THOMAS AQUINAS ON NECESSARY TRUTHS
ABOUT CONTINGENT BEINGS

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Abstract

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The aim of this dissertation is to give an account of Aquinas’s thinking on the ontological grounds of necessary propositions about creatures. The kind of necessary propositions that this dissertation concerns are essential propositions, such as Man is an animal or Dogs are sentient. Throughout his works Aquinas affirms that every truth asserted by the human intellect is adequated to or conforms to some res. Accordingly, it seems that if necessary propositions are true at all times, then there must be some res that exists at all times to which these necessary propositions conform. Since both creatures and their essences are contingently existing beings that come to be and perish in time, many have concluded that the creatures themselves or their essences cannot be the res to which necessary propositions about creatures conform. It seems for example, that the proposition Dodo birds cannot fly cannot be grounded by dodo birds or their essences since both dodo birds and their essences ceased to exist almost four hundred years ago and still this proposition remains true.
Various interpreters of Aquinas’s thought have argued that some feature of God, such as his power or essence, grounds necessary propositions about creatures. In this dissertation, I argue for alternate interpretation of Aquinas. I make a textually based argument for the conclusion that Aquinas held that necessary propositions about creatures have their ontological grounds in the contingently existing substantial forms of the created beings themselves. The precise feature of a substantial form that guarantees the truth of a necessary proposition is its unicity. Aquinas thought that *Man is rational* is necessarily true because *man* and *rational* signify one form in reality. In addition to explicating Aquinas’s thinking on the grounds of necessary propositions, I show how Aquinas thought that these propositions could remain true even after the creatures that they are about (and their forms) have perished.
DEDICATION

To Jacob

“Amicitia, quanto maior, tanto est firmior et diuturnior. Inter virum autem et uxorem maxima amicitia esse videtur....”

St. Thomas Aquinas, Summa Contra Gentiles III.123
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I have a deep gratitude to many of my fellow graduate students at Notre Dame who have provided me with companionship and support, as well as contributed to my intellectual growth through thoughtful conversations and the sharing of ideas. There are more friends that I am grateful to than space will allow me to name, but I would particularly like to mention Jennifer and Drew Rosato.

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ABBREVIATIONS

De ente  De ente et essentia
De Int.  Expositio libri Peryermeneias
De pot.  Quaestiones disputatae de potentia
De Trinitate  Super Boetium de Trinitate
De ver.  Quaestiones disputatae de veritate
In Ethic.  Sententia libri Ethicorum
In Meta.  In duodecim libros Metaphysicorum Aristotelis expositio
In Phys.  Commentaria in octo libros Physicorum Aristotelis
In I Sent.  Scriptum super libros Sententiarum magistri Petri Lombardi episcopi Parisiensis
PA  Expositio libri Posteriorum
QQ. De A.  Quaestiones disputatae de anima
QQ.  Quaestiones de quolibet
ScG  Liber de veritate catholicae Fidei contra errores infidelium seu Summa contra Gentiles
ST  Summa Theologiae
Super Io.  Super Evangelium S. Ioannis lectura
CHAPTER ONE

INTRODUCTION: THE PROBLEM AND ITS HISTORICAL RELEVANCE

I. The Problem

Like his medieval contemporaries, Thomas Aquinas conceived of truth as inextricably linked with existing things. Throughout his works, he maintains that the essence of truth in the human intellect consists in its adequation (or commensuration) with a thing (res).\(^1\) In the De veritate, for instance, Aquinas writes: “To every true act of understanding there must correspond some being and likewise to every being there corresponds a true act of understanding.”\(^2\) In addition to holding a view of truth close to what has been labeled "the correspondence theory" in contemporary philosophy, Aquinas also held that certain truths are necessarily true, i.e. they cannot be false.\(^3\) It would seem, then, that if truth is an adequation between intellect and being and some truths are necessarily true, then there must be some necessarily existing being to which the intellect can conform when it knows a necessary truth.

Some of the truths that Aquinas thought were necessary were in fact truths about the

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*All translations are my own unless otherwise noted.
\(^1\) See, for example, In I Sent. 19.5.2, ad 2.; De ver 1.1 co.
\(^2\) De ver, 1.2 ad.1: “eo quod cuilibet intellectui vero oportet quod respondeat aliquod ens, et e converso.”
\(^3\) In chapter three, the differences between Aquinas's theory of truth and contemporary theories will become clear.
one necessary being in his ontology, i.e. God. Aquinas, for example, thought the proposition *God is just* is necessarily true. Although the human intellect may come to know this proposition through a variety of causes, the truth of this proposition consists in the intellect's adequation with the nature of God. This proposition could not be other than true when it exists in the human intellect because the *res* with which the intellect conforms, the being of God, cannot fail to exist or be just.

Aquinas did not think, however, that all necessary truths are about necessarily existing beings. Like his contemporaries, he held that there are necessary truths about contingent beings. In fact, the very possibility of science with respect to creatures depended on there being propositions about contingent beings that could not be other than true. When one accepts the conception of truth as *adequatio* along with the claim that there are necessary truths about contingent beings, the question arises of what the *res* are to which these necessary propositions are adequate. It seems that the material creatures themselves, given that they are subject to generation and corruption, along with other kinds of mutability, are insufficient relata to enter into relation with the human intellect when it knows a necessary truth.

Answering this question becomes more complex in a genuinely Thomistic tradition, which denies that the essences of creatures possess being of themselves or in themselves. Although the essences of creatures are not themselves subject to

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4 When referring to God as the one necessary being in Aquinas's ontology, I am using 'necessary' to refer to absolute or metaphysical necessity. Aquinas did admit that there were beings other than God that were neither generable nor corruptible. Aquinas refers to these beings also as necessary beings, yet their necessity differs from God's since they are caused beings and could not have existed without being created by God. See for example *ST* Ia.2.3. For scholarship on Aquinas on necessary being, see Patterson Brown, "St. Thomas's Doctrine of Necessary Being," *The Philosophical Review*, 73:1 (1964): 76-90.
accidental change while they exist, Aquinas held that they too are created and are thus subject to the substantial changes of generation and corruption. Accordingly, it seems that claiming that the res to which necessary truths about creatures conforms is the essence of creatures will not help to explain how these truths remain true before the creatures come into being or when the creatures cease to exist, since the essences themselves do not exist apart from creatures. We cannot, for example, claim that it is the essence of a dodo bird that is the ontological grounds for the truth *Dodo birds cannot fly* since the essences of dodo birds ceased to exist around four hundred years ago when dodo birds became extinct.

In this dissertation, I plan to give an account of the ontological foundation for necessary truths about creatures according to the view of Thomas Aquinas. By accounting for the “ontological foundation” or “basis” for necessary truths, I mean that I will identify the res to which the human intellect conforms when it knows these truths. The particular kind of necessary truths that I will be interested in are universal truths that express natural necessities, i.e. those that are the premises of or conclusions of scientific demonstrations about creatures. I will leave aside the perhaps more complicated issue of explaining mathematical truths and logical laws.

Aquinas does not have an explicit discussion of the ontological grounds for necessary

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5 Aquinas is particularly clear about the creation of essences in *De Potentia* 3.5 ad 2: "Ad secundum dicendum, quod ex hoc ipso quod quidditati esse attribuitur, non solum esse, sed ipsa quidditas creari dicitur: quia antequam esse habeat, nihil est, nisi forte in intellectu creantis, ubi non est creatura, sed creatrix essentia." This passage has generated a lot of debate among interpreters of Aquinas's thought. Fred Freddoso has pointed out to me that there is one exception to the immutability of creaturely essences. Sanctifying grace alters a creature’s essence. The human form is also an exception since it is created by God, but incorruptible.

truths about creatures, as later thinkers do. I believe, however, that his view on this topic can be reconstructed based on his solutions to other problems regarding truth and his positions on related ontological issues.

II. The Historical Relevance

Explaining the ontological source for necessary truths about creatures was a much debated topic among 15th and 16th century thinkers who claimed to be followers of St. Thomas. The shared assumption of those who entered into this dispute was that the *fundamentum in re* for necessary truth must be something necessarily existing. Many held the view that although the essences of creatures are created, the connections among the essential predicates that are signified by necessary essential truths are eternal. Paul Soncinas (d. 1494) expresses this view as follows:

I will prove not that an essence does not have an efficient cause; for it is certain that humanity, stone-ness, and anything else that exists in reality are produced by the first cause [i.e.,God]. I instead prove that there is no efficient cause of the connection signified by the proposition *humans are rational animals*, in the way that there is an efficient cause of the connection signified by the proposition *a human being exists*. In fact, God, by producing a human, joins being to it.8

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8 Soncinas, Paulus. *Pauli Soncinatis quaestiones metaphysicales acutissimae: nunc demum ab erroribus plurimis expurgatae ... ; cum triplici earum indice*. Venetiis: Scotus, 1588, 22a: "Et probatur, non quidem quod essentia non habeat causam effectivam, quia certum est quod humanitas, et lapideitas, et quicquid est in rebus, a prima causa est productum, sed probatur quod nulla sit causa efficiens connexionis significati huius propositionis, homo est animal rationale, sicut aliqua est causa efficiens connexionis significati huius propositionis, homo est, Deus nam producens hominem copulavit ei esse." I quote this text, while making some emendations to the English translation, from Jeffrey Coombs, "The Ontological Source of Logical Possibility," p. 196. This view was also held by Sylvester of Ferrara (c. 1474-1528), who commented on Aquinas's *Summa Contra Gentiles*, Domingo
On this position, necessary truths are grounded in these eternal and uncaused connections between essential predicates, rather than on the contingently existing essences. This view is supposed to have an advantage over a "full-blown" essentialism, which grants an eternal being to the essences themselves. The precise nature, however, of these connections between essential predicates and their relation to God was a subject of much debate.  

This neo-scholastic controversy influenced the important early modern discussion of the eternal truths. When he responded to Arnauld's objections to his own doctrine on the eternal truths, Descartes either knew thoroughly or had at hand Suárez’s work that summarized the major positions in the neo-scholastic debate.  

Descartes, Leibniz and their contemporaries all shared the assumption that creatures themselves could not provide the ontological ground for the necessary truths about them. In one (or more) places, Descartes famously identified the eternal truths with the essences of creatures and claimed that they were created by God. Leibniz, on the other hand, made the essences of creatures necessary products of the divine

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9 For a medieval account of this dispute, see Suárez's *Disputatio Metaphysicae* XXXI, sec. 12, nn. 41-47.  
10 See, *Resp. 4ae*, VII, 235.5-14.  
11 A Mersenne Amsterdam, 27 Mai 1630, in *Descartes, Correspondance*, eds. C. Adam and G. Milhaud, (Paris: Alcan) 1836, pp. 141-142: "Je vous répons que c'est 'in eodem genere causae' qu'il a créé toutes choses, c'est-à-dire 'ut efficiens et totalis causa.' Car il est certain qu'il est aussi bien auteur de l'essence comme de l'existence des créatures: or cette essence n'est autre chose que ces vérités éternelles; les quelles je ne conçois point émaner de Dieu comme les rayones du soleil mais je sais que Dieu est auteur de toutes choses et que ces vérités sont quelque chose, et par consequent qu'il en est auteur...."
Both Descartes and Leibniz rejected as blasphemous the view that there could be eternal truths if God did not exist. Norman Wells has argued that the adversary Descartes may have had in mind when advancing his own position was none other than the tradition, exemplified by Soncinas, which posited connections between essential predicates that were not caused by God. This early modern debate helps to bring out a further philosophical issue that must be considered when attempting to address the issue of the ontological ground of necessary truths. Once it is assumed that the *res* to which necessary truth conforms is itself a necessarily existing being, it must be determined how this *res* is related to God.

Aquinas's views on the ontological ground of necessary truths are discussed, or at least referred to, with great frequency whenever the topic of necessary truths is treated in literature on early modern philosophy and particularly on Descartes. In an article first published in 1970, Armand Maurer writes:

> One of the most important legacies of medieval theology to modern philosophy is the notion of eternal truths. The notion appears in Descartes, Malebranche, Spinoza, and Leibniz, and through them it became a commonplace in modern thought. Although extensive research has been done on the meaning of the notion in the seventeenth-century classical philosophers, the late medieval background of the doctrine still remains largely unexplored. Indeed, the history of the notion of truth in the Middle Ages still remains to be

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12 See, for example, his *Monadology* par. 43-46.
written. In this complex and intricate history the divergent conceptions of the eternity of truth would occupy a prominent place.\textsuperscript{15}

For much of the time since Maurer first penned these words, the status of research into the Thomistic background of the modern doctrine of eternal truths remained roughly the same. Recently, however, new interest has sparked in this topic.\textsuperscript{16} In the last decade, a few dissertations and articles have been written that attempt to explain how Aquinas grounded modal truths with some of these studies focusing more specifically on necessary truths.\textsuperscript{17} Without exception, each of these studies has argued that some aspect of God, namely his essence, ideas or power, grounds the truth of necessary propositions about creatures. In this dissertation, I will challenge that interpretation of Aquinas’s thought. I will argue that Aquinas held that the necessary propositions on which a science of creatures is built are sufficiently grounded in the contingently existing essences of created beings.

III. Overview

In order to accurately understand how Aquinas would have responded to the question of what existing reality grounds the truth of necessary propositions about


\textsuperscript{16} In the last year, two doctoral dissertations were written which attempted to

\textsuperscript{17} See Amy Karofsky, “The ontology of alethic modalities in Aquinas, Suarez, and Leibniz,” unpublished Ph.D. dissertation, University of Virginia, 1997; Brian Leftow, “Aquinas on God and Modal Truth” in S. Brower-Toland (ed.), “Sixth Henle Conference: Medieval Metaphysics, Part II.” \textit{The Modern Schoolman} 82:2 (2005): 171-200.; James Stone, “The foundation of universal and necessary propositions in select writings of Thomas Aquinas,” unpublished Ph.D dissertation, Fordham University, 2008; and Timothy Pawl, \textit{A Thomistic Account of Truthmakers for Modal Truths}, unpublished PhD dissertation, St. Louis University, 2008. (Pawl claims that he is not proposing the view he describes as something that Aquinas explicitly held, but rather as a view that is consistent with Aquinas's other doctrines.)
creatures, it is important to first understand which aspects of created reality were thought by Aquinas to be necessary, as well as how Aquinas understood the propositions in which a predicate is necessarily attributed to a subject. Accordingly, in the next chapter of this work, I will disambiguate several ways in which Aquinas uses the term *necessity* and I will isolate the sense that is relevant to the question of this dissertation. I will show that Aquinas thought that the origin of all absolute necessity in creation was the matter and form of creatures themselves. The problem of accounting for the perpetual truth of necessary propositions about creatures will emerge in this chapter when I explain how Aquinas thought that only contingent existence belonged to these essential principles from which necessity arises.

