

# Consciousness and Self-Knowledge in Medieval Philosophy

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Metaphysics

# Consciousness and Self-Knowledge in Medieval Philosophy:

*Proceedings of the Society for  
Medieval Logic and Metaphysics  
Volume 14*

Edited by

Gyula Klima and Alex Hall

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Proceedings of the Society for Medieval Logic and Metaphysics  
Volume 14

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# INTRODUCTION

ALEX HALL

The *Proceedings of the Society for Medieval Logic and Metaphysics* (PSMLM) collects original materials presented at sessions sponsored by the Society for Medieval Logic and Metaphysics (SMLM). SMLM was founded in 2000 by Gyula Klima (Director), Joshua Hochschild, Jack Zupko and Jeffrey Brower, in order to recover the profound metaphysical insights of medieval thinkers for our own philosophical thought. The Society currently has over a hundred members on five continents. Alex Hall took up the position of Assistant Director and Secretary in 2011, with secretarial duties passing to Timothy Kearns in 2014. The Society's maiden publication appeared online in 2001 and the decade that followed saw the release of eight more online volumes. In 2011, PSMLM transitioned to print and republished volumes 1-8 as separately titled editions. Sharp-eyed readers of these volumes will note the replacement of our (lamentably copyrighted for commercial use) lions, who guarded the integrity of the body of an intellectual tradition thought to be dead, with the phoenixes that mark this print rebirth. Volumes 9 and 10 appeared in a dual print/online format, with Volume 11 PSMLM switched to print only. Friends of the lions will be happy to note that they remain at their post, protecting the first ten volumes of the PSMLM at <http://faculty.fordham.edu/klima/SMLM/>, where interested readers can also keep up with SMLM activities and projects.

The papers in this volume are drawn from SMLM sponsored sessions on medieval accounts of self-knowledge at the 2015 International Congress on Medieval Studies at Western Michigan University and the 2016 meeting of the American Catholic Philosophical Association, sponsored by the University of San Francisco. Forthcoming volumes take up the themes of hylomorphism and mereology (volume 15) and axiology and the virtues (volume 16).

Our meeting at the International Congress brought together JT Paasch, Brian Carl and Therese Scarpelli Cory to discuss Cory's *Aquinas on*

*Human Self-Knowledge*, described by Robert Pasnau as “clearly the best [book] that has been written on the topic.”<sup>1</sup> Contemporary introductions to the theme of self-knowledge trace its emergence in the history of philosophy to René Descartes,<sup>2</sup> whose *Meditations* draws our attention to our intimate, first-person acquaintance with ourselves,<sup>3</sup> inviting contrast with David Hume, who contends in his *Treatise of Human Understanding* that we have no impression and thereby no idea of the self but conceive only distinct ideas drawn from varied sensations.<sup>4</sup> Yet despite the impression left by these studies, self-knowledge is a perennial theme. Plato and Aristotle, for instance, are, respectively, distant ancestors of Descartes and Hume in this regard. Medieval philosophical treatments of self-knowledge in the Latin West, for their part, emerge from the tension between Neoplatonic and Aristotelian accounts. Whereas Neoplatonic thinkers seek primarily to characterize and account for the aforementioned privileged access that we have to our own selves, Aristotelians are struck by the opacity that characterizes self-knowledge, which appears to them delimited to an inferential, i.e. mediated, grasp of the self in its activity.

Cory finds in Aquinas a position that bridges the divide between mediated and unmediated self-knowledge:

Aquinas . . . sets himself the task of grounding both an ineliminable self-opacity and a limited privileged self-access . . . With Augustine and other Neoplatonic sources, he argues that the mind has special, intimate self-familiarity, while rejecting their view of the human mind as pure self-thinking in favour of a broadly Aristotelian concept of the human intellect that makes all our self-knowledge depend on the senses. Careful to protect privileged self-access, however, he denies that the latter should be interpreted as implying that everything we know about ourselves is derived abstractively or discursively from sensory experiences (3).

Cory argues that this balance between privileged and mediated self-knowledge rests on a “duality of conscious thought,” in keeping with her

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<sup>1</sup>Robert Pasnau, review of *Aquinas on Human Self-Knowledge*, by Therese Scarpelli Cory, *Mind*, 124 (2015), 623-26.

<sup>2</sup>See, e.g. Brian McLaughlin, “Self-Knowledge,” in the *Encyclopedia of Philosophy*, Donald M. Borchert, ed., 2nd ed., vol. 8 (Macmillan, 2006), 722-28; and Brie Gertler, “Self-Knowledge,” in *The Stanford Encyclopedia of Philosophy*, Edward N. Zalta, ed. (Summer 2015 Edition) <<https://plato.stanford.edu/archives/sum2015/entries/self-knowledge/>>.

<sup>3</sup>See especially *Meditations* 2 and 3.

<sup>4</sup>*Treatise*, 1.4.6.



contention that, for Aquinas, intellectual acts are “bipolar,”<sup>5</sup> inasmuch as in and by these acts the intellect grasps its agency and thereby has self-knowledge.

