world. The receptivity of the second immaterial substance, the Material Intellect, allows it to receive intelligibles in act. The Material Intellect has an existence unlike any Aristotelian category, and the mode of being of the Material Intellect confers universality on the intelligibles in act. Averroes' challenge is rendering an account that attributes intellection to each individual.

Although these positions are different, they are both motivated by the fact that hylomorphism as understood by the tradition precluded the reception of intelligible forms

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133. This understanding of Averroes was not that of Aquinas. For a more lengthy account of this, see Richard C. Taylor, "Intellect as Intrinsic Formal Cause in the Soul According to Aquinas and Averroes," in *The Afterlife of the Platonic Soul, Reflections on Platonic Psychology in the Monotheistic Religions*, edited by Maha Elkaisy-Friemuth and John M. Dillon (Leiden: Brill, 2009), pp. 187–220.

into the body. Neither Averroes nor Avicenna has broken with tradition, for both of them have intelligibles existing outside of the body, and both also agree that the human intellect that is capable of receiving intelligible forms must be a spiritual substance. In addition, they also agree that the intelligibles in act existing in a separated substance are the objects of intellection. Avicenna will have problems reconciling his position because he also asserts that the human intellect knows the things that are in the world. Yet, it is difficult to see how this is the case when the objects of intellection for Avicenna do not come from the world but rather come from the Agent Intellect.

CHAPTER 4

AQUINAS'S SOLUTION TO THE ARISTOTELIAN APORIA

Introduction

As explained in chapter two, hylomorphism and the reception of intelligible forms appear to be mutually exclusive simply because the reception of an intelligible form into a hylomorphic entity entails that it be particularized. To resolve the aporia, Averroes affirms an immaterial entity called the Material Intellect which is capable of receiving intelligibles in act. Furthermore, he affirms another immaterial entity, Agent Intellect, which is capable of performing a true abstraction$_3$. By participating in the activity of the Agent Intellect, humans are capable of intellection, which is the intellectual apprehension of intelligibles in act. In and of themselves, humans are unable to abstract intelligibles, nor are they subjects fitting for the reception of intelligibles (i.e., reified Platonic forms existing in the Material Intellect) according to Averroes.

Avicenna also attempts to resolve the aporia, but he does so by affirming a separate immaterial entity called the Agent Intellect that emanates abstractions$_4$ into the souls of individual knowers. The abstractions$_4$ that emanate into the souls are not abstracted$_3$ from the world. That is to say, there is no transference of a *ratio* or intention from the sensible world to the immaterial Agent Intellect, nor to the immaterial souls. Instead, these abstractions$_4$ allow one to behold the intelligibles in act (i.e., abstractions$_5$) that exist in the separated Agent Intellect. Unlike Averroes who holds to hylomorphism$_1$, Avicenna affirms a new kind of hylomorphism$_2$ that involves the union of the form of corporeity with matter. For Avicenna, the human soul is not the form of the body;

instead, it is a separated, solitary substance that moves and uses the body, but is not connected to the body in a hylomorphic fashion. By separating the soul from the body, Avicenna attempts to make humans the subjects of intelligible forms; however, because intelligibles in act (i.e., abstraction$_5$) cannot be multiplied, the abstractions$_4$ that flow from Avicenna's Agent Intellect are *rationes* and representations that make the intelligibles in act present to many souls without multiplying the intelligible in the Agent Intellect. Like Averroes, the intelligibles in act are akin to reified Platonic forms existing in an immaterial intellect that is ontologically separate from the individual human knower. Although Avicenna and Averroes have different solutions to the aporia, they have three things in common: (1) intelligibles in act are reifed as existing in a separate intellect; (2) intelligibles in act cannot be received into a form-matter entity (regardless of whether the soul is the form of the body); (3) intelligibles in act cannot be multiplied.

Aquinas is well aware of the prior solutions to the aporia, and he realizes that intellection is an activity proper to a spiritual substance.[1] Given that intellection is the operation of a spiritual substance, historically thinkers had separated the subject of intelligibles from the body.[2] Averroes' hylomorphism$_1$ maintains that the soul is the form

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1. Thomas Aquinas, *De spiritualibus creaturis* (Rome: Leonine Commission, 2000), Article 2, Response, p. 24: Oportet igitur principium huius operationis quod est intelligere formaliter inesse huic homini. Principium autem huius operationis non est aliqua forma cuius esse sit dependens a corpore et materie obligatum siue immersum, quia hec operatio non fit per corpus, ut probatur in III De anima : unde principium huius operationis habet operationem sine communicatione materie corporalis, Sic autem unumquodque operam secundum quod est : unde oportet quod esse principii illius sit esse eleuatum supra materiam corporalem et non dependens ab ipsa. Hoc autem est proprium spiritualis substantie.

2. Aquinas, *DeSpiCr*, Article 2, Response, p. 24: Quidam vero concedentes quod intelligere sit actus spiritualis substantiae, negaverunt illam spiritualem substantiam uniri corpori ut forma. Quorum Averroes posuit intellectum possibilem, secundum esse, separatum a corpore....Unde dicebat Plato, ut dictus Gregorius refert, quod homo non est aliquid compositum ex anima et corpore, sed est anima utens corpore, ut intelligatur esse in corpore quodammodo sicut nauta in navi....Sic igitur et hic homo intelligit in quantum hic homo est ipsa substantia spiritualis, quae est anima, cuius actus proprius est

of the body and it prevents individual humans from being the subject of intelligibles. Avicenna's hylomorphism$_2$ also prevents individual bodies from being the subject of intelligibles, but it does not prevent the individual from being the subject of intelligible forms because Avicenna denied that the soul is the form of the body. For Avicenna, the individual soul is a spiritual substance separate from the body. Yet, the ontological status of the intelligible in act in the Agent Intellect prevented the multiplication of these intelligibles, the object of knowledge, into individual souls.

Aquinas is also aware of the dilemma. That is to say, either the soul is a spiritual substance subsisting independent of the body, or it is the form of the body.[3] The soul must be a spiritual substance for intellection to occur; this would seem to necessitate that the soul cannot be the form of the body. Yet, according to Aristotelian principles, the soul must be the form of the body, for it is by virtue ultimately of an intrinsic substantial form that any substance acts. Aquinas sees this dilemma as a false dichotomy and grabs both horns of the dilemma. He will assert that the soul is a spiritual substance *and* that it is the form of the body.[4] How is this possible? Why hadn't any of his predecessors realized what is obvious to Aquinas? Part of the reason is that Aquinas does not have the same ontological commitment to intelligibles in act. Also, although Aquinas holds to a hylomorphism that is similar to Averroes', he only does so for non-rational creatures and

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intelligere; hac tamen substantia forma corporis non existente.Sed ad huius rationis improbationem unum sufficiat, quod Aristoteles in II de anima inducit directe contra hanc positionem. Si enim anima non uniretur corpori ut forma, sequeretur quod corpus et partes eius non haberent esse specificum per animam; quod manifeste falsum apparet: quia recedente anima non dicitur oculus aut caro et os nisi aequivoce, sicut oculus pictus vel lapides.

3. Aquinas, *DeSpiCr*, Article 2, Response: Unde contra rationem substantiae spiritualis esse videtur quod sit corporis forma.

4. Aquinas, *DeSpiCr*, Article 2, Response: Oportet ergo dicere, si praedicta coniungantur, quod quaedam spiritualis substantia, sit forma humani corporis.

lower kinds of substantial and accidental forms.[5] For rational creatures, Aquinas holds a new hylomorphism$_4$ unlike Averroes's hylomorphism$_1$ and unlike Avicenna's hylomorphism$_2$. Although this new hylomorphism$_4$ makes intellection inherent in the individual, it also necessitates intelligible species, as I shall show. That is to say, as a result of making intellection inherent in the individual, Aquinas must affirm intelligible species.

In this chapter, I consider (1) the two kinds of hylomorphism espoused by Aquinas, (2) Aquinas and sensation, (3) Aquinas and abstraction, and (4) Aquinas and the subject of intelligibles, and (5) summary and comments on Aquinas's position.

Aquinas's Hylomorphism$_3$ and Hylomorphism$_4$

In this section, I examine Aquinas's Hylomorphism$_3$ and Hylomorphism$_4$. In both accounts, I shall examine the source of the hylomorphic entity, the necessary conditions for substantial forms in a hylomorphic entity, the hierarchy of forms that undergo hylomorphic$_3$ composition, the operations of a hylomorphic entity, the relation of substantial form to matter in a hylomorphic entity, and the *telos* of the hylomorphic entity.

For Aquinas, hylomorphic$_3$ entities are generated. That is to say, they are educed from the potency of matter. Eduction from the potency of matter is strange terminology to contemporary philosophers; however, to Aquinas and to those who followed Aristotle, the eduction from matter meant to undergo a substantial change whereby something that potentially existed in matter comes to exist actually in matter.[6] In a substantial change,

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5. They are different inasmuch as Aquinas requries a two-fold composition of form and matter, which gives rise to essence, and of essence and existence. Averroes only requires the composition of form and matter.

6. Aquinas, *S.T.*, Ia, Q. 90, A. 3, R.3: actum extrahi de potentia materiae, nihil aliud est quam aliquid fieri actu, quod prius erat in potentia.

matter is the subject that undergoes the change. Given that substantial forms cannot be created by any natural agents, it is the substantial form of a thing that is educed from the potency of matter; consequently, one says that in hylomorphic$_3$ entities their forms are educed from the potency of matter.[7] The natural order has been established such that from the initial creation, other things were able to come to be through mutual action and passion. By means of active and passive powers, which Augustine called *rationes seminales*, subsequent effects are produced. Among the various active and passive powers are the reproductive powers. Thus, the semen in non-rational animals (e.g., the lion and the horse) has the ability to bring about other non-rational animals in the same species.[8] Yet, it is not the semen alone. The female of the species provides the matter, in which is the vegetative soul. This vegetative soul remains in a dormant state until the sperm, which acts as a catalyst, transmutes the matter from potency to actuality so that the sensitive soul is brought into act. The sensitive soul then begins to operate toward the completion of its body by means of nutrition and growth. The power that was in the semen ceases and the semen is dissolved.[9] Now, this coming to be is not creation, for

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7. Aquinas, *Sent*, Bk. 4, D. 5, Q. 1, A. 3: Ad tertium dicendum, quod nullum agens creatum facit formam, quia formae non fiunt ut probatur in 7 metaph., sed educuntur de potentia materiae.

8. Aquinas, *Sent*, Bk. 2, D. 13, A. 1, Response: Respondeo dicendum, quod natura in operibus sex dierum taliter instituta est ut naturae principia tunc condita in se subsisterent, et quod ex eis alia propagari possent per mutuam actionem et passionem; et ideo oportuit eis tunc esse conferri, et virtutes activas et passivas, quas Augustinus, vocat rationes seminales, quibus ex eis effectus consequentes producerentur. Quantum ergo ad esse ipsorum principiorum, sumitur opus creationis, per quod substantia elementorum mundi in esse producta est. Sed virtutum activarum et passivarum quaedam sunt moventes ad determinatas species, ut virtus quae est in semine leonis et equi.

9. Aquinas, *S.T.*, Ia, Q. 118, A. 1, RA. 4: [M]ateria autem foetus est illud quod ministratur a femina. In qua quidem materia statim a principio est anima vegetabilis, non quidem secundum actum secundum, sed secundum actum primum, sicut anima sensitiva est in dormientibus. Cum autem incipit attrahere alimentum, tunc iam actu operatur. Huiusmodi igitur materia transmutatur a virtute quae est in semine maris, quousque

creation entails that a thing comes to be from nothing; rather, generation entails that a thing comes to be from matter and that it comes to be from contrarieties, as Aristotle had established.[10] Moreover, this process is completely natural inasmuch as the agents are hylomorphic$_3$ entities; furthermore, the semen and the egg are related as act to potency, and they are also parts of natural substances.

Having described the source of non-rational animals, I shall briefly examine the two necessary conditions that a substantial form must satisfy.[11] First, the substantial form must be the principle of being of the hylomorphic entity of which it is the form. That is to say, the substantial form must be intrinsic to the hylomorphic entity and must provide the actuality by which the hylomorphic entity is a being. Without the substantial form, the hylomorphic entity cannot be. The second condition that must be satisfied is that form and matter come together to produce one being. In other words, it is not the case that some efficient cause (e.g., the movement of the semen) that is concomitant with the semen, the formal cause, provides the being of the new entity. Instead, the being that arises results from the union of form and matter.[12]

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perducatur in actum animae sensitivae... Postquam autem per virtutem principii activi quod erat in semine, producta est anima sensitiva in generato quantum ad aliquam partem eius principalem, tunc iam illa anima sensitiva prolis incipit operari ad complementum proprii corporis, per modum nutritionis et augmenti. Virtus autem activa quae erat in semine, esse desinit, dissoluto semine, et evanescente spiritu qui inerat.

10. Aquinas, *QDPot*, Q. 3, A. 9, Response: Sed res quae fit, proprie et per se fit. Quod autem fit, fit vel ex materia vel ex nihilo. Quod vero ex materia fit, necesse est fieri ex materia contrarietati subiecta. Generationes enim ex contrariis sunt, secundum philosophum.... Unde restat quod exeat in esse per creationem, quasi ex nihilo facta.

11. These conditions apply to both hylmorphic$_3$ entities and hylomorphic$_4$ entities.

12. Aquinas, *SCG*, Bk. 2, Ch. 68: Ad hoc enim quod aliquid sit forma substantialis alterius, duo requiruntur. Quorum unum est, ut forma sit principium essendi substantialiter ei cuius est forma: principium autem dico, non factivum, sed formale, quo aliquid est et denominatur ens. Unde sequitur aliud, scilicet quod forma et materia conveniant in uno esse: quod non contingit de principio effectivo cum eo cui dat esse. Et hoc esse est in quo subsistit substantia composita, quae est una secundum esse, ex

If one considers the conditions necessary for substantial forms and how non-rational animals are generated, it becomes evident that the substantial form that arises in an animal is the sensitive soul, and this sensitive soul is educed from the potency of matter by the power in the sperm acting as a formal cause and by the egg, which is a material cause. As a result of this union, a hylomorphic$_3$ entity is generated, and the sensitive soul provides the actuality to the hylomorphic$_3$ entity. Moreover, the hylomorphic$_3$ entity arises because of union between the form and the matter.

Although non-rational hylomorphic$_3$ and hylomorphic$_4$ entities are the main focus of this section, we should observe that there are various kinds of forms, and a proper understanding of these various kinds of forms will enable us to understand hylomorphic$_4$ entities. Therefore, let us examine the four kinds of forms that are hierarchically ordered from lowest to highest.

The lowest forms are the forms of simple bodies that are not able to perform any operations except that of being qualitative dispositions of matter, just as are the forms of the elements, from which result heat, cold, humidity, dryness, rarity, density, gravity and levity, and other qualities similar to these. Such substantial forms are said to be completely material (*omnino materiales*) and totally immersed in matter (*totaliter immersae materiae*).[13] When they are received into a hylomorphic$_3$ entity, they are received into the matter of that hylomorphic entity as a quality. For Aquinas, these would be the forms that Aristotle had alluded to when he had stated that forms received into a body would be qualitative or quantitative.

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materia et forma constans.

13. Aquinas, *SCG*, Bk. 2, Ch. 68: Invenimus enim aliquas infimas formas, quae in nullam operationem possunt nisi ad quam se extendunt qualitates quae sunt dispositiones materiae, ut calidum, frigidum, humidum et siccum, rarum, densum, grave et leve, et his similia: sicut formae elementorum. Unde istae sunt formae omnino materiales, et totaliter immersae materiae.

The next highest are forms of mixed bodies. They do not go beyond the operation that is able to be completed by the aforementioned lower forms. Sometimes, however, they produce those effects by some higher power whose effect, which are consequent upon their species and which is allotted by the heavenly bodies. For example, a magnet is able to attract iron.[14] Notice that in this account, these forms are not said to be totally immersed in matter. Yet, neither are they said to transcend or exceed matter. For, qualitative dispositions could be accounted for solely by the material form. However, the emergent properties (e.g., the magnetism) could not be accounted for solely by a material disposition.

Continuing up the hierarchy, one finds forms whose operations extend beyond the aforementioned qualitative powers; though the aforementioned organic qualities are necessary for these operations. The souls of plants, for example, are similar not only to the powers of the heavenly bodies in that they exceed the aforementioned active and passive qualities, but they are similar to the movers of the heavenly bodies inasmuch as they are principles for living things which move themselves.[15] This kind of form is the vegetative soul found in plants accounting for self-movement, nutrition, and growth. This kind of soul is higher than the aforementioned forms because it both gives rise to a material entity, and it gives rise to a *living* material entity. It too is a substantial form that

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14. Aquinas, *SCG*, Bk. 2, Ch. 68: Super has inveniuntur formae mixtorum corporum, quae licet non se extendant ad aliqua operata quae non possunt compleri per qualitates praedictas, interdum tamen operantur illos effectus altiori virtute, quam sortiuntur ex corporibus caelestibus, quae consequitur eorum speciem: sicut adamas trahit ferrum.

15. Aquinas, *SCG*, Bk. 2, Ch. 68: Super has iterum inveniuntur aliquae formae quarum operationes extenduntur ad aliqua operata quae excedunt virtutem qualitatum praedictarum, quamvis qualitates praedictae organice ad harum operationes deserviant: sicut sunt animae plantarum, quae etiam assimilantur non solum virtutibus corporum caelestium in excedendo qualitates activas et passivas, sed ipsis motoribus corporum caelestium, inquantum sunt principia motus rebus viventibus, quae movent seipsas.

is not totally immersed in matter, but neither does it transcend matter because all of the operations performed by this vegetative soul are performed by means of some corporeal organ.

Even higher still are forms that are similar to the higher substances not only in movement but also in some kind of knowing. And thus, they have operative powers for which none of the aforementioned organic qualities are used. Nonetheless, this kind of operation is only done by means of a bodily organ, just as is the case with the souls of non-rational (*brutorum*) animals. For sensing and imagination are not achieved by heating and cooling although these are necessary for the required disposition of the organs.[16] This kind of form is the sensitive soul that is found in non-rational animals. As a sensitive soul, it has the power of sensation and imagination. All of the operations performed by this kind of soul are also dependent on matter. Consequently, it can be said that this form is also immersed in matter, but it is not as pressed down (*deprimatur*) into matter in the same manner as the aforementioned forms.[17] This kind of form, which is

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16. Aquinas, *SCG*, Bk. 2, Ch. 68: Supra has formas inveniuntur aliae formae similes superioribus substantiis non solum in movendo, sed etiam aliqualiter in cognoscendo; et sic sunt potentes in operationes ad quas nec organice qualitates praedictae deserviunt, tamen operationes huiusmodi non complentur nisi mediante organo corporali; sicut sunt animae brutorum animalium. Sentire enim et imaginari non completur calefaciendo et infrigidando: licet haec sint necessaria ad debitam organi dispositionem.

17. Aquinas, *QDPot*, Q. 3, A. 11. Response : Invenimus autem quasdam formas quae se ulterius non extendunt quam ad id quod per principia materialia fieri potest; sicut formae elementares et mixtorum corporum, quae non agunt ultra actionem calidi et frigidi; unde sunt penitus materiae immersae. Anima vero vegetabilis, licet non agat nisi mediantibus qualitatibus praedictis, attingit tamen operatio eius ad aliquid in quod qualitates praedictae se non extendunt, videlicet ad producendum carnem et os, et ad praefigendum terminum augmento, et ad huiusmodi; unde et adhuc retinetur infra ordinem materialium principiorum, licet non quantum formae praemissae. Anima vero sensibilis non agit per virtutem calidi et frigidi de necessitate, ut patet in actione visus et imaginationis et huiusmodi; quamvis ad huiusmodi operationes requiratur determinatum temperamentum calidi et frigidi ad constitutionem organorum, sine quibus actiones praedictae non fiunt; unde non totaliter transcendit ordinem materialium principiorum,

found in perfected animals, is present in the whole body of these animals, and it is wholly present in each part of the body, for it is not divided even though its subject is divided.[18]

Hence, one finds that at one extreme, the lowest forms are completely immersed in matter. At the other extreme, one finds the sensitive soul that does not transcend the order of material principles, yet it is not as submerged as the lower forms. Given that all of the aforementioned forms are immersed in matter, none of these forms are able to be the subject of intelligible forms. According to Aquinas, from observing and considering the operations of things, we come to know their natures; for whatever operates does so according to its mode of being.[19] From observing the aforementioned forms, it is clear to Aquinas that these forms are all material forms, immersed in matter whose existence depends on the union of form and matter and whose operations cannot extend beyond material operations (i.e., they are dependent on matter for their operations).[20]

Finally, hylomorphic$_3$ entities not only have their operations wholly dependent on matter, but they are all similar as to their finality. To assert that a hylomorphic$_3$ entity is generated entails that the hylomorphic$_3$ entity does not have subsistent being, and,

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quamvis ad ea non tantum deprimatur, quantum formae praedictae.

18. Aquinas, *SCG*, Bk. 2, Ch. 72 : "Si igitur est aliqua forma quae non dividatur divisione subiecti, sicut sunt animae animalium perfectorum, non erit opus distinctione, cum eis non competat nisi una totalitas: sed absolute dicendum est eam totam esse in qualibet parte corporis." The whole sensitive soul is present to the body and the whole sensitve soul is present to each part of the body. Although not stated, one may infer that the matter of the body is wholly present to the soul; consequently, there cannot be any operation of the soul that is not a material operation (i.e., an operation of the body).

19. Aquinas, *SCG*, Bk. 2, Ch. 68 : Quod patet inspicienti operationes formarum, ex quarum consideratione earum naturas cognoscimus: unumquodque enim operatur secundum quod est.

20. Aquinas, *QDPot*, Q. 3, A. 11, Response : cum esse formarum naturalium et corporalium non consistat nisi in unione ad materiam; eiusdem agentis esse videtur eas producere cuius est materiam transmutare. Secundo, quia cum huiusmodi formae non excedant virtutem et ordinem et facultatem principiorum agentium in natura.

consequently upon the corruption of the body, the hylomorphic entity ceases to be.[21] Thus, the aforementioned souls that come to be by generation also cease to be with the dissolution of the body; hence, neither non-rational animals nor plants are immortal.

Hylomorphism$_3$, as described above, is similar to the hylomorphism$_1$ that Averroes and Aristotle ascribed to all animals regardless of whether they are rational or non-rational. It is this kind of hylomorphism that precludes the reception of intelligibles, for this kind of hylomorphic subject is immersed in matter in such a way that the reception of an intelligible form would be received into matter; consequently, the intelligible form would be particularized and rendered a quality or quantity in a body. Avicenna, Averroes and Aquinas are in agreement that only an immaterial intellect could be the subject of intelligibles; they also are in agreement that if the form of a hylomorphic entity were educed from the potency of matter, it could not be the subject of intelligibles. Nonetheless, they disagree as to what should be the subject of intelligibles. For Avicenna, the subject of intelligibles is each individual soul, a solitary spiritual substance accidentally united to a body. For Averroes, the subject of intelligibles is a separated spiritual substance, the Material Intellect. Why have Averroes and Avicenna chosen different subjects for intelligible forms?

Averroes and Avicenna have chosen different subjects for intelligibles because they have different commitments concerning human identity and constitution. Avicenna identifies a human being with the soul, a spiritual substance, and he denies that the soul is the form of the body. Instead, there is a two-fold composition; matter and the form of corporeity are substantially united to give rise to the body, whereas the soul is accidentally united to the form-matter composite in order to animate the body and to explain rational activity. By taking this position, not only does Avicenna safeguard the

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21. Aquinas, *QDPot*, Q. 3, A. 9, Response: Ponere autem quod per generationem corporis fiat, est ponere ipsam non esse subsistentem, et per consequens cum corpore corrumpi.

rationality of the human being inasmuch as the ability to receive intelligible forms is inherent in each human's substance, but he safeguards the immortality of the soul inasmuch as the soul is an indestructible, simple substance.

In contradistinction, Averroes will identify a human being with the form-matter composite, following Aristotle, and he will affirm that the soul is the form of the body. Thus, the soul actualizes the matter and simultaneously animates the body as a result of the composition of form and matter. There is no need for dual compositions. The single composition of form-matter is necessary and sufficient to give rise to a living hylomorphic entity. By taking this position, Averroes remains faithful to Aristotle's teachings, and the immortality of the human being (i.e., the composite) is denied. Moreover, by taking this position, Averroes denies that the ability to abstract and receive intelligibles is inherent in human being *without the aid of two spiritual substances*: the Agent Intellect and the Material Intellect. That is to say, human beings are not rational *per se*, they are apparently rational only *per accidens*.[22]

Similar to Odysseus' passing through the straits of Messina, Aquinas must navigate between Avicenna's solution and Averroes's solution. If he veers to close to Averroes' solution, he risks denying the Catholic doctrine of the immortality of the soul with its rewards and punishments after death.[23] Moreover, he risks making man *per*

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22. Dr. Richard Taylor's interpretation of Averroes would remove the *per accidens* vs. *per se* distinction because human intellection could only be possible by participation in the activity of the Agent Intellect. However, his new interpretation of Averroes is outside of scope of this dissertation. See Taylor, "Intellect as Intrinsic Formal Cause in the Soul According to Aquinas and Averroes," pp. 187–220.

23. Aquinas, *Sent*, Bk. 2, D. 17, Q. 2, A.1: Sciendum est etiam quod secundum has opiniones intellectus possibilis generatur generato corpore et corrumpitur corrupto corpore et cum non sit differentia intellecturs nisi possibilis in diversis hominibus, quia agens est unus quod illud remanet de intellectu ex omnibus homnibus post mortem est unum numero, scilicet intellectus agens. Et hoc est valde hereticum: quia sic tolleretur retribution meritorum post mortem.

accidens rational. Further, he risks giving up free-agency because for Aquinas volition is a power associated with intellect; thus, there would be one intellect for all, and it would be extrinsic to all men. That is to say, individual humans would be moved by some other agent, the Agent Intellect.[24] On the other hand, if he veers too close to Avicenna's solution, he risks human identity, for humans would be nothing more than souls using bodies; furthermore, the resurrection would be trivialized, for the resurrected body would be something that is being used by a soul, not something that has been ensouled. Free-agency would also be at risk, for the same reason given regarding Averroes. Aquinas seems to be caught in a dilemma: either he must affirm that the soul is the form of the body and deny that it is a spiritual substance (Averroes's position), or he must deny that the soul is the form of the body and affirm that it is a spiritual substance (Avicenna's position).