In the third chapter, I will provide an overview of Aquinas’s thinking on truth. I will focus particularly on his account of propositional truth. It will become clear in this chapter that Aquinas held a view of propositions very different from most contemporary analytic philosophers. For Aquinas, propositions are contingently existing products of human thinking. The propositional structure of attributing a predicate to a subject itself depends on the human mode of knowing. Making this point is important because even scholars of Aquinas’s thought have attempted to answer questions about the grounding of truths from Aquinas’s perspective while assuming in an un-Thomistic fashion that propositions are abstract objects existing apart from any mind that thinks them. On Aquinas’s view, one cannot speak of the truth of the proposition *Man is an animal* if there are no intellects existing that think

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18 See, for example, Leftow’s, “Aquinas on God and Modal Truth.”
propositionally. In addition to explaining the nature of the proposition itself, my main aim in this chapter is to explain how Aquinas thought that the truth of propositions depended on existing things.

The opening chapters of this dissertation on necessity and truth can be seen as providing the logical and ontological framework of Aquinas’s thought within which our main question needs to be raised. In the fourth chapter, I will address the question of what Aquinas thought the res was in virtue of which necessary propositions about creatures are true. Building on the previous chapter about propositional truth, I will make some distinctions that set necessary propositions apart from all other propositions according to their structure. I will then argue on the basis of his texts that Aquinas held that propositions about creatures, which predicate essential attributes, were necessarily true because their subjects and predicates signified the same substantial form in reality. Accordingly, the ontological foundation for necessary truths about creatures is the unicity of substantial form.

The remaining three chapters of the dissertation constitute an attempt to raise and respond to the strongest objections to the interpretation of Aquinas that I give in chapter four. In chapter five, I raise the difficulty of how necessary propositions about creatures remain true after creatures perish. If it is the form of dog that grounds the truth of the proposition *Dog is an animal*, then, it seems, this proposition cannot remain true when no forms of dogs exist. In chapter six and seven, I consider whether the fact that God knows possible creatures independently of creation undermines the account of Aquinas’s view that I have given. First, in chapter six, I
will enter into the debate in Thomistic scholarship about whether God knows possible creatures and show that Aquinas’s texts give overwhelming evidence for a positive answer to this question. Then in chapter seven, I argue that God’s ability to know possible creatures in virtue of knowing his essence does not imply that God is the ontological ground for *propositional* truths about creatures.

The main conclusion that I will draw in this dissertation is that because of Aquinas’s unwavering commitment to the unicity of substantial form, he is able to ground the necessity of essential predications about creatures in the essences of creatures themselves. Since all of the essential attributes of a creature arise from one single substantial form, no further cause beyond this form itself is needed to explain why the essential attributes of creatures are necessarily joined together as they are. *Man is rational* is necessarily true not because God’s will has joined the property of being human with being rational or because God’s intellect eternally knows man to be rational, but rather this proposition is necessarily true because the form that causes a substance to be a man and the form which causes it to be rational are in fact one in being.
CHAPTER TWO

THAT WHICH IS IMPOSSIBLE NOT TO BE: NECESSITY IN CREATION

The aim of this chapter is to give an overview of Aquinas's thinking on necessity in creation. It is important to understand what Aquinas meant in describing a being, its possession of one of its accidents or essential features, or the performance of one of its actions as necessary. It is also important to understand what types of features he thought were necessary to a being, since it is the creature's possession of its necessary features that will be described by the necessary propositions that this dissertation concerns. As will be seen, Aquinas thought that the term 'necessity' admitted of different meanings. Before distinguishing between Aquinas's different usages of the term 'necessity', I will discuss a more general point about Aquinas's treatment of modality that has been subject to controversy in the literature, namely his interpretation of modal terms. Then, I will give a classification of the various types of necessity that operate in Aquinas's thought and I will isolate the sense that is relevant to this study, namely absolute necessity. I will show that Aquinas thought that all absolute necessity in creation has its origin in the intrinsic principles of creatures, namely their matter and form. Finally, I will discuss the modes of

19 Unlike most contemporary philosophers, Aquinas and his contemporaries thought that a being’s accidents were able to be necessary to it. The class of the essential and the necessary were not coextensive, but rather the necessary included both essential and accidental features of a being. I discuss the difference between necessary accidents and essential features on pp. 32-33.
existence that Aquinas thought belonged to matter and form. When it becomes clear that the sources of necessity in creation have only contingent existence themselves, the problem of explaining perpetual truth of necessary propositions about creatures will emerge.

I. Aquinas’s Interpretation of Modal Terms

In contemporary philosophy, modal terms are understood according to the model of possible worlds. On this model, each of the four modal terms can be defined as follows:

necessary = df. true in all possible worlds
impossible = df. false in all possible worlds
possible = df. true in at least one possible world
contingent = df. true in at least one possible world and false in at least one possible world

The notion of a 'possible world' is not found in the thought of Thomas Aquinas. So the question naturally arises of what alternative model Aquinas used to interpret modal terms. This question has been the subject of controversy for the past thirty five years since Jaako Hintikka first advanced the thesis that Aristotle and scholastic

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thinkers accepted a 'temporal model of modality.' According to this model, modal terms are interpreted as follows:

- **necessary** = df. true at all times
- **impossible** = df. false at all times
- **possible** = df. true at some time
- **contingent** = df. true at some time and false at some time

This interpretive model is also referred to as the 'statistical model' and the 'diachronic model of contingency'. It is called the diachronic model of contingency because the contingent is defined as that which is able to be false at a time *other than* the time it is true. On the rival synchronic model, what is contingent is able to be false at the time that it is true. The temporal model is also called the statistical model because modal terms are interpreted with reference to extensional periods of time in the one actual world.

Perhaps the most significant feature of the temporal model is that it is reductionist. Modal terms are able to be reduced to temporal terms. This is a point of contrast with the contemporary possible worlds model in which modal terms remain basic. On the contemporary model, the term 'possible' occurs in the definition of all

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22 This is expressed symbolically: For some time $t$, $W_a$ at $t$ & $\neg(W\sim a)$ at $t$. Proponents of synchronic contingency do not endorse this claim: For some time $t$, $\Diamond (W_a 
\& W\sim a)$ at $t$. This proposition clearly violates the principle of non-contradiction.
other modal terms. The definitions of modal terms only clarify the relations of the other modal notions to a primitive notion of possibility. On the temporal model, modal notions are completely replaced by extensional temporal notions. Strictly speaking, if Aquinas or other scholastics did hold the reductive temporal model for interpreting modal terms, they in fact held no modal theory at all.

Fortunately, there is explicit textual evidence that shows that Aquinas rejected the temporal model of "modality". In his commentary on Aristotle's *De Interpretatione*, Aquinas notes that, as Boethius says in his commentary, there are various opinions on how the possible and necessary are to be understood.23 Among the views that Aquinas rehearses is that of Diodorus. According to Aquinas, Diodorus held that "the impossible is that which never will be; the necessary is that which always will be; the possible is that which sometimes will be and sometimes will not be."24 Aquinas criticizes this view because the distinctions it makes between modal notions are *a posteriori*.25 He writes: "[I]t is not the case that something is necessary because it always will be, but rather, it always will be because it is necessary."26 Klaus Jacobi expresses Aquinas's sentiment in this passage well when he writes: "The connection between modal and tense qualifiers is not a matter of

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23 *De Int.* 1.14, n. 8.
24 Ibid.: "Quidam enim distinixerunt ea secundum eventum, sicut Diodorus, qui dixit illud esse impossible quod nunquam erit; necessarium vero quod semper erit; possibile vero quod quandoque erit, quandoque non erit." In this passage, Aquinas does not distinguish between the contingent and the possible. Elsewhere, however, he is sensitive to the distinction that must be made between these categories. In *SCG* III.86, for example, he recognizes that the necessary is also possible. Therefore, the class of that which is possible cannot be coextensive with that which is contingent.
25 *De Int.* 1.14, n. 8.
26 Ibid.: "Nam prima distinctio est a posteriori: non enim ideo aliquid est necessarium, quia semper erit; sed potius ideo semper erit, quia est necessarium: et idem patet in aliis."
Aquinas recognized that there was a relationship between modality of an event and the frequency with which it occurs over time, but he did not reduce modal statements to assetoric propositions about what occurs in the actual world. Jacobi rightly explains that the occurrence of an event in the actual world was not seen as a definition of possibility, but rather evidence of the fact that something is possible. Similarly, a thing's occurring at some time and not at another would give proof that the thing's occurrence is contingent. Aquinas, however, would reject this as a definition of contingency. Jacobi explains that since appeals to what has occurred in the actual world cannot give evidence that something is necessary or impossible, the line of argumentation from temporal occurrences to modal claims runs in the opposite direction. In order to argue that something will always be or not be the case, one must first prove that the thing belongs to the class of the necessary or the impossible.

There is further evidence that Aquinas rejected the temporal model for interpreting modal terms. On this model, there is an equivalence between the necessary and that which is always the case. Aquinas, however, admitted that it was possible for there to be a contingent thing that always existed, namely an eternally created world.

28 Ibid.
29 See for example De pot. 3.14. There has been some dispute among scholars about whether Aquinas actually thought that an eternally created world was possible or whether he more modestly held that neither the impossibility nor possibility of the world's eternal creation could be proved. For discussion of this debate, see John Wippel, "The possibility of eternal creation," in his Metaphysical Themes in Thomas Aquinas, (Washington DC: CUA Press, 1984), pp. 191-214. Wippel shows that Aquinas accepted that an eternally created world is possible.
In his *De Interpretatione* commentary, there is a second interpretation of modality that Aquinas rejects. This interpretive model, which is based on external prevention, is attributed to the Stoics. It holds that the necessary is that which is not able to be prohibited from being true, the impossible is that which is always prohibited from being true, the possible is that which is sometimes prohibited and sometimes not. Aquinas rejects this model because it bases the necessity or contingency of something on what is external to it. This results in the modality of something being accidental to it. For example, in a world where no dams exist it will be necessary that rivers flow unrestricted. In a world where dams do exist, though, this will be contingent since the flow of rivers will be able to be prevented. Just as he recognized that time was connected to modality, Aquinas also recognizes that there is a connection between a thing's modality and its ability to be prevented. The connection, however, is the reverse of what the Stoic theory proposes. Aquinas writes, "It is not the case that something is necessary because it does not have an impediment; rather because it is necessary, it is unable to have an impediment." Aquinas's rejection of this view is relevant to a contemporary proposal about how we are to understand Aquinas's thinking on modality. Brian Leftow has recently proposed that in Aquinas's thinking modal claims can be reduced to claims about God's power. The possible is that which God is able to do and the necessary is that
which God is unable to prevent. I will address Leftow's view in greater detail in a later chapter. Another passage from the *De Interpretatione* gives initial reason to think, however, that Leftow's reading is mistaken, given its similarity to the view Aquinas explicitly rejects.

In the conclusion of the *De Interpretatione* passage that I have been discussing, we get Aquinas's own view on what the best account of modal terms is. He writes:

> Such others rightly distinguish modal terms according to the nature of things, namely so that it is said that the necessary is that which in its nature is determined only to being; the impossible is that which is determined only to nonbeing; the possible, however, is that which is not completely determined to either being or nonbeing. It is either related more to one than the other or it is equally related to both and said to be contingent to either one.\(^3^3\)

This account of modal terms is preferable to the other two because according to it a thing's modality is determined by what is intrinsic to it. According to their natures, certain things are unable not to be while other things have a potentiality toward either being or not being. It is this difference in the natures of things that accounts for the different modal categories. The necessary, for example, has the features of being always the case and unable to be prevented. The fact that something always is or cannot be prevented can be epistemological signs that it is necessary, yet Aquinas

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\(^{3^3}\) *De Int.* 1.14, n. 8: "Et ideo alii melius ista distinxerunt secundum naturam rerum, ut scilicet dicatur illud necessarium, quod in sua natura determinatum est solum ad esse; impossibile autem quod est determinatum solum ad non esse; possibile autem quod ad neutrum est omnino determinatum, sive se habeat magis ad unum quam ad alterum, sive se habeat aequaliter ad utrumque, quod dicitur contingens ad utrumlibet."
rejects that a thing's necessity can be reduced to one of these facts. A thing's modality
is an irreducibly basic feature of its essence.

II. Aquinas's Classifications of the Necessary

Now that we have seen how Aquinas interprets modal terms, we can look
more closely at his discussions of the modal notion that is of most importance to this
study, i.e. necessity. Throughout his works, Aquinas defines the necessary as that
which is unable or impossible not to be. Although all necessary substances and
relations have in common an inability not to be, he claims that the term "necessity" is
"said in many ways". Aquinas denied that necessity is a univocal term because
there are a number of different respects in which something is unable not to be.
Aquinas thought that men were unable not to be rational; the human will was unable
not to will its own happiness; if God knows \( p \) then \( p \) is unable not to be; and that if a
stronger agent coerces a weaker agent to do \( x \), then \( x \) cannot not to be. The inability
not to be of each of these examples, however, depends on different causes and
conditions. Accordingly, Aquinas thought that each of these is necessary in a
different way. There are several theological contexts in which Aquinas asks whether
a certain things are necessary. For example, he asks whether it is necessary for fallen
human nature to be restored (In III Sent. 20.1.1.3 co.), whether it was necessary for
God to assume the defects of human nature in the Incarnation (ST IIIa.14.2 co.), and

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34 See for example ST Ia.82.1 co.: "necesse enim est, quod non potest non esse"; In. III Sent.
16.1.2 co.: "necessarium idem est, quod impossible non esse"; 
35 ST Ia.82.1 co.
whether grace and the sacraments are necessary for the beatific vision (In II Sent. 29.1.1 co. and In IV Sent. 7.1.1.2 co.). Aquinas undertakes the task of distinguishing the various types of necessity before addressing each of these questions. From these discussions, Aquinas's classifications of the kinds necessity found in creation can be reconstructed.