For Aquinas and other realist medieval thinkers in the Aristotelian tradition, our intellect can come to know the essence of extramental entities by means of a process of abstraction that begins with sensation. External and internal senses work together to construct phantasms, characterized as internal representations of extramental entities.<sup>6</sup> The active aspect of our immaterial intellect may abstract from these phantasms what are termed ‘intelligible species’, which function as non-eidetic representations by which the passive or possible aspect of the immaterial intellect conceives traits essential to the natural kinds that these species represent.<sup>7</sup> It is likewise by means of this possible intellect that we are able later to recall these traits.<sup>8</sup> The possible intellect has its being in potency, i.e. when it is not conceiving, it exists as a capacity to conceive.<sup>9</sup> When it is actualized in this act of conceiving, it is formally identical with the extramental essence that it grasps and in this way that essence is present for us. But, as the intellect is identical with what is conceived, in conceiving it grasps itself in a mediated manner. Hence Carl notes that:

There is intellectual self-awareness just insofar as the human possible intellect is actualized by its reception of an intelligible species, which is abstracted from a phantasm.<sup>10</sup>

Put another way, to perceive its act is to perceive the agent in act.<sup>11</sup> It is for this reason that Cory characterizes intellectual acts as “bipolar” on Aquinas’s account.

Central to this model is, of course, the notion that we do in fact enjoy an intimate, first-person awareness of our mental states, an awareness that Paasch’s “Information Processing and Me” suggests Aquinas’s Aristotelian

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<sup>5</sup>Cory, 135-36.

<sup>6</sup>See Aquinas’s *Commentary on Aristotle’s “De Anima,”* II.24.553 and *Summa Theologica* (ST) Ia.85.1, ad 3.

<sup>7</sup>ST Ia.84.7.

<sup>8</sup>ST Ia.79.2-3.

<sup>9</sup>ST Ia.79.2.

<sup>10</sup>See p. 31 below and Aquinas’s *Commentary on Aristotle’s “Metaphysics”* (12.8).

<sup>11</sup>Cory, 102.

psychology cannot accommodate. To illustrate this contention, Paasch constructs a hypothetical information-processing machine to model the way that Aquinas thinks that we process information. Paasch's conclusion is that there is no reason to suppose that this device could acquire a first-person perspective. Hence we've no reason to suppose that human beings who process information in an identical fashion would either.

For Aquinas, the human intellect is on the lowest rung of a hierarchy that he terms the 'genus of intelligibles (*genus intelligibilium*)', which comprises every immaterial entity inasmuch as each is intelligible, i.e. known so far as it is in act by its essence (as, e.g. the human possible intellect has self-knowledge when in act).<sup>12</sup> Carl's "Human Intellectual Potency and the Genus of Intelligibles" explores the extent to which Aquinas's concept of human self-knowledge is indebted to his notion of the genus of intelligibles and certain difficulties that any such dependence might pose. Can Aquinas's theory of human self-knowledge stand on its own, i.e. without any reference to a genus of intelligibles? How do we conceive of other intelligible entities, e.g. God and angels, given that our possible intellect knows only the essences of sensible things?<sup>13</sup> Finally, as what we know of other intelligibles derives from our understanding of our own immaterial intellects,<sup>14</sup> Aquinas's assertion that other intelligibles know themselves requires an argument to the effect that immateriality is a sufficient condition of self-knowledge.

Aquinas views human understanding as involving the actualization or generation of an immaterial, self-manifesting, intelligible being: the possible intellect that is in act at the time that it conceives. Cory formulates responses to Paasch and Carl by attending to the characteristics of this intellect in act in her "Artificial Intelligence, Actual Intelligibility, and Aquinas on Human Self-Knowledge." The intellect owes its reflexive self-awareness to its immateriality, as Aquinas holds that immateriality is a sufficient condition for self-understanding.<sup>15</sup> But inasmuch as we experience all thought as our own, unlike Paasch's information-processing machine, we cannot fail to grasp our mental states as our own. In response to Carl, Cory argues that experiential awareness of our intellect in act is the foundation on which Aquinas builds a bottom-up, philosophical account of the genus of intelligibles. Whereas subsequent reflection on this

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<sup>12</sup>ST Ia.87.1c.

<sup>13</sup>See, e.g. ST Ia.84.7; Ia.85.3, ad 3; and Ia.88.1.

<sup>14</sup>*Summa Contra Gentiles* 3.46.

<sup>15</sup>See *De spiritualibus creaturis* 1; *Quaestioned disputatae de veritate* 8.6.

genus helps Aquinas to clarify his account of human self-knowing, Aquinas's arguments regarding the nature and powers of the human intellect do not presuppose the existence of other intelligibles.

The papers presented at the SMLM satellite session of the American Catholic Philosophical Association treat the theme of self-knowledge as it involves self-fulfilment. Enrico Donato's "Thomas Aquinas on Self-Knowledge of Habitus" asks how a person who seeks fulfilment will know when she has acquired the moral and intellectual virtues necessary for human happiness, especially inasmuch as on Aristotle's model human cognition is necessarily by means of phantasms.<sup>16</sup> One may infer the presence of a virtuous disposition when one acts virtuously, i.e. takes pleasure in the activity, which is performed deliberately, in keeping with a firm character and for its own sake.<sup>17</sup> But what about when one is not acting virtuously? How do we know that the virtuous disposition is present at that time? Donato finds Aquinas's answer in what Donato describes as a principle of reflexive self-awareness, on which we may acquire the awareness that we have a virtuous disposition by recalling phantasms that are stored in our memories of acts performed in accord with this disposition, relying on moral consciousness (*conscientia*) as our guide to the moral rectitude of the act upon which we reflect.

Boris Hennig's "Self-Knowledge by Participation" sets out two species of knowledge: theoretical and practical, and asks whether there is some type of self-knowledge that is neither. To this end, Hennig presents a study of Hugh of St. Victor, a twelfth-century Neoplatonist, mystical theologian, in whose writings Hennig identifies a candidate for a type of self-knowing that is neither theoretical nor practical. This is not to say that Hugh denies that self-knowledge can be theoretical or practical, as when we know who we are or what to do in order to better ourselves, respectively. But, Hugh allows for a third type of self-knowledge that Hennig terms 'divine', wherein the knower, the act of knowing and the object known are the same. As fallen creatures, we no longer know our true selves in this way. Unlike our fallen selves, our true selves would truly know both themselves and God. Since we do not truly know ourselves in this way, we cannot engage in an act of knowing wherein the knower and object known are the same; hence, we cannot acquire this third species of self-knowledge absent transformative grace.