Instead of avoiding the horns of the dilemma, Aquinas grabs hold of both horns and asserts a position that would have been unimaginable to both Avicenna and Averroes. Aquinas asserts that the soul is the form of the body *and* that it is a spiritual substance. In order to do so, he needs to deny that hylomorphism$_3$ applies to human beings; instead, he will need to reformulate hylomorphism in a manner in which none of his predecessors had while still remaining "faithful" to the Aristotelian text. In order to understand Thomas's reformulation of hylomorphism, I shall examine (1) the creation of the hylomorphic$_4$ beings, (2) the relationship between the soul and matter, (3) the soul's mode of being, and (4) the operations and the finality of hylomorphic$_4$ entities.

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24. Aquinas, *SCG*, Bk.2, Ch. 76: "Si igitur intellectus agens est quaedam substantia extra hominem, total operatio hominis dependet a principio extrinseco. Non igitur erit homo agens seipsum, sed actus ab alio." This argument does not work against Averroes because Averroes maintained that the will is a particular power in the human body. That is to say, for Averroes, the will is not a spiritual substance; See: Taylor, "Cogitatio, Cogitativus and Cogitare: Remarks on the Cogitative Powers in Averroes," pp. 140–42.

Unlike in the case of hylomorphic$_3$ entities, which are generated, the soul in the case of hylomorphic$_4$ entities is created.[25] The creation of the soul means that the rational human soul is not educed from the potency of matter.[26] Consequently, the rational soul is not something composed of form and matter, nor is it a material form *(forma materialis)*, which is able to be educed from the potency of matter as are the other material forms found in hylomorphic$_3$ entities.[27] But one must ask, "How is the creation of the soul in accordance with Aristotle's text?" Moreover, creation requires an efficient cause, but Aristotle argues that the Unmoved Mover (i.e., god) cannot be an efficient cause because it would entail that the Unmoved Mover would need to undergo a change. Instead, Aristotle opts for the Unmoved Mover being a final cause. There is no way that Aristotle's Unmoved Mover could create anything. Nevertheless, following the "words" of Aristotle, Aquinas interprets that *nous* comes from outside to mean that the intellectual soul is created by God.[28]

The notion that the soul is created by God is obviously also a religious doctrine, and there were three views that were disputed in the Catholic Church. The traducian view asserted that the soul of a human child was produced by its human father. The second

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25. Stump, *Aquinas*, p. 207.

26. Aquinas, *SCG*, Bk. 2, Ch. 86, N.1709: Omnis forma quae educitur in esse per materiae transmutationem, est forma educta de potentia materiae: hoc enim est materiam transmutari, de potentia in actum reduci. Anima autem intellectiva non potest educi de potentia materiae.

27. Aquinas, *Sent*, Bk. 2, D. 18, Q. 2, A. 1, Response: anima autem rationalis non est quid ex materia (ad minus praeexistente) et forma compositum: nec est forma materialis, quae possit educi de potentia materiae, sicut aliae formae materiales.

28. Aquinas, *ContraAverr*, Ch. 1, 780–81: Et hoc ex verbis Aristotelis apparet: relinquitur autem intellectum solum de foris advenire; cf. Aristotle, *Generation of Animals*, 2.3, 736b27 : "It remains, then, that reason alone enters in, as an additional factor from outside, and it alone is divine, because physical activity has nothing watever to do with the activity of reason."

view asserted that souls were created prior to the creation of the body and later infused into the body. According to the third view, God created the human soul *ex nihilo*. The first two views were judged by the Catholic Church as heretical. Thus, Aquinas's position is consonant with Catholic doctrine.[29] At this point, one may be tempted to discount Aquinas's notion of hylomorphism$_4$ on the basis that it is based solely on theology as opposed to philosophy. However, it does not follow that just because a position is consonant with Church doctrine that it has no philosophical basis. As a matter of fact, Aquinas provides several philosophical arguments why the soul must be created. All of Aquinas's arguments for the creation of the rational soul are based upon his conception of the rational soul, so before we look at his arguments for the creation of the soul, let us look at Aquinas's conception of the rational soul.

Aquinas's Rational Soul

Following Avicenna, Aquinas conceives the rational soul as a *spiritual substance* in a qualified sense.[30] Aquinas does not follow Avicenna completely. When asked whether or not the rational soul is a *hoc aliquid* (a particular existent), Aquinas responds that the soul in a qualified sense is a particular existent inasmuch as it is able to subsist

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29. Aquinas, *QDPot*, Q. 3, A. 9, Response: Respondeo....Quidam namque dicebant, animam filii ex parentis anima propagari, sicut et corpus propagatur ex corpore. Alii vero dicebant, omnes animas seorsum creari; sed ponebant a principio eas extra corpora fuisse creatas simul, et post modum corporibus seminatis coniungebantur, vel proprio motu voluntatis, secundum quosdam, vel deo mandante et faciente, secundum alios. Alii vero dicebant, animas simul cum creantur, corporibus infundi. Quae quidem opiniones, quamvis aliquo tempore sustinerentur, et quae earum esset verior in dubium verteretur, ut patet ex Augustino, et in libris quos scribit de origine animae; tamen primae duae postmodum iudicio ecclesiae sunt damnatae, et tertia approbata; unde dicitur in Lib. De ecclesiasticis dogmatibus

30. Aquinas, *DeSpiCr*, A. 2, Response: In quantum igitur supergreditur esse materiae corporalis, potens per se subsistere et operari, anima humana est substantia spiritualis; Aquinas, *SCG*, Bk. 2, Ch. 77: Habet enim substantia animae humanae immaterialitatem, et, sicut ex dictis (cap. 68) patet, ex hoc habet naturam intellectualem: quia omnis substantia immaterialis est huiusmodi.

per se; however, it is not a particular existent inasmuch as it is a completed species in itself; rather, it completes the human species as the form of the body, and when it does so, the composite is a particular existent.[31] In other words, in a *qualified* sense, the soul is a substance because it can exist *per se*. However, in an *unqualified* sense, the soul is not a substance; rather, the composite of soul and body is a substance. This distinction allows Aquinas to safeguard the immortality of the soul because the soul exists *per se* as a spiritual substance. It also allows him to assert that the soul is the form of the body. However, it is not self-evident how Aquinas can maintain that the soul is the form of the body *and* simultaneously maintain that it is a spiritual substance. In order to see how this is possible, one needs to contrast the metaphysical composition of hylomorphic$_3$ entities with the metaphysical composition of hylomorphic$_4$ entities.

The composition of hylomorphic$_3$ entities is different from the composition of hylomorphic$_4$ entities. In Thomas's metaphysical system, hylomorphic$_3$ entities undergo a two-fold composition. Matter and form undergo a composition, which gives rise to substance (i.e., essence) then essence and existence involve composition, which gives rise to a hylomorphic$_3$ entity.[32] In contradistinction, hylomorphic$_4$ entities also undergo a two-fold composition, but they differ in the order of composition. Hylomorphic$_4$ entities involve an act-potency composition, which gives rise to a subsisting spiritual substance, the rational soul.[33] This spiritual substance then serves as a substantial form and

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31. Aquinas, *QDAnima*, Pro. Art 1: Relinquitur igitur quod anima est hoc aliquid, ut per se potens subsistere; non quasi habens in se completam speciem, sed quasi perficiens speciem humanam ut forma corporis; et similiter est forma et hoc aliquid.

32. Aquinas, *SCG*, Bk. 2, Ch. 54: In substantiis autem compositis ex materia et forma est duplex compositio actus et potentiae: prima quidem ipsius substantiae, quae componitur ex materia et forma; secunda vero ex ipsa substantia iam composita et esse, quae etiam potest dici ex quod est et esse; vel ex quod est et quo est; In this context, terms such as "then" and "afterwards" denote ontological priority not temporal priority.

33. Aquinas, *SCG*, Bk. 2, Ch. 54: "In substantiis autem intellectualibus, quae non sunt ex materia et forma compositae, ut ostensum est, sed in eis ipsa forma est substantia

undergoes a hylomorphic composition with matter; this composition give rises to hylomorphic$_4$ entities.[34] Note well, it is not *solely* the essence-existence distinction that accounts for the *per se* subsistence of the soul because hylomorphic$_3$ entities also undergo an essence-existence composition. Rather, it is also the *order* in which existence is received that accounts for the *per se* existence of the soul. Consider the following: hylomorphic$_3$ entities are corruptible because form-matter composition constitutes the essence of a hylomorphic$_3$ entity, and the essence stands in potency to receiving the actuality of existence. However, if the form-matter composition is dissolved, there is no essence that stands in potency to receiving the actuality of existence, so the hylomorphic$_3$ entity ceases to be. In contradistinction, a hylomorphic$_4$ entity undergoes an act-potency composition (that gives rise to the rational soul) and then the rational soul undergoes composition with matter. Therefore if the form (i.e., the spiritual substance that is composed of essence and existence) and matter composition is dissolved, that which

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subsistens, forma est quod est, ipsum autem esse est actus et quo."

Even though the reference to spiritual substance applies to angels in this context, nevertheless, Aquinas also applies the same characteristics to human souls, and he cites the intellectual substance (i.e., angels) to substantiate the dual composition in Aquinas, *SCG*, Bk. 2, Ch. 68 : Non autem impeditur substantia intellectualis, per hoc quod est subsistens, ut probatum est (cap. 51), esse formale principium essendi materiae, quasi esse suum communicans materiae. Non est enim inconveniens quod idem sit esse in quo subsistit compositum et forma ipsa: cum compositum non sit nisi per formam, nec seorsum utrumque subsistat.

Clearly, Aquinas is not stating that nothing impedes an angel (*substantia intellectualis*) from being the formal principle of material being. Rather, he is stating that nothing impedes the rational soul (*substantia intellectualis*) from being the formal principle of material being, and he is referring to angels (*substantia intellectualis*) to substantiate hylomorphism$_4$.

34. Notice that both forms of hylomorphism meet the conditions that must be met by a substantial form: (1) The substantial form must be the principle of being of the hylomorphic entity of which it is the form. That is to say, the substantial form must be intrinsic to the hylomorphic entity and must provide the actuality by which the hylomorphic entity is a being. Without the substantial form, the hylomorphic entity cannot be. (2) Form and matter come together to produce one being. Refer to note:12 on page 129.

received existence, the rational soul, continues to exist, for it was never dependent on matter for its existence.[35] Rather, matter was dependent on the form to communicate its actuality to the matter. For Aquinas, only God can destroy the rational soul simply because no creature has the ability to create *ex nihilo* or to annihilate and because there is a relationship of necessity between the immaterial and its *esse*. Properly speaking, annihilation does not require an efficient cause; rather, it requires God to cease keeping the creature in existence. In other words, it requires the cessation of the efficient cause.[36]

Now, I grant that Aristotle did not have an essence-existence distinction, but my purpose here is not to prove or disprove the essence-existence distinction, for to do so is beyond the scope of the dissertation. Rather, my purpose here is to convey how Aquinas can maintain that the soul is the form of the body and simultaneously maintain that the soul is a spiritual substance. What he does is not found in Aristotle, but, like Avicenna's solitary substance, and Averroes' fourth kind of being, Aquinas is attempting to reconcile the aporia in an innovative fashion; this new form of hylomorphism$_4$ allows him philosophically to resolve the aporia while simultaneously remaining consonant to Catholic doctrine and to the "letter" (but at times not to the spirit) of Aristotle. Having

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35. Aquinas, *QDAnima*, Q. 14, p. 126: Si igitur sit aliqua forma que sit habens esse, necesse est illam formam incorrputibilem esse non enim separatur esse ab aliquo habente esse nisi per hoc quod separatur forma ab eo. Vnde si id quod habet esse sit ipsa forma, impossibile est quod esse separetur ab eo . . . Relinquitur ergo quod principium intellectiuum quo homo intelligit sit forma habens esse. Vnde necesse est quod sit incorruptibilis.

36. Pasnau, *Thomas Aquinas On Human Nature*, 365–66; Aquinas, *QDPot*, Q. 5, A. 3, Response: Relinquitur ergo quod non est impossibile deum res ad non esse reducere; cum non sit necessarium eum rebus esse praebere, nisi ex suppositione suae ordinationis et praescientiae, quia sic ordinavit et praescivit, ut res in perpetuum in esse teneret; Aquinas, *QDPot*, Q. 5, A. 3, RA. 15: Ad decimumquintum dicendum, quod in nulla creatura est virtus quae possit vel de nihilo aliquid facere vel aliquid in nihilum redigere. Quod autem creaturae in nihilum redigerentur divina conservatione cessante, hoc non esset per aliquam actionem creaturae, sed per eius defectum, ut ex praedictis patet.

understood how Aquinas can philosophically conceive the soul as a spiritual substance, we can now look at his arguments for the *creation* of the soul, not as a theological doctrine, but as a philosophical doctrine.

Aquinas gives at least four philosophical reasons why the human soul must be created by God. The first reason has to deal with the nobility of the agent to the patient. An agent is said to be nobler than a patient in the same manner that act is nobler than potency. Inasmuch something is more immaterial, to that degree it is nobler. Therefore, an effect cannot be more immaterial than its cause. Given that the mixture of elements cannot give rise to a cognitive power, *a fortiori*, it is impossible for the mixture of matter to give rise to the possible intellect, an immaterial power in the rational soul. Otherwise, an effect would be more immaterial than its cause.[37] The second reason is similar to the first. It is impossible for the action of a bodily power to be elevated to a wholly spiritual power and to be able to cause the incorporeal, for nothing operates beyond its species. Therefore, the agent must be higher than the patient. The generation of humans happens through a generative power, which has a corporeal organ, which is the semen, which only acts by instrumental heat. Hence, since the rational form is wholly spiritual, neither depending on the body nor communicating with the body in [its] operation,[38] in no way is

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37. Aquinas, *SCG*, Bk. 2, Ch. 62: Adhuc. Agens est nobilius patiente et faciens facto, sicut actus potentia. Quanto autem aliquid est immaterialius, tanto est nobilius. Non potest igitur effectus esse immaterialior sua causa. Omnis autem virtus cognoscitiva, inquantum huiusmodi, est immaterialis: unde et de sensu, qui est infimus in ordine virtutum cognoscitivarum, dicit Aristoteles, in II de anima, quod est susceptivus sensibilium specierum sine materia. Impossibile est igitur a commixtione elementorum causari aliquam virtutem cognoscitivam. Intellectus autem possibilis est suprema virtus cognoscitiva in nobis: dicit enim Aristoteles, in III de anima, quod intellectus possibilis est quo cognoscit et intelligit anima. Intellectus igitur possibilis non causatur ex commixtione elementorum.

38. Although not explicit in the text, the operation that is being alluded to is intellection. It is evident from other texts that the soul informs the body and actuates the body so that the body is able to operate with the soul as the intrinsic formal cause of the body.

it able to be propagated with the generation of the body, nor can it be brought into being through some power, which is in the semen.[39] The third reason that the soul cannot be generated pertains to its mode of being. The rational soul is different from other substantial forms because it is *per se* subsisting. Since a thing is only able to perform an action according to its mode of being, the action of any entity tells us something about its mode of being. Given that the rational soul has operations (e.g., willing and understanding) that do not use a corporeal organ, it is evident that it is *per se* subsisting.[40] That which is *per se* subsisting does not derive its existence from matter, so it is not educed from the potency of matter.[41] The fourth reason is that generation arises from contraries according to the Philosopher (i.e., Aristotle). Since the soul is either completely immaterial or at least does not have material subject as a contrary, it cannot

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39. Aquinas, *QDPot*, Q. 3, A. 9, Response: Secunda ratio est, quia impossibile est actionem corporeae virtutis ad hoc elevari quod virtutem penitus spiritualem et incorpoream causare possit; nihil enim agit ultra suam speciem; immo agens oportet esse praestantius patiente, secundum Augustinum.Generatio autem hominis fit per virtutem generativam, quae organum habet corporale; virtus etiam quae est in semine, non agit nisi mediante calore, ut dicitur in XVI de animalibus; unde, cum anima rationalis sit forma penitus spiritualis, non dependens a corpore nec communicans corpori in operatione, nullo modo per generationem corporis potest propagari, nec produci in esse per aliquam virtutem quae sit in semine.

40. Aquinas, *QDPot*, Q. 3, A. 9, Response: rationalis anima in hoc a ceteris formis differt, quod aliis formis non competit esse in quo ipsae subsistant, sed quo eis res formatae subsistant; anima vero rationalis sic habet esse ut in eo subsistens; et hoc declarat diversus modus agendi. Cum enim agere non possit nisi quod est, unumquodque hoc modo se habet ad operandum vel agendum, quomodo se habet ad esse; unde, cum in operatione aliarum formarum necesse sit communicare corpus, non autem in operatione rationalis animae, quae est intelligere et velle; necesse est ipsi rationali animae esse attribui quasi rei subsistenti.

41. Aquinas, *S.T.*, Ia, Q. 90, A. 2, RA. 2, p.560b12–20: Ad secundum dicendum quod actum extrahi de potentia materiae, nihil aliud est quam aliquid fieri actu, quod prius erat in potentia. Sed quia anima rationalis non habet esse suum dependens a materia corporali, sed habet esse subsistens, et excedit capacitatem materiae corporalis, ut supra dictum est; propterea non educitur de potentia materiae.

be made from something (i.e., cannot be generated). Hence, it remains that it is created *ex nihilo*.[42] The notion that the soul is created *ex nihilo* is a necessary conclusion from Aquinas's metaphysical principles. Since a thing can either be produced *ex materia* or *ex nihilo*, and the material cannot give rise to the immaterial, it follows that the soul can only be created *ex nihilo*. Moreover, creation *ex nihilo* requires an infinite amount of power, for the distance between nothing and being is infinite.[43] Thus, in Aquinas's metaphysical framework, only a being with infinite power, God, can create the rational soul, a spiritual substance.

The rational soul has unique characteristics among all the spiritual substances. First, it is the only form of a body that can subsist separate from matter.[44] Second, it is the lowest grade of intellectual substance; it stands on the edge between the incorporeal (inasmuch as it is a spiritual substance) and the corporeal (inasmuch as it is the form of the body).[45] This characteristic that it stands in the gap between the corporeal or

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42. Aquinas, *QDPot*, Q.3, A. 9, Response: Generationes enim ex contrariis sunt, secundum philosophum: unde cum anima vel omnino materiam non habeat, vel ad minus non habeat materiam contrarietati subiectam, non potest fieri ex aliquo. Unde restat quod exeat in esse per creationem, quasi ex nihilo facta.

43. Aquinas, *S.T.*, Ia Q. 45, A. 5, RA 3: Si enim tanto maior virtus requiritur in agente, quanto potentia est magis remota ab actu, oportet quod virtus agentis ex nulla praesupposita potentia, quale agens est creans, sit infinita, quia nulla proportio est nullius potentiae ad aliquam potentiam, quam praesupponit virtus agentis naturalis, sicut et non entis ad ens. Et quia nulla creatura habet simpliciter potentiam infinitam, sicut neque esse infinitum, ut supra probatum est, relinquitur quod nulla creatura possit creare.

44. Aquinas, *QDPot*, Q. 3, A. 11, Response: Ab hac autem generalitate formarum oportet excludere animam rationalem. Ipsa enim est substantia per se subsistens; unde esse suum non consistit tantum in hoc quod est materiae uniri; alias separari non posset.

45. Aquinas, *SCG*, Bk. 2, Ch. 68: Est igitur accipere aliquid supremum in genere corporum, scilicet corpus humanum aequaliter complexionatum, quod attingit ad infimum superioris generis, scilicet ad animam humanam, quae tenet ultimum gradum in genere intellectualium substantiarum, ut ex modo intelligendi percipi potest. Et inde est quod anima intellectualis dicitur esse quasi quidam horizon et confinium corporeorum et incorporeorum, inquantum est substantia incorporea, corporis tamen forma.

incorporeal is essential to Aquinas's epistemology. Without this characteristic, Aquinas's epistemology would crumble, for if the soul were solely a spiritual substance and not the form of the body, Aquinas would have to opt for a solution akin to Avicenna's solution. On the other hand, if the soul were solely the form of the body and not a spiritual substance, then he would have to opt for a solution like Averroes'. What is still not clear is how can the soul, a spiritual substance, undergo a hylomorphic composition with matter and still receive intelligibles. Wouldn't the composition with matter preclude its ability to receive intelligibles, for on the reception of an intelligible form into the soul, would it not also be received in matter? In order to understand how the reception of intelligibles is possible, let us examine how Aquinas describes the relationship between the rational soul and the body.

Aquinas describes the relationship of the soul to the body by means of affirmation and negation. By means of negation, Aquinas mentions that the soul is not totally *immersed* in matter as are other natural forms.[46] It is not *impressed* in matter as are other natural forms.[47] The soul is not able to be totally engulfed and confined to matter.[48] In

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46. Aquinas, *SCG*, Bk. 2, Ch. 69: Non autem oportet substantiam intellectualem esse formam materialem, quamvis esse eius sit in materia: ut tertia ratio procedebat. Non enim est in materia sicut materiae immersa, vel a materia totaliter comprehensa, sed alio modo, ut dictum est.

47. Aquinas, *Sent*, Bk. 2, D. 18, Q. 2, A. 1, RA 6: "Ad sextum dicendum, quod anima rationalis nec ex materia composita est, nec est forma materialis, quasi in materia impressa." The notion that the soul is not impressed in matter is almost a direct quotation from Avicenna who asserts, "anima non est impressa in corpore aliquo modo." Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 4, p. 115; the notion that the soul is not submersed in matter is also found in Avicenna. Avicenna stated, "non quod anima sit impressa corpori vel submersa in eo." Avicenna, *Liber de philosophia prima sive scientia divina*, Vol. 2, p. 518; given the likeness in terminology between Aquinas and Avicenna, it would be easy to see why some people may consider Aquinas a substance dualist like Avicenna.

48. Thomas Aquinas, *Quaestiones disputatae de virtutibus* (Rome: Leonine Commission, 1972), Q. 1, A. 10, Response: Unde anima rationalis, quae immediate a deo

addition, he also asserts that the rational soul is not totally engulfed (*totaliter comprehensa*) by matter, but it is related in some other way.[49] By means of affirmation, he will assert that the human soul surpasses corporeal matter; nevertheless, in some manner the soul comes into contact with the body.[50] He will also assert the rational soul surpasses the relationship of the body.[51]

The notion that the soul surpasses the relationship with the body and is not immersed in matter may lead one to think that Aquinas is following Avicenna's substance dualism, for both thinkers assert that the rational soul is a spiritual substance and that it is not immersed in matter. Aquinas borrows the notion that the soul is not immersed in matter from Avicenna, and he transforms the notion to conform to his reformulation of hylomorphism$_4$.[52] However, to ascribe to Aquinas substance dualism would be unwarranted for at least three reasons. First, Thomas argues against Avicenna's and Plato's substance dualist positions. For if a human were a rational soul using a body,

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causatur, excedit capacitatem suae materiae, ita quod materia corporalis non totaliter potest comprehendere et includere ipsam. For the semantic range of *includere* refer to Deferrari, *A Lexicon of St. Thomas Aquinas*, p. 530.

49. Aquinas, *SCG*, Bk. 2, Ch. 69: Non autem oportet substantiam intellectualem esse formam materialem, quamvis esse eius sit in materia: ut tertia ratio procedebat. Non enim est in materia sicut materiae immersa, vel a materia totaliter comprehensa, sed alio modo.

50. Aquinas, *DeSpiCr*, A. 2, Response: oportet quod esse animae humanae superexcedat materiam corporalem, et non sit totaliter comprehensum ab ipsa, sed tamen aliquo modo attingatur ab ea.

51. Aquinas, *DeSpiCr*, A. 2, RA 19: Ad decimumnonum dicendum quod ex anima humana et corpore ita fit unum, quod tamen anima superexcedat corporis proportionem.

52. See foonote 47 on page 145. To see that Aquinas acquires this notion from Avicenna, Refer to Aquinas, *Sent*, Bk. 1, D. 3, Q. 4, A. 1, Response: Cum igitur natura animae sit receptibilis inquantum habet aliquid de possibilitate, eo quod omne habens esse ab aliquo est possibile in se, ut probat Avicenna, et non sit impressa organo corporali, cum habeat operationem absolutam a corpore, scilicet intelligere.

humans would not be animals, they would be what uses animals. Moreover, humans would not be sentient beings, but they would be using sentient beings.[53] Second, Aquinas explains that the soul cannot be united as a mixture with the body, nor can it be united by means of contact in a proper sense.[54] He entertains the notion that the soul may be united to the body merely by contact of power, which he models after the heavenly bodies.[55] Yet, he ultimately rejects this position, and he ascribes the contact of power position to

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53. Aquinas, *SCG*, Bk. 2, Ch. 58: Amplius. Si homo, secundum Platonis sententiam, non est aliquid ex anima et corpore compositum, sed est anima utens corpore.... Si autem hoc intelligatur de anima intellectiva tantum, ita scilicet quod intelligatur anima sensitiva esse forma corporis, et anima intellectiva utens corpore animato et sensificato sit homo, sequentur adhuc inconvenientia: scilicet quod homo non sit animal, sed utatur animali, nam per animam sensitivam aliquid est animal; et quod homo non sentiat, sed utatur re sentiente.

54. Aquinas, *SCG*, Bk. 2, Ch. 56: Est autem primo manifestum quod substantia intellectualis non potest corpori uniri per modum mixtionis. Quae enim miscentur, oportet ad invicem alterata esse. Quod non contingit nisi in his quorum est materia eadem, quae possunt esse activa et passiva ad invicem. Substantiae autem intellectuales non communicant in materia cum corporalibus: sunt enim immateriales, ut supra ostensum est. Non sunt igitur corpori miscibiles. Adhuc. Quae miscentur, mixtione iam facta, non manent actu, sed virtute tantum: nam si actu manerent, non esset mixtio, sed confusio tantum; unde corpus mixtum ex elementis nullum eorum Est. Hoc autem impossibile est accidere substantiis intellectualibus: sunt enim incorruptibiles, ut supra ostensum est. Non igitur potest substantia intellectualis uniri corpori per modum mixtionis. Similiter autem patet quod substantia intellectualis non potest uniri corpori per modum contactus proprie sumpti. Tactus enim non nisi corporum est: sunt enim tangentia quorum sunt ultima simul, ut puncta aut lineae aut superficies, quae sunt corporum ultima. Non igitur per modum contactus substantia intellectualis corpori uniri potest.

55. Aquinas, *SCG*, Bk. 2, Ch. 56: Si attendatur ad actionem et passionem, invenientur aliqua esse tangentia tantum et aliqua tacta tantum: corpora enim caelestia tangunt quidem hoc modo elementaria corpora, inquantum ea alterant: non autem tanguntur ab eis, quia ab eis non patiuntur....Hoc igitur modo tangendi possibile est uniri substantiam intellectualem corpori per contactum. Agunt enim substantiae intellectuales in corpora et movent ea, cum sint immateriales et magis in actu existentes. Hic autem tactus non est quantitatis, sed virtutis.