Aquinas's most basic distinction of the necessary is a four-fold division that corresponds to Aristotle's four causes. Aquinas thought that a created being was unable not to possess a certain accident or perform a certain action either because of a being's form or matter, or because of an agent or final cause. The example Aquinas always gives of the necessity that arises from matter is the fact that material beings necessarily corrupt. Although a material being has both matter and form as intrinsic principles, the necessity of corruption is traced back to the being's matter alone, since the substantial change of corruption happens because matter becomes unable to support its form. The examples that Aquinas gives of formal necessity vary. One example he often uses is that a triangle has three angles.\textsuperscript{36} Elsewhere, Aquinas gives fire's causing heat as an example of a formal necessity.\textsuperscript{37} Aquinas identifies the necessity that arises from an agent or efficient cause with the necessity of coercion. An action of agent $a$ is necessary in this way when agent $b$ acts in a way such that with agent $b$'s act having been posited, agent $a$'s act cannot not happen. Necessity arises from an end when a certain object or event is needed for another to obtain. In

\textsuperscript{36} \textit{ST} Ia.82.1 co.; \textit{In Phys.} II 1.15 n. 2
\textsuperscript{37} \textit{ST} III.14.2 co.: "Alia autem est necessitas naturalis, quae consequitur principia naturalia, puta formam, sicut necessarium est ignem calefacere; vel materiam, sicut necessarium est corpus ex contrariis compositum dissolvē."
the replies of *In II Sent.* 29.1.1 and *In IV Sent.* 7.1.1.2, Aquinas distinguishes between two types of necessity from an end, namely things that are conditions for an end to be achieved *simpliciter* and things that are necessary for an end to be easily achieved or achieved well. Food is necessary for life in the former way and a ship is necessary to cross the sea in the latter way.

Aquinas thought that there was a fundamental difference between the necessity that arose from matter and form and the necessity that followed from an agent or final cause. Matter and form are essential principles of the beings to which they belong. For this reason, Aquinas refers to material and formal necessity as intrinsic necessity while he calls the necessity that arises from agent and final causes extrinsic necessity.\(^{38}\) Since a material being cannot exist without its matter and form, it cannot exist without being subject to the necessities that follow from its matter and form. Accordingly, Aquinas also calls the necessity that arises from matter and form "absolute" or "natural" necessity.\(^{39}\) The necessity that arises from agent and final causes, on the other hand, is merely conditioned necessity. The consequences that follow with necessity from an agent's action are only necessary given that the agent's action is performed. Similarly, the objects or events that are necessarily required for the achievement of an end are only necessary given that the end is posited. The results that necessarily follow from an action or end are not necessary *simpliciter* given that certain created beings exist in the way that material and formal necessities are.

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\(^{38}\) *ST* Ia.82.1 co.

\(^{39}\) See, for example, *In III Sent.* 20.1.1 qc. 3 co. and *ST* IIIa.14.2 co.
Natural and absolute necessity is the necessity that will be of interest to us in
the remainder of this study.\footnote{Below, I will distinguish natural/absolute necessity from a secondary sense of natural necessity used by Aquinas.} Since this class of the necessary will be our main
focus, it will be helpful to make a clarifying point about Aquinas's usage of the terms "natural" and "absolute". Commentators on Aquinas have struggled to understand
whether Aquinas thought that the entire class of that which is necessary from an
intrinsic principle, i.e. both the materially and formally necessary, is both absolutely
and naturally necessary. After discussing formal and material necessity in \textit{ST} Ia.82.1
co., Aquinas claims that the necessity that follows from matter and form is "natural
necessity and absolute." In this text, it is unclear whether "natural" and "absolute"
apply interchangeably to all that is either materially or formally necessary or whether
the "natural" applies to some part of this class and the "absolute" applies to the other.
Hester Gelber, for example, identifies the naturally necessary with the materially
necessary and the absolutely necessary with the formally necessary. She goes on to
explain that what is meant by the naturally necessary is that "things necessarily have
the consequences of what they happen in fact to be" and what is meant by the
absolutely necessary is that "things necessarily have the consequences of their
definitions."\footnote{See her \textit{It Could Have Been Otherwise: Contingency and Necessity in Dominican Theology at Oxford 1300-1350}, (Brill), 2004., pp. 115-116. Robert Pasnau has pointed out that there is an ambiguity in whether the term "natural necessity" should be taken to refer solely to material necessity. See his commentary and translation of Thomas Aquinas, \textit{Treatise on Human Nature (Summa theologiae 1a 75-89)} (Indianapolis: Hackett, 2002), p. 310. Pasnau's diagram on this page also reflects this ambiguity.}
If one looks beyond this one passage from *ST* Ia.82.1, it is clear that Aquinas thought that the naturally necessary and absolutely necessary together referred to the necessities that followed from both matter and form. In *In II Sent.* 29.1.1 co., for example, Aquinas writes that "One necessity is absolute which is from prior causes, as from matter and form, from which things are composed." In *ST* III.14.2 co., Aquinas makes clear that what is formally necessary is also naturally necessary when he writes, "Another necessity, moreover, is natural necessity, which follows from the principles of nature, as for example it is necessary for fire to heat from its form." I suspect that some of the confusion that contemporary readers have had with Aquinas's terminology stems from their preconceptions based on contemporary understandings of modal descriptions. On contemporary accounts, natural necessity is a weaker-than-logical causal necessity that is often contrasted with logical necessity. Since we are accustomed to thinking of the naturally necessary and the logically necessary as distinct types of necessity, many will assume that the naturally necessary and the absolutely necessary must refer to different classes in Aquinas’s thought as well. For the medievals, though, natural necessity referred to necessities that arise from a being’s nature. Medieval thinkers held that the quidditative definition of a thing signified its nature, so natural necessities have the logical necessity that follows from a definition. A triangle’s having three sides, for example,

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42 *In II Sent.* 29.1.1 co.: "Una absoluta, quae est ex prioribus causis, ut ex materiali et formali, ex quibus componitur res...." See also *ScG* II.30 where Aquinas refers to the materially necessary as absolutely necessary.

43 *ST* III.14.2 co.: "Alia autem necessitas naturalis, quae consequitur principia naturalia, puta formam, sicut necessarium est ignem calefacere...."

44 It will become clear below that there is another way in which Aquinas uses 'natural necessity' that is the same as this sense.
is a natural necessity on the medieval understanding, since this property is part of a triangle's nature.

While there is overwhelming textual evidence to support the view that Aquinas thought that whatever was absolutely necessary was also naturally necessary and vice versa, there are certain texts that appear to present a challenge to this view. In the context of discussing God’s omnipotence, for example, Aquinas contrasts the absolutely impossible with the naturally impossible in order to establish that certain feats are merely naturally impossible, but not absolutely impossible. 45 Raising the dead, for example, is thought by Aquinas to be naturally impossible, but not absolutely impossible. Since the impossible is the contrary of the necessary, it seems that if the naturally impossible is distinct from the absolutely impossible, then the naturally necessary must be distinct from the absolutely necessary. This difficulty can be solved, however, by distinguishing two understandings of the naturally impossible that operate in Aquinas’s thinking. In the context of discussing material and formal necessity, Aquinas implicitly understands naturally impossible\textsubscript{1} as any assertion that involves the denial of a property that is included in or entailed by a property of a being’s essence. In the context of discussing divine power, though, Aquinas understands naturally impossible\textsubscript{2} as any effect that cannot be brought about by a created power. 46 Clearly there are some events that are impossible according to naturally impossible\textsubscript{2}, but not naturally impossible\textsubscript{1}. Running at the speed of one hundred miles per hour does not involve the denial of a property included in or

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\textsuperscript{45} ST I.25.4 ad 1
\textsuperscript{46} Ibid.; ST Ia.110.4 co.
entailed the essence of a human being, however, no human being is able to do this. Aquinas would think, however, that it is within God’s power to create a human with this ability since it involves no contradiction. What is naturally impossible is also absolutely impossible. It involves a contradiction and cannot be brought about even by God. Its opposite is both naturally and absolutely necessary. What is naturally impossible is not absolutely impossible and its opposite is not absolutely necessary. It is the first type of natural impossibility that we are interested in here since its opposite is coextensive with the absolutely necessary. Throughout the remainder of this dissertation, when I refer to the naturally impossible, what I will have in mind is naturally impossible, i.e. an assertion that involves the denial of a property that is included in or entailed by a property of a being’s essence.

In addition to Aquinas’s discussions of the various types of necessity in which he distinguishes absolute and natural necessity from conditioned necessity (or that which is necessary from an extrinsic causes), there are other contexts in which Aquinas distinguishes absolute necessity from other types of necessity. It is helpful to consider these cases because Aquinas’s understanding of the absolutely necessary in these contexts differs from how he understands absolute necessity when he is contrasting it with extrinsic necessity.

Aquinas thought that a kind of necessity applied to past and present events, which could be properly contrasted with absolute necessity. Although an event may have a contingent relationship to its cause, once it occurs, it is unable not to be.47

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47 See, for example, De pot. 1.3 ad 9.
This necessity is called 'accidental' or *per accidens* necessity because it does not pertain to something in virtue of its nature. An event is 'accidentally' necessary because it occurred or is occurring. Nothing in the event’s nature makes it the case that it necessarily is or was, but once it is or was, it cannot not be. A past or present event’s inability not to be, however, does not imply that it followed with necessity from its cause. The necessity with which certain effects follow from their causes is the necessity that Aquinas refers to as absolute necessity in this context. Here the absolutely necessary is understood as whatever is entailed by a previous event. On this understanding, effects that are necessary from an agent by coercion would count as absolutely necessary. Aquinas is not interested here in whether or not that which is causally entailed is caused by an intrinsic or natural principle or an extrinsic cause. He is simply trying to show that the 'accidental' necessity that applies to the past cannot be equated with the necessity that arises from either an intrinsic or extrinsic cause.

In other contexts, Aquinas distinguishes absolute necessity from conditional necessity in attempt to differentiate *de re* and *de dicto* necessity. Here again the absolutely necessary is understood as whatever is entailed by a previous action or occurrence and includes that which is caused by either intrinsic or extrinsic causes. Conditional necessity is understood in this context as the necessity that attaches to certain conditional propositions. Aquinas’s purpose in making this distinction is to show that it does not follow from the necessary truth of a conditional proposition that what is expressed by the consequent of the proposition is causally necessitated by the
antecedent. Aquinas makes this distinction in the context of discussing God’s certain knowledge of contingents. Aquinas is interested in showing that the necessary truth of the conditional \( \text{If God knows } x, \text{ then } x \text{ will be} \) does not imply that \( x \) is itself is causally necessitated by God’s knowledge.\(^{48}\)

I would like to set aside these last two understandings of absolute necessity, which are contrasted with \textit{per accidens} and \textit{de dicto} necessity. For the remainder of this chapter and throughout this dissertation, I will understand by absolute necessity the necessity that arises from intrinsic natural principles of creatures, i.e. material and formal necessity.

III. The Types of Absolute Necessity

Now that we have seen how Aquinas separates the absolutely necessary from other types of necessity, we can look more closely at his understanding of absolute necessity. In book two, chapter thirty of the \textit{Summa Contra Gentiles}, Aquinas raises the question of how there could be anything absolutely necessary in creation.\(^ {49}\) In the preceding chapters, Aquinas argued that nothing outside of God is necessarily willed by him. Aquinas is aware that it may seem to an objector that if God is the first cause of all creation and God causes nothing outside of himself necessarily, then there can be no necessity in creation. So he takes the occasion in this chapter to explain how absolute necessity can arise in creation. Aquinas is careful to point out, however, that when created realities are considered with respect to God, who is their primary cause,

\(^{48}\text{ST Ia.14.13 ad 2.}\)
\(^{49}\text{ScG II.30}\)
none of them are absolutely necessary. Since God's act of creation is free, nothing that is created has absolutely necessary existence. When it is posited, however, that God creates certain types of beings or events, Aquinas grants that certain other effects follow with absolute necessity. When God creates fire, for example, heat follows with absolute necessity. It is only in this restricted sense that there is absolute necessity in creation. All necessity in creation is in a certain sense necessity of supposition, i.e. necessary only when some given condition is presupposed. Even though there is this restriction on absolute necessity, God's creative action is still bound by it.\footnote{ScG II.30, n. 7.}

Aquinas claims that if God wills to create a human being, it is necessary for him to give him a rational soul and a certain kind of body.\footnote{De pot. 3.16 co.} While it is not necessary for God to will to create a human being, if he does will to create a human being, then it is necessary for him to will certain other things to be.

Aquinas's discussion of the origins of absolute necessity in this \textit{Summa Contra Gentiles} text is more nuanced than in other texts where he is distinguishing absolute necessity from conditioned or extrinsic necessity. In other contexts when distinguishing the various types of necessity, Aquinas always had a particular question in mind about whether a certain thing is necessary. Accordingly, the types of necessity that he distinguished were not exhaustive, but only the ones that are relevant to the particular thing under consideration. In the \textit{Summa Contra Gentiles}, however, Aquinas is interested in absolute necessity in an unqualified manner and here we see him distinguishing more ways in which absolute necessity arises in creation. Rather
than simply claiming that absolute necessity arises from the intrinsic principles of
created beings, i.e. matter and form, here Aquinas distinguishes three ways in which
absolute necessity can arise from the essential principles of beings. He also explains
how absolute necessity can arise from agent and final causes. In the remainder of this
section, I will lay out Aquinas's account in *Summa Contra Gentiles* II.30 of how
absolute necessity arises in creation.

Aquinas first explains the three ways in which absolute necessity can arise
from the essential principles of created beings. The first way that essential principles
give rise to absolute necessity in creation is that they cause the beings which they
compose to necessarily have either corruptible or incorruptible existence. Because of
his commitments to Aristotelian physics, Aquinas thought it was impossible for
sublunar matter to exist and not corrupt. So beings that are composed of both matter
and form are necessarily corruptible. There was one exception, however. The
heavenly bodies were composed of both matter and forms, but Aquinas thought that
because the perfection of their forms completely exhausted the potentiality of their
matter, their matter was left with no potentiality toward nonbeing or taking on another
form. Accordingly, the heavenly bodies have incorruptible existence because of their
forms. All other incorruptible beings were necessarily incorruptible because they
were composed of form alone. Since created beings such as angels have no matter,
there is no subject from which their form can be separated in a process of corruption.
On the supposition that God creates a being, it follows that it necessarily has
corruptible or incorruptible existence based on the principles that belong to it.\textsuperscript{52}

In a second way, Aquinas thought that necessity could arise from a being's
essential principles in the sense of arising from the parts of these essential principles.
Aquinas thought that it was possible for both forms and matter to have parts and that
created beings necessarily possessed the parts of their essential principles. In the case
of a form's having parts, Aquinas gives the human form as an example. He says that
if it is the form or nature of man to be a rational mortal animal, then it is necessary for
a man to be an animal and rational. An important point to note here is that when
Aquinas says that the form of man has parts, he is not referring to the individual
human form that is an essential constituent of a particular man. The particular forms
that are components of individual beings are absolutely simple. When Aquinas
speaks of the form of a being having parts, he is referring to the abstract nature of the
being, which has as its components the various essential predicates that are attributed
to it. Aquinas sometimes calls the nature or essence of a being, which is signified by
its definition, the "form of the whole." He distinguishes this from the "form of the
part" which is the concrete essential principle of an individual being.\textsuperscript{53} Often times,
however, as in this case, Aquinas refers to both the essential principle of the concrete
individual and the abstract nature of that individual simply as its "form." It is then

\textsuperscript{52} The question arises of whether it is absolutely necessary that a thing be made of certain
essential principles, e.g. matter and form, rather than others, e.g. form alone. I think Aquinas would
argue that the kind of essential principles a thing has are necessary to it. Evidence for this is Aquinas's
view, which will be discussed below, that matter enters into the definition of a material being.
\textsuperscript{53} On the distinction between the form of the whole and the form of the part see, for example ScG IV.
81 n. 10.
left to the reader to infer from the context which he means. In this case when Aquinas says that absolute necessity arises from the parts of the form of a natural being, what he means is that it is absolutely necessary for a being to have the properties included in its form or essence, which is signified by its definition.