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<sup>16</sup>*In Scriptum super libros sententiarum magistri Petri Lombardi* III, d. 23, q. 1, a. 2, arg. 5.

<sup>17</sup>Aristotle, *Nicomachean Ethics* II 3, 1104b3-11; 1105a30-33.

Christina Van Dyke's "Many Know Much, but Do Not Know Themselves" takes up the theme of self-knowledge in the medieval tradition of affective mysticism. Medieval mysticism seeks immediate union with the divine and may be classed under two broad heads: affective and apophatic.<sup>18</sup> Whereas apophatic mysticism speaks of the complete loss of self in the mystical union with the divine, affective mysticism is self-preserving. Both traditions teach that knowledge of God requires self-knowledge. Van Dyke explores this theme in the affective tradition, discussing the role of humility in acquiring self-knowledge, the fulfilment that union with God brings to our emotional and physical selves and the authority to teach and counsel that this union confers.

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<sup>18</sup>See Christina Van Dyke, "Mysticism," in *The Cambridge History of Medieval Philosophy*, eds. Pasnau and Van Dyke (Cambridge: Cambridge University Press, 2010) 720-34.

# INFORMATION PROCESSING AND ME

JT PAASCH

Abstract – In *Aquinas on Human Self-Knowledge* (2014), Therese Scarpelli Cory examines what Aquinas has to say about the knowledge that humans have of themselves. Crucially, Aquinas seems to take it as a given that humans have a first person perspective. I take issue with this. If the human mind functions as Aquinas thinks it does, it is far from clear how it could be aware of itself in a first-person way. To show this, I model the human mind by constructing an abstract machine that functions in much the same way that Aquinas thinks the mind functions, and then I show that this machine cannot acquire anything like the sort of self-awareness Aquinas thinks the mind has.

Therese Scarpelli Cory recently published a fascinating book called *Aquinas on Human Self-Knowledge* (Cambridge University Press, 2014). In the book, Cory provides a detailed account of the content, and the nature, of the first person perspective Aquinas thinks humans have of themselves.

However, Aquinas seems to take this direct, first person self-awareness as a given. It is as if he thinks it is an obvious fact: a sort of ground-level assumption we can build from.

But it is not clear to me how he could take this as given. When I look at the way Aquinas thinks the mind works – if I imagine the mind to be the sort of thing Aquinas thinks it is – I have a hard time seeing how such a mind could have any first-person awareness of itself at all.

To clarify this, I want to model the human mind as Aquinas sees it. To do that, I will construct a simple abstract machine that functions in much the same way that Aquinas thinks the mind functions. In particular, it will model the kind of information processing Aquinas thinks the mind performs.

After that, I will argue that this sort of machine would not have any first person awareness of a self, and that it is hard to see how it even could.

Before I begin, two points are in order. First, by constructing an abstract machine to model the mind (as Aquinas sees it), I do not mean to imply that Aquinas thinks the mind literally is a machine. All I aim to model are the causal mechanisms Aquinas thinks occur in the mind as it processes information, and abstract machines are easily designed for that purpose. Second, in what follows, I will not use the word “self” or any of its variants – I will not speak of “oneself,” “itself,” “myself,” and so on. The reason is that the notion of a self is the very thing we are trying to explain, so we cannot slip it in as we proceed.

### **The Basic Model**

When it comes to how the mind processes information, Aquinas thinks that first there are sense organs: eyes, ears, and so forth. These are specialized sensors in that they can only accept certain kinds of information. Eyes can only accept visual information, ears can only accept audible information, and so on.

In reality, our world broadcasts all kinds of information through the atmosphere. These days we might speak of particles or sound waves or what-have-you traveling through the air, whereas the scholastics might have talked of forms traveling through the air. But however you prefer to describe it, let us assume that there is some kind of information traveling through the atmosphere.

In order to keep things simple, let us suppose that the world broadcasts only two kinds of data: ones and zeros. It does not matter what the ones and zeros represent. All that matters is that we have two different kinds of data for our machine to process.

Given that, let us begin to construct our information processing machine. Suppose that it has two sensors: Sensor A and Sensor B. Let us also suppose that these are different kinds of sensors: each is built to detect different kinds of information. Sensor A can only pick up sequences of two or more zeros, and Sensor B can only pick up sequences of two or more ones.

For instance, imagine if Sensors A and B were sitting idle, when they get bombarded with the following stream of digits: **010001110**. Sensor A would pick up **000**, since that is the only sequence of two or more zeros in the input stream, while Sensor B would pick up **111**, since that is the only sequence of two or more ones in the input stream. See Figure 1.

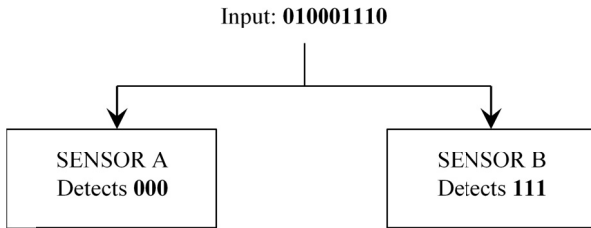


Figure 1: Sensor A and B.

We could have decided to start with sensors that pick up different patterns from the input stream. I have chosen two or more zeros, and two or more ones, arbitrarily. What is important is that the two sensors model human sense organs insofar as each only accepts a certain kind of input, different from the other's. In this case, Sensor A only detects sequences of zeros, just as the eyes only detect visual data, whereas Sensor B only detects sequences of ones, just as the ears only detect auditory data.