Plato.[56] The third reason that Aquinas cannot be affirming some form of substance dualism is his understanding of what it means for an intellectual substance to be "separate." Historically, those who followed Aristotle's dictum that intellect must be separate had understood "separate" to mean ontologically separate. For Aquinas, however, that "separate" in this case does not connote ontological separation; instead, it connotes an operation or action that is done without the use of a corporeal body.[57] Thus, the notion that the soul surpasses its relationship with the body and is not immersed in matter does not entail some form of substance dualism. So, what does Aquinas mean that the rational soul is not immersed in matter?

In another text, Aquinas clarifies what he means when he asserts that something is immersed in matter. He says:

> To say that the intellect is a form that is not subsisting, but is immersed in matter, is the same in reality as, and to differ only in name from, to say that the intellect is composed of form and matter. It differs only in name, for in the first manner, the intellect is said to be the form of the composite; in the second manner, the intellect will be said to a composite. Therefore, if it is false that the intellect is composed from matter and form, then it will be false that it is a form not subsisting but material.[58]

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56. Aquinas, *SCG*, Bk. 2, Ch. 57: Plato igitur posuit, et eius sequaces, quod anima intellectualis non unitur corpori sicut forma materiae, sed solum sicut motor mobili, dicens animam esse in corpore sicut nautam in navi.Et sic unio animae et corporis non esset nisi per contactum virtutis, de quo supra dictum Est. Hoc autem videtur inconveniens.

57. Aquinas, *SCG*, Bk.2,Ch. 69: Nec tamen per hoc quod substantia intellectualis unitur corpori ut forma, removetur a philosophis dicitur, intellectum esse a corpore separatum....Si autem operatio eius non compleatur per organum corporale, potentia eius non erit actus alicuius corporis. Et per hoc dicitur intellectus esse separatus: non quin substantia animae cuius est potentia intellectus, sive anima intellectiva, sit corporis actus ut forma dans tali corpori esse.

58. Aquinas, *SCG*, Bk. 2, Ch. 5: Praeterea. Dicere quod intellectus sit forma non subsistens sed materiae immersa, idem est secundum rem et si dicatur quod intellectus sit compositus ex materia et forma, differt autem solum secundum nomen: nam primo modo, dicetur intellectus ipsa forma compositi; secundo vero modo, dicetur intellectus ipsum compositum. Si igitur falsum est intellectum esse compositum ex materia et forma,

Immersion in matter is tantamount to the composition of form and matter. Thus, in asserting that the intellect is not immersed in matter, Aquinas is denying that the intellect is composed of form and matter. However, this seems to be problematic because for Aquinas the rational soul is a simple substance in a qualified sense.[59] By definition, an absolutely simple substance is not composed of *parts*.[60] If the soul is the substantial form of the body as Aquinas asserts, then it would seem to follow that if *part* of the soul underwent a hylomorphic composition with matter, then the *entire* soul would undergo a hylomorphic composition with matter because there are no parts in a simple substance. Furthermore, if the entire soul underwent a hylomorphic composition with matter, then the agent intellect and the possible intellect, active and passive powers of the soul, would also undergo composition with matter. Consequently, the intellect would be immersed in matter like all the other material forms. Yet, Aquinas repeatedly denies that the soul is immersed in matter, and he affirms that the rational soul is a spiritual, intellectual, substantial form that communicates existence to the matter.[61] How should one understand

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falsum erit quod sit forma non subsistens sed materialis.

59. Aquinas, *SCG*, Bk. 2, Ch. 72: Non est autem inconveniens animam, cum sit quaedam forma simplex, esse actum partium tam diversarum. Quia unicuique formae aptatur materia secundum suam congruentiam. Quanto autem aliqua forma est nobilior et simplicior, tanto est maioris virtutis. Unde anima, quae est nobilissima inter formas inferiores, etsi simplex in substantia, est multiplex in potentia et multarum operationum. Unde indiget diversis organis ad suas operationes complendas, quorum diversae animae potentiae proprii actus esse dicuntur: sicut visus oculi, auditus aurium, et sic de aliis.

60. For Aquinas only God is simple *simpliciter*. All other entities are composed of essence and existence. Aquinas, *Sent*, Bk. 1, D. 8, Q. 5, A. 2, RA 4: dictum est verum de forma quae est ita simplex quod etiam est suum esse, sicut est deus: et talis simplicitas nec in anima nec in Angelo est.

61. Aquinas, *SCG*, Bk. 2, Ch. 68: Non autem impeditur substantia intellectualis, per hoc quod est subsistens, ut probatum est, esse formale principium essendi materiae, quasi esse suum communicans materiae. Non est enim inconveniens quod idem sit esse in quo subsistit compositum et forma ipsa: cum compositum non sit nisi per formam, nec seorsum utrumque subsistat.

the relation of the soul to the body?

If one considers the five conditions that must be satisfied for intellection to be inherent in man, Aquinas's position becomes clear. First, the rational soul must be the substantial form of the body. Aquinas repeatedly asserts that in order for intellection to be attributed to this or that person, intellection must arise from a person's substantial form.[62] Second, the rational soul must be a spiritual, immaterial substance as already stated above. Third, the active power that transforms intelligibles in potency to intelligibles in act must be an immaterial power, for nothing material can cause that which is immaterial, the intelligible in act.[63] Fourth, the passive power that receives the intelligible in act must be immaterial.[64] Fifth, intelligibles in act cannot be things existing outside individual minds.[65] Consequently, intelligibles in act must be able to be multiplied.

If one considers the aforementioned conditions, one finds that as a substantial

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62. Aquinas, *QDAnima*, Q.2, N. 325, p. 19: Et sic salvatur natura intellectus possibilis, quam Aristoteles demonstrat, dum intellectus possibilis non est potentia fundata in aliquo organo corporali; et tamen eo intelligit homo formaliter, in quantum fundatur in essentia animae humanae, quae est hominis forma; Aquinas, *SCG*, Bk. 2, Ch. 68: Ad hoc enim quod aliquid sit forma substantialis alterius, duo requiruntur. Quorum unum est, ut forma sit principium essendi substantialiter ei cuius est forma: principium autem dico, non factivum, sed formale, quo aliquid est et denominatur ens; Aquinas, *DeSpiCr*, A.2, N. 170–72, p. 24: Oportet igitur principium huius operationis quod est intelligere, formaliter inesse huic homini.

63. Aquinas, *S.T.*, Ia Q. 84, A. 6, Response: Nihil autem corporeum imprimere potest in rem incorpoream.

64. Aquinas, *S.T.*, Q. 79, A. 3, RA. 3, p. 482b-483a: Et ideo ad intelligendum non sufficeret immaterialitas intellectus possibilis, nisi adesset intellectus agens, qui faceret intelligibilia in actu per modum abstractionis.

65. Aquinas, *S.T.*, Ia. Q. 79, A. 3, p.482b-483a: Intelligibile autem in actu non est aliquid existens in rerum natura, quantum ad naturam rerum sensibilium, quae non subsistunt praeter materiam.

form, the entire rational soul is present to the body and to each part of the body.[66] Thus, any operation that is completed by a bodily organ requires the power of the soul, which is the principle of that operation. Nevertheless, the action belongs primarily to that part of the body through which the operation is performed. For example, vision is the act of the eye.[67] Thus, in any corporeal operation both matter (i.e., the body) and form (i.e., the rational soul) are necessary conditions to give rise to a bodily operation.

In contradistinction, for intellection to occur, only immaterial powers may be used (i.e., no corporeal organ can be used properly speaking). There is nothing to prevent a spiritual substance from performing an action without a bodily organ while hylomorphically united to matter. Nonetheless, it might appear that the same cannot be said concerning the reception of intelligibles. If the matter of the body is present to the entire soul, when an intelligible form is received into the possible intellect, it would also be received into matter. In order to avoid this situation, it is necessary that the matter of the body not be present to the entire soul. So, there is a part of the soul that transcends the body, but is not by nature ontologically separate from the body. The part of the soul that transcends the body is capable of receiving intelligible forms, which Aquinas calls intelligible species. Inasmuch as there is a part of the soul to which matter is not present, the soul is said to transcend and surpass matter, and it is also said not to be engulfed in matter. In other words, hylomorphism$_4$ allows the entire soul to be present to the body (i.e., the matter), but it does not allow the entire body (i.e., the matter) to be present to the entire soul. Hylomorphism$_4$ has allowed Aquinas to assert that the soul informs the body

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66. Aquinas, *SCG*, Bk. 2, Ch. 72: Per eadem autem ostendi potest animam totam in toto corpore esse, et totam in singulis partibus.... in qualibet forma apparet quod est tota in toto et tota in qualibet parte eius.

67. Aquinas, *SCG*, Bk. 2, Ch. 69: Si igitur operatio animae per organum corporale completur, oportet quod potentia animae quae est illius operationis principium, sit actus illius partis corporis per quam operatio eius completur: sicut visus est actus oculi.

and is involved in bodily operations; it also has allowed him to assert that there is an immaterial aspect of the soul that is unaffected by matter, so it has the ability to receive intelligible forms.[68]

Nevertheless, hylomorphism$_4$ is a two-edged sword because if there is an aspect of the soul that is not mixed with matter, then the material world cannot affect that part of the soul. Hylomorphism$_4$ has created an ontological rift between the body and the intellect, which is located in the part of the soul that is not affected by the body. Thus, nothing from the material world is able to impress itself directly upon the possible intellect, the receptive power of the soul that is intended to receive intelligibles. Consequently, phantasms which are imaginative forms residing in a material organ cannot impress themselves on the intellect because the order of being of the imagination is ontologically inferior (i.e., material) to the order of being of the intellect (i.e., immaterial).

By taking the best of Averroes (the form of the body) and the best of Avicenna (the soul is a spiritual substance), Aquinas has also inherited their problems. Consider the following. Avicenna has a rift between the material world and the immaterial world and in his psychology only the material can affect the material, and only the immaterial can affect the immaterial.[69] On the other hand, Averroes must affirm two subjects and connect them by means of what Aquinas calls the phantasm. Aquinas has already dealt with these positions. In order to solve the problems raised by these positions, he will *need* a vehicle for conveying the *ratio* or intention in the phantasm to the possible intellect. He

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68. Aquinas, *DeSpiCr*, A. 2, RA 19: Ad decimumnonum dicendum quod ex anima humana et corpore ita fit unum, quod tamen anima superexcedat corporis proportionem; et ex ea parte qua corpus excedit, attribuitur ei potentia intellectiva. Unde non oportet quod species intelligibiles quae sunt in intellectu, recipiantur in materia corporali.

69. Sebti, "Le Statut Ontologique de l'Image dans la Doctrine Avicennienne de la Perception," p. 139.

will also *need* a power that is able to transfer the *ratio* from a material mode of being to an immaterial mode of being. Hence, the necessity of intelligible species, which serves as the vehicle that conveys the *ratio* from the imagination, and hence, the need of the agent intellect; for although a material entity or power cannot affect an immaterial entity or power, nevertheless, an immaterial entity is able to affect a material entity.

In sum, there are two kinds of hylomorphism for Aquinas: hylomorphism$_3$ and hylomorphism$_4$. These forms of hylomorphism differ in their source: Hylomorphism$_3$ entities are educed from the potency of matter by natural agents via natural powers, whereas hylomorphism$_4$ entities are created directly by God inasmuch as God creates the rational souls. These kinds of hylomorphism also differ in their composition: Hylomorphism$_3$ entities are composed of form and matter, which together gives rise to an essence, and the essence in turn is composed with existence, whereas hylomorphic$_4$ entities are composed of essence and existence and then the subsisting, rational, immaterial soul undergoes a composition with matter, giving rise to a rational, hylomorphic entity. They also differ in how form and matter are related: hylomorphic$_3$ entities are immersed in matter in such a manner that matter is present to the whole substantial form, and the whole substantial form is present to matter so that any operation performed by hylomorphic$_3$ entities arises from the form *and* the matter. On the other hand, hylomorphic$_4$ entities are not immersed in matter. That is to say, although there is a form-matter composition, the entire rational soul is present to the matter, but matter is not present to the entire soul, for there is a part of the soul that transcends matter making it possible for the soul to receive intelligible forms. Hylomorphism$_4$ makes it possible for the soul to receive intelligible forms, which can be multiplied, but it creates a gap between the body and that part of the soul that transcends matter. In order to bridge this gap, Aquinas must introduce intelligibles species. Finally, these two kinds of hylomorphic entities differ in terms of their finality: a hylomorphic$_3$ entity ceases to exist

when there is the dissolution between the form and the matter, whereas hylomorphic$_4$ entity continues to exist even after dissolution of the form-matter composition. Aquinas's hylomorphism$_4$ differs from Aristotle's inasmuch as (1) it has a different origin (i.e., Aristotle's generation vs. Aquinas's creation); (2) they are metaphysically different (i.e., Aristotle's hylomorphism immersed in matter vs. Aquinas's hylomorphism not immersed in matter) and (3) their differ in their finality (i.e., Aristotle's mortal soul vs. Aquinas's immortal soul). Having covered hylomorphism, let us take a look at how Aquinas's epistemology functions.

Aquinas and Sensation

For Aquinas, all our knowledge begins from the senses.[70] Moreover, knowing is the formal identity between the known and the knower, for the known is in the knower according to the mode of the knower.[71] For example, when one senses a stone, the stone comes to be in the knower according to the mode of being of the knower. Thus, it is not the case that the stone itself is in the knower; instead, the *species* of the stone is in the knower.[72] The term "species"requires some explanation. So, in this section, I examine (1) the notion of species (2) what are the various ways that abstraction is used in Aquinas, (3) external senses and the internal senses.

As we have seen in both Avicenna and Averroes, there are two kinds of forms: natural forms and intentional forms. Natural forms communicate some quality or quantity

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70. Thomas Aquinas, *Commentaria in octo libros physicorum* (Romae: Ex Typographia Polyglotta S.C. de Propaganda Fide, 1884), Bk. 2, L. 4, N. 6: Omnis autem nostra cognitio est per sensus a rebus sensibilibus et naturalibus accepta.

71. Aquinas, *S.T.*, Ia Q. 14, A. 1, RA. 3: Scientia est secundum modum cognoscentis, scitum enim est in sciente secundum modum scientis.

72. Aquinas, *S.T.*, Ia Q. 76, A. 2, RA. 4: Id enim quod intelligitur non est in intellectu secundeum se, sed secundum suam similitudinem, lapis enim non est in anima, sed species lapidis.

to a material object. For example, the form of heat communicates heat to an object. In contradistinction to natural forms, intentional forms are those forms that inform the sense or the intellect by communicating a sensible or intelligible content. Avicenna referred to intentional forms as forms denuded from matter in some way. Averroes, on the other hand, referred to intentional forms as intentions. Intentional forms are abstractions (i.e., forms separated from matter in some sense).

As do his predecessors, Aquinas makes a distinction between natural and intentional forms. For Aquinas natural forms and intentional forms cause two different kinds of changes. Natural forms are received into a subject according to natural being in the manner that heat is received into a heated subject. In other words, a physical quality is transferred from *that which is acting* to *that which is being acted upon*.[73] For example, were blue paint thrown at an eye, the eye would *become* blue. Intentional forms, in contradistinction, cause a spiritual change.[74] In a spiritual change, the form of the agent is received into a subject according to a spiritual manner of being. For example, were blue paint thrown at an eye, before the eye becomes colored blue, the eye would *perceive* blue. For the sense to operate, this spiritual change is required so that an *intention* of the sensible form informs the sense organ. The distinction between natural and spiritual change is necessary; otherwise, were natural change sufficient to account for sensing, then all natural bodies would sense when they underwent a change.[75] Thus, some other

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73. Aquinas, *S.T.*, Ia Q. 78, A. 3, Response: Est autem duplex immutatio, una naturalis, et alia spiritualis. Naturalis quidem, secundum quod forma immutantis recipitur in immutato secundum esse naturale, sicut calor in calefacto.

74. In this context, "spiritual" should not be taken to mean immaterial as if the species were a some type of ghostly apparition. Cf. Stump, *Aquinas*, p. 249; Cf. Miles Burnyeat, "Aquinas on 'Spiritual Change' in Perception," in *Ancient and Medieval Theories of Intentionality* (Leiden, Netherlands: Brill, 2001), p. 129–53.

75. Aquinas, *S.T.*, Q. 78, A. 3, Response: Ad operationem autem sensus requiritur immutatio spiritualis, per quam intentio formae sensibilis fiat in organo sensus. Alioquin, si sola immutatio naturalis sufficeret ad sentiendum, omnia corpora naturalia sentirent

type of form is required to account for conveying intentions to the sense organs: the species.[76]

As others attest, species in the cognitive sense are difficult to define, and Aquinas does not define the term "species."[77] However, by looking at how the term is used, one may conclude that species are intentional, abstracted forms. The term "abstraction," as I use it, may denote one of two things. It may denote a form separated from matter, abstraction$_1$, or it may also denote a process that separates a form from matter, abstraction$_2$. Species are abstractions$_1$. According to Aquinas, forms differ in their degree of materiality. At one extreme, one finds the substantial form of hylomorphic entities, and these forms are the most material. At the other extreme, one finds intelligible forms (i.e., intelligible species) residing in immaterial intellects, and these forms are the most immaterial. It is impossible to go from one extreme to another without going through varying degrees of immateriality.[78] Hence, the species in the sense has a more spiritual

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dum alterantur.

76. Thomas Aquinas, *In metaphysicam aristotelis commentaria* (Turin: Marietti, 1926), Bk. 1, L. 1, N. 6: "Quod quidem visui accidit, eo quod spiritualior est inter omnes sensus." Although the term "spiritual" is used in this context, it is wrong to conclude that Aquinas is asserting any sort of immateriality other than a very attenuated and qualified sense of immateriality. First, as was seen earlier, the material cannot give rise to the immaterial. The physical objects that are acting upon the sense organ are material and cannot give rise to something immaterial. Second, Aquinas say that the vision is more spiritual than the other sense organs, and yet the sense organs are material. On page 160 in note 85, I examine why Aquinas says that vision is "spiritual."

77. Stump, *Aquinas*, p.249; Pasnau, *Theories of Cognition in the Later Middle Ages*, p.14.

78. Thomas Aquinas, *Quaestiones disputatae de veritate* (Rome: Leonine Commission, 1972), Q. 19, Art. 1, Response: Quidam enim dicunt, quod sicut nunc a sensibilibus rebus species accipit mediantibus sensibus, ita tunc accipere poterit nullo sensu interveniente. Sed hoc videtur impossibile, quia ab extremo in extremum non fit transitus nisi per media. Species autem in ipsa re sensibili habet esse maxime materiale, in intellectu autem summe spirituale; unde oportet quod in hanc spiritualitatem transeat mediantibus quibusdam gradibus, utpote quod in sensu habet spiritualius esse quam in re sensibili, in imaginatione autem adhuc spiritualius quam in sensu, et sic deinceps

mode of being than in the sensible thing because it is received without matter into the sense organ. The species in the imagination are more immaterial than in the sense, for the sense is dependent on matter; otherwise, it is not able to sense the material object. In contradistinction, species in the imagination can be present even when the object of sensation is not present. Regardless of their degree of immateriality both sensible species and imaginative species have the concrete conditions of matter. That is to say, they connote something that is located in time and space, here and now.[79] It is important to note, that apart from species in the intellect, species are always in some degree material, for nothing material can give rise to something immaterial. Therefore, when Aquinas asserts that one sensible species is more immaterial than another sensible species, he is not necessarily referring to the ontological status of the species; rather, he is referring to the degree to which the intention conveyed by the species is dependent on matter. For example, the species in the eye resides in a physical organ while the species in the imagination resides in a physical organ. Thus, ontologically, both species reside in material organs. Yet, the intentional content in the eye is dependent on a physical object being present, whereas intentional content in the imagination is not dependent on a physical object being present.

The role of species is three-fold and analogous to the role of natural forms. Forms are the mechanism that actualize potency as formal causes and ground an efficient cause as it communicates actuality to something that is in potentiality. For example, natural

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ascendendo. Aquinas, *QDVer*, Q. 10, Art. 1, RA. 2: in sensu enim recipitur species sine materia, sed tamen cum materiae conditionibus.

79. Aquinas, *QDVer*, Q. 2, Art. 2, Response: Sensus autem recipit quidem species sine materia, sed tamen cum conditionibus materialibus; Aquinas, *QDVer*, Q. 10, Art. 1, RA. 2: Sicut enim sensus non apprehendit suum obiectum nisi sub conditionibus materialibus, prout scilicet est hic et nunc; Aquinas, *S.T.*, Ia Q. 55, Art. 2, RA. 2: Esse autem formae in imaginatione, quod est quidem sine materia, non tamen sine materialibus conditionibus.

forms ground the transfers of heat from one entity to another. In this respect, species are no different, for they ground the transfer of intentions from one entity to another entity that has the potential to receive them. Furthermore, like natural forms that specify and determine their subject with a quantity or quality, species also determine their subject with an intention that specifies and determines the subject so that it takes on the likeness conveyed by the species. This aspect of the species is crucial because it ensures that sensation and intellection are veridical. For the sense and intellect do not add or contribute anything by themselves done to the formal content of species. Last, but not least, species account serve as the formal principle behind acts of for both sensation and intellection. For sensation involves the reception of a sensible species into a sense organ, and intellection involves the reception of an intelligible species into immaterial intellects.[80] Given the importance of species, then, let us turn to their point of origin.

Sensible species originate from physical bodies. Although there are species for each sense, I shall focus on vision. As light illumines the medium (i.e., the air), physical bodies multiply their species into the medium. Prior to the reception of the species, the medium is in potency to receiving the species; when the species is received, the medium is moved to actuality. This progression from potency to actuality continues until the

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80. Aquinas, *S.T.*, Ia Q. 14, A. 2, Response: Unde dicitur in libro de anima, quod sensibile in actu est sensus in actu, et intelligibile in actu est intellectus in actu. Ex hoc enim aliquid in actu sentimus vel intelligimus, quod intellectus noster vel sensus informatur in actu per speciem sensibilis vel intelligibilis.

species in medio[81] acts upon the sense.[82] This communication of species is necessary because the senses are passive, and in order to perceive, they must be specified and determined by the intention that is conveyed by means of the species.[83] However, depending on the sense organ, sometimes species are necessary, but not sufficient conditions for sensations.

For vision, the species is a sufficient and necessary condition.[84] That is to say, only a spiritual change is necessary for vision to take place. Some organs, however, require not only a spiritual change, but they also require a natural change. The natural change occurs either in the object of sensation alone, or may occur in the sense organ. For example, natural change according to location occurs in sound, which is the object of hearing, for sound is caused from striking and the movement of the air. At times, natural change occurs by means of alteration, as is the case of odor, which is the object of smell. In this case, the body must be altered in some way by means of heat so that it may smell the odor. Natural change is found in touch and in taste, for the hand becomes hot

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81. This phrase refers to the species that have been propagated to the medium. According to medieval scholastic thought, no physical object could act at a distance. For more information on *species in medio* Cf. Alfred Wilder, "On the Knowing Species in St. Thomas: Their Necessity and Epistemological Innocence," *Angelicum* 68, no. 1 (1991): pp. 2–32; Pasnau, *Theories of Cognition in the Later Middle Ages*, pp. 11–19; O'Callaghan, *Thomistic Linguistic Turn*, pp. 177–79; Katharine Tachau, "The Problem of the *species in medio* at Oxford in the Generation after Ockham," *Mediaeval Studies* 44 (1982): pp. 394–443.

82. Aquinas, *QDPot*, Q. 5, A. 8, Response: Haec autem est actio corporis, quae non est ad transmutationem materiae, sed ad quamdam diffusionem similitudinis formae in medio secundum similitudinem spiritualis intentionis quae recipitur de re in sensu vel intellectu, et hoc modo sol illuminat aerem, et color speciem suam multiplicat in medio.

83. Aquinas, *S.T.*, Ia Q. 77, A. 3, Reponse: Omnis enim actio vel est potentiae activae, vel passivae. Obiectum autem comparatur ad actum potentiae passivae, sicut principium et causa movens, color enim inquantum movet visum, est principium visionis.

84. Aquinas, *S.T.*, Q. 78, A. 3, Response: Sed in quibusdam sensibus invenitur immutatio spiritualis tantum, sicut in visu.

touching something hot, and the tongue is made moist by means of the humidity of flavors. Vision, however, occurs without natural change in either the object or in the organ. Therefore, it is the most *spiritual* and most perfect among the senses.[85] In order of descending spirituality, one finds hearing and smell; the most material senses are touch and taste.[86] Notice that Aquinas is not denying that species are needed for the other senses. Instead, he is affirming that vision is the only sense that does not require natural changes (i.e., it does not require receiving new natural forms). All the other senses require both species and new natural forms.[87]

It is by means of the species that proper sensibles and common sensibles are conveyed to the sense organs. The proper sensibles include color, sound, odor, flavor, humidity and temperature. Each proper sensible affects the organ to which it pertains.[88]

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85. Similar to Averroes, Aquinas is asserting that vision is the most spiritual among the senses. Aquinas, however, attributes the spirituality to the lack of a natural change. On the other hand, Averroes attributes the *spirituality* to the fact that vision is the least affected by environmental factors like wind. See page 104 note 78.

86. Aquinas, *S.T.*, Ia Q. 78, A. 3, Response: Sed in quibusdam sensibus invenitur immutatio spiritualis tantum, sicut in visu. In quibusdam autem, cum immutatione spirituali, etiam naturalis; vel ex parte obiecti tantum, vel etiam ex parte organi. Ex parte autem obiecti, invenitur transmutatio naturalis, secundum locum quidem, in sono, qui est obiectum auditus, nam sonus ex percussione causatur et aeris commotione. Secundum alterationem vero, in odore, qui est obiectum olfactus, oportet enim per calidum alterari aliquo modo corpus, ad hoc quod spiret odorem. Ex parte autem organi, est immutatio naturalis in tactu et gustu, nam et manus tangens calida calefit, et lingua humectatur per humiditatem saporum. Organum vero olfactus aut auditus nulla naturali immutatione immutatur in sentiendo, nisi per accidens. Visus autem, quia est absque immutatione naturali et organi et obiecti, est maxime spiritualis, et perfectior inter omnes sensus.... Et post hoc auditus, et deinde olfactus, qui habent immutationem naturalem ex parte obiecti. Motus tamen localis est perfectior et naturaliter prior quam motus alterationis, ut probatur in VIII *physic*. Tactus autem et gustus sunt maxime materiales.