It may seem that it is not difficult to understand what Aquinas must mean when he claims that the parts of man's matter are necessary to him since it may seem obvious what a material part is, but this too is in need of clarification. Aquinas like other medievals distinguished between universal and particular (or designated) matter. The flesh and bones that are composing my body right now are an example of particular matter. Universal matter, on the hand, is flesh and bones in general, not any particular flesh and bones that are now comprising a body. Aquinas did not think it is necessary to a human being that it be composed of the particular flesh and bones that are actually parts of its body. He did think, though, that it is necessary to every human being that it be composed of some flesh and bones. Aquinas also recognized that not every material part of a being was essential to it. A human being can be understood apart from understanding what a finger or foot is, so Aquinas reasoned that these were not necessary parts of a human being.\(^54\) Having certain major organs, flesh and blood, however, were necessary.

\(^{54}\) *Super De Trinitate* 5.3 co.: " Similiter etiam per se competit homini quod inueniatur in eo anima rationalis et corpus compositum ex quatuor elementis, unde sine his partibus homo intelligi non potest, set hec oportet poni in diffinitione eius, unde sunt partes speciei et forme; set digitus, pes, et manus et alie huiusmodi partes sunt post intellectum hominis, unde ex eis ratio essentialis hominis non dependet, et ideo sine his intelligi potest: siue enim habeat pedes siue non, dummodo ponatur coniunctum ex anima rationali et corpore mixto ex elementis propria mixtione quam requirit talis forma, erit homo. Et hee partes dicuntur partes materie, que non ponuntur in diffinitione totius, set
In claiming that it is absolutely necessary for a being to have certain kinds of material parts, Aquinas was taking a position on an issue disputed among medieval Aristotelian commentators. The issue in question was whether the matter of a material being was signified in its definition. Averroes, on the one hand, thought that a human being could be adequately defined as a rational animal. There was no need to mention anything about the matter of a human being in order to know man's quiddity. If matter is not part of man's quiddity, it will not be necessary to man to be composed of certain kinds of material parts. Avicenna, on the other hand, thought that it was necessary to include the matter of a material being in its definition in order to have a sufficient grasp of its essence. Aquinas was aware of this controversy. He discusses it in his *Commentary on the Metaphysics* and adopts Avicenna's position as his own view and as the correct reading of Aristotle.\(^5\) Aquinas, like Avicenna, did not think that the particular (*designata* or *signata*) matter of an individual human being, such as Socrates, entered into the definition of man. Rather, matter considered universally was what belonged to the definition of a material being.\(^5\) Because this

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55 *In VII Meta.*, l. 10. See also *De Ente*, c. 2. On Aquinas's position and his readings of sources see Armand Maurer, "Form and Essence in the Phiosophy of St. Thomas", 13 (1951): 165-176. Wippel also discusses this position of Aquinas's in his *The Metaphysical Thought of Thomas Aquinas*, pp. 328-333.

56 Aquinas is clear about this in his *Super De Trinitate* 5.2 co. 2: "...unde oportet quod huiusmodi rationes, secundum quas de rebus mobilibus possunt esse scientie, considerentur absque materia signata et absque omnibus his que consequuntur materiam signatam, non autem absque materia non signata, quia ex eius notione dependet notio forme que determinat sibi materiam; et ideo ratio hominis, quam significat diffinitio et secundum quam procedit scientia, consideratur sine his carnibus et sine his ossibus, non autem sine carnibus et ossibus absolute."
matter is part of man's definition, it is necessary that individual men have certain parts. Aquinas writes:

Since indeed the proper matter of a man is a body mixed, constituted and organized in a certain way, it is absolutely necessary for man to have in himself certain elements, humors and principal organs.⁵⁷

Since these material elements of man enter into man's very definition, it is not logically possible for there to be a man that lacks the organs and elements that are stipulated in man's definition. A man who lacked flesh and bones would both be a man and not be a man.⁵⁸

The third and final way that Aquinas claimed that necessity could arise from a thing's essential principles was from the properties that follow from its matter and form. He gives two examples of this: it is necessary for a saw to be hard because it is made out of iron and it is necessary for a man to be able to learn because he is rational. A contemporary reader of Aquinas will likely be puzzled as to how this third category differs from the second category. Isn't being able to learn similarly a part of man's essence as being rational is, since both of these are necessary properties of man? Isn’t being hard a feature of a saw's matter that enters into its definition just as being made out of iron does since both being made of iron and being hard are

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⁵⁷ *ScG* II.30, n. 1074: "Quia enim materia propria hominis est corpus commixtum et complexionatum et organizatum, necessarium est absolute hominem quodlibet elementorum et humorum et organorum principialium in se habere. Similiter, si homo est animal rationale mortale, et haec est natura vel forma hominis, necessarium est ipsum et animal et rationale esse."

⁵⁸ Not only does Aquinas's position on this issue set him apart from other medieval philosophers, but it is also a position which can be contrasted with the popular contemporary view. Many contemporary thinkers would not think it to be logically impossible for a man to be made out of different elements and organs than he in fact is, although this may be naturally or causally impossible given the actual laws of nature. This is evidenced by the many thought experiments in contemporary papers that will suppose that human beings or other material beings are made of different matter than they in fact are.
necessary to a saw? The separation of this third category from the second is based on a distinction that Aquinas and other medievals made between properties that belonged to a being's essence and properties that were necessary to a being. An essential feature can be differentiated from a necessary accident (proprium) based on whether or not it belongs to its subject primitively or is explained by a further property. A saw's hardness, for example, is explained by its being made out of iron. Accordingly, being hard does not express the core of what a saw is, but rather it is something that is entailed by what is most basic to a saw. The same can be said of man's ability to be taught. It is not a primitive feature of man's essence, but rather something that follows from a more basic property of man. Since what belongs to a being's essence is necessary to it, these features which necessarily follow from that essence are also necessary to that being. The distinction between essential features and necessary accidents is really the distinction between what is presupposed in a scientific demonstration and that which is concluded by it. By presupposing that a being has certain essential features, one can deduce the accidents that are necessary to it. Most contemporary ontologies do not make a distinction between essential and necessary properties. The essential is understood in terms of the necessary. On the standard view what is essential is just that which is possessed by an object in every possible world in which it exists. For Aquinas, however, not all necessary properties were essential properties of a being.

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59 For a contemporary attempt to develop a theory of essence and accident that leaves room for a distinction the necessary and the essential, see Michael Gorman's “The Essential and the Accidental,” Ratio 18 (2005): 276-89.
After discussing these three ways in which absolute necessity can arise in creation as a result of a being's intrinsic principles, Aquinas discusses some ways in which necessity can arise from agent and final causes. At face-value, this appears to be odds with his discussion of necessity in the *Summa Theologiae*. There Aquinas contrasted the necessity that arose from agent and final causes with the absolute and natural necessity of form and matter. After explaining the ways that Aquinas claims that necessity arises from agent and final causes in the *Summa Contra Gentiles*, I will comment on this apparent inconsistency.

Aquinas begins first by discussing the necessity that can arise from an agent cause. An agent cause is a source of motion or change in another. Aquinas notes that the action of the agent cause can be considered either from the perspective of itself as cause or from the perspective of the patient, i.e. that which is affected. This distinction is relevant for understanding how necessity arises from agent causes. There is a difference between the question of whether a given action is necessarily caused by its cause and whether that action has a necessary effect. An action that is necessarily caused may have a contingent effect. For example, the sun causes light and heat necessarily, however, it is contingent that plants grow as an effect of this action. Aquinas begins by considering the first question of how certain actions are themselves related necessarily to the agents that cause them. Like his scholastic contemporaries, Aquinas viewed actions as a type of accident. Just as the accidents discussed previously, i.e. human rationality and a saw’s hardness, were shown to be necessary because they are entailed by essential properties, certain actions are
likewise necessary to their subjects because they follow from their essences.

Examples of these actions are the action of knowing performed by a human being or heating by a fire. It follows from a human’s essence that it knows and from a fire’s essence that it heats.

Aquinas held that a distinction had to be made between non-transitive actions, like understanding, and actions that produce effects in other beings, such as heating. Aquinas thought that non-transitive actions themselves, rather than the powers to produce such actions, were necessarily related to their subjects. He thought that because no extrinsic recipient of the action was required for the non-transitive action to occur, it occurred necessarily when the appropriate conditions for it obtained.

Referring to the action of intellection, Aquinas claims that it occurs necessarily when the intelligible species actuates the intellect. Nothing can impede intellection from happening once the intelligible species informs the intellect. An agent can be impeded, however, in performing a transitive action by the lack of the appropriate recipient for its action. If the patient that a hot fire comes in contact with is heat resistant, for example, then the fire cannot have the action of heating. Aquinas does not think there is anything contradictory in a being’s not being able to actually perform a transitive action that is caused by its essence in a certain case. It is only necessary that beings possess the powers to perform the transitive actions that follow from their essences. It is at least logically possible that God could have created a world which contained only heat resistant objects. In this world, fire would never actually heat anything; however, it would still necessarily have the power to heat.
Non-transitive actions, on the other hand, that follow from a being’s essence are logically necessary when the appropriate conditions obtain.

Just as Aquinas thought that certain powers to produce actions necessarily followed from certain essences, he also thought that certain essences necessarily gave rise to certain dispositions to receive actions. This is why he thought that the necessity that arises from agent causes must also be considered from the perspective of the effect. Wood, for example, necessarily has the disposition to be burned. Wood is able to be necessarily burned by an agent that only contingently has the power to heat. In this case, the effect would be necessary from the perspective of the patient, but not from the perspective of the agent. Aquinas thought that in order for any effect to be absolutely necessary, the agent cause had to necessarily possess the power to produce the action and the patient had to necessarily possess the disposition to be affected by the agent. If the power in the agent or the disposition in the agent is only contingently existing, then the effect is necessary on the supposition that the power and disposition are present.

Not only did Aquinas think that agents could necessarily possess powers without being able to exercise them in certain situations, he also thought that it was consistent with a being’s necessarily possessing a certain disposition that the opposite effect be produced in it. Aquinas thought that a stone necessarily has a natural inclination to move downwards, yet he claimed that nothing prevented a cause from
lifting the stone upwards. A being’s possession of a certain condition is not incompatible with its having a necessary disposition for the contrary. Aquinas also thought that substances had obediential potencies with respect to certain properties that they did not naturally possess which were, nevertheless, able to be caused in them by God. Aquinas would have accepted, for example, that human beings have the obediential potency of not being flame resistant since there are Biblical cases in which God made certain persons unable to be harmed by fire after being thrown in furnaces.

Lastly, in this Summa Contra Gentiles text, Aquinas explains how absolute necessity arises from final causes. Aquinas held that every action, whether it is of a natural or voluntary being, is done for an end. The actions of natural beings are done for ends that cannot be otherwise. A seed, for example, cannot act for any end except for becoming a tree. In cases where there is necessity of the agent, there will also be necessity of the end. This is because if an agent cannot act otherwise, the end for which it acts will also be unable to be otherwise. Even in the human will which is a voluntary agent, Aquinas thought there was an element of necessity of the end. Although it does not necessarily choose any particular act, the will necessarily chooses its actions for the sake of its final end, which is happiness.

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60 De Unitate Intellectus, c. 5: "Nihil enim prohibet aliquid non habere in sua natura causam alicuius, quod tamen habet illud ex alia causa: sicut grave non habet ex sua natura quod sit sursum, tamen grave esse sursum, non includit contradictionem; sed grave esse sursum secundum suam naturam contradictionem includeret." ST1 q. 49, a. 1.: "Quod autem aliquid deficiat a sua naturali et debita dispositione, non potest provenire nisi ex aliqua causa trahente rem extra suam dispositionem, non enim grave movetur sursum nisi ab aliquo impellente, nec agens deficit in sua actione nisi propter aliquid impedimentum."
Various Types of Necessity Identified by Aquinas

Aquinas's division of necessity in creation

Formal

1. Intrinsic → Natural, Absolute

   Material

   Efficient (Coercion)

2. Extrinsic → Conditioned

   Final

Types of Absolute Necessity Identified in ScG II.30

1. A created being necessarily has corruptible or incorruptible existence depending on its matter form composition or lack thereof.

2. Properties that are included in a being's essence (e.g. rational with the respect to the essence of man) are necessary to it.

3. Properties that are entailed by a being's essential properties (e.g. risibility is entailed by rationality) are necessary to it.

4. Some powers to produce actions (e.g. fire's power to heat) are necessary to created beings.

5. Some dispositions to be effected certain ways (e.g. cotton's disposition to burn) are necessary to created beings.

6. Some effects are necessary because they follow from powers and dispositions that are necessary (e.g. cotton's being burned by fire).

7. The inclination to certain ends (e.g. man's inclination to happiness) is necessary to created beings.
Now that the ways in which Aquinas thought that absolute necessity could arise from agent and final causes have been explicated, we can analyze whether Aquinas’s claim in the *Summa Contra Gentiles* is at odds with various passages in the *Summa Theologicae* where Aquinas claimed that conditioned necessity, which is contrasted with absolute and natural necessity, arose from agent and final causes. I do not think that this difference in Aquinas’s writings on necessity signals any shift in his view. I think we can understand Aquinas’s position in both the *Summa Contra Gentiles* and the *Summa Theologicae* as this: from material and formal causes, only absolute necessity arises, but from agent and final causes, absolute or conditional necessity can arise. Absolute or conditional necessity can arise from agent and final causes because agent and final causes can be either in accord with a being's intrinsic principles or not. Absolute necessity arises from agent causes when a being is caused by a necessarily acting agent according to a disposition it necessarily has from its form. Absolute necessity arises from a final cause when the end is an end dictated by a being’s form. Conditional necessity arises from an agent cause, i.e. necessity of coercion, when it causes an effect in a being that is not in accord with that being’s intrinsic dispositions dictated by its form. It is only necessary for the stone to move upward in a given case because something external forces it. When conditional necessity of the end arises it is because something has a relation to an end that is not dictated by its form, but rather by something extrinsic. Aquinas’s example of conditioned necessity of the end is a horse’s being necessary for a journey. Nothing in a horse's form inclines it to serve as a means for undertaking a journey in the way
that a seeds form inclines it to grow into a tree. A horse is necessary for a journey only because something external has stipulated this end for it. In the *Summa Theologiae*, Aquinas focused on the ways in which necessity arises from ends and agents that act against intrinsic principles because he was trying to highlight the difference between conditional and absolute necessity. In the *Summa Contra Gentiles*, Aquinas's aim is to give an exhaustive account of how absolute necessity arises in creation, so here he shows how even agent and final causes can give rise to absolute necessity.