A further feature of human sense organs (as Aquinas understands them) is that they do not just blindly pass the data they receive through to the mind. They do some sort of processing.

To capture this, let us suppose that Sensor A and B each do a minimal amount of processing. That is to say, let us suppose that they transform the data they receive in some minor way. Here is one (arbitrarily chosen) way that might go.

Suppose that Sensor A appends a **1** to every **0** it receives, while Sensor B appends a **0** to every **1** it receives. So, if Sensor A receives three zeros, it will append a **1** to each zero and output: **01 01 01**. Likewise, if Sensor B receives three ones, it will append a **0** to each one and output **10 10 10**. See Figure 2.

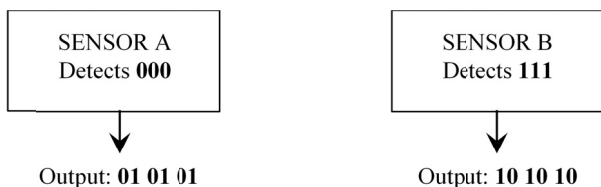


Figure 2: Sensor A's and B's output.

In this way, Sensor A and B model human sense organs insofar as they (a) can only receive certain kinds of information (zeros or ones), and (b) they perform a minimal amount of processing: they transform the raw data they receive into a different kind of output.

Next, there is what Aquinas calls the common sense. Of course, today we talk about common sense as a kind of practical know-how. But that is not what it means for Aquinas.

For Aquinas, common sense is a faculty in the mind that takes all our sensations of an object, and bundles them together. If I get near a horse, my common sense would take the sights, sounds, and so on that my sense organs pick up, and it would bundle them together as a single collection of sense-data about the horse.

To model this, let us suppose there is a module in our machine called the Aggregator. It takes the output of Sensor A and Sensor B, and it aggregates the data into a single stream of output. How it aggregates the data is not important here. What we need to model is simply that it does combine the data somehow. So suppose that, say, the Aggregator concatenates the digits it receives into a single string of digits, in the order it receives them.

For instance, if the Aggregator first receives **01** from Sensor A, then **10** from Sensor B, and lastly **01** from Sensor A, it would concatenate all those together and output **01 10 01**. See Figure 3.



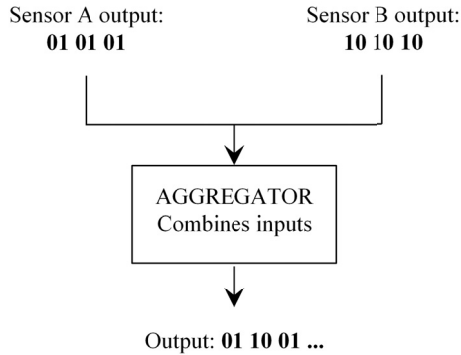


Figure 3: Aggregating Sensor A's and B's output.

Next, there is the imagination. This is the faculty of the mind which takes the bundle of sense data produced by the common sense, and then from that, it generates an image. If you close your eyes and imagine the horse you just saw, the imagination is the faculty that produces that image.

To model this, let us suppose that we have yet another module in our machine called the Image Maker. It takes the output of the Aggregator, and it produces some sort of representation of it. How it produces that is not important, but here is one simple method: it extracts the first digit from every pair of digits it reads. So, for example, if the Aggregator outputs **01 10 01**, the Image Maker would pick out **0 1 0**, as in Figure 4.

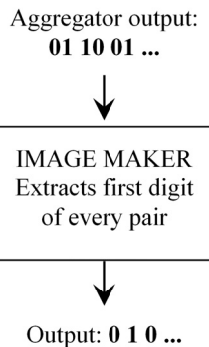


Figure 4: Producing an image of the information.

The output of the Image Maker is a kind of “image” in the sense that it is a concise representation of the collection of digits it receives, similar to how modern recordings store a digital encoding of the sounds the recording studio picks up.

Next, there is what Aquinas calls the active intellect. This is the faculty of the mind that looks at sensory images and abstracts the common features of those images.

To model this, let us suppose that we have a module in our machine called the Pattern Recognizer. This module takes all outputs produced by the Image Maker, and it detects any and all patterns in those outputs. How it does this is again unimportant. What matters for our model is that it identifies patterns in some fashion or other.

Let us suppose that it simply pulls out any sequence of digits that it has seen before. For instance, if on one occasion the Pattern Recognizer receives the sequence **010**, and then shortly thereafter, it receives another sequence, **00001**, the Pattern Recognizer would identify **01** as a pattern, because that sequence of digits occurs in **010** and then again in **00001**. See Figure 5.

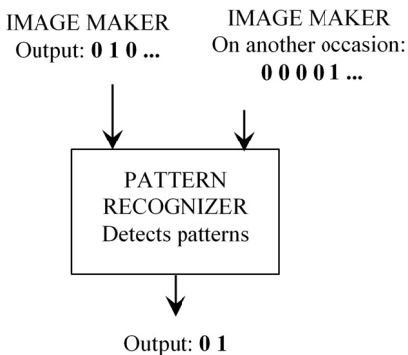


Figure 5: Recognizing patterns in the information.

This models the active intellect insofar as the active intellect is responsible for extracting the formal features of things, which in this context means that the active intellect is responsible for figuring out repeating features in the objects we experience.

Finally, there is what Aquinas calls the possible intellect. This is the faculty of the mind that receives the information produced by the active intellect. It is a kind of repository for the active intellect's abstractions.