87. Aquinas, *S.T.*, Ia Q. 78, A. 4, RA. 4: Nam tactus immutatur naturali immutatione, et non solum spirituali, quantum ad organum suum, secundum qualitatem quae ei proprie obiicitur.

88. Aquinas, *S.T.*, Ia Q. 77, A. 3, Response: Unde rationale et irrationale sunt differentiae divisivae animalis, diversas eius species constituentes. Sic igitur non

On the other hand, common sensibles such as number, shape, movement and rest are all reducible to quantity according to Aquinas. Consequently, just as surface is the proximate subject of color, quantity is the proximate subject of the common sensibles. Therefore, common sensibles do not primarily move the sense *per se*; instead, they move the sense by reason of sensible qualities (i.e., the proper sensibles).[89] For example, surfaces are not sensed *per se,* but they are sensed by means of the color or texture that inheres in the surface. Similarly, common sensibles are not known *per se*, but by means of the proper sensibles.

Having been informed by sensible species, the sense organs in turn render the species that they have received to the common sense, which is the principle and the root of the exterior senses.[90] The common sense is the first of the interior senses, and, unlike

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quaecumque diversitas obiectorum diversificat potentias animae; sed differentia eius ad quod per se potentia respicit. Sicut sensus per se respicit passibilem qualitatem, quae per se dividitur to in colorem, sonum, et huiusmodi; et ideo alia potentia sensitiva est coloris, scilicet visus, et alia soni, scilicet auditus.

89. Aquinas, *S.T.*, Ia Q. 78, A. 3, RA 3: Ad secundum dicendum quod magnitudo et figura et huiusmodi, quae dicuntur communia sensibilia, sunt media inter sensibilia per accidens et sensibilia propria, quae sunt obiecta sensuum. Nam sensibilia propria primo et per se immutant sensum; cum sint qualitates alterantes. Sensibilia vero communia omnia reducuntur ad quantitatem. Et de magnitudine quidem et numero, patet quod sunt species quantitatis. Figura autem est qualitas circa quantitatem; cum consistat ratio figurae in terminatione magnitudinis. Motus autem et quies sentiuntur, secundum quod subiectum uno modo vel pluribus modis se habet secundum magnitudinem subiecti vel localis distantiae, quantum ad motum augmenti et motum localem; vel etiam secundum sensibiles qualitates, ut in motu alterationis, et sic sentire motum et quietem est quodammodo sentire unum et multa. Quantitas autem est proximum subiectum qualitatis alterativae, ut superficies coloris. Et ideo sensibilia communia non movent sensum primo et per se, sed ratione sensibilis qualitatis; ut superficies ratione coloris. Nec tamen sunt sensibilia per accidens, quia huiusmodi sensibilia aliquam diversitatem faciunt in immutatione sensus. Alio enim modo immutatur sensus a magna superficie, et a parva, quia etiam ipsa albedo dicitur magna vel parva, et ideo dividitur secundum proprium subiectum.

90. Aquinas, *S.T.*, Ia Q. 78, A. 4, RA 1: communis radix et principium exteriorum sensuum.

the exterior senses, which are only aware of their own "proper sensibles," the common sense is informed with the five sensible species from the sense; consequently, it is able to distinguish among the various sensations.[91] For example, when one sees and licks sugar, one knows that the sugar is white and that it is sweet. Yet, vision is only aware of white, and taste is only aware of sweetness. The ability to ascribe these two qualities to one and the same sugar is due to the unifying power of the common sense, which unifies the various sensible species into one sensible percept. The common sense, however, for the most part only operates when the senses are operating.[92] Therefore, if one is to retain these sensible objects, there must be another power present.

In the same manner that the sense organs render the sensible species to the common sense, the common sense renders the sensible percept to the imagination. In the imagination, the sensible percept is referred to as a phantasm. The imagination serves as the storehouse of the forms received through senses and the common sense. As a result of storing these, an animal is able to imagine the sensible objects when the sensible objects are absent. Otherwise, the animal would not seek the imagined object when the object is not present.[93] For example, if animals were only able to apprehend food and water when

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91. Aquinas, *S.T.*, Ia Q. 57, A. 2, Response: sensus communis, qui est superior quam sensus proprius, licet sit unica potentia, omnia cognoscit quae quinque sensibus exterioribus cognoscuntur, et quaedam alia quae nullus sensus exterior cognoscit, scilicet differentiam albi et dulcis.

92. Under the right conditions, the common sense may operate when one is sleeping. Aquinas, *S.T.*, Ia Q. 84, A. 8, RA2: Si autem motus vaporum fuerit modicus, non solum imaginatio remanet libera, sed etiam ipse sensus communis ex parte solvitur; ita quod homo iudicat interdum in dormiendo ea quae videt somnia esse, quasi diiudicans inter res et rerum similitudines.

93. Aquinas, *S.T.*, Ia Q. 78, A. 4: Ad harum autem formarum retentionem aut conservationem ordinatur phantasia, sive imaginatio, quae idem sunt, est enim phantasia sive imaginatio quasi thesaurus quidam formarum per sensum acceptarum.... Est autem considerandum quod ad vitam animalis perfecti requiritur quod non solum apprehendat rem apud praesentiam sensibilis, sed etiam apud eius absentiam. Alioquin, cum animalis motus et actio sequantur apprehensionem, non moveretur animal ad inquirendum aliquid absens.

it were present before them, they would starve in their absence, for they would thirst and hunger, but they would be oblivious as to what would satiate these desires. But such is not the case. When an animal is thirsty, it returns to the watering hole, and it seeks the type of food that had previously provided nourishment.

The imagination, although necessary for the survival of the animal, is not sufficient. Animals must also be able to determine whether something is beneficial or dangerous to their health. The sensibles that are propagated to the imagination are not sufficient to tell an animal that something is dangerous or safe. For example, there is nothing in the shape, size, color, or smell of the wolf that communicates that the wolf is a threat. Thus, the estimative power is the power that receives non-sensible intentions like danger or usefulness. Moreover, not only is it necessary for the animal to receive these intentions that are not perceptible to an exterior sense, but the animal must be able to store them in order to avoid things that may be harmful to it.[94]

Although I have been speaking about animals, there is no difference between humans and animals when it comes to the general account of the reception of sensible species (i.e., sensible forms). For both rational and non-rational animals are altered by the reception of sensible species. Both have a common sense that unifies the species that are

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94. Aquinas, *S.T.*, Ia. Q. 78, A. 4, Response: Rursus considerandum est quod, si animal moveretur solum propter delectabile et contristabile secundum sensum, non esset necessarium ponere in animali nisi apprehensionem formarum quas percipit sensus, in quibus delectatur aut horret. Sed necessarium est animali ut quaerat aliqua vel fugiat, non solum quia sunt convenientia vel non convenientia ad sentiendum, sed etiam propter aliquas alias commoditates et utilitates, sive nocumenta, sicut ovis videns lupum venientem fugit, non propter indecentiam coloris vel figurae, sed quasi inimicum naturae... Necessarium est ergo animali quod percipiat huiusmodi intentiones, quas non percipit sensus exterior. Et huius perceptionis oportet esse aliquod aliud principium, cum perceptio formarum sensibilium sit ex immutatione sensibilis, non autem perceptio intentionum praedictarum. Sic ergo ad receptionem formarum sensibilium ordinatur sensus proprius et communis.... Ad apprehendendum autem intentiones quae per sensum non accipiuntur, ordinatur vis aestimativa. Ad conservandum autem eas, vis memorativa, quae est thesaurus quidam huiusmodi intentionum.

rendered from the various sense organs, and both store the unified percept in the imagination. However, animals differ from humans as it pertains to the estimative power. Animals are instinctually able to receive intentional forms regarding what is dangerous or beneficial to their well-being, whereas humans normally must cogitate to ascertain whether or not something is beneficial. Consequently, the cogitative power is also called the "particular reason" because it functions by comparing individual intentions.[95] Only the cogitative power in human beings actually performs an abstraction$_2$ to separate the intentional notions of helpful or harmful.[96]

Let us review what we have covered thus far. It is by means of species that sensible qualities are communicated to the five external senses. In addition to the five external senses, there are four internal senses: (1) the common sense, which is responsible for unifying the sensible species from the five sense organs; (2) the imagination, which is responsible for retaining the phantasms and sensible species received from the common sense; (3) the cogitative/estimative power, which is responsible for discerning non-sensible intentions such as danger and utility;[97] and the (4)

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95. Aquinas, *S.T.*, Ia. Q. 78, A. 4: Considerandum est autem quod, quantum ad formas sensibiles, non est differentia inter hominem et alia animalia, similiter enim immutantur a sensibilibus exterioribus. Sed quantum ad intentiones praedictas, differentia est, nam alia animalia percipiunt huiusmodi intentiones solum naturali quodam instinctu, homo autem etiam per quandam collationem. Et ideo quae in aliis animalibus dicitur aestimativa naturalis, in homine dicitur cogitativa, quae per collationem quandam huiusmodi intentiones adinvenit. Unde etiam dicitur ratio particularis; Aquinas, *S.T.*, Ia Q. 81, A. 3, Response: vis cogitativa; quae dicitur a quibusdam ratio particularis, eo quod est collativa intentionum individualium. Refer to Taylor, "Cogitatio, Cogitativus and Cogitare: Remarks on the Cogitative Powers in Averroes," p.111–46.

96. I am inferring that intentions as to what or is not beneficial do not magically appear in the estimative power. Furthermore, whether something beneficial or dangerous is not perceived by the senses. Therefore, the intention as to whether something is useful or dangerous is probably concomitant with the sensible object and would require some kind of abstraction.

97. For an account of the difference between the estimative power (in non-rational animals) and the cogitative power (in rational animals), See Black, "Imagination and

memorative power, which is responsible for retaining the intentions that were produced by the cogitative power.

Like Avicenna and Averroes, the role of these abstractions$_1$ terminates in the imagination, and these abstractions$_1$ are unable to affect an immaterial intellect.[98] The phantasms that reside in the imagination are not able to affect the part of the soul that transcends or exceeds the body, for the human intellect has a mode of being that is immaterial, whereas the imagination has a mode of being that is material.[99] In other words, Aquinas's hylomorphism$_4$ prevents imaginative species from affecting the possible intellect in the immaterial soul.[100] If Aquinas is to succeed in making intellection inherent in man, he needs to cross over the divide that his hylomorphism$_4$ has created, and he will need an immaterial power to convey the intention that is in the phantasm to the possible intellect in the immaterial part of the soul that transcends the body. He will also need a vehicle that can convey the *ratio* from the phantasm to the possible intellect. That vehicle will be the intelligible species which is an abstracted form.

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Estimation: Arabic Paradigms and Western Transformations," p. 13.

98. For Averroes, the immaterial intellect is a single, immaterial entity existing separate from matter. For Avicenna, immaterial intellect is a receptive power in each individual human soul, and it is able to receive abstractions$_4$ and behold the abstractions$_5$ in the agent intellect because it exists ontologically separate from a body. For Aquinas, the material intellect (i.e., the possible intellect) is a part of the soul that transcends matter but is not ontologically existing separate from matter.

99. Aquinas, *S.T.*, Ia Q. 85 A. 1, RA3: Sed phantasmata, cum sint similitudines individuorum, et existant in organis corporeis, non habent eundem modum existendi quem habet intellectus humanus, ut ex dictis patet; et ideo non possunt sua virtute imprimere in intellectum possibilem.

100. Aquinas, *S.T.*, Q. 84, A. 6, Response: Nihil autem corporeum imprimere potest in rem incorpoream. Et ideo ad causandam intellectualem operationem, secundum Aristotelem, non sufficit sola impressio sensibilium corporum, sed requiritur aliquid nobilius, quia agens est honorabilius patiente, ut ipse dicit.

Abstraction$_3$ and Abstraction$_4$

In this section, I explain abstraction$_3$, that which is produced by the agent intellect, and abstraction$_4$, the process that gives rise to abstraction$_3$.

All hylomorphic entities in the natural world are only intelligible in potency. Moreover, the sensible species and phantasms are also only intelligible in potency so they cannot be comprehended intellectually.[101] Given that the species and the phantasms reside in corporeal organs, they still are particularized in matter; thus, they can only denote particulars.[102] For example, just as were one to see a particular dog one would see it as a particular, so the phantasm in the imagination represents the dog in a particular way, for phantasms in the imagination have the concrete conditions of matter, time and space.[103] In other words, at the level of sensation, one is limited to individual (i.e., particular) intentions. In order to get to the universal intentions, the *ratio* or intention must be dematerialized. The dematerialization of the *ratio* or intention can only be achieved by an immaterial active power in the soul, the agent intellect.

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101. Aquinas, *SCG*, Bk. 2, Ch. 77. Et has quidem determinatas naturas rerum sensibilium praesentant nobis phantasmata.Quae tamen nondum pervenerunt ad esse intelligibile: cum sint similitudines rerum sensibilium etiam secundum conditiones materiales, quae sunt proprietates individuales, et sunt etiam in organis materialibus. Non igitur sunt intelligibilia actu. Et tamen, quia in hoc homine cuius similitudinem repraesentant phantasmata, est accipere naturam universalem denudatam ab omnibus conditionibus individuantibus, sunt intelligibilia in potentia.

102. Aquinas, *SCG*, Bk. 2, Ch. 77: Quae tamen nondum pervenerunt ad esse intelligibile: cum sint similitudines rerum sensibilium etiam secundum conditiones materiales, quae sunt proprietates individuales, et sunt etiam in organis materialibus. Non igitur sunt intelligibilia actu.

103. Aquinas, *QDVer*, Q. 10, A. 1, RA. 2: Sicut enim sensus non apprehendit suum obiectum nisi sub conditionibus materialibus, prout scilicet est hic et nunc. Cf. Aquinas, *S.T.*, Ia Q. 57, A. 2, RA. 1: Ad primum ergo dicendum quod philosophus loquitur de intellectu nostro, qui non intelligit res nisi abstrahendo; et per ipsam abstractionem a materialibus conditionibus, id quod abstrahitur, fit universale.

There are two characteristics that the agent intellect possesses that allow it to perform its role: (1) immateriality and (2) actuality. The immateriality of the agent intellect is necessary because only something immaterial can give rise to something immaterial. That is to say, only an immaterial agent intellect can give rise to an immaterial abstraction$_3$, the intelligible species. Furthermore, the agent intellect's actuality is necessary for two reasons. First, were the agent intellect sometimes in potency and sometimes in act, it would itself need some spiritual power that moves it from potency to actuality in order for it to perform its operations. Yet, this is not necessary because the agent intellect is always in act as a secondary efficient cause whose primary efficient cause is God.[104] Second, the agent intellect's actuality allows it to convey actuality to the abstraction$_3$ that it produces, the intelligible species. In other words, given the principle that every agent produces something similar to itself, one finds that the intelligible species is like the agent intellect in terms of its actuality and its immateriality. Yet, the agent intellect is unlike the intelligible species in terms of *ratio* because there is no potency in the agent intellect to receive *rationes*.[105] Thus, the agent intellect does not contain any *rationes*.[106] Therefore, the *rationes* that are conveyed

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104. Aquinas, *QDVer*, Q. 10., A. 6, Response: Quod quidem lumen intellectus agentis in anima procedit, sicut a prima origine, a substantiis separatis et praecipue a deo.

105. Aquinas, *SCG*, Bk. 2, Ch. 76: Intellectus agens non facit species intelligibiles actu ut ipse per eas intelligat, maxime sicut substantia separata, cum non sit in potentia: sed ut per eas intelligat intellectus possibilis. Non igitur facit eas nisi tales quales competunt intellectui possibili ad intelligendum. Tales autem facit eas qualis est ipse: nam omne agens agit sibi simile.

106. Aquinas, *QDAnima*, Pro., a. 5, r. 9: "Ad nonum dicendum quod intellectus agens non sufficit per se ad reducendum intellectum possibilem perfecte in actum, cum non sint in eo determinatae rationes omnium rerum."

I do not think "in eo" is referring to the possible intellect for the following reasons.

First, from an epistemological standpoint, the text would be saying that the agent intellect is not sufficient for moving the possible into act because there are not in the possible intellect the determinate intentions of all things. In other words, the intentions would need to exist in the possible intellect as a condition for the agent intellect to

within the intelligible species must come from the phantasm.

The notion of abstraction$_4$ is sometimes misunderstood because Aquinas often asserts that the nature of material things are abstracted from phantasms.[107] He also asserts that intelligible species are abstracted from phantasms.[108] Moreover, he asserts that intelligibles in potency become intelligible in act (i.e., intelligible species) inasmuch as imaginative species (i.e., the phantasms) are denuded from all material vestiges by the power of the agent intellect.[109] In the aforementioned assertions, it seems that the

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function. However, if the determinate intentions of all things were in the possible intellect, the agent intellect is superfluous and unnecessary.

Second, responding to the sixth objection in the same question, Aquinas writes "Ad sextum dicendum quod licet in anima nostra sit intellectus agens et possibilis, tamen requiritur aliquid extrinsecum ad hoc quod intelligere possimus. Et primo quidem requiruntur fantasmata a sensibus accepta, per que represententur intellectui rerun determinatarum similitudines, nam intellectus agens non est talis actus in quo omnium rerum determinate species accipi possunt ad cognoscendum." In other words, although the agent and possible intellect are powers in the soul, they need to be specified and determined by the phantasm, which provides the intentions. Cf. Aquinas, *S.T.*, Ia Q.84, A. 6, Response: Sed quia phantasmata non sufficiunt immutare intellectum possibilem, sed opportet quod fiant intelligibilia actu per intellectum agentem; non potest dici quod sensibilis cognitio sit totalis et perfecta causa intellectualis cognitionis, sed magis quodammodo est materia of the cause.

Third, in the same question and response, the text continues and states the following "Et ideo requiritur ad ultimam perfectionem intellectus possibilis quod uniatur aliqualiter illi agenti in quo sunt rationes omnium rerum, scilet Deo." In other words, for the ultimate perfection of the possible intellect, the possibile intellect must be united to "an agent" in whom are the *rationes* of all things, God. Aquinas is contrasting an agent that does not contain the *rationes* of all things, the agent intellect, with an agent that does contain the *rationes* of all things, God.

107. Aquinas, *S.T.*, Ia Q. 85, A. 8, Response: Respondeo dicendum quod obiectum intellectus nostri, secundum praesentem statum, est quidditas rei materialis, quam a phantasmatibus abstrahit, ut ex praemissis patet.

108. Aquinas, *S.T.*, Ia Q. 85, A. 1, RA. 4: Abstrahit autem intellectus agens species intelligibiles a phantasmatibus.

109. Aquinas, *Sent*, Bk. I, D. 35, Q. 1, A. 1, RA. 3: Intellectus enim humanus, qui aliquando est in potentia, et aliquando in actu, quando est in potentia intelligens, non est idem cum intelligibili in potentia, quod est aliqua res existens extra animam; sed ad hoc quod sit intelligens in actu, oportet quod intelligibile in potentia fiat intelligibile in actu

phantasms are acted upon by the agent intellect, and they are *transformed* from intelligibles in potency to intelligibles in act. Nothing could be further from the truth. Aquinas is clear that the phantasms are similitudes of individual things and because they exist in a corporeal organ, they do not have the same mode of existence as the human intellect. Consequently, the phantasms are *not* able to impress themselves upon the human intellect. Moreover, the intelligibles in act (i.e., the intelligible species) are immaterial products of the agent intellect. In other words, it is not the case that the phantasm in the imagination *becomes* the intelligible in act, nor is it the case that which is potentially intelligible becomes that which is actually intelligible. Instead, the agent abstracts from the phantasm the *ratio*[110] that expresses the specific nature of a thing.[111]

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per hoc quod species ejus denudatur ab omnibus appenditiis materiae per virtutem intellectus agentis.

110. I am not suggesting that the agent intellect is conscious, nor am I suggesting selective attention by the agent intellect.

111. Early in his career, Aquinas takes over from Avicenna the notion that the common nature is understood by the intellect; Aquinas, *Sent*, Bk. 2, D. 17, Q. 2, A. 1, RA. 3: "Ad tertium dicendum, quod secundum Avicennam species intellecta potest dupliciter considerari: aut secundum esse quod habet in intellectu, et sic habet esse singulare; aut secundum quod est similitudo talis rei intellectae, prout ducit in cognitionem ejus; et ex hac parte habet universalitatem: quia non est similitudo hujus rei secundum quod haec res est, sed secundum naturam in qua cum aliis suae speciei convenit." Thanks to Dr. Richard Taylor for sharing his Mexico paper with me and bringing this text in the Sentences to my attention; Richard C. Taylor, "Aquinas and the Arabs: Aquinas's First Critical Encounter with the Doctrine of Averroes on the Intellect, *in 2 Sent*, d.17, q. 2, a.1," Philosophical Psychology in Medieval Aristotelianism (Mexico City, 2008. Unpublished Conference Paper); Cf. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 5, Ch. 1, p.237–38: Unde, sicut animal in esse habet plures modos, sic etiam et in intellectu. In intellectu etenim est forma animalis abstracta secundum abstractionem quam praediximus, et dicitur ipsum hoc modo forma intelligibilis. In intellectu autem forma animalis taliter est quod in intellectu convenit ex una et eadem definitione multis particularibus. Quapropter una forma apud intellectum erit relata ad multitudinem, et secundum hunc respectum est universale, quia ipsum est una intentio in intellectu, cuius comparatio nor, variatur ad quodcumque acceperis animalium, videlicet quoniam, cuiusque eorum primum repraesentaveris formam in imaginatione, si postea exspoliaverit intellectus intentionem eius ab accidentibus, acquiretur in intellectu haec ipsa forma. Ergo, haec forma est quae acquiritur de exspoliatione animalitatis a quamlibet

As a result of this operation, the agent intellect, an immaterial power in the soul, is able

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imaginatione individuali accepta de esse extrinseco, quamvis ipsa non habeat esse extrinsecus, sed imaginatio abstrahit eam; Haec autem forma, quamvis respectu individuorum sit univeralis, tamen, respectu animae singularis in qua imprimitur, est individua; ipsa enim est una ex formis quae sunt in intellectu, et quia singular animae sunt multae numero, tunc eo modo quo sunt particulares habebunt ipsae aliud intellectum universale, quod in tali comparatione est ad ipsas in quali est ad extra, et discernitur in anima ab hac forma quae sit universalis comparatione sui ad extra quae praedicatur de illis et de allis; cf. Thomas Aquinas, *De ente et essentia*, Leonine Edition (Roma: Editori di San Tommaso, 1976), Ch. 3, p.374–75: Vnde si queratur utrum ista natura sic considerata possit dici una uel plures, neutrum concendendum est, quia utrumque est extra intelllectum humanitatis, et utrumque potest sibi accidere. Si enim pluralitas esset de intellectu eius, numquam posset esse una, cum tamen una sit secundum quod est in Sorte. Similiter si unitas esset de ratione eius, tunc esset una et eadem sortis et Platonis, nece posset in pluribus plurificari. Alio modo consideratur secundum esse quod habet in hoc uel in illo: et sec de ipsa aliquid predicatur per accidens ratione eius in quo est, sicut dicitur quod homo est albus quia Sortes est albus, quamvis hoc non conueniat homini in eo quod homo. Hec autem natura habet duplex esse: unum in singularibus et aliud in anima, et secundum utrumque consequntur dictam naturam accidentia; in singularibus etiam habet multiples esse secundum singularium diversitatem. Et tamen ipsi nature secundum suam primam considerationem, scilicet absolutam, nullum istorum esse debetur. Falsum enim est dicere quod essentia hominis in quantum huiusmodi habeat esse in hoc singulari, quia se esse in hoc singulari conueniret homini in quantum est homo, numquam esset extra hoc singulare; similiter etiam si conueniret homini in quantum est homo non esse in hoc singulari, numquam esst in eo: sed uerum est dicere quod homo, non quantum est homo, habet quod sit in hoc singulari vel in illo aut in anima. Ergo patet quod natura hominis absolute considerata abstrahit a quolibet esse, ita, tamen quod non fiat precisio alicuius eorum. Et hec natura sic considerata est que predicatur de indiuiduis omnibus. Non tamen potest dici quod ratio universalis conueniat nature sic accepte, quia de ratione universalis est unitas et communitas; nature autem humane neutrum horum convenit secundum absolutam suam considerationem. Si enim communitas esset de intellectu hominis, tunc in quocumque inueniretur humanitas inueniretur communitas, et hoc falsum est, quia in Sorte non inuenitur communitas aliqua, sed quicquid est in eo est indiuiduatum. Similiter etiam non potest dici quod ratio generis vel speciei accidat nature humane secundum esse quod habet in individuis, quia non invenitur in individuis natura humana secundum unitatem ut sit unum quid omnibus conveniens, quod ratio uniuersalis exigit. Relinquitur ergo quod ratio speciei accidat nature humane secundum illus esse quod habet in intellectu. Ipsa enim natura humana in intellectu habet esse abstractum ab omnibus indiuiduantibus; et ideo habet rationem uniformem ad omnia individua que sunt extra anima, prout equaliter est similitudo omnium et ducens in omnium cognitionem in quantum sunt homines. Et ex hoc quod talem relationem habet ad omnia indiuidua, intellectus adinuenit rationem speciei et attribuit sibi; unde dicit Commentaror in principio De anima quod <<intellectus est qui agit in rebus univuersalitatem>>; hoc etiam auicenna dicit in sua, Metaphyisica.Et quamuis hec natura intellecta habeat

to produce an intelligible species with an intelligible content that is formally the same as the phantasm, yet numerically and ontologically different from the phantasm. The intelligible species is ontologically and numerically different because whereas the phantasm is material, the intelligible species is immaterial. Aquinas writes:

> But phantasms, since they are similitudes of individuals and exist in a bodily organ, do not have the same mode of existing as the human intellect, as is evident from what was stated; and for this reason they are not able by their own power to be impressed upon the possible intellect. But, by the power of the agent intellect some similitude results in the possible intellect from the turning (*ex conversione*) of the agent intellect upon the phantasms, which indeed are representative of those things of which the phantasms are, only as to the nature of the species. And in this manner, intelligible species are said to be abstracted from phantasms, not because some form that is the same in number, which first was in the phantasm afterwards comes to be in the possible intellect, in the manner in which a body is taken from one location and transferred to another. [112]

In other words, the agent intellect transfers the *ratio* or *intentio* from one mode of being (material) to another (immaterial) just as does Averroes' Agent Intellect.[113] If one defines "subject" as that which is capable of receiving some kind of form, as was stated earlier,[114] then in an analogous manner to Averroes, Aquinas has two subjects: the imagination and

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rationem uniuersalis secundum quod comparatur ad res extra animam, quia est una similitudo omnium, tamen secundum quod habet esse in hoc intellectu vel in illo est quedam species intellecta particularis; cf. O'Callaghan, *Thomistic Linguistic Turn*, pp.28–30.