IV. The existence of matter and form

In analyzing Aquinas’s discussions of necessity, we have seen that the necessity that is found in created beings has its origin in the matter and form of the creatures themselves. We must now consider what ontological reality Aquinas granted to these essential principles of creatures. In a short treatise written early in his career entitled *De ente et essentia*, Aquinas discusses many aspects of the metaphysical structure of finite beings. There he explains the ways in which the matter and form of creatures, which together comprise their essences, have existence. Aquinas claims that any nature has a two-fold existence: one in individual things and the other in the intellect. In individual things, the nature has multiple existences corresponding to the diversity of individuals. The nature is created with the individual creature and perishes with it. In the intellect, the nature’s existence is

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61 *De pot. 3.5 ad 2.*
also multiplied by the diversity of intellects that think it. The nature as it is in individuals has different properties from the nature as it exists in intellects. Human nature has the property of being a species as it exists in the intellect, however, it does not have this property as it exists in Socrates or else it would be true to say that *Socrates is a species.*\(^{62}\) Aquinas says that the nature can also be absolutely considered in itself independent from being in individuals or conceived in the intellect. This nature absolutely considered, however, has no being.\(^{63}\) When no individuals exist that have a certain nature and no intellects are thinking this nature, the nature fails to have any existence.

It is clear from Aquinas’s discussion of the modes of existence of a nature that he thought that the principles to which absolute necessity in creation is traced are themselves contingently existing aspects of creation. It is this feature of Aquinas’s thought that gives rise to the difficulty of identifying the ontological reality to which necessary propositions about creatures conform. Other medieval thinkers, most notably Henry of Ghent, ascribed a being to the nature independent of its existence in individuals and in the intellect. Once being is granted to the nature in itself, it can be claimed that this nature grounds necessary truths about creatures even when the creatures do not exist. For Aquinas, though, when no creatures exist, neither do created natures. So, it appears that in the absence of creatures, the origins of necessity in creation are also absent. Accordingly, the problem arises of what grounds the truth of the propositions that express these necessities. In the next

\(^{62}\) *De ente*, ch. 3.

\(^{63}\) Ibid.
chapter, we will investigate the relationship that Aquinas thought had to obtain between a proposition and being in order for it have truth.
CHAPTER THREE

THE DEPENDENCE OF TRUTH ON BEING

In this chapter, I will discuss several aspects of Aquinas’s theory of truth in order to elucidate the relationship that obtained in his thought between true propositions and aspects of the world. Aquinas's assumptions about the nature of propositions and propositional truth differ in many ways from those of most contemporary philosophers and even from those of his more immediate medieval successors.64 Perhaps the most striking difference between Aquinas's understanding of a proposition and the contemporary understanding of a proposition is the fact that Aquinas thought that propositions were concrete acts of judgment performed by human intellects, rather than necessarily existing abstract objects, as many philosophers today hold. Aquinas’s understanding of a true proposition can be better understood when it is situated within his overall conception of truth. In the thought of Thomas Aquinas, truth is fundamentally an ontological relation. It arises between concrete substances, namely, intellects and things, when the former come to have properties similar to the latter. Aquinas thought that the human intellect could

cognize that it is in conformity with an extra-mental object. It was in the activity of asserting the conformity between itself and a thing that the human intellect formed a true proposition. In the first part of this chapter, I will explain Aquinas's notion of ontological truth and explain in more detail how he thought a relation between concrete substances was the foundation for propositional truth. In the second section of this chapter, I will discuss the relationship between the structure of propositions and the structure of reality. Since Aquinas thought that some features of the proposition arise from human intellection alone, the structure of the proposition does not perfectly mirror reality. Yet, propositions still depend on reality for their truth-values. In the last section of this chapter, I will explain the implications that follow for the rest of this study from the features of Aquinas's notion of propositional truth that I have singled out in this chapter.

I. Veritas est adaequatio intellectus et rei: The ontological foundation of propositional truth

Throughout his works, Aquinas describes the relation between substances that consists in truth both as the "conformity of intellect and thing" and the “adequation of intellect and thing.” Aquinas does not define the terms adaequatio or conformitas.

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65 For the first definition, see, for example ST I.16.2, co. For the second, see, for example, In I Sent. 19.5.2, ad 2.; De ver 1.1, reply. The latter definition is the one that is most often associated with Aquinas. Thomas attributes this definition of truth to Isaac Israeli, but scholars have not been able to locate this definition in Isaac. See S. Rábade Romeo, Verdad, conocimiento, y ser, (Gredos: Madrid, 1965), p.38 and J.T. Muckle, "Isaac Israeli's Definition of Truth," Archives d'Histoire doctrinale et littéraire du Moyen Age 8 (1933): 5-8. There is nothing found in Aristotle that could be translated from Greek into Latin as this definition. See Paolo Crivelli, Aristotle on Truth, (Cambridge: Cambridge University Press, 2004), 137. Aquinas likely got this definition from Arabic thinkers. Jan Aertsen suggests Averroes, Avicenna and Alfarabi as its origin. See his Medieval Reflections on Truth: Adaequatio rei et intellectus, (Amsterdam: Free University, 1984) p.7 and p. 28 n. 13. Aquinas did not always regard this formula for defining truth with the same primacy. On the development of
in his discussions of truth, but he reflects on the meaning of these terms elsewhere.

Aquinas considers *adaequatio* when he asks whether there is mutual equality among the divine persons. There, Aquinas explains that adequation involves a “motion” and “approach” toward unity of quality or quantity. Adequation is not a static state, but rather a dynamic process which achieves sameness in objects that formerly differed in the respect in which they are likened. Aquinas considers the meaning of conformity similarly in a theological context when he asks whether the human will is able to be conformed to the divine will. He says that, as the etymology of the word *conformitas* suggests, conformity is the state of two objects agreeing in so far as they have the same form. He says conformity obtains in two ways: between two objects that are of the same kind, e.g. two white things, and when one object imitates another object that has a certain form essentially, e.g. a hot body, which has heat from another, considered in relation to fire, which has heat of itself. The second kind of conformity is the result of a process of adequation. In becoming hot, for example, a body undergoes a change that results in a similarity of quality with that which heats it.

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66 *In I Sent.* 19.1.2 co. Interestingly, this discussion involving adequation occurs in the same distinction and just four questions prior to Aquinas’s discussion of truth.


69 *In I Sent.* 48.1.1 arg. 3: "conformitas ponit convenientiam duorum in forma una; sicut ipsum nomen ostendit." Aquinas sometimes calls a form in one object that is like the form of another a *similitudo*. See *ST* I.4.3, c. and *De ver.* 8.8 c.

70 *In I Sent.* 48.1.1. co.
Examining some key features of Aquinas's account of human cognition shows how he thought that conformity and adequation were apt descriptions of the relationship between intellects and things. On Aquinas's account of cognition, which depends heavily on Aristotle, cognition happens by an assimilation of the knower to the thing known.\(^7^1\) This process occurs through the knower's possession of the form of the thing known.\(^7^2\) Aquinas is clear that the way in which intellects possess forms must differ from the way in which forms exist in material things. If there were no difference between how forms existed in intellects and in material objects and cognition required possession of a form, an intellect would have to be heated in order to understand what hot is.\(^7^3\) Although the form in the intellect does not cause it to materially possess a quality, it causes the intellect to have an act of cognition and makes that act of cognition to be a cognition of a particular thing.\(^7^4\) When an intellect has a cognition of an apple, for example, the presence of the form of the apple in the

\(^{71}\) De ver. 8.5 c; ScG 1.65; ST I.12.9 ad 1; De ver. 8.1 ad 7

\(^{72}\) ST I.75.5 c; De ver. 2.6, co. Aquinas attributes this view to Democritus and Empedocles in ST I.84.6 co.

\(^{73}\) While it is clear what a form's existing in the intellect is not, Thomistic commentators have disagreed about how to positively understand what the knower's possession of the form amounts to and what the sameness of what is possessed is. Fortunately, these debates do not need to be resolved here. For a survey of the varying positions on these questions, see Jeffrey Brower and Susan Brower-Toland, "Aquinas on Mental Representations," forthcoming in Philosophical Review.

\(^{74}\) De ver. 10.4, co.: "Responsio. Dicendum quod omnis cognitio est secundum aliquam formam quae est in cognoscente principium cognitionis. Forma autem huiusmodi dupliciter potest considerari: uno modo secundum esse quod habet in cognoscente, alio modo secundum respectum quem habet ad rem cuius est similitudo. Secundum quidem primum respectum facit cognoscentem actu cognoscere, sed secundum respectum secundum determinat cognitionem ad aliquod cognoscibile determinatum; et ideo modus cognoscedi rem aliquam est secundum condicionem cognoscentis in quo forma recipitur secundum modum eius." See also De ver. 2.5 ad 16 and 3.2 ad 5. Interpreters disagree on how to interpret the mode in which the form causes the intellect to know. Robert Pasnau understands the form to be an efficient cause of cognition. See his, Theories of Cognition, (Cambridge: Cambridge University Press, 1997), pp. 113, 171, 176, 190, 198, 211. John O’Callaghan has criticized this reading. See his Thomist Realism and the Linguistic Turn, (Notre Dame, Indiana: University of Notre Dame Press, 2003), pp. 175-182.
intellect is both what makes the intellect to be engaging in the activity of cognition and cognizing an apple rather than a dog. The form in the intellect, which in technical language is called the intelligible species, is not itself that which the intellect knows, but rather, it is that by which it knows an extra-mental object. Aquinas says that in knowing an object through its form, the intellect forms its own "intention" or concept of the thing known, which the definition of the thing signifies. This intention allows the intellect to know the thing when it is absent and apart from individuating conditions. Aquinas also refers to this intention as a likeness (similitudo) of the thing known and says that through it too things are able to be cognized. Interpreters of Aquinas's thought have debated about how one is to understand the intention or concept. John O'Callaghan, for example, has argued that the concept is the act of understanding that is informed by the intelligible form. The concept is not a "third thing" in addition to the intellect and the intelligible form that is produced by the intellect through its act of knowing. Others, however, argue that

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75 The intellect can, however, reflect on its own act of knowing and in this way, the species itself becomes a thing that is known. See ST I.85.2 c; I.17, 3 co.
76 ScG I.53, n. 443 & 444: "Ulterius autem considerandum est quod intellectus, per speciem rei formatus, intelligendo format in seipso quandam intentionem rei intellectae, quae est ratio ipsius, quam significat definitio. Et hoc quidem necessarium est: eo quod intellectus intelligit indifferenter rem absentem et praesentem, in quo cum intellectu imaginatio convenit; sed intellectus hoc amplius habet, quod etiam intelligit rem ut separatam a conditionibus materialibus, sine quibus in rerum natura non existit; et hoc non posset esse nisi intellectus sibi intentionem praedictam formaret. Hae autem intentio intellecta, cum sit quasi terminus intelligibilis operationis, est aliud a specie intelligibili quae facit intellectum in actu, quam oportet considerari ut intelligibilis operationis principium: licet utrumque sit rei intellectae similitudo. Per hoc enim quod species intelligibilis quae est forma intellectus et intelligendi principium, est similitudo rei exterioris, sequitur quod intellectus intentionem formet illi rei similem: quia quale est unumquodque, talia operatur. Et ex hoc quod intentio intellecta est similis alicui rei, sequitur quod intellectus, formando huiusmodi intentionem, rem illam intelligat." See also ScG IV.11 n.6; De ver. 3.2. For further texts illustrating Aquinas's usage of intentio see the entry on this topic in Ludwig Schütze's Thomas Lexikon, which is available online at http://www.corpusthomisticum.org/tl.html.
the concept is in fact a mental entity distinct from the intellect and intelligible species. They frequently cite two passages in which Aquinas claims that the concept is an "effect" of the intellect and that it is something "progressing" from the intellect. However one chooses to understand the intention of the intellect, the intention is considered a likeness of the thing and thus, when the intention is present, the intellect can properly be said to conform to or be adequated with extra-mental things. Since both the species that causes the intellect to know and the intention that the intellect forms are likenesses of the thing known, the intellect conforms to or is adequated with reality both in its process of cognition and through its concept or intention. In the last chapter, I explained that Aquinas thought that a nature had existence both in things and in the intellect. When there is adequation or conformity between the nature that exists in the intellect and the one that exists in things, truth arises.