To model the possible intellect, let us suppose that our machine has a module called the Receptacle. This module does nothing more than receive the stream of ones and zeros it receives from the Pattern Recognizer. Exactly how it does this is again not important, so let us assume simply that it writes the sequence of digits it receives on a tape. See Figure 6.

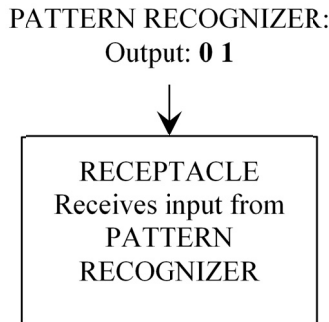


Figure 6: Receiving patterns.

With that, we have a basic model of the mind, as Aquinas sees it. To summarize, the Sensors only accept specific kinds of data, the Aggregator concatenates all the data it receives from the senses, the Image Maker generates a concise representation of the sense data, the Pattern Recognizer extracts patterns from images, and it finally deposits that output into the Receptacle. A full diagram of the machine is presented in Figure 7.

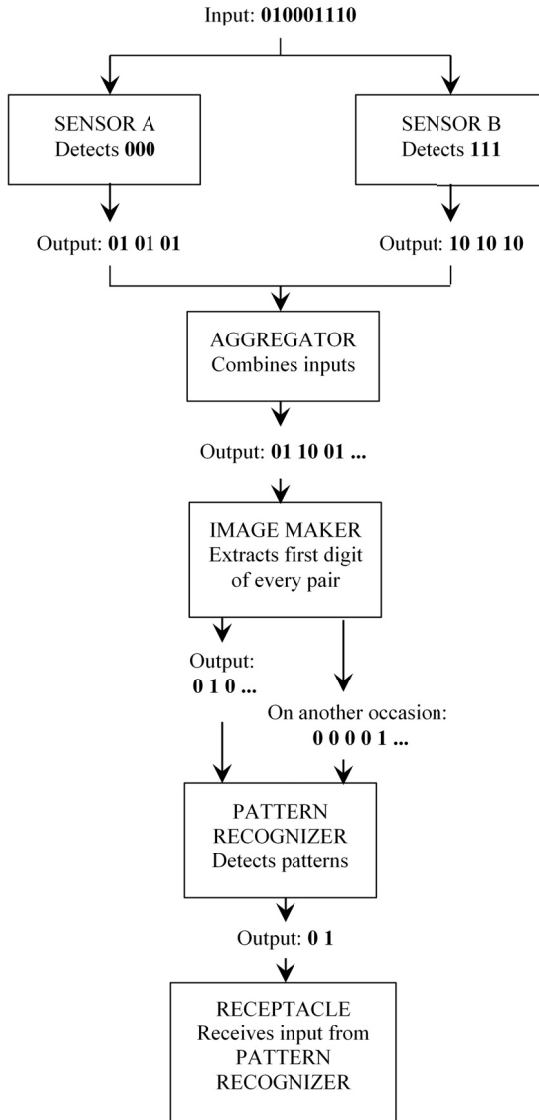


Figure 7: Full diagram of the basic model.

## **Is the machine/mind aware?**

Now that we have a fairly detailed model of the mind (as Aquinas sees it), we can turn to some basic questions. The first question I want to ask is this: is this machine aware?

I see no reason to think that it would be aware of anything at all. I do not have any particular argument for this. I can only appeal to our everyday experience and intuitions. When I look at mechanical systems, I typically think they are not aware of anything.

For example, when I flip on the light switch in my bedroom, the switch is not aware of the fact that it is on. It is not aware of anything, so far as I can tell. Similarly, when I turn my computer on, it is not aware that it is on. As far as I can tell, it is simply not aware of anything at all.

So too with the machine I just constructed. Why should we think it is aware of anything? It is just a mechanistic system that processes inputs and outputs.

Likewise for the human mind. Why should we think it would be aware of anything either, on this model? Aquinas has explained a set of mechanisms by which the human mind processes information, and I have modeled that with a simple abstract machine. But if we see no reason why such a machine should be aware, why should we think the human mind would be aware?

## **What does the machine have information about?**

There is another problem here. Suppose we could open a hatch on the back of the Receptacle and look at what is recorded on the tape inside. There we would see the information contained in the machine. In this sense, we could say that the machine has or possesses information.

But what is the information about? It seems to me it is information about the external world. And it is about the external world because it is caused by the external world. There is a causal chain we can trace here: the Sensors pick up ones and zeros from the external world, and then they send them through the system. That causal chain explains why the information contained in the Receptacle is about this external object rather than some other external object.

Nevertheless, notice that the machine has no information about the machine. There is no information about the modules in the machine, nor is there any information about the processing that occurs in the machine. The only thing the machine has information about is the external world.

### Self-monitoring

Fortunately, this is easy to fix. Aquinas does not, so far as I know, ever make the moves I am going to make here, but allow me the freedom to work on Aquinas's behalf. What I want to do is provide a way for the machine to gather information about the processing that occurs within it.

To do that, let me attach a self-monitoring system to the machine. This self-monitoring system consists of a series of sensors that monitor the modules in the machine.

For instance, we could attach to Sensor A a special module called Monitor 1. Monitor 1 would watch Sensor A and pick up any output that Sensor A produces. It would then make a copy of that output and prepend **Sensor A** to it.

So, for example, if Sensor A outputs **01 01 01**, Monitor 1 would detect that and produce its own output of **Sensor A : 01 01 01**. This output encodes the fact that Sensor A has produced the stream of digits **01 01 01**. Monitor 1 could then pass that information directly into the Receptacle, where the Receptacle would write it to its temporary tape. See Figure 8.