112. Aquinas, *S.T.*, Ia Q. 85, A. 1 RA3: *Sed phantasmata, cum sint similitudines individuorum, et existant in organis corporeis, non habent eundem modum existendi quem habet intellectus humanus, ut ex dictis patet; et ideo non possunt sua virtute imprimere in intellectum possibilem*. Sed virtute intellectus agentis resultat quaedam similitudo in intellectu possibili ex conversione intellectus agentis supra phantasmata, quae quidem est repraesentativa eorum quorum sunt phantasmata, solum quantum ad naturam speciei. Et per hunc modum dicitur abstrahi species intelligibilis a phantasmatibus, non quod aliqua eadem numero forma, quae prius fuit in phantasmatibus, postmodum fiat in intellectu possibili, ad modum quo corpus accipitur ab uno loco et transfertur ad alterum. [emphasis added]

113. See note 109 on page 112.

114. See note 74 on page 67.

the possible intellect.[115] Yet, unlike Averroes, Aquinas's subjects are ontologically distinct (inasmuch as they have different modes of being and belong to really distinct power that are necessary accidents of the soul), but they are *not* ontologically separate in substance by virtue of Aquinas's reformulation of hylomorphism$_4$. So, one may say that via the senses and via the intellect, the hylomorphic$_4$ entity knows. Thus, abstraction$_4$ in Aquinas is the production of an intelligible species, which is an abstraction$_3$.

Based on what has been stated concerning abstraction$_4$, one may think that the phantasm or the intelligible species is *that which is known*. However, this is not the case for Aquinas's mature thought. Concerning the phantasm, Aquinas makes specified use of the distinction between an *object of cognition* and a *medium of cognition*. Concerning external sense, Aquinas asserts that a similitude, which is in the sense, is abstracted from the thing as from the knowable object; for this reason, the thing is directly known through that similitude.[116] In other words, in sensation, the extramental object impresses its species on the sense, and by means of the species, we sense the extramental object. However, such is not the case with the phantasm; the phantasm is not an object of cognition, but a medium for cognition just as would be a mirror in which we see an

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115. See page 111.

116. Aquinas, *QDVer*, Q. 2, A. 6, Response : "Quod similitudo quae est in sensu, abstrahitur a re ut ab obiecto cognoscibili, et ideo per illam similitudinem res ipsa per se directe cognoscitur; similitudo autem quae est in intellectu, non abstrahitur a phantasmate sicut ab obiecto cognoscibili, sed sicut a medio cognitionis, per modum quo sensus noster accipit similitudinem rei quae est in speculo, dum fertur in eam non ut in rem quamdam, sed ut in similitudinem rei. Unde intellectus noster non directe ex specie quam suscipit, fertur ad cognoscendum phantasma, sed ad cognoscendum rem cuius est phantasma. Sed tamen per quamdam reflexionem redit etiam in cognitionem ipsius phantasmatis, dum considerat naturam actus sui, et speciei per quam intuetur, et eius a quo speciem abstrahit, scilicet phantasmatis: sicut per similitudinem quae est in visu a speculo acceptam, directe fertur visus in cognitionem rei speculatae; sed per quamdam reversionem fertur per eamdem in ipsam similitudinem quae est in speculo."

In the *Summa Theologiae*, Aquinas remains silent concerning the use of speculo as it relates to knowing hylomorphic entities, but following Augustine, he uses speculo to describe how man may know God while on earth.

object. Aquinas asserts that from the species that our intellect receives, our intellect is brought directly to know, not the phantasm, but the extra-mental thing. But nevertheless, through some reflective act, the intellect is able to return to cognition of the phantasm when the intellect considers the (1) nature of its own act, (2) the species through which it acts, and (3) the phantasm. Aquinas maintains that in the same manner the likeness received in vision from a mirror is directly taken into cognition of the visible object, but through a similar turning back upon itself, vision is brought into the likeness as it is in the mirror. Notice that only by a reflexive act is the phantasm an object of cognition. As we will see, the same is true concerning the intelligible species.

In the *Summa Contra Gentiles*, Aquinas is clear that the intelligible species is not that which is understood. He writes:

> This understood intention, since it is as it were the term of the intelligible operation, is other than the intelligible species, which actualizes the intellect.... [and] which is the form of the intellect and the principle of understanding.[117]

Throughout the rest of his works, Aquinas will maintain that the intelligible species is the principle of understanding and not that which is understood directly. This can be seen in two of his mature works.

In *Quaestiones Disputatae de Spiritualibus Creaturis*, Aquinas writes:

> the possible intellect only operates inasmuch as it is in act in the same manner that vision only sees inasmuch as it is brought into actuality through a visible species. Hence, the visible species is not related [to vision] as *that which is seen*, but as that *by which* it sees. And the same is true concerning the possible intellect, except that the possible intellect reflects upon itself and upon its species. Such is not the case with vision.[118]

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117. Aquinas, *SCG*, Bk. 1, Ch. 53: Haec autem intentio intellecta, cum sit quasi terminus intelligibilis operationis, est aliud a specie intelligibili quae facit intellectum in actu....species intelligibilis quae est forma intellectus et intelligendi principium.

118. Aquinas, *DeSpiCr*, Pro. A. 9, ad. 6: Intellectus possibilis non operatur nisi secundum quod est in actu, sicut nec visus videt nisi per hoc quod est factus in actu per speciem visibilem. Unde species visibilis non se habet ut quod videtur, sed ut *quo* videtur. Et simile est de intellectu possibili; nisi quod intellectus possibilis reflectitur supra seipsum et supra speciem suam, non autem visus. [emphasis added]

Via analogy, Aquinas is saying that species are not *objects of cognition*, but *means for cognition*. One does not see visible species, but by means of visible species, one sees physical objects. Similarly, one does not know intelligible species, but by means of intelligible species, one knows the natures of things.

In another mature work, *De Unitate Intellectus*, Aquinas writes:

> However, these [intelligible] species are not related to the possible intellect as *that which is understood* (*intellecta*), but just as the species by which the intellect understands... except inasmuch as the intellect reflects upon itself, which is not able to happen in the sense.[119]

Once again, one sees that intelligible species are not objects of cognition, but means of cognition. Having examined abstraction$_3$ and abstraction$_4$, and having addressed any misunderstanding concerning phantasms and intelligible species, let us consider the subject of intelligibles in Aquinas.

Aquinas and Subject of Intelligible Forms (*Intellectus possibilis*)

As has been explained, the soul is a spiritual substance that functions as the form of the body. However, there is part of the soul that transcends the body although it is not ontologically separated from the body. That part of the soul that transcends the body is the possible intellect, which is the subject of intelligible forms (i.e. intelligible species). In this section, I shall consider the three characteristics that make the possible intellect a suitable subject for intelligibles: its receptivity, its immateriality, and its ability to retain intelligible species. I shall also consider the operations of the possible intellect.

In a similar way to the way prime matter is in potency to all sensible forms, the possible intellect is in potency to all intelligible forms.[120] The receptivity (i.e., passive

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119. Aquinas, *ContraAverr*, Ch. 5: Hae autem species non se habent ad intellectum possibilem *ut intellecta*, sed sicut species quibus intellectus intelligit (sicut et species quae sunt in visu non sunt ipsa visa, sed ea quibus visus videt), nisi in quantum intellectus reflectitur supra seipsum, quod in sensu accidere non potest.

120. Aquinas, *QDAnima*, p. 16. Hunc igitur intellectum possibilem necesse est

potency) of the possible intellect to all intelligible forms is crucial to human intellection because at its inception the human intellect is like a blank slate in which nothing is written.[121] Without this receptivity, humans would not be able to receive intelligible forms regardless of the productive power of the agent intellect, for only that which is in a state of potency can be moved to a state of actuality by that which is in act. In other words, if the possible intellect were not in a state of potency to an intelligible form, then the intelligible forms that the agent intellect produces could not inhere in the possible intellect. Without intelligible forms inhering in the possible intellect, the natures of things in the world would not be made present to the possible intellect, which is wholly immaterial.

The immateriality of the possible intellect is just as important as its receptivity if not more so. For Aquinas, it is not particularity that prevents intellection; rather, it is matter. In his early work, In *Scriptum in Sententiarum*, an objector asserts:

> ... anything that is received in another is received in it according to the mode of the recipient and not according to its own mode of being, as is known from Dionysius and the Book of Causes. Therefore, if intellect is individuated at the division of bodies, so that it is different in diverse [bodies], necessarily intellectual forms received into it would also be individuated. From this there seem to follow two untoward consequences. First, since no particular is what is understood in act but [only] in potency, species of this kind will not be intelligibles in act, but they will need to be understood through other species, and so on, *ad infinitum*. The other [untoward consequence] is that the mode of receiving forms in prime matter and in the possible intellect would be the same, because in both, they are received so that they are those [particulars], not such that as they are forms *simpliciter*. Thus, just as prime matter is not knowable through the forms which it receives, neither [would the possible intellect know through the form it receives], as it seems to be.[122]

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esse in potentia ad omnia quae sunt intelligibilia per hominem. Also see: John Frederick Peifer, *The Concept in Thomism* (New York: Bookman Associates, 1952), p. 33.

121. Aquinas, *S.T.*, Ia Q. 79, A.2, Response: Intellectus autem humanus, qui est infimus in ordine intellectuum, et maxime remotus a perfectione divini intellectus, est in potentia respectu intelligibilium, et in principio est sicut tabula rasa in qua nihil est scriptum, ut philosophus dicit in III *De Anima*.

122. Aquinas, *Sent*, Bk. 2, D. 17, Q. 2, A. 1, AG. 3: Praeterea, omne quod

Citing Avicenna, Aquinas responds:

> To the third it should be said that according to Avicenna, the "species understood" can be considered in two senses. Either according to the being that it has in the intellect [i.e., as existing in it] and that it has singular being, or according as it is a likeness of such an understood thing, insofar as that it leads to knowledge of it. According to this latter sense, it has universality; because it is not a likeness of this thing inasmuch as it is this thing, but according to the nature in which it conforms to others in its species. Moreover, it is not necessary that every singular being be intelligible only in potency, as is evident concerning separated substances. But [this is necessary] in those things which are individuated by matter, as is the case with corporeal entities. But these [intelligible] species [in the second sense] are individuated through the individuation of the intellect, hence they remain intelligibles in act.[123]

There are three parts to Aquinas's argument regarding the knowledge of particulars. The first part is a *reductio ab absurdum*. By means of a *reductio ad absurdum*, Aquinas demonstrates that if individuality precludes intelligibles in act, then separated substances (e.g., angels) would not be actually intelligible to themselves, since they themselves are particular existents as well. Supposedly, the objector would have agreed that separated

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recipitur in aliquo, recipitur in eo per modum recipientis, et non per modum sui, ut ex Dionysio et ex *Lib. De Causis* habetur. Si ergo intellectus individuetur ad divisionem corporis, ut sit alius diversorum, oportet quod formae intellectuales in eo receptae, etiam sint individuatae: ex quo videntur sequi duo inconvenientia. Unum est, cum nullum particulare sit intellectum in actu, sed in potentia, quod hujusmodi species non erunt intelligibiles in actu, sed indigebunt intelligi per alias species, et sic in infinitum procedetur. Aliud est quod erit idem modus recipiendi formas in materia prima et in intellectu possibili, quia utrobique recipiuntur ut sunt istae, et non ut sunt formae simpliciter: et ita, sicut materia prima non est cognoscibilis per formas quas recipit, ita nec intellectus possibilis, ut videtur.

123. Aquinas, *Sent*, Bk. 2, D. 17, Q. 2, A. 1, RA. 3: Ad tertium dicendum, quod secundum Avicennam species intellecta potest dupliciter considerari: aut secundum esse quod habet in intellectu, et sic habet esse singulare; aut secundum quod est similitudo talis rei intellectae, prout ducit in cognitionem ejus; et ex hac parte habet universalitatem: quia non est similitudo hujus rei secundum quod haec res est, sed secundum naturam in qua cum aliis suae speciei convenit. Nec oportet omne singulare esse intelligibile tantum in potentia (sicut patet de substantiis separatis), sed in illis quae individuantur per materiam, sicut sunt corporalia: sed species istae individuantur per individuationem intellectus; unde non perdunt esse intelligibile in actu.

substances know themselves *per se*.[124] Thus, Aquinas has refuted the claim that individuality precludes knowability by appealing to the nature of separate substances. Furthermore, Aquinas continues that it is only the individuation by means of matter that precludes intelligibles in act. This is the case because a thing is knowable only inasmuch as it is in act and not in potency, while that which is material is always an intelligible in potency.[125]

The second part of the argument has to deal with the human intellect and the individuation of the species. Aquinas asserts that because the intelligible species is individuated by the human intellect, it remains intelligible in act. This may seem like a *non-sequitur* fallacy, but this is an enthymeme. The argument goes as follows:

> Major: All intelligibles in act that are individuated by immaterial intellects are that which remain intelligibles in act.
> Minor: The human intellect is immaterial.
> Therefore intelligibles that are individuated by the human intellect remain intelligible in act.

Aquinas had already established the major premise by means of the *reductio*. The minor premise was unstated. Thus, Aquinas concludes that intelligibles in the human intellect

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124. ”Intellgibiles in act” is predicated equivocally in Aquinas’s system. When intelligibles in act are used concerning God, they denote the Divine Essence. When intelligbles in act are used concerning angels, it denotes connatural intelligible species. When intelligibles in act are used concerning humans, they denote acquired intelligibles species. When intelligibles in act are predicated in Avicenna’s system, they denote reified Platonic like forms existing in the Agent Intellect. When intelligibles in act are predicated in Averroes’ system, they denote reified Platonic like forms existing in the Material Intellect.

125. Aquinas, *S.T.*, Q. 87, A. 1, Response: Respondeo dicendum quod unumquodque cognoscibile est secundum quod est in actu, et non secundum quod est in potentia, ut dicitur in IX metaphys., sic enim aliquid est ens et verum, quod sub cognitione cadit, prout actu Est. Et hoc quidem manifeste apparet in rebus sensibilibus, non enim visus percipit coloratum in potentia, sed solum coloratum in actu. Et similiter intellectus manifestum est quod, inquantum est cognoscitivus rerum materialium, non cognoscit nisi quod est actu, et inde est quod non cognoscit materiam primam nisi secundum proportionem ad formam, ut dicitur in I physic..

remain intelligible in act. In other words, the immateriality of the possible intellect makes it possible for intelligibles in act to inform the possible intellect.

The informing of the intellect constitutes the third part of Aquinas's argument. The informing of the intellect can be considered one of two ways: ontologically or epistemologically. Ontologically, the intelligible species is an accidental, particular, intentional form inhering in the possible intellect. The intelligible species specifies and determines the intellect and renders the possible intellect into a state of actuality. So, where previously, the possible intellect was like a blank slate (*tabula rasa*), now there is writing. In other words, the intellect has been in*formed*. The informing of the intellect can also be looked at epistemologically. In an epistemological sense, when the human intellect is informed, the intelligible in act (i.e., the intelligible species) conveys a *ratio* to the possible intellect. This *ratio* conveys an intelligible content to the intellect, and the content that it conveys is a specific nature.

The nature that is conveyed by means of the intelligible species can be considered in one of two ways. First, it can be considered without relations to anything else. When considered in this way, the specific nature is not yet considered as a universal. For example, when abstracting the nature from a particular horse that one is sensing, one would apprehend the abstracted nature of *that* particular horse. That is *not* to say, that the abstracted nature is a particular; it is universal insofar as it has been abstracted from matter and the concrete conditions of matter.[126] Nevertheless, the intellect is not considering the abstracted nature in relation to anything else (i.e., as one in relation to many particulars), so it is not yet understood as universal. The second way that the nature is considered is in relation to other particulars. Having abstracted the nature of that

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126. Recall that the intelligible species can be considered epistemologically or ontologically. Epistemologically, the intelligible species conveys a nature that is devoid of the concrete conditions of matter and devoid of matter. Ontologically, the intelligible species is a particular; it is an accident inherening in the possible intellect.

particular horse, the intellect by means of the phantasm, which is a medium for cognition not an object of cognition, compares the abstracted nature to the many particular horses existing in extra-mental reality; by doing so, the intellect realizes that the abstracted nature is present in the many particular horses. In other words, one operation is to apprehend an abstracted nature and another operation to recognize that the abstracted nature is universal (one over many). The fact that the intellect is that which ascribes universality is a point on which Aquinas, Avicenna, and Averroes agree.[127] Without its immateriality, universality would not be possible. Moreover, the intellect's immateriality is the basis for its power of retaining intelligibles.

Unlike for Avicenna, who denied that the intellect is able to store intelligibles,[128] Aquinas argues that humans have intellectual memory, and for the most part, his argument rests on the immateriality of the soul. Aquinas states:

> First, because the possible intellect is of a more stable of nature than the senses necessarily that species received in it is more stably received. Hence [the intelligible] species are better able to be conserved [in the possible intellect] than in the sensitive part (i.e., in the imagination).[129]

One must remember that form and matter are metaphysical constructs intended to explain the problem of being and becoming. Form is meant to account for the actuality and permanence of a given entity, whereas matter is meant to account for the potentiality and

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127. Aquinas, *DeEnte*, Ch. 2, p. 375: Et ex hoc quod talem relationem habet ad omnia individua intellectus adinvenit rationem speciei et attribuit sibi; unde dicit Commentator in principio De Anima quod "intellectus est qui agit in rebus universalitatem"; hoc etiam Avicenna dicit in sua Metaphysica. Et quamvis haec natura intellecta habeat rationem universalis secundum quod comparatur ad res extra animam, quia est una similitudo omnium, tamen secundum quod habet esse in hoc intellectu vel in illo est quaedam species intellecta particularis.

128. See page 91 note 44.

129. Aquinas, *QDVer*, Q. 10, A. 2, Response: primo, quia cum intellectus possibilis sit stabilioris naturae quam sensus, oportet quod species in eo recepta stabilius recipiatur; unde magis possunt in eo conservari species quam in parte sensitiva.

change of a given entity. Aquinas is using an *a fortiori* argument. He argues that if an unstable place such as the imagination, which resides in a material organ, is able to retain imaginative forms *a fortiori* a stable place such as the possible intellect is much more suitable for the storing of intelligible forms.

Now that we have examined the characteristics that make the possible intellect a suitable subject for intelligibles, let us consider the operations of the possible intellect. In addition to the characteristics mentioned above, from the aforementioned texts, we see that there are five operations that the possible intellect can perform. First, the possible intellect is able to reflect upon its own activity so that it knows that it is knowing. Second, the possible intellect is able to reflect upon the intelligible species by which it knows. Third, after having received the intelligible species, the possible intellect is cognizant of the nature that exists in the particular existent.[130] Fourth, from the fact that intelligible species are stored, the possible intellect is able to operate as it wills and is able to understand.[131] Fifth, the possible intellect is able to form a concept, which serves as the subsequent basis for enunciation.[132]. As is evident, there is much to consider when examining Aquinas's natural epistemology, let us quickly review before proceeding to

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130. Thomas Aquinas, *Sentencia de anima* (Rome: Leonine Commission, 1984), Bk. 2, Lession 12: Relinquitur igitur, quod natura humana non habet esse praeter principia individuantia, nisi tantum in intellectu.

131. Aquinas, *S.T.*, Ia Q. 79, A. 6, Response: Ex hoc ergo quod recipit species intelligibilium, habet quod possit operari cum voluerit, non autem quod semper operetur, quia et tunc est quodammodo in potentia, licet aliter quam ante intelligere; eo scilicet modo quo sciens in habitu est in potentia ad considerandum in actu.

132. Aquinas, *S.T.*, Ia Q. 85, A. 2, ad 3: Nam primo quidem consideratur passio intellectus possibilis secundum quod informatur specie intelligibili. Qua quidem formatus, format secundo vel definitionem vel divisionem vel compositionem, quae per vocem significatur. Unde ratio quam significat nomen, est definitio; et enuntiatio significat compositionem et divisionem intellectus. Non ergo voces significant ipsas species intelligibiles; sed ea quae intellectus sibi format ad iudicandum de rebus exterioribus.

Aquinas's supernatural epistemology.

Review of Aquinas's Natural Epistemology

In sum, the possible intellect is the subject of intelligibles for Aquinas, and hylomorphism$_4$ with its unique relation of form to matter allows the possible intellect to remain unaffected by matter. The immateriality of the soul allows Aquinas (1) to ascribe intelligibility in act to the intelligible species, (2) to ascribe universality to the *ratio* that is conveyed through the species, and (3) to ascribe memory to the possible intellect as well. In addition, the receptivity of the possible intellect allows intelligible species to inhere in it. Although there is more that can be said concerning the concept and the mental word, it is beyond the scope of this dissertation. The point of this chapter was to establish the fact that Aquinas had two forms of hylomorphism: hylomorphism$_3$, which applied to non-rational entities, and hylomorphism$_4$, which applied to rational entities. Notwithstanding the essence-existence distinction in the composition of hylomorphic$_3$ entities, this kind of hylomorphism was similar to that which was held by Averroes, Aristotle, and Avicenna. This kind of hylomorphism along with the rejection of the forms gives rise to the Aristotelian aporia; it is this kind of hylomorphism that serves as the fulcrum that made it necessary to teeter between two exclusive views of the soul (i.e., either the soul is the form of the body or it is a spiritual substance). Aquinas's innovative form of hylomorphism$_4$ allows him to get rid of the fulcrum that causes one to teeter between these two options. Instead, it allows Aquinas to assert that the soul is a spiritual substance and the form of the body. However, this new form of hylomorphism$_4$ is not without consequences because the weaknesses inherent in both Avicenna's and Averroes' position are inherited by Aquinas. Because the soul is not immersed in matter, there is part of the soul that is wholly immaterial and wholly unaffected by the body. Consequently, Aquinas faces an ontological gap between the material world and the immaterial intellect just as do Avicenna and Averroes.

Whereas Avicenna tried to resolve the problem by having only the immaterial intellects affect the immaterial soul and whereas Averroes attempted to transfer the *ratio* from a material substance to an immaterial substance, thereby transferring the mode of being of the *ratio* from material to immaterial, Aquinas's approach is different from Avicenna's and analogous to Averroes'. Wanting to affirm that our intellectual knowledge is concerning things in the world, Aquinas, as does Averroes, needs a power that is devoid of intelligible forms, yet able to act on imaginative forms. As for Averroes, the agent that transfers the *ratio* is the agent intellect. However, unlike Averroes' Agent Intellect, which was one eternal substance in which each individual participated, Aquinas's agent intellect is a power in each human soul through which each soul is informed not by God, but by the phantasms found in the imagination.

The intelligible species is necessary as the vehicle that allows Aquinas to bridge the ontological gap that he had created with his new form of hylomorphism$_4$. The intelligible species, serving as a vehicle, conveys a *ratio* which presents the specific nature of a particular thing to the intellect. By means of abstraction$_4$, the agent intellect is able to produce an intelligible species which is received into the possible intellect. Aquinas is clear that phantasms and intelligible species are not objects of cognitions except reflexively. Instead, they are means of cognition. As a result of the reception of an intelligible species, the nature of extra-mental things in the world is cognized by the intellect. When that specific nature is considered in itself, it is treated as a nature of a particular, but when the intellect compares that nature to the extra-mental existents, it confers universality to the nature, for it is able to understand that the same nature is present in other extra-mental existents. The basis for the universality of the natures conveyed to the intellect and the basis for the retention of the intelligible species is the immateriality and spirituality of the soul, which is only possible because the soul is not immersed in matter.

In addition to being a suitable subject for the reception of intelligibles, the possible intellect has several operations; one of its operations is concept formation. Concept formation provides the ontological basis for enunciation.[133] One must remember that Aquinas avoids making phantasms and intelligible species objects of cognition. Because some have conflated Aquinas's natural epistemology with his supernatural epistemology, I shall briefly review Aquinas's supernatural epistemology in order that I may correct some views in the next chapter.

Aquinas's Super-Natural Epistemology

Aquinas's Super-Natural Epistemology is divided into two main branches: supernatural knowing while embodied on earth and supernatural knowing in a beatific state. In this section, I shall examine both forms of supernatural knowing. However, before I do so, it is important that we understand God's role in knowing.

On page 167, I stated that God is the primary efficient cause of knowing. In his early work, *The Commentary on the Sentences of Peter Lombardi*, Aquinas elaborates on how God is involved in *all* knowing in such a way that would explain how it is the case that God teaches all, and how it is the case that *only* God is said to teach. Aquinas writes:

> To the fourth it should be said that just as in natural actions, an inferior agent does not have the efficacy to produce an effect except through the power of the first agent (i.e., God), which [power] more vehemently impresses upon the effect [than does the secondary agent], so also in a subordinate illuminator is able to effect nothing except through the power of the first illuminator. Consequently, it is God himself who teaches all [subordinate illuminators]. Nevertheless, this does not exclude illumination from others, just as the natural action from natural agents [is not excluded].[134]

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133. Although concept formation is beyond the scope and purpose of this dissertation, I will briefly allude to it in chapter five.

134. Aquinas, *Sent*, Bk. 2, D. 9, A. 2, RA. 4: Ad quartum dicendum, quod sicut in actionibus naturalibus inferius agens non habet efficaciam in productione effectus nisi per virtutem agentis primi, quae vehementius imprimit in effectum; ita etiam in intellectualibus inferior illuminans nihil potest efficere nisi per virtutem primi illuminantis: et propter hoc ipse deus est qui omnes docet; nec tamen excluditur ab aliis illuminatio, sicut nec ab agentibus naturalibus naturalis actio.

Aquinas here is using a principle found in the *Book of Causes*.[135] The principle states that each primary cause is more penetratingly influential upon its effect than any secondary universal cause. The implications of this principle are the following: (1) The primary cause is *more* a cause of an effect than a secondary cause; (2) a secondary cause does not produce its effect *except* by the power that it receives from the primary cause.[136] Consequently, in *any* activity, God is involved inasmuch as he is empowering the creature so that it may act. Thus, in the aforementioned text, God is said to teach inasmuch as he provides the ability to learn. Aquinas proceeds to affirm that this does not exclude learning from others. To clarify his point, Aquinas gives an analogy concerning visible objects. He writes:

> The human being comes into sensible cognition of colors from two things, namely from the visible object, and from light under which it is seen (hence each is said to "show forth" the thing, namely the light, the one who prepares, and the one who presents the object) so also for intellectual cognition two [conditions] are required, namely the intelligible itself and the light through which it is seen. For this reason in two ways it is said [that] someone teaches: either just as putting forth the intelligible or as offering the light for understanding. This light however is two-fold. One [is] intrinsic or connatural to the intellect, to which is similar the light which is from the composition of the eye, and through the conferring of this light *only* God is said to teach. The second light supervenes for the strengthening of the connatural light, to which the light of the sun or of a candle is similar in corporeal vision; and thus an angel is able to illuminate another angel or also a man for knowing something.[137]

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135. Thomas Aquinas, *Sancti thomae de aquino super librum de causis expositio*, H. D. edited by Saffrey (Louvain: Nauwelaerts, 1954), Lesson 1: Omnis causa primaria plus est influens super suum causatum quam causa secunda universalis.