Even though the divine intellect does not rely on species or form concepts to know things, Aquinas thought that there was also a relationship between God's intellect and things that consisted in truth. This relation too was an instance of two concrete beings possessing the same form. Aquinas thought that since the divine intellect was the exemplar cause for natural things, the forms of natural things had a likeness to God's intellect. The forms of created things were said by Aquinas to pre-exist in God's intellect. In a later chapter, we will examine what the ontological status of these forms is. In any case, though, Aquinas thought that there was conformity

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78 De ver. 4.2: “Ipsa enim conceptio est effectus actus intelligendi.” De ver. 4.2 ad 7: “....sed intellectus habet in se ipso aliquid progrediens ab eo, non solum per modum operationis sed etiam per modum rei operatae; et ideo verbum significatur ut res procedens....”
between natural things and God's intellect in virtue of the similitude to God's intellect that the forms of created things had. In the case of the truth that obtains between things and God's intellect, the relationship of adequation runs in the opposite direction from the adequation that occurs between human intellects and things. Human intellects are changed by coming to have the forms of things. God's knowledge produces the forms of things and it is the things themselves that are made in creation to be like God's intellect. Aquinas thought that when the human intellect produces an artificial thing, the thing is similarly conformed to the human intellect just as natural things conform to the divine intellect.79

Since truth is essentially a relationship between intellects and things, Aquinas thought that if there were no intellects, there would be no truth.80 Without intellects, the forms of things could not come to exist in another being's cognition and this is precisely what truth consisted in. Even if there were no intellectual creatures, there could still be truth because of the divine intellect's relation to things, but if per impossible, God's intellect ceased to be and things continued to exist, there would be no truth. Although there cannot be truth in the absence of intellects, Aquinas thought that truth properly is a feature of things—not just intellects. Because truth is fundamentally a relational notion, things are also called true when their forms exist in an intellect. Every existing being has a relation of conformity to God's intellect, so

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79 De ver. 1.2 co.  
80 Ibid.
every thing enters into a truth relation. Every material being is potentially true, as well, since all material beings can be potentially known by the human intellect.⁸¹

It is significant to note that according to what I have called Aquinas's ontological notion of truth none of the bearers of truth are propositionally structured entities. The human intellect is conformed to things in the relation of truth when it has a species or simple concept of an extra-mental being. Neither the species or the simple concept has a predicate-subject structure. Things are conformed to God's intellect in the relation of truth in virtue of the likeness their forms have to God. Of course, neither the created things nor God are propositionally structured. In addition to his ontological notion of truth which consists in a conformity between beings, Aquinas also held that assertions and denials were true if they said what is of what is and false if they said what is not of what is.⁸² Aquinas's notion of propositional truth, while distinct from his ontological notion of truth, must be understood in light of its dependence on his notion of ontological truth. On Aquinas’s view, to form a proposition is to affirm the conformity between intellect and thing. The proposition affirms that an extra-mental thing is as the intellect understands it to be in its simple concept. Examining Aquinas's mature argumentation for why truth is primarily in the intellect's act of judgment makes this apparent.⁸³

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⁸¹ De ver. 1.1 co.
⁸² Meta. IV.17, n. 736: “Nam verum est cum dicitur esse quod est, vel non esse quod non est. Falsum autem, e converso." See also ScG I, 59.
⁸³ I refer to what follows as Aquinas's mature argument because the way in which he argued for truth's being primarily in the intellect's second act developed throughout his career. In his earliest work, he argues that truth is the second act because it grasps a thing's existence and existence is the foundation of truth. See In I Sent. 19.5. ad 7; In I Sent. 38.1.3; In I Sent. 23.1.2 ad 1. Later in the De veritate, he argues that truth is primarily in the intellect's second act because it has something proper to
We have seen that, for Aquinas, a sufficient condition for an intellect's having truth is its having a likeness, i.e. the form of another being, present in it intentionally. Aquinas thought, as Aristotle did, that the senses too in their act of sensation bear a likeness to the thing sensed. Accordingly, Aquinas had to answer the question of why truth is considered primarily in the intellect rather than in the senses. In responding to this question in the *Summa Theologiae*, Aquinas writes:

> Since every true thing is true in so far as it has the proper form of its nature, it is necessary that the intellect, in so far as it is knowing, is true in so far as it has a likeness to the thing known, which is the form of the intellect in so far as it is knowing. And on account of this, truth is defined as the conformity of intellect and thing. Accordingly, to cognize this conformity is to cognize truth. The senses in no way know this conformity, for although vision bears a likeness to the visible thing, it does not nevertheless cognize the comparison that is between the thing seen and that which it itself apprehends regarding it. The intellect, however, is able to cognize the conformity of itself to the intelligible thing, but nevertheless it does not apprehend it when it cognizes what a thing is. Rather, when it judges the thing to be just as the form which it apprehended of the thing, then it first cognizes and asserts truth. And it does this by composing and dividing. For in every proposition, the intellect either applies some form signified by the predicate to some thing signified by the subject or it removes it from it.84

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84 *ST* I.16.2 co.: “Cum autem omnis res sit vera secundum quod habet propriam formam naturae suae, necesse est quod intellectus, inquantum est cognoscens, sit verus inquantum habet similitudinem rei cognitae, quae est forma eius inquantum est cognoscens. Et propter hoc per conformitatem intellectus et rei veritas definitur. Unde conformitatem istam cognoscere, est cognoscere veritatem. Hanc autem nullo modo sensus cognoscit, licet enim visus habeat similitudinem visibilis, non tamen cognoscit comparationem quae est inter rem visam et id quod ipse apprehendit de ea. Intellectus autem conformitatem sui ad rem intelligibilem cognoscere potest, sed tamen non apprehendit eam secundum quod cognoscit de aliquo quod quid est; sed quando iudicat rem ita se habere sicut est forma quam de re apprehendit, tunc primo cognoscit et dicit verum. Et hoc facit componendo et dividendo, nam in omni propositione aliquam formam significatam per praedicatum, vel applicat alciui rei significatae per subiectum, vel removet ab ea.” See also *De Int.* I.3, n. 6 & 9.
Aquinas argues here that what distinguishes the intellect's conformity to things from the senses’ conformity to things is the intellect's ability to cognize its conformity to things. Not only does the intellect conform to a thing, but it also cognizes that it conforms to a thing. The senses perceive the redness and hardness of an apple, but they cannot recognize the forms of redness and hardness that exist in them as likenesses of an apple. The intellect, however, is able to cognize the likenesses it has of the forms of objects and assert that these forms belong to particular extra-mental objects. In forming a proposition, the intellect asserts that the likeness it has in itself is in fact a likeness of a specific object. The proposition the *Apple is red* is formed by the intellect's cognizing the form of red that it understands and asserting that it inheres in an apple. Aquinas similarly expresses this view in his *Commentary on the Metaphysics*:

> When the intellect has the concept of that which is animal, rational and mortal, it possesses in itself a likeness to man, but not for this reason does it cognize itself to have this likeness, since it does not judge man to be animal, rational, and mortal. And therefore truth and falsity is in that second operation of the intellect alone, according to which not only does the intellect possess a likeness to the thing understood, but it also reflects upon that likeness, knowing and judging it.85

In asserting that *Man is a rational mortal animal* the intellect is reflecting on its simple concepts of rational, mortal, and animal and judging that they belong to man. These concepts themselves already conform to man. In judgment, the intellect asserts

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85 *In Meta*. 6.4, n. 1236. "Cum enim intellectus concipit hoc quod est animal rationale mortale, apud se similitudinem hominis habet; sed non propter hoc cognoscit se hanc similitudinem habere, quia non iudicat hominem esse animal rationale et mortale: et ideo in hac sola secunda operatione intellectus est veritas et falsitas, secundum quam non solum intellectus habet similitudinem rei intellectae, sed etiam super ipsam similitudinem reflectitur, cognoscedo et diiudicando ipsam.”
that conformity. Knowledge of the subject man is presupposed by the judgment. It is not complete knowledge of what it is to be a man that is presupposed, but rather a simple understanding of the essence of man as distinct from other beings. What is asserted in the proposition is that this being known as man has certain forms.\textsuperscript{86}

This understanding of how propositions are formed affects how we should understand Aquinas’s “correspondence” theory of truth. I suspect that many readers assume that when Aquinas claims that truth is a conformity of intellect and thing, he means that truth is a conformity between a proposition and an existing thing or aspect of reality.\textsuperscript{87} There is textual evidence for this interpretation. In the \textit{De veritate}, for instance, Aquinas argues that truth is primarily in judgment because in judgment the intellect gains something of its own that can be adequated to a thing.\textsuperscript{88} This argument suggests that it is the proposition itself that is adequated or conformed to reality in the relation that is truth because the proposition is what is constituted in judgment. In later works, however, Aquinas never repeats this argument. If the proposition itself is that which conforms or is adequate to reality, then knowing the conformity that

\textsuperscript{86} Harm Goris has argued that Aquinas's mature account on how singulars are known (\textit{ST} Ia.86.1) supports the interpretation of the proposition as the affirmation of the conformity of what the intellect understands with a real thing. See his "A Reinterpretation of Aquinas' Correspondence Definition of Truth," M. C. Pacheco; J. F. Meirinhos (eds.), \textit{Intelect et imagination dans la Philosophie Médiévale. Actes de XIème Congrès International de Philosophie Médiévale, Porto, 26 au 30 août 2002 organisé par la Société Internationale pour l'Étude de la Philosophie Médiévale, t. 3} (Rencontres de Philosophie Médiévale, 11: Brepols, Turnhout, 2006) 1431-1446.

\textsuperscript{87} If one read the claims \textit{veritas est adaequatio} (or \textit{conformitas} \textit{intellectus et rei} ot of context, this would appear to be a valid possible interpretation since the term \textit{intellectus}, in addition to meaning the intellectual power, is sometimes used to used that which the intellect understands. Consider for example \textit{De Int.} 1.6, n. 2: "...nomen vel verbum significat simplicem intellectum, oratio vero significat intellectum compositum." In \textit{ST} I.40.3 co., Aquinas quickly shifts from one usage to another: "remanet seorsum in intellectu nostro et intellectus circuli et intellectus aeris."

\textsuperscript{88} \textit{De ver.} 1.3, co.
consists in truth would be to know that a proposition conforms to reality. This is how Joseph Owens understood Aquinas's conception of knowing truth. Owens writes:

> For knowing truth, the separate cognition of the two objects is required. The one object is the existence actually synthesizing the components in the thing that is being apprehended. The other object is the judgment in the sense of the proposition that represents this synthesizing. When asked if it is true that the cat is on the mat, you see the two objects are the judgment "The cat is on the mat" and the actual presence of the cat on the mat at the moment. You compare the two objects, and if they correspond you see that the judgment is true.89

Owens's interpretation may be an adequate explanation of the view that Aquinas held in the *De veritate*; however, it does not capture the view Aquinas held when writing the *Summa*.90 As I mentioned above, it seems that Aquinas held when writing the *De veritate* that the proposition is what conforms with reality, so to know the conformity between intellect and thing on this view is to know the conformity between a proposition and reality as Owens explains. We saw, however, in a passage quoted earlier from the *Summa Theologiae*, that there Aquinas held that it was not the proposition, but the form that is understood that conforms to reality. In the later *Summa*, Aquinas claimed that the intellect knows truth "when it judges the thing to be just as the form which is apprehended of a thing". The comparison that consists in knowing truth then on Aquinas's mature view is a comparison not between a complex judgment and a thing, but rather between a simple form and a thing. In Owens’s


90 *De ver.* 1.9 may be able to be read as a corrective to the *De ver.* 1.3 text. In 1.9, Aquinas gives the argument that he gives in later texts for why truth is primarily in the intellect, namely because the intellect knows its correspondence with reality. He does not clarify though in this text whether it is the proposition or the simple concept that is known to correspond with the thing.

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example, the likeness the intellect has of being on the mat is known to be in fact a likeness of the cat when the intellect judges *The cat is on the mat*. Making this judgment itself is what knowing truth consists in. There is no further judgment that is needed to determine that this judgment corresponds to reality. To assert the judgement is to assert the conformity. In addition to being at odds with Aquinas's latest texts, Owens's own interpretation runs into philosophical difficulties. If every judgment needed to be verified by another judgment that compared it to reality, there would be an infinite sequence of judgments and no truth could ever be known.

Aquinas's latest thinking about what knowledge of truth consists in shows that in his final view the proposition itself was not considered a *relata* in the relation of conformity between intellect and thing. Rather, the proposition expressed that relation. In the *Summa Contra Gentiles*, Aquinas writes, "Only the complex is able to be called true or false in which is designated the comparison of the incomplex to the thing by the notion of composition and division."

The *incomplex* here refers to the intellect's simple concept and the *complex* is the proposition. In the proposition, the subject stands for the extra-mental thing and the predicate signifies the form understood by the intellect.

One may wonder how Aquinas’s description of the proposition as expressing the intellect’s conformity with reality relates to his other description of the proposition as saying that it is of what is. According to this latter description of the

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91 Italics are mine. *ScG* I.59, n. 496: “…sed tantum complexum, in quo designatur comparatio incomplexi ad rem per notam compositionis aut divisionis.”

92 See, for example, the texts cited in fn. 82.
proposition, it seems that the proposition does not express anything about the intellect’s relation to reality, but rather it expresses a subject’s objective possession of a property. In the *De Interpretatione*, Aquinas comments on the relation of these to descriptions of the proposition when he writes, “….the philosopher says in the sixth book of his *Metaphysics* that truth is in the mind alone, namely in its knowing truth. To know the aforementioned relationship of conformity, however, is nothing other than to judge something to be so in reality or not….” Aquinas identifies the intellect’s knowing its own conformity to reality with the intellect’s act of judging that something is the case in reality. When the intellect asserts that its simple apprehension of rational conforms to man, the intellect is also expressing that the formal features of rationality are objective features of man. The intellect’s simple concepts only conform to reality if the formal features of those concepts are also features of the object in reality to which the intellect conforms. Accordingly, every assertion that the intellect is in conformity with reality is also an assertion that reality objectively is a certain way. Propositions are not themselves considered to be the *relata* related to reality in the relation of conformity, as simple concepts are. Yet, since propositions make assertions about the way reality is, a proposition’s relationship to reality can be considered. I now turn to examine the relationship of propositions to reality.

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93 *De Int.* 1.3, n. 9: “...philosophus dicit in VI metaphysicae quod veritas est solum in mente, sicut scilicet in cognoscente veritatem. Cognoscere autem praedictam conformitatis habitudinem nihil est aliud quam iudicare ita esse in re vel non esse....”
II. The relation of the proposition to reality

A key reason why propositions themselves do not conform to reality is that propositions do not share the same formal structure as real objects in the world. Aquinas thought that while the structure of the proposition has a basis in the structure of reality, it does not perfectly mirror that structure in the same way that the simple form in the intellect conforms to the form in the thing. The proposition does not have the same form as any material being in reality because the proposition is not the result of the intellect's abstracting a form from an object, but rather it comes about from the intellect's actively judging an abstracted form. Accordingly, some features of the proposition arise from the nature of human intellection alone. In the *Summa Theologiae*, Aquinas writes:

It is necessary for the human intellect to come to intellective understanding by composing and dividing. For since the human intellect passes from potentiality into actuality, it has a certain likeness to generable things, which do not have their perfection immediately but instead acquire it successively. In the same way, the human intellect does not immediately come to a perfect cognition of a thing in its first apprehension of it. Instead, it first apprehends an aspect of it, viz., the 'what-ness' (quidditas) of the thing itself, which is the first and proper object of the intellect; and then it comes to understand the properties, accidents, and relations associated with the thing's essence (circumstantes rei essentiam). Accordingly, it must necessarily (a) compose one apprehended thing with another or divide one apprehended thing from another and (b) proceed from one composition or division to another, i.e. reason discursively.94

94 *ST* I.85.5, co.: "...intellectus humanus necesse habet intelligere componendo et dividendo. Cum enim intellectus humanus exeat de potentia in actum, similitudinem quandam habet cum rebus generabilibus, quae non statim perfectionem suam habent, sed eam successive acquirunt. Et similiae intellectus humanus non statim in prima apprehensione capit perfectam rei cognitionem; sed primo apprehendit aliquid de ipsa, puta quiditatem ipsius rei, quae est primum et proprium objectum intellectus; et deinde intelligit proprietates et accidentia et habitudines circumstantes rei essentiam. Et
Aquinas thought that before experiencing an object, the human intellect had no
cognition of it. It had the potential prior to experience, however, to know all that is
knowable about any material object. In first experiencing an object, the intellect
moves from potentially knowing it to actually knowing it. It does not, however, grasp
all that is knowable about the object at once. On Aquinas's account, the human
intellect first grasps a basic concept of an object's essence as distinct from other
essences in the world. It then apprehends other attributes of the object and composes
these attributes with it. By this process of composing and dividing, the intellect
successively comes to have a more perfect conception of the thing known. This
passage highlights that it is because of the human intellect's own limitations in
knowing that it must come to know objects successively in virtue of different
cognitive acts. No feature of the known object necessitates that it be known by
composition and division. Even complex objects are in principle able to be
completely known by one simple act. Aquinas claims that the divine and angelic
intellects know material beings in all of their complexity immediately through one
simple apprehension.95

Although material objects are able to be known in a more economical way,
Aquinas does not think that it is contrary to the nature of material beings to be known
by composing and dividing. While the composition and division of the proposition
arises from the nature of the intellect, in most cases it is a response to a composition

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95 See, for example, ST I.85.5 co.
in the thing known. Material beings are composed of both matter and form and substance and accident. In a material being, matter is ontologically distinct from form, as accidents are from substances. It is the real distinction of these constituents of the material being that causes the intellect to form the distinct concepts that it composes and divides. This is to say that the intellect's conceiving of man and his whiteness separately responds to a real distinction between the human form and the form of whiteness.