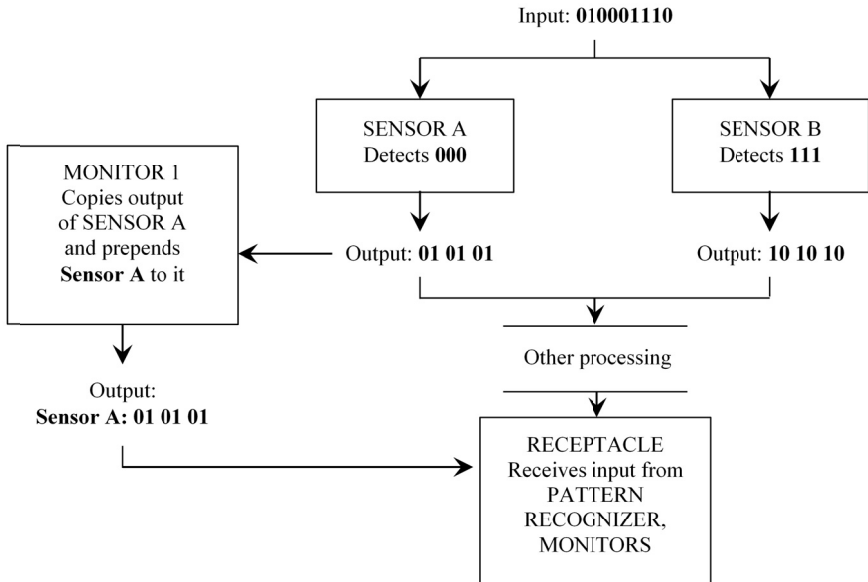


Figure 8: A monitor to capture the output of a sensor.

We could attach similar monitors to every other module in our machine, so as to monitor all the processes that occur within the machine.

At this point, if we lifted up the hatch on the back of the Receptacle and looked inside, we would see not just information about the external world, we would also see information about the processing events that occur inside the machine.

Notice, however, that the machine has no information about which machine is doing the processing. The information contained in the machine specifies only that such-and-such processing happened, and that it was performed by a module called so-and-so. But there is no information tying that module to this particular machine.

Likewise with the human mind. Even if there were some kind of self-monitoring system that allowed the mind to know about the processing

events that occur within it, if it only reported the processing events, the mind would have no information about which mind did the processing.

This may seem like an inconsequential point, but remember that Aquinas believes in angels. And angels have no bodies. For Aquinas, this entails that angels see each other's thoughts. The question, then, is how does one angel distinguish its thoughts from another angel's thoughts?

Or, if you do not want to talk about angels, do a thought experiment: imagine a number of disembodied minds. If there were a group of minds-without-bodies floating around who could see each other's thoughts, how would they distinguish whose thoughts were whose?

If we are relying on the mechanisms I have modeled so far in this machine, the conclusion is this: at this point in its construction, the machine has no way of identifying which processes belong to which machine.

### Pairing machines and processes

Again though, the problem is easy enough to fix. The moves I am going to make here are again not moves Aquinas himself makes. But let me generate a strategy on his behalf.

Suppose that the monitoring sensors do not pass their output directly into the Receptacle. Suppose instead that they pass their output into a new module called the Identifier.

Suppose also that the Identifier has a hard-coded list of all the modules that belong to the machine. That is to say, it has a list that reads: Sensor A, Sensor B, Aggregator, Image Maker, Pattern Recognizer, and Receptacle. Suppose as well that other machines have differently named modules, so that each machine has uniquely identifiable modules – for instance, another machine might have a sensor called Sensor A\*, another might have a sensor called Sensor A\*\*, and so on.

Now, whenever a monitor passes data to the Identifier, the Identifier checks the first part of the output: it looks at the characters before the colon: **Sensor A**, **Sensor B**, **Aggregator**, or whatever other sequence of characters appears before the colon. It then checks that name against its list. If the name is on the list, it prepends a **1** to the output (followed by a



colon), and if the name is not on the list, it prepends a **0** to the output (followed by a colon).

For instance, if Sensor A produces the output **01 01 01**, Monitor 1 would detect that and output **Sensor A: 01 01 01**. The Identifier would in turn receive that and check if Sensor A is on its list. It is on the list, so the Identifier would prepend a **1** (followed by a colon) and output: **1: Sensor A: 01 01 01**. That output would then go directly into the Receptacle, where the receptacle would write it to its temporary tape. See Figure 9.

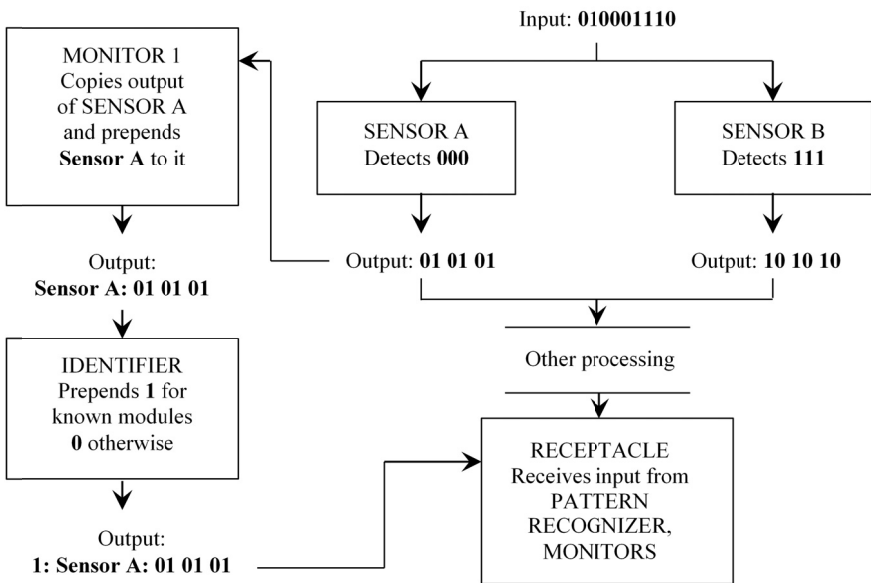


Figure 9: An identifier to identify if processes belong to the machine.