136. Aquinas, *DeCausis*, Lesson 1: Ergo prima causa est magis causa effectus quam causa secunda.... Causa secunda non agit in causatum suum nisi virtute causae primae.

137. Aquinas, *Sent*, Bk. 2, D. 9, A. 2, RA4: in cognitionem coloris sensibilem pervenit homo ex duobus, scilicet ex visibili objecto, et ex lumine sub quo videtur (unde et uterque dicitur demonstrare rem, scilicet qui lumen praeparat, et qui objectum repraesentat) ita etiam ad cognitionem intellectualem duo exiguntur; scilicet ipsum intelligibile, et lumen per quod videtur; et ideo dupliciter dicitur aliquis docere; vel sicut proponens intelligibile, vel sicut praebens lumen ad intelligendum. Hoc autem lumen est duplex. Unum intrinsecum vel connaturale intellectui, cui similatur lumen quod est de

Using the analogy, Aquinas makes a distinction between *what is known* and *that by which* something is known. Concerning *how* things are known, Aquinas gives two causes: an intrinsic cause and an extrinsic cause. The intrinsic cause is natural to the intellect and is provided by God alone. The extrinsic cause, on the other hand, may be provided by a secondary cause to help a secondary agent (e.g., humans and angel) know. One may wonder: what is this "internal light" that God is providing. To answer, we need to look elsewhere.

In *Questiones disputatae de anima*, Aquinas informs us that the interior light is the agent intellect:

> Colors moving vision exist outside the soul, but phantasms, which move the possible intellect, are intrinsic to us. For this reason, although the exterior light of the sun suffices for making colors visible in actuality, nevertheless, for making phantasms become intelligibles in act, an *interior light is required, which is the light of the agent intellect*.[138]

The agent intellect is this interior light, for it is a power of the human soul that proceeds necessarily from the essence of the human soul, always under the primary causality of God; in this sense, the agent intellect is natural in us. Consequently, it is not necessary that another light be added to this emanation in matters which fall under natural reason.[139] That is to say, the agent intellect has sufficient power (along with the phantasm

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compositione oculi; et per collationem hujus luminis solus deus docere dicitur. Secundum lumen est superveniens ad confortationem connaturalis luminis, cui similatur in visu corporali lumen solis vel candelae; et sic potest Angelus alium Angelum vel etiam hominem illuminare ad aliquid cognoscendum.

138. Aquinas, *QDAnima*, Pro, A.5, RA. 7: Ad septimum dicendum, quod colores moventes visum sunt extra animam; sed phantasmata, quae movent intellectum possibilem, sunt nobis intrinseca. Et ideo, licet lux solis exterior sufficiat ad faciendum colores visibiles actu, ad faciendum tamen phantasmata intelligibilia esse actu, *requiritur lux interior, quae est lux intellectus agentis*. [emphasis added]

139. Aquinas, *Sent*, Bk. 2, D. 28, A. 5, RA4: Ad quartum dicendum, quod ipsum lumen intellectus agentis est quaedam irradiatio primae lucis... et ideo non oportet quod huic irradiationi aliud lumen superaddatur in his quae naturali rationi sunt subdita.

that functions like a material cause and provides the *ratio*) to account for the active component of natural reason. Of course, it would not be sufficient in an unqualified sense because the receptivity of the possible intellect is also required. It is no wonder that from the beginning of his career, Aquinas will also refer to the agent intellect as a "natural light."[140]Aquinas contrasts the "natural light" with "super-natural" light. Whereas natural light is used to understand the natural order of things, super-natural light is used in two ways: (1) to convey "super-natural" knowledge to a person on earth (e.g., a prophet); or (2) to allow believers to see the face of God when they are in heaven.[141]

At this point, one may wonder, if God is the primary efficient cause, then would not God be involved in both natural and supernatural knowing, for it is He who confers the ability to know to every rational creature? So, to make the distinction between supernatural and natural knowing seems to commit the fallacy of a distinction without a difference. However, Aquinas does not commit this fallacy. In the following text, Aquinas conveys the distinction:

> If the agent intellect were some separated substance, it is manifest that it is *beyond* the nature of man. However, an operation that a man performs only by the power of some supernatural substance, is supernatural: just as performing miracles and prophesying and other [operations] of this kind that humans perform by divine dispensation. Since, therefore, man cannot understand except through the power of the Agent Intellect, if the Agent Intellect were some separated substance, it would follow that knowing is not a natural operation to man. And, thus, he would not be able to be defined by the fact that he is intellectual or

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140. Aquinas, *Sent*, Bk. 3, D. 24. Q. 1 A. 2, Response: videmus quando per lumen intellectuale ipsa forma intellectualis fit in intellectu nostro; sive illud lumen sit naturale; sicut cum intelligimus quidditatem hominis, aut alicujus hujusmodi.

141. Aquinas, *Sent*, Bk. 3, D. 24, Q. 1, A.2, Response: videmus quando per lumen intellectuale ipsa forma intellectualis fit in intellectu nostro; sive illud lumen sit naturale; sicut cum intelligimus quidditatem hominis, aut alicujus hujusmodi; sive sit supernaturale, sicut quo deum in patria videbimus. Et ulterius videri per intellectum dicuntur illa complexa quorum cognitio ex praedicta visione consurgit; sicut per lumen naturale videmus principia prima quae cognoscimus statim, ut terminos; sive per lumen supernaturale, sicut est visio prophetiae.

rational.[142]

Two criteria must be fulfilled for knowing to be classified as natural knowing. One criterion for an operation to be considered natural to humans is that it must be an operation that is performed by powers that are formally inherent in human beings, for nothing operates except through some power that is formally in it.[143] Thus, Aquinas would classify Avicenna's epistemology and Averroes's epistemology as supernatural, for both assert that the Agent Intellect is a separated substance ontologically separate from each human, not to mention that Averroes also asserts that the Material Intellect is a separated substance ontologically separate from each human. It should come as no surprise that Aquinas appeals to Avicenna's epistemology to give a philosophical account of prophecy[144] and to Averroes' epistemology to give a philosophical account of beatification.[145] That is to say, Aquinas will appeal to their epistemologies to give an account of supernatural knowing.

The other criterion that is not immediately evident in the aforementioned text is that the content for natural knowing *must* be garnered from the natural world. Avicenna's

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142. Aquinas, *SCG*, Bk. 2, Ch. 76: Si intellectus agens est quaedam substantia separata, manifestum est quod est supra naturam hominis. Operatio autem quam homo exercet sola virtute alicuius supernaturalis substantiae, est operatio supernaturalis: ut miracula facere et prophetare, et alia huiusmodi quae divino munere homines operantur. Cum igitur homo non possit intelligere nisi virtute intellectus agentis, si intellectus agens est quaedam substantia separata, sequetur quod intelligere non sit operatio naturalis homini. Et sic homo non poterit definiri per hoc quod est intellectivus aut rationalis.

143. Aquinas, *SCG*, Bk. 2, Ch. 76: Nihil operatur nisi per aliquam virtutem quae formaliter in ipso est: unde Aristoteles, in II de anima, ostendit quod quo vivimus et sentimus, est forma et actus. Sed utraque actio, scilicet intellectus possibilis et intellectus agentis, convenit homini: homo enim abstrahit a phantasmatibus, et recipit mente intelligibilia in actu; non enim aliter in notitiam harum actionum venissemus nisi eas in nobis experiremur. Oportet igitur quod principia quibus attribuuntur hae actiones, scilicet intellectus possibilis et agens, sint virtutes quaedam in nobis formaliter existentes.

144. See note 150 on page 189.

145. See note 156 on page 191.

epistemology is disqualified because the formal content is provided by the Agent Intellect. Recall that for Avicenna, an abstraction$_4$ flows from the immaterial intellect into the human soul, and by means of that abstraction$_4$ the intelligibles (i.e., abstractions$_5$) in the Agent Intellect become present to the human intellect. Averroes's epistemology, on the other hand, would not have been discounted based on this criterion, for there is an actual transfer of the *ratio* from the material world to the Material Intellect. That is to say, a transfer of the *ratio* from a material mode of being to an immaterial mode of being.[146] However, even if one accepts that the Agent Intellect is "form for us" in a kind of Aristotelian participation, as Taylor states,[147] it does not follow that the Material Intellect is formally in each person. Given that Averroes does not state that the Material Intellect is form for us, some arguments must be given showing why and how the Material Intellect is form for us. Consequently, Averroes' Material Intellect does not meet the first criterion. Let us now turn to the two forms of supernatural knowing: prophecy and beatification.

Regarding prophecy, it is important to know that unlike the "light" that is natural and intrinsic to the human intellect, the "light" needed for prophecy is extrinsic to the human soul.[148] That is to say, it is an operation that exceeds human nature. In addition, the "light" needed for prophecy does not remain in the prophet, but it is like some sort of passion that impresses itself in the soul of the prophet only during the time of divine

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146. See note 109 on page 112.

147. Taylor, "Intellect as Intrinsic Formal Cause in the Soul According to Aquinas and Averroes," p. 208.

148. Aquinas, *QDVer*, Q. 12, A. 1, Response: In intellectu igitur humano lumen quoddam est quasi qualitas vel forma permanens, scilicet lumen essentiale intellectus agentis, ex quo anima nostra intellectualis dicitur. Sic autem lumen propheticum in propheta esse non potest.

inspiration.[149] Citing Avicenna, Aquinas affirms that the mind of the prophet becomes more positively disposed for future inspirations with each inspiration. As a result of having been inspired, the mind of the prophet becomes more disposed for further inspiration just as Avicenna states, the habits of science in us are nothing other than dispositions of the soul for receiving light from the agent intellect and for receiving intelligible species flowing into [the soul] from the Agent Intellect.[150] Aquinas is not affirming that one should accept the Agent Intellect as a source of knowledge; instead he is asserting that God or an angel would function in a manner similar to Avicenna's Agent Intellect.[151] Hence, although Aquinas rejects Avicenna's epistemology for natural knowing, he has no problem using it to describe supernatural knowing.

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149. Aquinas, *QDVer*, Q. 12, A. 1, Response: Unde oportet quod lumen propheticum non sit habitus, sed magis sit in anima prophetae per modum cuiusdam passionis ut lumen solis in aere. Unde, sicut lumen non remanet in aere nisi apud irradiationem solis, ita nec lumen praedictum remanet in mente prophetae nisi quando actualiter divinitus inspiratur.

150. Aquinas, *QDVer*, Q. 12, A. 1, Response: Unde et mens prophetae postquam fuerit semel vel pluries divinitus inspirata, etiam actuali inspiratione cessante remanet habilior ut iterum inspiretur. Et haec habilitas potest habitus prophetiae dici; sicut etiam Avicenna dicit, VI de naturalibus, quod habitus scientiarum in nobis nihil aliud sunt quam habilitates quaedam animae nostrae ad hoc quod recipiat illustrationem intelligentiae agentis, et species intelligibiles ab ea in se effluentes. cf. Avicenna, *Liber de anima seu sextus de naturalibus*, Bk. 6, Ch. 5, p. 151: Cum vero homo habet hoc in seipso non aliunde, vocatur haec aptitudo subtilitas ; quae so aptitudo aliquando in aliquibus hominibus ita praevalet quod ad coniungendum se intelligentiae non indiget multis, nec exercitio, nec disciplina, quia est in eo aptitudo secunda ; immo, quia quicquid est, per se scit : qui gradus est altior omnibus gradibus aptitudinis. Haec autem dispositio intellectus materialis debet vocari intellectus sanctus qui est illius generis cuius est intellectus in habitu, sed hic est supremus in quo non omnes homines conveniunt.

151. Recall that Avicenna's Agent Intellect contains the intelligibles in act (i.e., abstractions$_5$). Also recall that there is no intellectual memory in Avicenna; therefore, when one desires to know intellectually one must receive an abstraction$_4$ from the Agent Intellect, a separated, immaterial entity.

Supernatural knowing can happen in one of four ways.[152] First, it can happen with only the reception of some content. Second, it can happen with the reception of only discernment. Third, it can happen with the reception of both content and discernment. The fourth way that supernatural knowing can happen is "face to face," and typically this is reserved for the beatific state. Aquinas divides the supernatural reception of content into three kinds of vision. The first kind is according to bodily vision, when God makes something visible to corporeal eyes. The second kind of vision is according to imaginary vision. The last type of vision is intellectual vision. Intellectual vision occurs when something is made present to the intellect, and what is made present to the intellect is beyond the natural operations (e.g., knowledge of future contingents).

Aquinas is clear that the human intellect is naturally in potency to all intelligible forms from sensible things; this kind of reception is not supernatural. Only when forms are received into the intellect that are not naturally formed can one classify them as supernatural. For example, the viewing of angels or God is beyond the power of the human intellect; thus, if such viewing were to occur, it would be supernatural. When there is reception of content (e.g., sensible species, imaginative species, or intelligible species) that did not originate in the natural world, one has supernatural knowing. However, concerning discernment, there is no species received. Instead, there is an external "light" infused into the intellect of the recipient. The purpose of the "light" is to strengthen that person's understanding, so that he or she would be able to understand.[153]

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152. See note 153 below.

153. Aquinas, *QDVer*, Q. 12, A. 7, Response: Sed prima supernaturalis acceptio, scilicet quae est secundum corporalem visionem, est infra propheticam acceptionem; quia per hanc acceptionem non praefertur propheta aliis quibuscumque; cum speciem divinitus formatam ad videndum, omnes aequaliter videre possint. Supernaturalis ergo acceptio quae est propria prophetiae, est acceptio imaginariae visionis. Sic ergo omnis propheta vel habet iudicium tantum supernaturale de his quae ab alio videntur, sicut ioseph de visis a Pharaone; vel habet acceptionem simul cum iudicio secundum imaginariam visionem. Iudicium igitur supernaturale prophetae datur secundum lumen ei infusum, ex quo

Although all of these instances of supernatural knowing are miraculous, they are all inferior to the ultimate form of supernatural knowing, seeing God face to face.

Looking for a means to describe the beatific vision, Aquinas discounts Avicenna's solution because everything which is received in something is in it in the mode of the recipient. Consequently, as he puts it, "the likeness of the divine essence impressed by it on our intellect will be through the mode of our intellect."[154] As Richard Taylor points out, "That is, what will be in the human intellect will be imperfect and diminished in accord with the mode and nature of our imperfect human intellects, not in accord with the divine essence itself."[155] Instead, Aquinas borrows from Averroes because in order to know separate substances (e.g., God), the separate intellect must be both that *by which* we know and *that which* we know.[156] In other words, the separated

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intellectus roboratur ad iudicandum; et quantum ad hoc nullae species exiguntur. Sed quantum ad acceptionem requiritur nova formatio specierum, sive ut fiant in mente prophetae species quae prius non fuerunt, utpote si alicui caeco nato imprimerentur species colorum; sive ut species praeexistentes ordinentur et componantur divinitus tali modo quod competat significationi rerum quae debent prophetae ostendi. Et per hunc modum concedendum est, quod prophetae revelatio non solum fit secundum lumen, sed secundum species etiam; quandoque vero secundum species; quandoque vero secundum lumen tantum.

154. Richard C. Taylor, "'The Role of Arabic/Islamic Philosophy in Thomas Aquinas's Conception of the Beatific Vision in His Commentary on the Sentences IV, d.49, q.2, A. 1'" (Presented in March 2009 at the Bibliothèque du Saulchoir, Paris. Unpublished conference presentation), p. 17.

155. Ibid.

156. Aquinas, *Sent*, Bk. 4, D. 49, Q. 2, A. 1, Response: Et ideo alius modus intelligendi substantias separatas ponitur ab Avicenna in sua Metaph., scilicet quod substantie separate intelliguntur a nobis per intentiones suarum quidditatum que sunt quaedam ipsarum similitudines non abstracte ab eis, quia ipsemet sunt immateriales, set impresse ab eis in animabus nostris. set hic modus etiam non videtur nobis sufficere ad visionem divinam quam querimus.... Et ideo accipiendus est alius modus, quem etiam quidam philosophi posuerunt, scilicet Alexander et Averroes in III De Anima. Cum enim in qualibet cognitione sit necessaria aliqua forma, qua res cognoscatur aut videatur, forma ista qua intellectus perficitur ad videndas substantias separatas, non est quidditas quam

substance must become "form for us" and it must be intrinsic to the knower. Yet, one should not understand this as an ontological unity with the human intellect; instead, it should be understood as the relationship of the perfect to the imperfect as is the relationship of form to matter. For Thomas, "the Divine Essence must not displace the power of the human intellect;"[157] otherwise, the human intellect would not be seeing God; rather, God would be seeing himself.[158] Thus, the Divine Essence comes to be present in the human intellect as a form that actualizes the human intellect so that the human intellect is capable of seeing God.

Summary, Comments and Critique of Aquinas

It is more than a bit remarkable how prolific a writer Aquinas was in his short life time. Without a doubt, Aquinas was also a prolific reader. He was intimately aware of the epistemological solutions that had been proposed to resolve the Aristotelian aporia. This awareness stems in part from Averroes's *Long Commentary* as Aquinas himself attests.[159] Aquinas is well aware that many of his predecessors understood that the propositions "the soul is the form of the body" and "the soul is a spiritual substance" as contradictory. He is also aware that many of his Aristotelian predecessors had understood Aristotle in such a manner that would allow intellection to be inherent in the individual human as evident from his treatment in *Summa contra gentiles* chapters 56 - 70. From

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intellectus abstrahit a rebus compositis, ut dicebat prima opinio, nequa aliqua impressio relicta a a substantia separata in intellectu nostro, ut dicebat secunda, set est *ipsa substantia separata que coniungitur intellectui nostro ut forma, ut ipsa sit quod hic intelligitur et qua intelligitur*. [emphasis added]. See Taylor, "Taylor Beatific Vision," p. 19.

157. Taylor, "Taylor Beatific Vision," p. 20.

158. Ibid.

159. Aquinas, *Sent*, Bk. 2, D. 17, Q. 2, A. 1, Response: Una est Themistii et Theophrasti, ut Commentator eis imponit in 3 de anima.

Aquinas's vantage point, Avicenna and Averroes and their predecessors had all lapsed into some form of Platonism, for as soon as one accepts that intelligibles in act are *objects* of intellection existing in act, it follows that there is no longer a need for a true *abstraction* from intelligibles in potency. In an attempt to avoid the problems found in Averroes and in Avicenna, Aquinas asserts that the soul is both the form of the body and a spiritual substance. However, in order to do so, he needs to reformulate hylomorphism in a manner that was inconceivable to his predecessors; he needs to reformulate the form-matter relationship in such a way that it is asymmetric. That is to say, as I would put it, the entire soul is present to the body (i.e., the matter), but the entire body (i.e., the matter) is not present to the soul. By doing so, he allows for the possibility of intellection in humans.

Nevertheless, in the same manner that Avicenna and Averroes come to an impasse in reconciling a material body and an immaterial intellect, Aquinas too runs into the same impasse. In order to bridge the gap, he must affirm a power that is able to transfer the *ratio* in the phantasm to an immaterial intellect, and this transfer of *ratio* is evident in the work of Averroes. In addition, Aquinas needs a vehicle that allows for the transfer of the *ratio*, the intelligible species. Thus, given his new form of hylomorphism$_4$, Aquinas must affirm intelligible species to bridge the gap. Following Avicenna who makes abstractions$_4$ the *means of cognition* for beholding abstraction$_5$ (i.e., the intelligibles in act in the Agent Intellect), Aquinas makes intelligible species the *means of cognition* for beholding the natures in things from the world. Moreover, in a way different from that of his predecessors who asserted that intelligibles in act are the objects of knowledge, Aquinas asserts that intelligible species are that through which we know the nature of a particular thing existing in the world. In other words, intelligible species are used to convey the *ratio* of a thing in the world to the human intellect. Intelligible species are not *what* is known (except reflexively), but *that by which* one knows. The

ratio that is made present to the human intellect is *formally* identical in terms of its intelligible content with the nature of the thing existing in the world. It is not *formally* identical in terms of its ontological status, for in the world the form in particular existents are substantial forms, whereas in the possible intellect the intelligible species are accidents inhering in immaterial intellects. Moreover, by making the intelligible species a vehicle through which one knows, Aquinas avoids the charge that one is knowing intelligible species; by making phantasms a medium of cognition (as opposed to an object of cognition), Aquinas avoids the charge that one is knowing phantasms. Hence, Aquinas is asserting that we know things in two ways: as particulars and as universals. Universality is not a property that is affixed to an intelligible object as if there were some mental object to which the property of universality is attached. Instead, Aquinas can say that an essence *in se* is neither universal nor particular and that universality is a characteristic of essences as in the mind when compared to reality. Were one to reify universals as intelligible objects in the mind, one would be left knowing universals in the possible intellect and not in extra-mental reality. The mature Aquinas gives an account that tries to explain how we know things directly by means of distinct intelligible species in the mind that communicate the *rationes* in things. It is easy to see why Aquinas might be misunderstood as a substance dualist, for as was stated earlier, a subject is anything capable of receiving some type of form.[160] Thus, the eye is the subject of sensible species; the imagination is the subject of phantasms; the intellect is the subject of intelligible species. One can easily misunderstand Aquinas to hold a dualist position, but this would be based on an equivocation on the term "subject." For Aquinas, there are multiple subjects if one is referring to the different passive powers (albeit material or immaterial) able to receive forms. However, if one is referring to the hylomorphic entity$_4$ that is knowing, there is only one subject, one knower who is hylomorphically$_4$ composed

160. See note 74 on page 67.

in such a manner that allows that one subject to know both particulars and universals.

Chapter Summary

By analyzing Avicenna's and Averroes' solution to the Aristotelian aporia, Aquinas sees that grabbing either horn of the Aristotelian aporia prevents a hylomorphic entity from being the subject of intelligibles. Agreeing with Avicenna, Averroes and the tradition, Aquinas knows that the subject of intelligibles must be a spiritual subject, yet he needs to make the intellection inherent to each person's substantial form, which is the form of the body. By reformulating hylomorphism$_4$, Aquinas is able to grab both horns of the dilemma to resolve the aporia. Along with the benefits inherent in each view (e.g., spiritual substance and form of the body), Aquinas nevertheless inherits the weakness inherent in both views. That is to say, he inherits the ontological gap between the material world and the immaterial world. In order to overcome that gap, Aquinas needs two mechanisms. First, he needs to transfer the intention in the imagination from a material to an immaterial mode of being in the same manner that Averroes did. He also needs to affirm two subjects capable of receiving the intention under both modalities: the imagination and the possible intellect. However, unlike Averroes who has two ontologically separated substances, Aquinas has two ontologically distinct subjects that are found in a hylomorphic$_4$ entity. In addition, *properly speaking* there is only one subject of knowing, the hylomorphic$_4$ entity. From Avicenna, Aquinas derives that it is the nature of things that are being known. For one may consider the intelligible species ontologically, in which case it is an accident inhering in the possible intellect. One may also consider the intelligible species epistemologically, in which case it conveys the nature of things existing in extra-mental reality. Thus in natural knowing, one sees that Aquinas analyzes and synthesizes the views of his predecessors to make intellection inherent in the individual hylomorphic$_4$ entity, and this feat was something that none of

his predecessors satisfactorily achieved. Not only does Aquinas learn from Avicenna and Averroes to develop his doctrine of intelligible species, but he relies upon Avicenna's epistemology to account for prophecy, and he relies upon Averroes' epistemology to account for the beatific vision. In light of what has been stated in chapters 2, 3, and 4, let us examine the issues raised in chapter one.

CHAPTER 5

CONCLUSION

Introduction

As stated earlier, the primary objective of this dissertation is to show how and why intelligible species are necessary to Aquinas's epistemology. In order to demonstrate what gave rise to intelligible species, one must go back to Plato who framed the debate as to what constituted knowing. For Plato, the subject and object of knowledge must both be immaterial, for matter is an impediment to knowing. As a result, the subjects of knowledge are the immaterial human souls, and the objects of knowledge are the immaterial, unchanging forms. Yet, the unchanging forms are not the only objects of knowledge; human souls are also objects of knowledge inasmuch as they are immaterial. Thus, one finds that among the intelligibles only human souls are both intelligible and intelligizing. So, for Plato, two different realms exist, the realm of being and the realm of becoming. The realm of being contains entities that are immaterial, simple, immutable, and intelligible (i.e., it contains the forms and human souls). On the other hand, the realm of becoming contains entities that are material, complex, mutable, and unintelligible (i.e., it contains natural bodies). Having divided the material (i.e., unintelligible) from the immaterial (i.e., the intelligible), Plato has framed the debate on what constitutes knowing in a fashion that precludes knowledge from arising from the natural world.

For an empiricist like Aristotle, if there is going to be knowledge, it must be derived from the material things in the world. Thus, Aristotle denies the existence of the forms, which serve as the metaphysical basis for being and knowing in Plato's system.

Having denied the existence of the immutable, intelligible forms, Aristotle must find how material entities that are mutable and unintelligible can give rise to universal and necessary knowledge. That is to say, Aristotle must find an ontological basis for knowledge which must be immutable, necessary and universal. By revamping Platonic forms in such a fashion that they are multiplied and essentially inherent in matter, Aristotle finds the ontological basis that he needs for immutable, necessary and universal knowledge. The *substantial form* in the hylomorphic$_1$ composite becomes the ontological basis for knowledge.