Aquinas thought that not every subject-predicate combination in the intellect, however, corresponded to a real composition in the thing known. In the case of the intellect's composing man with man to form the identity claim Man is man, for example, there is no corresponding composition in the thing which these terms signify. Similarly, Aquinas thought that no real distinctions in God corresponded to the diverse conceptions that the intellect formed of God. Aquinas thinks that

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96 For citation of relevant texts and a full discussion of Aquinas’s views on the distinction of matter and form, see Wippel’s, The Metaphysical Thought of Thomas Aquinas, pp. 296-312.

97 In Meta. 6.4 n. 1241: "Deinde cum dicit quoniam autem excludit ens verum et ens per accidens a principali consideratione huius doctrinae; dicens, quod compositio et divisio, in quibus est verum et falsum, est in mente, et non in rebus. Invenitur siquidem et in rebus aliqua compositio; sed talis compositio efficit unam rem, quam intellectus recipit ut unum simplici conceptione. Sed illa compositio vel divisio, qua intellectus coniungit vel dividit sua concepta, est tantum in intellectu, non in rebus. Consistit enim in quadam duorum comparatione conceptorum; sive illa duo sint idem secundum rem, sive diversa. Utitur enim intellectus quandoque uno ut duobus compositionem formans; sicut dicitur, homo est homo: ex quo patet quod talis compositio est solum in intellectu, non in rebus. Et ideo illud, quod est ita ens sicut verum in tali compositione consistens, est alterum ab his quae proprie sunt entia, quae sunt res extra animam, quarum unaquaque est aut quod quid est, idest substantia, aut quale, aut quantum, aut aliquod incomplexum, quod mens copulat vel dividit." See also ST I.13.12, co.

98 See for example ScG I.3. In certain contexts, however, Aquinas admits that there is a foundation in God for the distinct rationes that the intellect forms of divine attributes. In In I Sent. 2.1.2 co., he writes: “Sic ergo dicendum est, quod in Deo est sapientia, bonitas, et hujusmodi, quorum quodlibet est ipsa divina essentia, et ita omnia sunt unum re. Et quia unumquodque eorum est in Deo secundum sui verissimam rationem, et ratio sapientiae non est ratio bonitatis, inquantum hujusmodi, relinquitur quod sunt diversa ratione, non tantum ex parte ipsius ratiocinantis sed ex proprietate ipsius.
cases like these prove that the composition of the terms in the intellect cannot be an exact mirror of the composition in things. Even in the many cases in which the composition of terms in the intellect responds to a composition in things, Aquinas maintained that there is a difference between the composition in the intellect and the composition in the thing. Aquinas writes:

The likeness of a thing is received into the intellect according to the intellect's own mode and not according to the mode of the thing. Hence, even though there is something on the part of the thing that corresponds to the intellect's composition and division, it is not present in the thing in the same way that it is present in the intellect.... the intellect's composition differs from the thing's composition by the fact that the items composed in the thing are diverse from one another, whereas the intellect's composition is a sign of the identity of the items that are composed. For the intellect composes in such a way as to affirm that a man is white, i.e., that a man is a thing that has (an instance of) whiteness (homo est albus, id est habens albedinem)—and not in such a way as to affirm that a man is (an instance of) whiteness (homo est albedo). For that which is man is the same subject as that which has the whiteness.99

For Aquinas what makes the composition of the intellect different from the composition in things is the element of identity that is present in the intellect's composition. In the intellect's proposition, that which the subject term stands for and that which the predicate is true of is identical in reality. This is to say that man and the thing that has whiteness is one and the same. Elsewhere Aquinas describes the

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99 ST I.85.5 ad 3: "....similitudo rei recipitur in intellectu secundum modum intellectus, et non secundum modum rei. Unde compositioni et divisioni intellectus respondet quidem aliquid ex parte rei; tamen non eodem modo se habet in re, sicut in intellectu.... Tamen differt compositio intellectus a compositione rei, nam ea quae componuntur in re, sunt diversa; compositio autem intellectus est signum identitatis eorum quae componuntur. Non enim intellectus sic componit, ut dicat quod homo est albedo; sed dicit quod homo est albus, idest habens albedinem, idem autem est subiecto quod est homo, et quod est habens albedinem...." (Trans. Alfred Freddoso)
subject and the predicate of a proposition as "signifying the same thing according to reality in a way, and diverse things according to reason." This is to say that while the form of man is not identical to the form of whiteness, both of those forms belong to the same supposit if the predication *Man is white* is true.\textsuperscript{100} In the real object, there is no identity between the elements that are composed in material composites. The substance of man and his whiteness together form a unified being, but when considered in themselves as constituents of this being, they are in no way identical.

Aquinas's emphasis on the element of identity between the subject and the predicate of a proposition is consonant with his understanding of the proposition as an act of knowing the conformity between the intellect's simple apprehension and the extra-mental object. The predicate term of the proposition signifies the form understood by the intellect and the subject stands for the extra-mental object. There is a certain identity between the subject and the predicate of the proposition because the form understood by the intellect is a likeness of the extra-mental thing, i.e. there is conformity between intellect and thing.

Although the element of identity that pertains to the intellect's composition makes it differ from the composition in the real thing, the passage quoted above also notes that there is something in the intellect that responds to the composition in the

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\textsuperscript{100} *ST* I.13.12, co.: "...in qualibet propositione affirmativa vera, oportet quod praedicatum et subiectum significent idem secundum rem aliquo modo, et diversum secundum rationem. Et hoc patet tam in propositionibus quae sunt de praedicato accidentali, quam in illis quae sunt de praedicato substantiali. Manifestum est enim quod homo et albus sunt idem subiecto, et differunt ratione, alia enim est ratio hominis, et alia ratio albi. Et similiter cum dico homo est animal, illud enim ipsum quod est homo, vere animal est; in codem enim supposito est et natura sensibilis, a qua dicitur animal, et rationalis, a qua dicitur homo. Unde hic etiam praedicatum et subiectum sunt idem supposito, sed diversa ratione."
\end{flushright}
thing. Aquinas exploited a difference that he and many of his contemporaries thought held between the function of the subject and the predicate terms of propositions to explain how the composition in the proposition is like the composition in things. Aquinas thought that the subject terms of propositions stood for concrete objects, while predicate terms signified forms that inhered in these objects. He thought that these differing functions that the predicate and subject terms have were analogous to the roles that matter and form play in the composition of a material object. In the ontological order, matter is the supposit in which form inheres. Similarly, the subject term stands for that concrete thing that the predicate is true of. In this way, the subject is said to be understood "materially". Form in the ontological order is not itself something that subsists, but it inheres in a subsisting being. Similarly, the predicate of a proposition does not stand for a concrete being, but rather it signifies a property that is true of a concrete being. For this reason the predicate is said to be taken "formally."

In the *Summa Theologiae*, Aquinas relates the material and formal features of the terms of propositions to the technical notions of supposition and signification. Aquinas writes: "the term placed in the subject is understood materially, that is for the supposit, the term posited in the predicate is understood formally, that is for the nature signified." The distinction between the supposition and signification of terms was a well-known innovation of of the 12th and 13th century terminist

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101 *In I Sent. 4.2.2, co.; De Int. 1.8, n. 9; ST IIIa.16.7 ad 4.
102 *ST IIIa.16.7 ad 4: ".... terminus in subiecto positus tenetur materialiter, idest pro supposito, positus vero in praedicato, tenetur formaliter, idest pro natura significata."
Supposition was the property of a term in virtue of which it stood for an object. A term had supposition if it referred to one or more concrete extramental objects. In the proposition *Man is snub-nosed*, the term *Man* stands for an individual concrete man. This is to say that it has personal supposition. A proposition's truth-value depends on the supposition of its subject term. In the aforementioned proposition, if *Man* supposits for Socrates the proposition is true, but if it supposits for Aristotle, perhaps it is false.  

A term's signification, on the other hand, was determined independently from its supposition. No matter what *Man* supposits for, it always signifies the same thing, i.e. rational animal nature. The signification of a term is not merely its meaning. Paul Spade explains that signification "is a psychologico-causal property of terms". The signification of a term is what it causes in the intellect of the one who hears it, as well as what is in the intellect of the one who speaks it. The signification of a term in this sense must be distinguished from another sense in which Aquinas claims that things are signified by terms. The concept in the intellect that is signified by the term is a concept of some concrete nature. Aquinas claims that the concrete nature that is conceptualized is also mediately signified by a term. So, strictly speaking, terms signify both intellectual concepts and concrete natures. Aquinas makes this clear in

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104 In rare cases in which terms referred to themselves as terms, the term had what was known as material supposition. In the proposition *Man is a noun*, *Man* has material supposition. It does not stand for a concrete individual man.

the *Summa Theologiae* when he writes: "The *ratio* that a name signifies is the intellect's concept of the thing signified (*res significata*) by the name." The distinction between the signification and the supposition of a term regards the term's signification of a conception of the intellect. It is meant to distinguish the property the term has that allows it to bring an understanding to mind from its ability to stand for an object. Aquinas's claim that terms also signify concrete natures will be relevant to this study later.

We can explain Aquinas's dictum "the subject is taken materially and predicate is taken formally" in terms of supposition and signification: General terms in the subject place of a proposition both supposit for some concrete object and signify a nature. Predicate terms, however, only signify a nature. In the proposition *Man is rational*, the term *man* stands for concrete individuals that have human nature. The term, *rational* in this proposition, however, does not stand for concrete rational things. It only signifies rational nature conceived by the intellect. So the proposition *Man is rational* asserts that rational nature is a constituent of a human being. The reason that the predicate term does not supposit for a concrete object is that a predicate is always understood as being a characteristic of something. To understand something as a predicate is to understand it as inhering in something else, not as

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106 *ST* I.13.4 co.: "Ratio enimquam significat nomen, est conceptio intellectus de re significata per nomen." Here Aquinas claims that the conceptions of the intellect are the primary significates of terms: ST I.5.2, co.: "Ratio enim significata per nomen, est id quod concipit intellectus de re, et significat illud per vocem, illud ergo est prius secundum rationem, quod prius cadit in conceptione intellectus."
subsisting on its own. The significance of Aquinas's thinking about the predicate can be grasped when his view is contrasted with the competing theory of his time, i.e. the identity theory of predication. On this theory, predicate terms also have supposition. In the proposition \textit{Man is rational}, for example, the identity theorist holds that both \textit{man} and \textit{rational} stand for concrete objects. \textit{Man} stands for a concrete being that has human nature and \textit{rational} stands for a concrete being that has rational nature. The proposition as a whole asserts that the concrete being with human nature is identical to the concrete being with rational nature.

In his \textit{Commentary on the Metaphysics}, we learn of a significant consequence that Aquinas thought followed from his adoption of the inherence theory of predication. He explains that because there is an analogous relationship between the subject and predicate terms of a proposition and the matter and form of composite objects, something that is composed as matter and form in the real object must be the cause of the truth of the proposition:

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\item \textit{We saw in the passage quoted above on p. 60 that Aquinas was careful to state that it is the descriptive name \textit{that which is having whiteness} that refers to the same thing as \textit{man}. He did not claim that the predicate \textit{white} itself refers to the same thing as the term \textit{man} because \textit{white} as a predicate does not supposit for an object. If a predicate \(x\) is true of an object \(y\), however, then the corresponding description \textit{thing having \(x\)} will be able to supposit for object the \(y\). See P. T. Geach, "Form and Existence," \textit{Proceedings of the Aristotelian Society}, 55 (1955), pp. 251-272. Even in the case of identity statements such as \textit{Man is man}, Aquinas did not think that the predicate term stood for a concrete subject. The predicate term \textit{man} signified the rational nature. The identity of \textit{Man} with himself was explained as the inherence of human nature in a thing that is a man, i.e. that thing which has human nature inhering in it. See Hermann Weidemann, "The Logic of Being," in \textit{Thomas Aquinas Contemporary Philosophical Perspectives}, ed. Brian Davies (Oxford: Oxford University Press, 2002), pp. 77-96, esp. p. 84.}
\item \textit{Some have argued against my reading that Aquinas held the identity theory of predication at least in some passages. See John Malcolm, "A Reconsideration of the Identity and Inherence Theories of the Copula", \textit{Journal of the History of Philosophy}, 17:4 (1979): 183-400.}
\end{itemize}
It is necessary that truth and falsity which is in speech or opinion is reduced to the disposition of the thing as its cause. When the intellect forms a composition it grasps two, one of these has itself formally with respect to the other. Accordingly, it grasps it as existing in the other. For this reason, the predicate is understood formally. And therefore, if such an operation should be traced to a thing as its cause, it is necessary that in composite substances the very composition of form and matter, or that which is related as form and matter, or also the composition of accident and subject, serves as the foundation and cause of truth of the composition which the intellect forms within itself or expresses in speech. Just as when I say *Socrates is a man* the truth of this enunciation is caused by the composition of the human form with the individual matter through which Socrates is *this* man. And when I say *man is white* the cause of this truth is the composition of whiteness with the subject, and it is similarly in other cases. And the same is evident in division.\(^{109}\)

Aquinas begins this passage with the assumption that the way things are is the cause of the truth of propositions. He does not argue for this here. If this starting point is accepted, though, reflecting on the way that the subject and predicate are related to each other leads to the conclusion that the precise disposition of things that causes truth must be a composition. If the subject and predicate are related to each other as substrate and that which inheres, a predicate will be truly affirmed of a subject when some property of the thing that is an analogate for the predicate term truly inheres in something that corresponds to the subject term.