This is a simple way of reporting whether or not the processing was performed by a module that belonged to the machine. A **1** indicates that the output was processed by a module that belongs to the machine, and a **0** indicates that the output was produced by a module that belongs to an external machine.

At this point, if we opened up the hatch on the back of the Receptacle and looked inside, we would see not just information about the external world

or information about processing events. We would also see information stipulating whether those processing events belonged to the same machine or some other machine.

In this way, the machine could easily identify information about the external world, information about how that data was processed, and it could identify which processing events belong to this particular machine rather than some other machine.

### **How to identify a self?**

Even so, at this point, the machine does not know about itself. All it knows (if it knows anything) is that some one machine has performed such-and-such a set of processes in order to parse information about the external world. There is no information that lets the machine identify itself or be aware of itself. If we were to open the hatch on the back of the Receptacle, we would find no information that could allow the machine to say, “Hey, that’s me!”

We could, of course, introduce further modifications to the machine. And perhaps by doing so we could provide the machine with quite a bit of information about the machine that it is and its processing. But it is hard to see how any of that could get us beyond the point we have reached: it is hard to see how the machine could have any first-person awareness of itself.

I have tried to buttress Aquinas’s account with some simple mechanisms that could provide a machine with (a) information about the machine’s processes, and (b) whether those processes belong to some one machine rather than some other machine. But I cannot see a way that such a machine could gather information about itself (as a self, in a first-person sort of way).

It seems to me that Aquinas provides an account of the mechanisms that make up the mind’s information processing, but he does not provide us with any tools to explain how the mind becomes aware of itself as a self, with a first person perspective. But that is the very thing that needs to be explained.

HUMAN INTELLECTUAL POTENCY  
AND THE GENUS OF INTELLIGIBLES:  
A RESPONSE TO THERESE CORY'S  
*AQUINAS ON HUMAN SELF-KNOWLEDGE*

BRIAN CARL

At the beginning of *Aquinas on Human Self-Knowledge*, Therese Cory offers a helpful primer in Aquinas's cognitive theory.<sup>1</sup> It becomes clear as her work progresses, however, that no general familiarity with Aquinas's views about human cognition will suffice for tackling his account of self-knowledge. Cory must contend with and develop accounts of topics such as the distinction between confused and distinct cognition, the intuitive character of the act of self-awareness, and the role of attention or focus as features of the intellect's act. A number of times, Cory must remark that a given feature of Aquinas's cognitive theory is lamentably underdeveloped by his interpreters. It becomes clear from Cory's work that Aquinas's texts on self-knowledge can function as a sort of proving ground for one's understanding of his broader cognitive theory.

My primary response in reading *Aquinas on Human Self-Knowledge* was that I found it also invited broad reflection upon the relation between Aquinas's cognitive theory and his metaphysics. This is particularly so with respect to one of the central claims in his theory, namely that the human intellect knows itself just insofar as it is actualized, when it understands something distinct from itself. In what follows, I aim (1) to draw out what I will call a "linchpin thesis" that underlies this claim and (2) to suggest that this linchpin thesis can be best understood insofar as Aquinas's theory of human self-knowledge is situated within a broader

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<sup>1</sup>Therese Cory, *Aquinas on Human Self-Knowledge* (New York: Cambridge University Press, 2014), 9-12.

theory of self-knowledge that also includes angelic and divine self-knowledge. This will occasion questions about the extent to which Aquinas's theory of human self-knowledge depends upon that broader metaphysical context.

## 1. The Linchpin Thesis of Aquinas's Theory of Self-Knowledge

Aquinas's theory of self-knowledge is narrow in a certain respect, and both Cory's presentation of this theory and my response to it reflect this narrowness. As Cory observes, Aquinas's discussions of human self-knowledge concern the human intellect's knowledge of itself or the soul's knowledge of itself *qua* intellectual soul. As a consequence, some features of ordinary, everyday first-person awareness are not directly treated by his theory: for example, it is not obvious how his theory accounts for my awareness of myself as the subject of acts of sensation or as the subject of acts of breathing and walking. There may be resources in Aquinas's thought for accounting for these aspects of first-person experience, but they are not immediately at issue in the key Thomistic texts on self-knowledge. As Cory explains, Aquinas, like many of his medieval contemporaries, approaches the question of self-knowledge "under the innocuous guise of questions such as 'Whether the mind always understands itself,' or 'Whether the mind cognizes itself by itself or by a species.'"<sup>2</sup> Aquinas's theory of self-knowledge is a theory of when, how, and why a human being is capable of intellectual acts of self-knowledge. These acts of intellectual self-knowledge can be distinguished into acts of self-awareness (awareness of the self as the acting subject) and acts of quidditative self-understanding (knowledge of what the intellectual soul is).

Cory finds that a key component of Aquinas's account of self-knowledge – and a component that takes on an increasing importance as his views develop over the course of his career – is the claim that there is intellectual self-awareness just insofar as the human possible intellect is actualized by its reception of an intelligible species, which is abstracted from a phantasm.<sup>3</sup> Because the possible intellect is, of itself, purely potential with

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<sup>2</sup>Cory, 2.