Having set forth his understanding of the ontological basis for knowledge, Aristotle faces two challenges: (1) separating the substantial form so that it becomes intelligible, and (2) finding a subject suitable for the reception of intelligible forms. Concerning the first challenge, Aristotle uses the analogy of a rout during a battle. The problem with the analogy is that it tells us *that* universals come to rest in the soul, but it does not tell us how.[1] In the *De anima*, it was seen that in order for intellection to occur, there must be an active component that functions as does light in accord with Aristotelian conception of light. This active component of mind is separable, unmixed, and is essentially an activity, and it alone is immortal and everlasting. It is intelligible and intelligizing, and it is able to think itself. Without the active component, nothing is able to think. However, the active component is only one necessary aspect for thinking to occur, for the images in the imagination, which were communicated via the senses, are also necessary for thinking to occur. Aristotle does not provide sufficient detail describing the process, but he mentions that the objects of thoughts are found in sensible forms. By means of the active component, somehow the objects of thought are made visible by the light or intelligibility of the agent intellect. Yet, there is enough ambiguity in his text to allow various interpretations concerning the active component. It is unclear

1. See note 35 on page 55.

whether the active component is acting upon the imagination or even whether the active component lacks intelligible content (because Aristotle does say that the active component is able to think itself). Its ability to think itself results from the fact that the active component is immaterial; hence, it is *per se* intelligible. On the other hand, it may be able to think itself because it contains intelligible content. Having affirmed an active component that is able to separate the substantial form so as to make it intelligible, Aristotle faces his second challenge: finding a suitable subject for the reception of intelligible forms.

For Aristotle, the subject suitable for the reception of intelligibles must be unmixed with the body, for if the subject were mixed with a body, then the intelligible forms would be particularized, rendering them unintelligible. Instead, they would be received as a quality or quantity into the body. Consequently, there must be an immaterial component of mind that is receptive of intelligible forms. However, the assertion that the active and passive components of the mind must be unmixed with the body presents a grave problem for Aristotle, for according to him, all natural bodies are hylomorphic$_1$ entities in which the soul is the form of the body. Moreover, given that neither matter nor form alone are sufficient conditions to perform any operation, one finds that matter *and* form (i.e., the soul) constitute a sufficient condition for *any* operations of a hylomorphic$_1$ being. Yet, Aristotle states that intellection happens without the use of a corporeal organ. Thus, Aristotle's hylomorphism$_1$ apparently precludes the active and passive components of mind from residing in the soul if the soul is the form of the body. Consequently, either the soul is a spiritual substance but not the form of the body (Avicenna's position), or the soul is not a spiritual substance and it is the form of the body (Averroes' position). In either case, intellection cannot occur in a hylomorphic body. This is the Aristotelian aporia.

The secondary objective of this dissertation was to show that Aquinas drew deeply on Avicenna and Averroes to develop his natural and super-natural epistemologies. Let me summarize Avicenna's and Averroes' theories, and highlight the contributions to Aquinas's position. Avicenna goes to great lengths to ensure that the soul is a *spiritual substance that is not immersed in matter*.[2] By reformulating hylomorphism$_2$ so that the form of corporeity is form of the body, Avicenna is able safeguard the *immortality of the human soul and receptivity of intelligibles* (i.e., abstractions$_4$) into the soul.[3] Moreover, in Avicenna, one sees that intentional forms *become more "immaterial" as they proceed from the sensed object through the imagination*.[4] The increasing immateriality is not due primarily to the ontological status of the intentional form, but to its independence from matter. However, given the ontological chasm between two incommensurate substances, the hylomorphic$_2$ body and the spiritual soul, there appears no way to bridge the chasm. So Avicenna affirms an immaterial entity, the Agent Intellect which is replete with intelligible forms (i.e., abstractions$_5$). Each abstraction$_5$ is its own species; therefore, it cannot be multiplied because there is no principle of individuation (e.g., matter) in the Agent Intellect. Nonetheless, Avicenna asserts that *abstractions$_4$ flow from the Agent Intellect* to the individual souls in order that the intelligible forms (abstractions$_5$) in the Agent Intellect are made present to the soul. It is by means of abstraction$_4$ that abstraction$_5$ is made present to the intellect. In other words, abstraction$_4$ is not *that which* is known, but *that through which* abstraction$_5$ is known.[5] By means of abstraction$_4$, Avicenna is able to multiply the *appearance* of the intelligibles (i.e., abstraction$_5$) to multiple souls while

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2. See note 47 on page 145. See pages 72 - 77.

3. See note 43 on page 90. See note 48 on page 93.

4. See pages 81 - 86.

5. See pages 90 - 92.

simultaneously avoiding multiplying intelligibles (i.e., abstraction$_5$). Ultimately, however, intelligibles (i.e., abstraction$_5$) are only ontologically present in the Agent Intellect, and if intellection is the reception of an intelligible form (i.e., abstraction$_5$) into the soul, then properly speaking, only the Agent Intellect knows. Also, Avicenna establishes formal identity between the knowner and the know by means of two mechanisms, formal causality and common nature. Formal causality ensures that the effect (abstaction$_4$) is like its cause (abstraction$_5$), the intelligibles in the Agent Intellect, and formal causality ensures that the intentional forms in the body are like their cause, the hylomorphic entities in the world. However, given the ontological gap between the body and soul, Avicenna's doctrine of *common nature* establishes the formal identity between the sensible world and the intelligible world by allowing Avicenna to maintain that regardless of the mode of being, there is a *common nature* that provides formal identity between sensible, imaginable, and intelligible forms.

Averroes, unlike Avicenna, made no attempt to reformulate hylomorphism$_1$; he follows the tradition, so the *soul is the form of the body*, not a spiritual substance. Given that intelligibles can only be received into a spiritual substance, the body cannot be a subject of intelligibles for Averroes.[6] Like Avicenna, intentional forms become more immaterial (i.e., more spiritual) as they are propagated from the object through the senses and into the imagination. Given that the images in the imagination are only potentially intelligible and given that there cannot be an active spiritual component and a receptive spiritual component in a hylomorphic$_1$ being, Averroes must affirm two separated, spiritual substances: the Agent Intellect and the Material Intellect. Averroes' Agent Intellect has no passive potency, for its being and its activity are one and the same, and it is not able to understand anything from the material world. Furthermore, Averroes' Agent Intellect *contains none of the intelligibles that are impressed* on the Material

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6. See pages 99 - 100.

Intellect, for if it did the senses and the imagination would not be necessary.[7] The role of the Agent Intellect is to *transfer the ratio contained in the images in the imagination from one mode of being (i.e., material) to another mode of being (i.e., immaterial)*. The transfer of the *ratio* is not the moving of the *ratio* from one place to another, for the *ratio* in the imagination is numerically distinct from the *ratio* in the Material Intellect. The *ratio* in the imagination is only intelligible in potency, whereas the *ratio* in the intellect is *actually intelligible*.[8] Averroes affirms that if *intelligibles in act existed outside of the soul, there would be no reason to affirm an Agent Intellect*.[9] In addition, the *Agent Intellect* has no receptivity.[10] Unlike all the other existents in an Aristotelian framework, the Material Intellect is neither form, nor matter, nor a composite of form and matter. Its being is unlike any other existent, for although it is an intellect, it has receptivity (i.e., passive potency). When intelligibles are abstracted and impressed by the Agent Intellect, the Material Intellect confers a universal mode of being on the intelligibles because it itself is universal in its mode of being.[11] In other words, universality is not conferred by comparing the intelligible to the particulars; rather, since a thing is received according to the mode of the recipient, and the Material Intellect has a universal mode of being, then intelligibles become universal just by being received into the Material Intellect. Consequently, neither the Agent Intellect nor the Material Intellect are inherent in the substantial form of any hylomorphic$_1$ being; it is not surprising, then, that Aquinas would hold that according to the reasoning of Averroes a particular human being is rational *per*

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7. See note 103 on page 110.

8. See note 109 on page 112.

9. See note 110 on page 112.

10. See note 102 on page 110.

11. See page 116.

accidens, not *per se*. Nevertheless, Averroes himself maintains that the Agent Intellect is "form for us," and our "final form."[12] In other words, *Averroes is asserting that in some substantial manner, the Agent Intellect is present in the individual human*. Having briefly reviewed and highlighted the contributions made by Avicenna and Averroes, I shall now examine their contributions to Aquinas.

Avicenna's and Averroes' Contributions to Aquinas's Natural and Super-Natural Epistemologies

As stated earlier, Aquinas is well aware of the two solutions.[13] He is aware that Avicenna made the subject of intelligibles a spiritual substance ontologically separate from the body, and he is aware that Averroes has made the soul the form of the body. Neither solution is able to make intellection inherent in a hylomorphic being (i.e., hylomorphic$_1$ or hylomorphic$_2$). Nevertheless, from Avicenna, Aquinas accepts the notion that the soul is a spiritual substance that is not immersed in matter, and he reformulates what it means for the soul not to be immersed in matter. Whereas for Avicenna, "not immersed in matter" meant ontologically separate, for Aquinas "not immersed in matter" means transcending matter as a spiritual substance, but not ontologically separate from matter. From Averroes, he learns that he cannot have two ontologically separate subjects, and so the passive and receptive powers can only be inherent in humans if the soul is the form of the body. Thus, by affirming that the soul is a spiritual substance not immersed in matter and by affirming that the soul is the form of the body, Aquinas is able to make intellection inherent in humans. Moreover, by affirming the soul is a spiritual substance, he is able to safeguard the Catholic doctrine concerning the immortality of the soul. And so by analyzing and synthesizing Avicenna's

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12. See note 127 on page 119.

13. See page 125.

and Averroes' positions, he is able to reformulate hylomorphism$_4$ so that the active and receptive components of intellection inhere as powers of the soul.

Except for his reformulation of hylomorphism$_4$, for the most part, Aquinas follows Avicenna and Averroes inasmuch as he agrees that intentional forms, which Aquinas calls species, are propagated from physical objects to the senses and to the imagination. He also agrees that intentional forms are most material as they are emitted from physical objects and that they are least material in the imagination. Nevertheless, as for Averroes and Avicenna, there is an ontological chasm between the imagination and receptive component of the intellect, for nothing material can affect an immaterial substance.

Following in the steps of Averroes, Aquinas's agent intellect does not contain any intentions. Furthermore, the agent intellect's primary role is to transfer the *ratio* from one subject, the imagination, to another subject, the possible intellect. Given that the imagination has a material mode of being and given that the possible intellect has an immaterial mode of being, the agent intellect is responsible for transferring the *ratio* from one mode of being to another mode of being, just as Averroes had stated.[14] However, instead of having two ontologically separate subjects as for Averroes, Aquinas has two ontologically distinct subjects (i.e., the imagination and the possible intellect) in one hylomorphically$_4$ united entity who is the subject of intellection and knows particulars and universals.[15] Aquinas, however, parts company with Averroes because Averroes' abstraction gives rise to intelligibles in act in the Material Intellect which are the object of knowledge for Averroes. In contradistinction, Aquinas's abstraction gives rise to an intelligible species, which is that *through which* one knows, not *that which* one knows. In other words, Aquinas's intelligible species is functioning similar to Avicenna's

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14. See note 109 on page 112.

15. See note 74 on page 67 for the various ways that "subject" is being used.

abstraction$_4$ inasmuch as it directs intellection to something other than itself.[16] However, whereas Avicenna's abstractions$_4$ directed one to intelligibles in act (i.e., abstraction$_5$) in the Agent Intellect, Aquinas's intelligible species direct one to the *natures* that exist in hylomorphic entities (hylomorphic$_3$ and hylomorphic$_4$) of the world. In a manner similar to Averroes, Aquinas holds for a genuine abstraction of intelligibles from the intelligibles in potency present in the intentions apprehended through sensation and grounded in the things of the world. The intelligible species performs this function by moving the possible intellect from potency to actuality and by specifying and determining the possible intellect with the *ratio* that was transferred from the imagination. Aquinas follows the account of Averroes, though he rejects Averroes's notion of unique separate intellects shared by all human knowers. After the possible intellect has been specified and determined, by means of the intelligible species, one is aware of the nature that has been conveyed by means of the *ratio*. Aquinas accepts Avicenna's notion of common nature. The fact that the common nature in itself is indifferent to its mode of being (e.g., in a particular existent, in the imagination, and in the human soul) serves as the ontological basis for universals. By comparing the abstracted nature to all the particulars, the intellect becomes aware that the abstracted nature is common to all the particulars and recognizes that the abstracted nature is universal, just as Avicenna had stated.[17]

In addition to providing a context and the material components from which Aquinas would draw his natural epistemology, the accounts of Averroes and Avicenna also served as the basis for Aquinas's supernatural epistemology. Aquinas is clear that if the formal content is derived from something that is beyond human nature, or if an operation is performed only by a supernatural agent, then that operation is supernatural or miraculous. When it comes to prophecy, Aquinas says that prophecy happens in the

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16. See pages 90 thru 92.

17. See note 111 on page 169.

manner that Avicenna had said concerning the Agent Intellect. Furthermore, when it comes to the beatific vision, Aquinas says that no intelligible species is adequate for seeing God. Instead, God raises our powers and becomes that which we know and that through which we know.[18] That is to say, God becomes "form for us" as Averroes had stated concerning the Agent Intellect. Having addressed my secondary objective, I now turn to my third objective, the critical analysis of direct realist and representationalist positions in light of the foregoing account of the sources and nature of the teaching of Aquinas on intelligible species.

Response to the Representationalists and the Direct Realists

The analysis that follows requires two important distinctions. First, in *The Cambridge Dictionary of Philosophy 2nd Edition* under the article entitled direct realism, we find the following:

> The theory that perceiving is epistemically direct, unmediated by conscious or unconscious inference. Direct realism is distinguished, on the one hand, from indirect, or representative, realism, the view that perceptual awareness of material objects is mediated by an awareness of sensory representations, and on the other hand, from forms of phenomenalism that identify material objects with states of mind. It might be thought that direct realism is incompatible with causal theories of perception. Such theories invoke causal chains leading from objects perceived (causes) to perceptual states of perceivers (effects). Since effects must be distinct from causes, the relation between an instance of perceiving and an object perceived, it would seem, cannot be direct. *This, however, confuses epistemic directness with causal directness. A direct realist need only be committed to the former.*[19]

One must make a distinction between epistemic directness and causal directness. If direct

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18. Aquinas, *Sent*, Bk. 4, d. 49, q. 2, a. 1, ra 15: In visione igitur patriae non erit tertium medium, ut scilicet deus per species aliorum cognoscatur, sicut nunc cognoscitur, ratione cujus dicimur nunc videre in speculo; nec erit ibi secundum medium, quia ipsa essentia divina erit qua intellectus noster videbit deum, ut ex dictis patet; sed erit ibi tantum primum medium, quod elevabit intellectum nostrum ad hoc quod possit conjungi essentiae increatae modo praedicto. Sed ab hoc medio non dicitur cognitio mediata, quia non cadit inter cognoscentem et rem cognitam, sed est illud quod dat cognoscenti vim cognoscendi.

19. Heil, "Direct Realism," p. 237. [Emphasis Added]

realism can *only* be defined as causal directness, then by definition, there can be no direct realism for the materialist or for those who believe in material and immaterial entities. The materialist cannot be a direct realist because retinal images, electrical impulses via the optic nerve, the firing of synapses, and a litany of other biochemical reactions serve as *causal* intermediaries between extra-mental objects and the portion of the brain that is cognizant of the extra-mental object. Similarly, the epistemologies of Avicenna, Averroes, and Aquinas would have to be discounted as well because of the various intermediary *intentions* inherent in their systems. It would seem that only Plato could be a direct realist inasmuch as the immaterial soul is beholding immaterial forms. Yet, it would seem to be the case that those who hold that direct realism can only be defined as *causal directness* may be committing the *redefinist fallacy*. For they have not proven their position, but rather merely defined it.[20] Unless some argument is given why *epistemic directness* is impossible, then one may still coherently hold to direct realism while denying causal directness.

The denial of causal directness implies that there are intermediaries between the knower and the known. Depending on how one defines "intermediary," the *epistemic directness* position may be incoherent or coherent. If one defines "intermediary" as an object of cognition (i.e., that which is known), then the *epistemic directness* position is incoherent because what is being known is the object of cognition, not the thing in itself. If, on the other hand, one defines "intermediary" as the means of cognition (i.e., that through which something is known), then the position is coherent. In Aquinas's epistemology, the sensible species[21] and the intelligible species are not that which are

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20. James W. Cornman, Keith Lehrer, and George S. Pappas, *Philosophical Problems and Arguments* (Indianapolis: Hackett, 1992), p. 25.

21. See note 118 on page 173.

known, but that through which one knows.[22] Furthermore, the phantasm is not an object of cognition but a medium (i.e., a means) of cognition.[23] Whether or not the concept precludes *epistemic directness*, depends on what aspect of the concept one focuses on, for Aquinas writes:

> [The] concept of the intellect is a medium between the intellect and the understood thing [i.e., thing existing in extra-mental reality] because through [the concept's] mediation the operation of the intellect extends to the thing [existing in extra-mental reality]. For this reason, the concept of the intellect is not only *that which is understood*, but also that *by which* the thing is understood. In this way, that which is understood can be called both the thing itself and the concept belonging to the intellect. Similarly, what is said can be called both the thing which is meant by the word and the word itself.[24]

If the concept were *solely that which is understood*, then Aquinas's position would be incompatible with *epistemic directness*. However, Aquinas tells us that the concept is also that *by which* the thing [existing in extra-mental reality] is understood. Consequently, Aquinas's position is consonant with *"epistemic directness* direct realism." Let us revisit the issues raised in chapter one now that we have made the distinction between causal directness and epistemic directness.

For Klima, the intelligible species is what is ontologically present to the intellect, and by virtue of the intelligible species, the common nature is represented in the intellect.[25] If one looks at the ontological status of the intelligible species as the basis for determining whether Aquinas is a representationalist, then Aquinas is a

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22. See note 119 on page 174.

23. See note 116 on page 172.

24. Aquinas, *QDVer*, p. 124: [C]onceptio intellectus est media inter intellectum et rem intellectam, quia ea mediante operatio intellectus pertingit ad rem. Et ideo conceptio intellectus non solum est *id quod intellectum est, sed etiam id quo res intelligitur;* ut sic id quod intelligitur, possit dici et res ipsa, et conceptio intellectus; et similiter id quod dicitur, potest dici et res quae dicitur per verbum, et verbum ipsum.[emphasis added]

In Aquinas's mature works, he no longer states that the concept is that which is understood "*id quod intellectum est*."

25. See note 13 on page 6.

representationalist because the intelligible species is ontologically distinct from the nature that exists in a hylomorphic entity. In other words, the nature of the hylomorphic entity arises as a result of its substantial form, but in the intellect, the intelligible species is only an accident inhering in an immaterial substance. Given that the substantial form and an accident are not ontologically the same, then the intelligible species must be some kind of representation that serves as an intermediary. However, one must recall that following Avicenna, Aquinas stated that the understood thing is able to be considered either ontologically or epistemologically.[26] Thus, one may still be a direct realist while denying causal directness. One may maintain epistemic directness, and thus, the intellect is directly aware of the *nature* of the thing, the intelligible intention that was abstracted from the particular, for it is the nature that was conveyed by means of the intelligible species. Consequently, one need not conclude with Klima that Aquinas is a representationalist, for one need not subscribe to the notion of causal directness to maintain a direct realist position.

Similarly, I take issue with Pasnau on several counts. First, Pasnau affirmed that for Aquinas, the immediate objects of cognitive apprehension are our internal impressions.[27] However, it was shown that for Aquinas, the immediate objects of cognitive apprehensions are *not* our internal impressions.[28] Second, Pasnau stated that formal identity does not help Aquinas get from our ideas and impressions to the external world, and he is correct. However, Aquinas is concerned with the knowing of extra-mental reality, and his natural epistemology gives an account of how this is possible. Aquinas is *not* concerned with starting with thoughts and impressions and trying to get to extra-mental reality, for there is an asymmetric relationship between the known and the

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26. See note 111 on page 169.

27. See note 14 on page 6.

28. See pages 207 thru 208.

knower. That is to say, the knower is dependent on the known, but the known is not dependent on the knower.[29] Those who begin with thought generally end up with some sort of solipsism unable to bridge the gap between thought and extra-mental reality. One sees an example of this kind of solipsism in Descartes's thinking substance. Descartes relies on the idea of God and the idea of the beneficence of God in order to bridge the gap between thought and things. Similarly, in Kant, the gulf between the phenomena and the noumena cannot be bridged because ultimately the subject of intellection is limited to his or her thoughts or perceptions. Thus, positions like Bishop Berkeley's are logical conclusions when one begins solely with thought. Third, Pasnau asserts that Aquinas's natural epistemology is following Augustine in some form of divine illumination. Yet, Aquinas follows Averroes, for both affirm that there are no intentions in the agent intellect, and the agent intellect has no receptivity.[30] Consequently, although the agent intellect is a light that participates in the First Light for Aquinas, nevertheless, the agent intellect does not do so by means of its formal content because it does not contain any intentions nor is it able to receive any intentions. Fourth, given that the possible intellect is initially a blank slate in which nothing is written, it is not the case that the agent intellect or the possible intellect can contain any innate intentions.[31] Pasnau's interpretation of Aquinas would be more plausible if he were alluding to Aquinas's

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29. Aquinas, *QDVer*, Q. 21, A. 1, Response: Illa autem relatio, secundum philosophum in V metaph., invenitur esse rationis tantum, secundum quam dicitur referri id quod non dependet ad id ad quod refertur, sed e converso, cum ipsa relatio quaedam dependentia sit, sicut patet in *Scientia et scibili*, *sensu et* sensibili. Scientia enim dependet a scibili, sed non e converso: unde relatio qua scientia refertur ad scibile, est realis; relatio vero qua scibile refertur ad scientiam, est rationis tantum: dicitur enim scibile relatum, secundum philosophum, non quia ipsum referatur, sed quia aliud referatur ad ipsum.

30. See note 102 on page 110 and note 103 on page 110 for Averroes. cf: notes 105 and 106 on page 167 for Aquinas.

31. See note 121 on page 175.

supernatural epistemology. This response to Pasnau suffices to respond to Houston Smit's understanding of Aquinas because he also maintains that the formal content of intellect is given by God to the human intellect, so I turn now to Claude Pannacio.

Claude Pannacio is correct that neither the intelligible species nor the concept is the nature of the thing existing in reality.[32] However, by means of the intelligible species and by means of the concept, the intellect is directly aware of the nature that has been abstracted from the hylomorphic entity. It has been shown already that Aquinas does not maintain causal directness; rather, he maintains epistemic directness. Pannacio's objection holds true if and only if the sensible species, phantasm, the intelligible species, and the concept were solely objects of cognition, but it has been demonstrated that these are means of cognitions, not objects of cognition.[33] Thus, it is still possible to assert that Aquinas is a direct realist inasmuch as he affirms epistemic directness.

Last, but certainly not least, Fernand van Steenberghen states that the intellect does not have direct knowledge of singulars because signate matter is not intelligible to us. However, we are able to attain to the singular by returning to cerebral images. Van Steenberghen is correct that the intellect does not have direct causal access to extra-mental reality, for it is impossible to go directly from a wholly material mode of being to a wholly immaterial mode of being without going through varying degrees of abstractions and immateriality.[34] He is also correct that the intellect cannot grasp a hylomorphic entity directly because the hylomorphic entity's matter renders it unintelligible.[35] Yet, one does not need to maintain his conclusion that Aquinas is a representationslist because the species, phantasm, and concepts are means of cognitions.

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32. See page 8.

33. See pages 207 thru 208.

34. See note 78 on page 156.

35. See note 61 on page 23.

In other words, there is epistemic directness although there is not causal directness. Having dealt with the representationalist objections that were raised in chapter one, let us turn to the direct realists.[36]

For Owens, human cognition is directed toward real existents, yet he says that "The concept is produced as a similitude of the things in order that the thing itself may be known in and through it."[37] Owens' understanding of the concept is consonant with what Aquinas stated.[38] Inasmuch as the concept is ontologically present in the intellect, it is that which is known, but inasmuch as it conveys the *ratio* from the intelligible species, it is that through which the nature of the thing is known. In other words, the concept may be treated as an object of cognition or a means of cognition. Considered ontologically, it is an object of cognition; considered epistemologically, it is a means of cognition. For Owens, the concept is a vehicle that is used to store and recall the intelligible content to the intellect. Owens seems to avoid the charge of representationalism by holding to epistemic directness, as is evident in the imperfect examples that he gives.[39] Stump's critique stating that Owens wants to deny any kind of intermediary seems to be unwarranted because he does not deny that there are intermediaries. He only denies that they are *primarily* objects of cognition. Notwithstanding, Stump is correct that Aquinas is a direct realist even though he uses intermediaries.

As we have seen, the agent intellect produces an intelligible species that serves as a vehicle in order to convey an intention from a material mode of being to an immaterial

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36. All of the direct realists except for O'Callaghan will affirm that the concept has some type of ontological status, and thus, I will assume that their reading of Aquinas is correct. I will address the ontological status of the concept when I examine O'Callaghan's view.

37. Joseph Owens, *An Elementary Christian Metaphysics*, p. 243.

38. See note 24 on page 208.

39. Joseph Owens, *An Elementary Christian Metaphysics*, p. 244.

mode of being. Ontologically speaking, the intention in the imagination is numerically distinct from the intention in the possible intellect, and both these intentions are numerically distinct from the substantial form in a hylomorphic entity. Furthermore, there is no "mode of species" in Aquinas's corpus; the substantial form is the most material, whereas the intelligible species is the most spiritual (i.e., immaterial).[40] Consequently, Gilson is mistaken when he denies that the extra-mental object has one mode of being and the species has another mode of being and when he asserts that it is the very object under the "mode of species."[41]

Kenny asserts that there are no intermediaries, and if by intermediaries he means objects that must first be cognized, then Kenny is correct. However, if intermediaries are vehicles that communicate the intentions from the object to the intellect, then Kenny is mistaken that there are no intermediaries. Once again, ontologically there are many intermediaries, but epistemologically there are no intermediaries if one treats the concept as that by which one knows.

For Kretzman, the key to understanding Aquinas's direct realism is found in the proper understanding of the role of the phantasm and the intelligible species. That is to say, one needs to understand that the intelligible species and the phantasms are means of cognitions. As was seen, both are means of cognition. Therefore, neither the phantasm or the intelligible species are impediments to epistemic direct realism. However, Kretzman affirms that the intellect forms concepts of external objects. Once again, concept formation can be looked at epistemologically or ontologically. Epistemologically, concept formation does not necessarily pose a problem for direct realism if the concept is not treated as the primary object of cognition.

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40. See note 78 on page 156.

41. Gilson does not explain what a mode of species is, but it seems to be some mode of existence that allows the same thing to exist simultaneously outside of the soul and in the intellect. See page 17 note 39.