<sup>3</sup>As Cory explains, Aquinas also holds that there is also an implicit awareness of the light of the agent intellect in every act of intellectual cognition through a received intelligible species. See Cory, 148. I have set this sort of self-awareness aside.

respect to intelligibility, it is not capable of unassisted introspection or reflection upon itself, apart from its understanding of extramental objects. But when the possible intellect is actualized by an intelligible species, then self-awareness necessarily follows, precisely because the possible intellect, when actualized, is formally identical with the thing it understands. As Aquinas puts it, “it belongs to the nature of the intellect that it understand itself insofar as it assumes or conceives in itself something intelligible; for the intellect itself becomes intelligible by attaining something intelligible.”<sup>4</sup> The abstracted intelligible species is, in Cory’s words, “the principle of Intelligibility not only for the object, but also for the Intellect itself.”<sup>5</sup> The possible intellect thus acquires actual intelligibility by its act of understanding something extramental through a received species. On Cory’s account, this acquired intelligibility is sufficient for the possible intellect’s self-awareness: to be actually intelligible is necessarily to be understood, just as to be actually sensible is necessarily to be sensed.<sup>6</sup>

The linchpin of Aquinas’s theory of human self-knowledge is thus the thesis that *the presence of something actually intelligible is sufficient for the possible intellect’s cognition of that object*. The possible intellect itself (1) becomes actually intelligible by its act of cognizing some extramental object and (2) is present to itself, because it is identical with itself.<sup>7</sup> This linchpin thesis, particularly as it applies in the case of the possible intellect’s self-knowledge, should be compared with Aquinas’s understanding of our cognition of extramental objects. Consider the following text from

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<sup>4</sup>*Sententia super Metaphysicam* 12.8 [Marietti 594]: “*Et dicit, quod hoc est de ratione intellectus, quod intelligat seipsum in quantum transmittit vel concipit in se aliquid intelligibile; fit enim intellectus intelligibilis per hoc quod attingit aliquod intelligibile*”; translation from Cory, 155.

<sup>5</sup>Cory, 154. This thesis is indebted to Aristotle’s *Metaphysics* 12.7 1072b19-21, where Aristotle asserts, in the context of discussing the self-knowledge of the unmoved mover, that thought itself becomes an object of thought, because thought and the object of thought are the same. Cf. *Eudemian Ethics* 7.12 1244b20 ff.

<sup>6</sup>For the claim that what is actually sensible is necessarily what is actually sensed, see *De anima* 3.2 426a3-26. Cf. *ST* 1.87.1, cited below in n. 13.

<sup>7</sup>Cf. Cory, 157. Although Aquinas sometimes describes the human intellect’s self-knowledge as occurring *per speciem* or by a mediating intelligible species, this does not mean that the intelligible species mediates the human intellect’s self-knowledge in the (limited) way that the species mediates intellectual cognition of something extramental. Along these lines, Cory argues that human intellectual self-awareness should in fact be construed as direct and immediate (in the most relevant sense) – and thus, as she puts it, intuitive. See Cory, 98-112.

Aquinas's Commentary on *De anima* 3.5, in which he explains why Aristotle posited the agent intellect:

Now, Aristotle was led to posit an agent intellect in order to exclude the opinion of Plato, who held the quiddities of sensible things to exist separate from matter and [to be] intelligible in act; whence it was not necessary for [Plato] to posit an agent intellect. But since Aristotle holds that the quiddities of sensible things exist in matter and [are] not intelligible in act, it was necessary that he should posit an intellect that would abstract them from matter and thus render them intelligible in act.<sup>8</sup>

The quiddities of corporeal, sensible realities – the first, proportionate object of the human intellect – are not in themselves actually intelligible; nor is the phantasm, as a sense image of a particular extramental reality, actually intelligible in itself. This means, most fundamentally, that neither a sensible reality nor the sense image representing it are able, of themselves, to cause the act of understanding in the possible intellect.<sup>9</sup> The activity of the agent intellect is necessary in order for the phantasm to be able to cause the reception of the intelligible species in the possible intellect. The phantasm functions as an instrumental (or secondary) cause, able to cause the intelligible species by virtue of the agent intellect, which functions as a principal (or primary) cause.<sup>10</sup> As light makes what is

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<sup>8</sup>In *De anima* 3.IV (commenting on *De anima* 3.5 by the modern division of chapters) [Leon. 45/1.219]: “*Inducitur autem Aristotiles ad ponendum intellectum agentem ad excludendum opinionem Platonis, qui posuit quidditates rerum sensibilium esse a materia separatas et intelligibiles actu, unde non erat ei necessarium ponere intellectum agentem; set quia Aristotiles ponit quod quidditates rerum sensibilium sunt in materia et non intelligibiles actu, oportuit quod poneret intellectum aliquem qui abstraheret eas a materia et sic faceret eas intelligibiles actu.*”

<sup>9</sup>In other words, the human mind is not simply passive with respect to corporeal objects, and in this way, intellectual understanding differs from external sensation: our external sense powers are strictly passive powers, moved to their acts by their respective objects, such as color or sound (albeit through sensible species communicated through a medium).

<sup>10</sup>*Quaestiones disputatae de veritate (De ver.)* 10.6 ad 7 [Leon. 22/2.314]: “*In receptione qua intellectus possibilis species rerum accipit a phantasmatis, se habent phantasmata ut agens instrumentale vel secundarium; intellectus vero agens ut agens principale et primum.*” For extended discussion of this understanding of the role of the agent intellect and the phantasm in Aquinas's understanding of human intellectual activity, see Therese Cory, “Rethinking Abstractionism: Aquinas's Intellectual Light and Some Arabic Sources,” *Journal of the History of Philosophy* 53.4 (2015): 607-46.