Unlike the other direct realists seen thus far, O'Callaghan takes a different strategy, and it is two-pronged. The first prong deals with the usage of *in* and *extra* in Aristotle and Aquinas. The second prong deals with the ontological status of concepts. O'Callaghan first shows the various ways that Aristotle uses *in* and *extra*, and he shows that these prepositions do not necessarily entail spatial connotations.[42] After examining Aristotle's usage, O'Callaghan turns his attention to Aquinas's usage of these prepositions. O'Callaghan points out that *in* and *extra* are predicated of concept and *res*, but they should not be understood in a spatial sense; they should be understood in a form-subject sense. Therefore, when an intelligible species is said to be *in* the intellect, it should be understood as an accident inhering *in* the intellect, but not in a spatial sense. O'Callaghan then refers to *De ente et essentia* to show that a nature can exist in *anima* or in *singularibus* (i.e., in hylomorphic entities). In a hylomorphic entity, the form does not exist *in* a spatial-sense but in an existential sense. Similarly, a nature existing in the soul is *in* the soul because one knows the nature. In other words, *in* and *extra* are modes of existence, not location. According to O'Callaghan, the basis for representationalism is that it presupposes that *in* and *extra* denote modes of locations when in fact, they denote modes of existence.[43] Having established that *in* and *extra* denote modes of being, O'Callaghan moves to the second prong of his strategy.

According to O'Callaghan, concepts are not a third thing interposed between the knower and the known. After citing a text from *Summa theologiae* that states that articulated sounds do not signify the intelligible species but rather that which the intellect forms for itself,[44] O'Callaghan asserts that one is misreading Aquinas if one interprets the

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42. O'Callaghan, *Thomistic Linguistic Turn*, p. 164.

43. Ibid., p. 165.

44. See note 53 on page 21 .

concept as a third thing interposed between the knower and the known.[45] According to O'Callaghan, Aquinas is engaged in a reflexive analytical study. Such a study distinguishes for separate consideration that which may not be separate in reality. If one were to map that which is separate in consideration to reality, one would commit the error of the Platonist that Aquinas had admonished.[46] Thus, when one talks about the concept as a thing, one is objectifying the concept.[47] In order to understand the concept correctly, one must understand that the concept is the informed activity of the intellect as it grasps *res extra animam*.[48] The nominalization of a verb to a substantive is a way of reflectively talking about our activities; it is not a recognizing of a realm of things in addition to our activities.[49] Similarly, an enunciation and a definition should not be thought as a third thing; rather, they should be thought of as immanent activities like conceiving and enunciating.[50] However, the concept, the enunciation, and the definition are not the only things that can be mistaken for third things interposed between the knower and the known; the *res in anima* may also be seen as a third thing.[51]

According to O'Callaghan, Aquinas's dictum that the intelligible in act is the intellect in act makes it appears that the *res extra animam* is converted into *res in anima* which is directly related to the act of understanding. However, O'Callaghan asserts that this is a misunderstanding of Aquinas because things outside the soul are only potentially

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45. O'Callaghan, *Thomistic Linguistic Turn*, p. 167.

46. Ibid.

47. Ibid., p. 168.

48. Ibid.

49. Ibid., p. 169.

50. Ibid.

51. Ibid., p. 170.

intelligible, and in order to be rendered actually intelligible, it *(res extra animam)* must come to be known by some intellect. Furthermore, the intelligible in act is not a mental entity distinct from the act of the intellect, but it is the act of the intellect informed by the intelligible species.[52] If one recognizes that the concept is related to the intellect as act is related to potency, then it does not make sense to treat the concept as a third thing.[53] This is the case because act and potency are not two diverse things. Rather, only one thing arises when some form (i.e., act) is received into that which is in potency to receive the form.[54] Thus, the intelligible in act is the same thing as the intellect actually understanding;[55] the concept is not a *res* in anima distinct from the activity. The concept is the intellect's act.[56] Understanding that nominalization of activities is in play, O'Callaghan "see[s] no reason in the passage quoted earlier from the *summa,* or in general, why St. Thomas must be interpreted as holding that the acts of intellect produce mental entities, third things."[57]

In principle, O'Callaghan's approach is sound. He is correct that we nominalize actions into substantives. When a pitcher throws a ball and hits a batter, we say that it was *bad throw*. Yet, the subject complement is not some substantial thing; rather, it is an action that resulted in injury to the batter. Furthermore, the value of his approach can be seen in biblical hermeneutics. In Romans 7, St. Paul talks about "sin producing" and "sin deceiving," and St. Paul actually states that it is not he who sins, but sin that dwells in

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52. Ibid.

53. Ibid., p. 172.

54. Ibid., p. 172–73.

55. Ibid., p. 173.

56. Ibid.

57. Ibid., p. 171.

him. The act of sinning has been nominalized into a substantive by St. Paul. Unless one recognizes the nominalization of actions, one ends up with interpretations that exculpate humans from any moral responsibilities. Notwithstanding, the question at hand is not whether such a principle is valid when interpreting a text, but whether it is valid to use this principle in interpreting Aquinas.

I have two concerns with O'Callaghan's methodology. One is methodological and the other is textual. In terms of methodology, O'Callaghan mentions that Aquinas is engaged in a "reflective analytic study," and such "an analytic study by its very nature distinguishes for separate consideration features that in reality may not be separate." Failure to understand the nature of this analytic study would lead to "the error of the Platonist" who maps the mode of knowing back onto the reality known."[58] Thus, concept, definitions, and enunciations should not be treated as separate things; rather, they are activities. We err when we nominalize these verbs into substantives.[59]

Yet, does Aquinas's "reflective analytic study" only begin with intellection? Is it not the case that Aquinas's account of sensation is also part of this "analytic study"? If so, then phantasms, sensible species and the like should not be treated as "third things." Rather, if one is going to be consistent, one should interpret Aquinas as saying that there is only sensing and imagining. O'Callaghan "see[s] no reason... why St. Thomas must be interpreted as holding the acts of intellect produce mental entities, third things, when he speaks of the intellect 'forming' definitions or combinations and divisions." Similarly, by extending that line of reasoning, one should be warranted in affirming: "I see no reason why St. Thomas must be interpreted as holding the acts of sensation produce phantasms." Moreover, why affirm sensible species? Why not just affirm that sensible species are not third things, there is only sensing? Also, why affirm that phantasms exist in the

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58. Ibid., p. 167.

59. Ibid., p. 169.

imagination? Why not just affirm that there is only imagining? In other words, why not apply this methodology consistently and get rid of all ontological intermediaries?

One objection against this "broad brush" approach may be that the senses are passive, and as such, if there were only sensing and imaging, there is no causal account as to what specified and determined the senses so that the sensible in act becomes the sense in act. Thus, one should not apply this approach to the senses. However, O'Callaghan tells us that "[o]nce one recognizes that the concept is related to the intellect as act to potency, it makes very little sense to treat intellect and concept as if the intellect is one thing and a concept another thing."[60] In other words, one should not consider the concept a thing, one should recognize that there is only conceiving. If one applies this approach to sensation, one may say that the sensible species is related to the sense organ as act to potency, so it makes little sense to treat the sensible species and the sense organ as if the sense organ is one thing and a sensible species another. In other words, there should be no reason that the sensible species should have an ontological status, and by extension, neither should the phantasm. In other words, if one takes O'Callaghan's method to its logical conclusion, the formal causality that is necessary in Aquinas's epistemology would be eliminated. In addition to the inconsistency of applying this methodology only to intellection (since sensation is also part of the "reflective analytical study"), there is also problem concerning the ontological status of the concept.

O'Callaghan is certainly correct to hold that act and potency are not diverse things.[61] Nevertheless, the act-potency relation that we have seen in Avicenna, Averroes, and Aquinas all require some kind of form. In the case of hylomorphic beings, some kind of substantial form is related to matter in an act-potency relationship. In the case of some action (e.g., heating), there is the communication of a non-intentional form that was

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60. Ibid., p. 172.

61. Ibid.

related to the heated subject in an act-potency relationship. Similarly, in sensation and intellection, some kind of intentional form is related to its subject in an act-potency relationship. In those three scenarios, form has some kind of ontological status, and it must, for it is in act which is a principle of being in metaphysics. In Aquinas's system, *existence* and *form* account for the actuality of anything. If the concept is in an act-potency relationship with the intellect, then it is in act by virtue of its *existence* or by virtue of its *form*. In either case one must grant some kind of ontological status to the concept. On the other hand, if the concept has no ontological status (i.e., it is not a form, and it does not exist), then it cannot be related to the intellect in an act-potency relationship as O'Callaghan states.[62] In addition to the ontological status of the concept, there seems to be some equivocation concerning intelligibles in act.

O'Callaghan affirms that the "intelligible in act is not a mental entity distinct from the act of the intellect, but rather is the act of the intellect informed by the intelligible species."[63] In a certain sense, O'Callaghan is correct, for Aquinas states "the possible intellect becomes in act through the intelligible species in act, and for this reason, the intellect in act is called the intelligible in act."[64] However, in another sense, O'Callaghan is mistaken because the intelligibles species is also called the intelligible in act, for it can be considered in itself, or it can be considered as it is received into the intellect. Considered in itself, the intelligible species is the intelligible in act because it is immaterial and has no vestiges of matter or the concrete conditions of matter. Hence, it is no longer potentially intelligible. Furthermore, Aquinas asserts that the agent intellect produces intelligibles in act, and we know that the product of the agent intellect is the

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62. Ibid., p. 168, 172.

63. Ibid., p. 170.

64. Aquinas, *SCG*, Bk. 2, Ch. 78: [I]ntellectus possibilis fit actu per speciem intelligibilem actu; et hac ratione intellectus in actu dicitur ipsum intelligibile in actu.

intelligible species, not the concept. So, unless the agent intellect is producing two different products, the intelligible species and the intelligible in act are one and the same.[65] That is to say, the intelligible in act, which is the intelligible species, is a mental

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65. Aquinas, *Sent*, Bk. 1, D. 35, Q. 1, RA 3: [O]portet quod intelligibile in potentia fiat *intelligibile in actu* per hoc quod species ejus denudatur ab omnibus appenditiis materiae per virtutem intellectus agentis; et oportet quod haec species, quae est intellecta in actu, perficiat intellectum in potentia. [emphasis added]

Aquinas, *QDAnima*, Q. 13, RA 20: Ad vicesimum dicendum quod idem obiectum, scilicet *intelligibile in actu*, comparatur ad intellectum agentem ut factum ab eo;

Aquinas, *InDeAnima*, Bk. 3, Ch. 3, p. 216: Dicit ergo primo, quod intellectus possibilis est intelligibilis non per suam essentiam, sed per aliquam speciem intelligibilem, sicut et alia intelligibilia. Quod probat ex hoc, quod intellectum in actu et intelligens in actu, sunt unum, sicut et supra dixit, quod sensibile in actu et sensus in actu sunt unum. *Est autem aliquod intelligibile in actu, per hoc quod est in actu a materia abstractum*: sic enim supra dixit, quod sicut res sunt separabiles a materia, sic sunt et quae sunt circa intellectum. Et ideo hic dicit, quod in his quae sunt sine materia. [emphasis added]

Aquinas, *SCG*, Bk. 3, Ch. 53: Et quia corporalis visio non completur nisi per lucem, ea quibus intellectualis visio perficitur, lucis nomen assumunt: unde et Aristoteles, in III de anima, intellectum agentem luci assimilat, ex eo quod *intellectus agens facit intelligibilia in actu*, sicut lux facit quodammodo visibilia actu. [emphasis added]

Aquinas, *Sent*, Bk. 2, D. 17, Q. 2, A. 1, RA3: [S]pecies istae individuantur per individuationem intellectus; unde non perdunt esse *intelligibile in actu*. [emphasis added]

Aquinas, *Sent*, Bk. 2, D. 20, Q. 2, A. 2, RA. 2: Ad secundum dicendum, quod perfectio intellectus possibilis est per receptionem objecti sui, quod est *species intelligibilis in actu*.

Aquinas, *InDeAnima*, Bk. 3, D. 14, Q. 1, A. 1: non potest ex parte luminis in illa visione esse habitus quantum ad effectum lucis intellectualis, cujus est intelligibilia facere in actu: *quia res immateriales secundum se sunt intelligibiles in actu*. [emphasis added]

Aquinas, *InDeAnima*, Bk. 4, D. 49, Q. 2, A. 1, RA10: Ad decimum dicendum, quod substantia separata a materia intelligit se et intelligit alia: et utroque modo potest verificari auctoritas inducta.*Cum enim ipsa essentia substantiae separatae sit per seipsam intelligibilis in actu, eo quod est a materia separata*. [emphasis added]

Aquinas, *SCG*, Bk. 2, Ch. 76: Praeterea. Nihil operatur nisi per aliquam virtutem quae formaliter in ipso est: unde Aristoteles, in II de anima, ostendit quod quo vivimus et sentimus, est forma et actus. Sed utraque actio, scilicet intellectus possibilis et intellectus agentis, convenit homini: homo enim abstrahit a phantasmatibus, et *recipit mente intelligibilia in actu.*

Aquinas, SCG, Bk. 3, Ch. 84: Cum igitur intellectus noster non sit in potentia nisi

entity distinct from the intellect. So if one uses *intelligible in act$_1$* to denote the intelligible species, and one uses *intelligible in act$_2$* to denote the act of intellect, one may say that the agent intellect produces an *intelligible in act$_1$* that is received into the possible intellect. Having received the *intelligible in act$_1$*, the possible intellect is moved from potency to actuality and is specified and determined, which is the *intelligible in act$_2$*.That is to say, intelligible in act$_1$ is the formal cause that gives rise to intelligible in act$_2$.

O'Callaghan also states, "To be rendered actually intelligible, it (*res extra animam)* must come to be known by some intellect."[66] Once again, in some sense, O'Callaghan is correct because for Aquinas, intelligibles in act can only exist in minds.[67] However, Aquinas also tells us that Plato did not have to affirm an agent intellect because Plato's forms were already *intelligibles in act* and that which is intelligible in act is so by

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ad *intelligibilia in actu*. [emphasis added]

Aquinas, *S.T.*, Ia Q. 79, A. 3, Response: Platonis, nulla necessitas erat ponere intellectum agentem ad faciendum intelligibilia in actu; sed forte ad praebendum lumen intelligibile intelligenti, ut infra dicetur. *Posuit enim Plato formas rerum naturalium sine materia subsistere, et per consequens eas intelligibiles esse, quia ex hoc est aliquid intelligibile actu, quod est immateriale.* Et huiusmodi vocabat species, sive ideas, ex quarum participatione dicebat etiam materiam corporalem formari, ad hoc quod individua naturaliter constituerentur in propriis generibus et speciebus; et intellectus nostros, ad hoc quod de generibus et speciebus rerum scientiam haberent. Sed quia Aristoteles non posuit formas rerum naturalium subsistere sine materia; formae autem in materia existentes non sunt intelligibiles actu, sequebatur quod naturae seu formae rerum sensibilium, quas intelligimus, non essent intelligibiles actu. Nihil autem reducitur de potentia in actum, nisi per aliquod ens actu, sicut sensus fit in actu per sensibile in actu. Oportebat igitur ponere aliquam virtutem ex parte intellectus, *quae faceret intelligibilia in actu, per abstractionem specierum a conditionibus materialibus*. Et haec est necessitas ponendi intellectum agentem. [emphasis added]

66. O'Callaghan, *Thomistic Linguistic Turn*, p. 170.

67. See note 65 on page 150.

virtue of its immateriality.[68] In other words, the reception of the intelligible act into the intellect does not render it actually intelligible for Plato and for Aristotle, properly speaking. Rather, the intelligible in act is rendered actually intelligible by virtue of its intrinsic and *per se* immateriality for Plato and by virtue of the act of the agent intellect making it immaterial on the common Aristotelian account. Once the intelligible in act is received into the possible intellect, the individual understands by virtue of his or her intellect.

In sum as it pertains to method, O'Callaghan reasons that concepts, enunciations, and intelligibles in act be understood as conceiving, enunciating, and understanding, respectively. Yet, he limits his methodology only to intellection. Given that sensation is also part of the "reflective analytical study" in which Aquinas is engaged, for consistency one should apply the same methodology to sensation. However, if one applies the same method to sensations, one would have to deny that there are sensible species and phantasms. Instead, one would have to affirm merely that sensing and imagining is occurring. Given that Aquinas affirms that the senses are passive, there would be no causal account that could tells us how the senses and the imagination are specified and determined. In an attempt to reduce the "intelligible in act" to an activity, O'Callaghan

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68. Aquinas, *S.T.*, Ia Q. 79, A. 3, Response: Platonis, nulla necessitas erat ponere intellectum agentem ad faciendum intelligibilia in actu; sed forte ad praebendum lumen intelligibile intelligenti, ut infra dicetur. Posuit enim Plato formas rerum naturalium sine materia subsistere, et per consequens eas intelligibiles esse, quia *ex hoc est aliquid intelligibile actu, quod est immateriale.* Et huiusmodi vocabat species, sive ideas, ex quarum participatione dicebat etiam materiam corporalem formari, ad hoc quod individua naturaliter constituerentur in propriis generibus et speciebus; et intellectus nostros, ad hoc quod de generibus et speciebus rerum scientiam haberent. Sed quia Aristoteles non posuit formas rerum naturalium subsistere sine materia; formae autem in materia existentes non sunt intelligibiles actu, sequebatur quod naturae seu formae rerum sensibilium, quas intelligimus, non essent intelligibiles actu. Nihil autem reducitur de potentia in actum, nisi per aliquod ens actu, sicut sensus fit in actu per sensibile in actu. Oportebat igitur ponere aliquam virtutem ex parte intellectus, quae *faceret intelligibilia in actu, per abstractionem specierum a conditionibus materialibus.* Et haec est necessitas ponendi intellectum agentem. [emphasis added]

asserts the "intelligible in act" is an activity of the intellect, and it should not be treated as a third thing. Nevertheless, in Aquinas's text, the intelligible in act can be understood as the act by which the intellect understands, or it may be understood as the intelligible species. It is by virtue of its immateriality that the intelligible in act is intelligible, not by its reception into the intellect. Thus, when one affirms that "the intelligible in act" is an operation, this operation of moving the intellect from potentially understanding to actually understanding is due to the intelligible in act which is none other than the intelligible species, "an accident of the intellect, existing 'in' it."[69] The operation is called "an intelligible in act" because it is by virtue of receiving an intelligible in act, the intelligible species, that the intellect is moved from potency to act. For the intelligible species is related to the intellect as act to potency.[70] O'Callaghan also asserts that the concept is related to the intellect as act to potency. However, as we have seen, if the concept is related to the intellect as act to potency, it must have some ontological status by virtue of its existence or by virtue of its form. If it has no ontological status, it cannot be related to the intellect as act to potency. The notion that concept is related to the possible intellect as act to potency is not only a problem in terms of method, but it is also a problem textually.

O'Callaghan tells us to "[r]ecall that in St. Thomas a concept is the informed activity of the intellect as it grasps *res extra animam*."[71] Furthermore, he asserts that "The

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69. O'Callaghan, *Thomistic Linguistic Turn*, p.165.

70. I am not asserting that the intelligible species exist independent of its subject, the possible intellect, as if the intelligible species were an object of cognition. I do, however, want to make a distinction between the proximate cause of understanding [i.e., the intelligible species] and the act of understanding, which is the effect. I think conflating the intelligible species and the operation that it causes diminishes the formally causal role that the intelligible species is intended to serve.

71. O'Callaghan, *Thomistic Linguistic Turn*, p. 168.

concept is to the intellect as act to potency."[72] Lastly, he states, "Once one recognizes that a concept is related to the intellect as act to potency, it makes very little sense to treat intellect and concept as if the intellect is *one* thing and a concept *another thing*." Yet, there are no references to St. Thomas's work stating that the concept is related to the intellect as act is potency. Instead, O'Callaghan refers to a passage that read as:

> In the human intellect the likeness of the understood thing is something other than the substance of the intellect, and it is as a form of it; hence from the intellect and the likeness of the thing is made one complete thing, which is the intellect understanding in act; and this likeness is received from the thing.[73]

Nowhere in this passage does Aquinas assert that the likeness is the concept. Moreover, in the first response, Aquinas asserts:

> To the first, therefore, it ought to be said, that the soul is called the form of forms, inasmuch as through the agent intellect, it makes *intelligible species in act*, and it receives *them* into the possible intellect.[74]

In other words, that which is received from the thing is the intelligible species in act, not the concept. Furthermore, O'Callaghan refers to this text:

> And it is necessary that this species, which is the *intellect in act*, should perfect the intellect in potency: from the union of which one perfect thing is brought about, which is the intellect in act... Hence just as the soul is not other than man, so the *intellect in act* is not other than the intellect actually understanding, but the same thing.[75]

After citing this text, he states:

> Thus, the intelligible in act is the *same thing* as the intellect actually understanding, not a *res in anima* distinct from it. The concept is the intellect's

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72. Ibid.

73. Aquinas, *Sent*, Bk. 2, D. 3, Q. 3, A. 1, Response: [I]n intellectu vero humano similitudo rei intellectae est aliud a substantia intellectus, et est sicut forma ejus; unde ex intellectu et similitudine rei efficitur unum completum, quod est intellectus in actu intelligens; et hujus similitudo est accepta a re.

74. Aquinas, *Sent*, Bk. 2, D. 3, Q. 3, A. 1, RA 1: Ad primum ergo dicendum, quod anima dicitur species specierum, inquantum per intellectum agentem facit *species intelligibiles actu*, et recipit *eas* secundum intellectum possibile.[emphasis added]

75. O'Callaghan, *Thomistic Linguistic Turn*, p. 173. [emphasis added]

act.[76]

However, the text that he cites refers to the intelligible species, not the concept. Moreover, twice in this passage Aquinas refers to the *what is understood in act*, but O'Callaghan translates it as *intellect in act*. Aquinas writes:

> It is necessary that this species, *which is what is understood in act*, perfects the intellect in potency: from the union of these is made one perfected thing, which is the intellect in act, just as the soul and the body is made one, which is the man having human operations. Hence, just as the soul is not something other than the man, so the *what is understood in act* is not something other than the intellect in act understanding, but the same thing.[77]

The non-restrictive clause "which is what is understood in act" (*quae est intellecta in act)* is referring to"this species" (*haec species*), and *intellecta* is a past participle which agrees in person and number with *haec species*, which is also feminine and singular. Similarly, *intellectum in actu* should be translated as "what is understood in act." The point of the analogy is that just as the soul (i.e., form) is related to the body (i.e., matter) and gives rise to human operations, so too what is understood in act (i.e., the intelligible species) is related to the possible intellect to give rise to an operation, the act of understanding.[78]

In summation, from a textual standpoint, O'Callaghan asserts that the concept should be understood as the act of the intellect, and the nominalization of verbs to substantive misleads one into affirming that concepts are things. Moreover, by showing

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76. O'Callaghan, *Thomistic Linguistic Turn*, p. 173.

77. Aquinas, *Sent*, Bk. 1, D. 35, Q. 1, A. 1, ad. 3: [O]portet quod haec species, *quae est intellecta in actu*, perficiat intellectum in potentia: ex quorum conjunctione efficitur unum perfectum, quod est intellectus in actu, sicut ex anima et corpore efficitur unum, quod est homo habens operationes humanas. Unde sicut anima non est aliud ab homine, ita intellectum in actu non est aliud ab intellectu intelligente actu, sed idem. [emphasis added]

78. Early in his career, Aquinas seems to have adopted Averroes' nomenclature. See footonote 109 on page 112. Also, in order to avoid a special pleading fallacy, I agree that *species intellecta* could refer to any intelligible form including the concept. See note 111 on page 169. However, in the present context, the intelligible species is being denoted, not the intellect.

that the concepts are related to the intellect as act is to potency, O'Callaghan attempts to avoid assigning an ontological status to the concept (i.e., he tries to avoid that concepts are third things). However, the texts that he provides to support the notion that the concept is an activity of the intellect refer to the intelligible species, not the concept. Though I agree that O'Callaghan is correct inasmuch as we nominalize verbs into substantives, I do not see any textual evidence that would show that the concept is related to the intellect as act is to potency. In other words, there is no textual evidence that would allow one to affirm that the concept is an activity in reality. Similarly, the same can be said for enunciations and definitions. Moreover, just because the intelligible species has an act-potency relationship with the possible intellect, it does not follow that the concept does. The concept seems to be something that is produced by the intellect to act as an ontological and epistemological basis for enunciations.

I would agree with O'Callaghan that *"that which*" is related as act to potency is one and not diverse entities. Thus, the reception of the intelligible species into the possible intellect produces one operation, the act of understanding. The act of understanding is not a *thing*, but an operation that is performed by the intellect, which was Aquinas's point in the aforementioned passages. If I have understood O'Callaghan correctly, then by applying O'Callaghan's principles, one comes up with a position similar to Father Dewan's position. That is to say, there is preconceptual understanding in Aquinas. The concept, the enunciation, and the definition may in fact be activities that we nominalize into substantives, but thus far there is no textual evidence that would support O'Callaghan's interpretation. Moreover, as stated earlier, O'Callaghan does not apply his method consistently, for he only applies it to intellection.

As for Father Dewan's position, I think that he is correct, understanding is an activity that happens prior to conceptualization. Dewan maintains Aquinas' grew in his understanding and changed his position as he matured. According to Dewan, the mature

Aquinas maintains that understanding occurs when the intelligible species fecunds the possible intellect and prior to conceptualization. According to Dewan, Aquinas's silence concerning the mental word (i.e., the concept) in his mature work indicates that understanding happens when the intelligible species fecunds the possible intellect, for the intelligible species is a means of cognition not an object of cognition.[79]

The direct realist is correct to assert that Aquinas affirms that we know things, not our concepts or sense impressions. Understanding happens prior to conceptualization, and therefore, there are no intermediaries that must be known prior to being cognizant of the world. Human beings understand particulars via their external and internal senses, and they understand the nature of things when the intelligible species is received into the intellect. Given that the species are *means* of cognition and not *objects* of cognition, it is coherent to maintain that Aquinas is a direct realist *epistemologically*, but one must deny that he is a direct realist *causally*. By coming to grips with the Aristotelian aporia and by his critical study of Averroes' and Avicenna's solution, Aquinas is able to synthesize what he takes to be the best from these systematic approaches and to create from them his unique epistemology that made intellection inherent in the individual. *No one* in the Aristotelian tradition prior to Aquinas was able to make intellection inherent in the individual in the way we have seen Aquinas do. Aquinas's openness to learn from those who were not of his faith is a testament to his willingness to seek truth wherever it may be found. At times Aquinas pitted himself against the philosophical views of Averroes, yet Aquinas refers to Averroes as the commentator over 423 times in his corpus, and he refers to Averroes by name 92 times. He refers to Avicenna by name 427. The doctrine of intelligible species was not capricious, but the fruit of an insightful and synthesizing mind learning from Avicenna and Averroes; it was Aquinas's attempt to make intellection inherent in the human but to avoid what Aquinas considered Avicenna's and

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79. See page 28.

Averroes' errors in their conception of human intellect and the ontological status of intelligibles in act.

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