\(^{109}\) *In Meta.* IX.11.1998: “Oportet enim veritatem et falsitatem quae est in oratione vel opinione, reduci ad dispositionem rei sicut ad causam. Cum autem intellectus compositionem format, accipit duo, quorum unum se habet ut formale respectu alterius: unde accipit id ut in alio existens, propter quod praedicata tenetur formaliiter. Et ideo, si talis operatio intellectus ad rem debeat reduci sicut ad causam, oportet quod in compositis substantiis ipsa compositio formae ad materiam, aut eius quod se habet per modum formae et materiae, vel etiam compositio accidentis ad subiectum, respondat quasi fundamentum et causa veritatis, compositioni, quam intellectus interius format et exprimit voce. Sicut cum dico, Socrates est homo, veritas huius enunciationis causatur ex compositione formae humanae ad materiam individualem, per quam Socrates est hic homo: et cum dico, homo est albus, causa veritatis est compositio albedinis ad subiectum: et similiter est in aliis. Et idem patet in divisione.”
In concluding our discussion of the relationship of propositions to things, we can bring together the element of sameness and the element of difference that Aquinas thought held between the composition in the intellect and in the thing. Aquinas thought that the composition *Socrates is man* does not precisely reflect any composition in reality. The term *Socrates* supposits for the being Socrates that is composed of matter and form and the term *man* signifies human nature. What human nature inheres in is the same thing as what the subject term stands for. This is the element of identity in the intellect's composition. In reality, there is no composition between Socrates and human nature. Human nature is an essential part of Socrates, not something composed with him to form a third thing. In the structure of the proposition, *Socrates* is related to *man* as matter is to form. Because the subject and the predicate have this relation of substrate and inhering form, it has a similarity to the composition of Socrates's individual matter with his human form. This ontological composition is the cause of the intellectual proposition's truth. There is not a one-one correspondence, however, between the terms of the proposition and the elements in the real composition that causes its truth. *Socrates* does not stand for Socrates's matter, but rather for the being Socrates that is a composite of matter and the human form. This composite includes within it what is predicated of it, i.e. human nature.
III. Conclusion: Implications of Aquinas's account of propositional truth

We are now in a position to draw some conclusions from the features of Aquinas's account of truth that we have discussed. These conclusions will be of importance for the remainder of this study. First, we have seen that Aquinas thinks that propositional truth is founded on ontological truth. A proposition is the intellect's act of recognizing that the simple likeness by which it understands is in fact a likeness of a certain thing that it already knows. If the intellect was unable to be conformed to extra-mental objects by receiving likenesses of their forms, there could be no propositional truth because the intellect would have no likenesses by which to know. A consequence of this dependence of propositional truth on ontological truth is that the intellect can only form propositions about existing natural kinds or individuals and the kinds or individuals that the imagination invents by combining the natures and properties of actually existing beings. While the imagination can combine elements of real essences to create composite essences of fictional beings, the intellect cannot form a simple concept of a nature of a nonexisting kinds. All concepts of nonexisting kinds that are able to be the subjects of propositions are composites of elements of existing things united by the imagination. The only unity the gold and mountain have, for example, is the unity that is accorded to them by the imagination when it creates the concept of a gold mountain. Gold and mountain have no unity in reality the way that features of real natures do. It is important to note that Aquinas only speaks of the concepts of fictional beings as existing in the imagination.

110 De ver. 8.9 co.: "...videmus quod imaginatio nostra format novam speciem, ut montis aurei, ex speciebus quas prius apud se habebat, scilicet montis et auri; et similiter intellectus ex formis generis et differentiae format definitionem speciel." See also De ver. 8.5 co. and 19.1 co.
He never describes them as being in the intellect as he does with the concepts of real natures. 111 Intellectual knowledge cannot be had of these empty kinds because there is no real nature to know. Aquinas's account of natures and cognition precludes the possibility of there being a human science of purely possible creatures. Accordingly, in the remainder of this dissertation when I discuss necessary propositions about creatures in the human intellect, the examples I use will always be about actual creatures. When the question is asked of whether a proposition about a natural kind can remain true when no instances of the kind exist, it will be assumed that an instance of the kind existed at some time in the actual world. The existence of a member of the kind at some time in the world is sufficient for human intellects to form a concept. Aquinas would not deny that we can form propositions about dinosaurs even though no dinosaurs currently exist. By reading books, doing archaeology, and other activities, human beings can come to have concepts of dinosaurs, although they have not personally experienced them. The question that will arise later, though, is what are these concepts a likeness of, if no dinosaurs exist now? How does the intellect conform to the world in this case?

The second significant feature of Aquinas's account of propositional truth is that the very existence of propositions is contingent on the existence of human

111 Here Aquinas claims that the imaginiative power suffices to combine elements of real forms to create new ones. *ST* Ia.78.4 co.: "Avicenna vero ponit quintam potentiam, mediam inter aestimativam et imaginativam, quae componit et dividit formas imaginatas; ut patet cum ex forma imaginata auri et forma imaginata montis componimus unam formam montis aurei, quem nunquam vidimus. Sed ista operatio non apparet in alitis animalibus ab homine, in quo ad hoc sufficit virtus imaginativa."
intellectuals or other rational intellects.\textsuperscript{112} We have seen that for Aquinas it is not necessary that the complex objects in the world be known propositionally. Propositions are formed because of the unique way in which the human intellect comes to know by composing and dividing. If there were no human beings or other rational creatures, there would be no propositions. A proposition for Aquinas is not a necessarily existing abstract object as many contemporary analytic philosophers think. According to Aquinas, a proposition is a concrete accident that inheres in the created intellect when it joins or divides two simple concepts. Given this, there is a sense in which asking whether \textit{Man is rational} would be true if no men had ever existed is a \textit{per impossible} question because without existing human intellects, this proposition itself would not exist. Aquinas is clear that other intellects do not know by forming propositions, although they are able to know the content that is expressed by propositions.\textsuperscript{113} On the Thomistic account, it cannot be asked whether some proposition \textit{x is y} is true in world \textit{w} without considering whether any \textit{x}'s exist in \textit{w} or whether humans (or some other rational creature) exist in \textit{w} because the existence of a rational intellect and the existence of \textit{x} at some time \textit{t} in a world is a necessary condition for the truth of a proposition \textit{x is y} in that world.

The third significant point that follows from Aquinas's propositional account of truth is that the foundation of the truth of propositions about composite objects is

\textsuperscript{112} A rational intellect, according to Aquinas, is one that knows propositionally, i.e. by joining and dividing simple concepts. Angels are intellectual creatures, but not rational creatures since they do not know propositionally.

\textsuperscript{113} Not all medievals shared this view. Scotus, for example, thought that God willed states of affairs to be by joining and dividing subject and predicate terms and he knew which states of affairs were actually by knowing what his will joined and divided. Accordingly, since necessarily God knows whatever is the case, there necessarily are propositions. See, for example, his \textit{Lectura} I.38-40.
some composition in the object. More specifically, if a proposition is true, there must be elements in the object that are related to each other as substrate and that which inheres. Accordingly, when we seek the ontological foundation for necessary truths, what we are in search of is some composition that is necessary in the things these truths are about. Now that these general points have been made about Aquinas's notion of propositional truth, we can turn to examine his thought on necessary truths.
CHAPTER FOUR

NECESSARY PROPOSITIONS ABOUT CONTINGENT BEINGS

In the last chapter, we saw some of the key features of Aquinas's thinking about propositional truth. In this chapter, we turn now to look at the distinctive features that Aquinas thought belonged to propositions that expressed a subject’s necessary possession of an accident, essential feature, or power. We learned in the previous chapter that Aquinas thought that the ontological cause of the truth of propositions about a subject’s possessing a certain form was some composition in reality. In this chapter, we will complete our understanding of Aquinas’s thinking on the cause of propositional truth by learning what he understood to be the ontological grounding of necessary propositions.

I. Per se propositions

It is clear that Aquinas thought that necessary propositions differed from other propositions. When he considers Aristotle's four-fold division of propositions in his De Interpretatione commentary, he claims that an additional fifth classification must be added to take into account the difference between necessary and impossible propositions, on the one hand, and contingent propositions, on the other. Aristotle
distinguished propositions according to whether they are simple or conjunctions of multiple propositions; affirmative or negative; universal, particular, indefinite or singular; and past, present, or future. The fifth division of propositions that Aquinas added distinguished propositions according to their content. Aquinas writes:

This division is made according to the relationship of the predicate to the subject. If the predicate is in the subject per se, the enunciation is said to be necessary or natural in matter, as it is with man is an animal or man is risible. If indeed the predicate is per se repugnant to the subject as if excluding the ratio of it, the enunciation is said to be impossible or remote in matter, as when it is said man is an ass. If indeed in a middle way the predicate is related to the subject in such a way that it is neither per se repugnant to the subject nor per se in it, the enunciation is said to be possible or contingent in matter.

What sets necessary and impossible propositions apart from contingent ones is the relationship between the subject and the predicate. Aquinas describes the relationship of the predicate to the subject in a necessary proposition as being per se in it.

There were three ways in which Aquinas, following Aristotle, thought that a predicate could be per se in a subject. In the first way, when something that is contained in

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114 De Int. I, 13.2. For Aristotle’s explanation of these divisions, see ll. 17a15-17a20; 17a38-17b12; 18a28-18b20.

115 De Int. I, 13.3: ".... quidem divisio attenditur secundum habitudinem praedicati ad subiectum: nam si prae dicatum per se insit subiecto, dicetur esse enunciatio in materia necessaria vel naturali; ut cum dicitur, homo est animal, vel, homo est risibile. Si vero prae dicatum per se repugnet subiecto quasi excludens rationem ipsius, dicetur enunciatio esse in materia impossibili sive remota; ut cum dicitur, homo est asinus. Si vero medio modo se habeat prae dicatum ad subiectum, ut scilicet nec per se repugnet subiecto, nec per se insit, dicetur enunciatio esse in materia possibili sive contingenti."

116 Aquinas likewise thought that whatever was necessarily in a subject belonged to it per se, i.e. there is a mutual entailment between necessary inherence and per seity. ScG II.55, n. 1299: "Quod per se alciui competit, de necessitate et semper et inseparabiliter ei inest: sicut rotundum per se quidem inest circulo, per accidens autem aeri; unde aes quidem fieri non rotundum est possibile, circulum autem non esse rotundum est impossible."

117 Technically there are four ways in which Aquinas and Aristotle claim that something can be per se, however, I will only discuss three of these ways since one of the ways, i.e. a subject’s existing in itself, is not a mode of predication, but rather a mode of being.
the definition of a subject is predicated of the subject, this is a *per se* predication. An example of such a *per se* proposition is *Dogs are sentient*. Similarly, when the definition itself of a subject is predicated of the subject, it is predicated *per se* in the first mode.\(^{118}\) So the proposition *Man is a rational animal* is also *per se* in the first way. In the second way, a proposition is *per se* if the proposition's subject enters into the definition of its predicate as the matter or subject in which it exists. The proposition *Socrates’s nose is snub* is *per se* in the second way since snubness cannot be defined without mentioning a nose. *Propria* or necessary accidents are predicated *per se secundo modo* of their subjects because a proper accident cannot be defined without mention of the subject in which it exists. The proposition *Man is risible*, for example, is *per se secundo modo* since being a property of man is part of the definition of risibility.\(^{119}\) In is important to note, however, that the subjects of *per se secundo modo* propositions can be defined without mentioning the predicates of these propositions. A nose, for example, can be defined without mentioning snubness.

Essential attributes, which are included in the definition of subject, are always predicated *per se primo modo*. In the third and final way of *per se* predication, a predicate is said *per se* of a subject if the subject is the proper cause of the predicate. In this way, effects are predicated of their proper causes. *Fire heats* is a proposition that is *per se* in this third way.

There is an evident correspondence between the modes of *per se* predication and the ways in which absolute necessity arises in creation, which we discussed in

\(^{118}\) *PA* I, 10.3.
\(^{119}\) *PA* I, 10.4.
chapter two. When attributes, actions, or passions that are absolutely necessary to a being are predicated of it in a proposition, that proposition will be *per se* in one of these three ways.

II. Structural differences of *per se* propositions

In the last chapter, we saw that propositions in general have a structure that is analogous to a material composite. The subject of the proposition plays the role of matter and the predicate has the role of form because the property that the predicate signifies inheres in what the subject stands for. In the proposition a *Man is white*, for example, *Man* supposits for a concrete object having a human form and *white* signifies a form that inheres in this object. This proposition represents the judgment that the form of white is also a constituent of the thing that has the form of humanity. In this proposition no assertion is made about what the relationship is between the form of humanity and the form of white. All that is affirmed in the proposition is that the form of whiteness and the form of humanity meet in the same subject. The same is true of the proposition *Man is an animal* when the term *man* is similarly understood as standing for concrete individuals having a human form. The proposition only asserts that in these human supposits, the animal form is also found. The matter-form structure of the proposition cannot capture the *per se* relation between the subject and predicate even in cases where it is present. This is because in a *per se* proposition the predicate is attributed to the subject because of the subject’s form.120 When the

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120 *De pot.* 8.2 ad 6: “Per se autem praedicatur aliquid de aliquo, quod praedicatur de eo secundum proprium rationem; quod vero non secundum proprium rationem praedicatur, sed propter rei
subject is taken materially, though, as in the normal structure of the proposition, the proposition cannot express anything about the relationship between the form of the subject and the form of the predicate.

Aquinas recognized that in certain cases the subject terms of propositions could be taken formally. Aquinas explains that through “reduplication” a qualifier can be added to the subject of a proposition to indicate whether it is taken materially or formally. An example of a reduplicative proposition is: *Man as man is rational.* Adding the qualifier *as man* to the subject of this proposition indicates that there is a connection between man and rational precisely because of the human form. Man and rational are not connected merely because there is a supposit that has a human form and a rational form. The material connection between these forms in suppositis is posterior to the formal connection between them.

A reduplicative qualifier can be used to indicate that the subject is taken materially. This is the case in this false proposition “Christ as this man is God.” For the most part, though, a reduplicative qualifier indicates that the subject is to be taken formally. The issue of whether the subject term was taken materially to supposit for a substance or whether it was taken formally to signify a nature was central to Christological questions and it is in this context that we find texts relevant to Aquinas’s thinking on the structure of *per se* propositions. In the *Summa Theologiae* Aquinas considers the question of whether Christ as man is a creature. He explains

*identitatem, non etiam praedicatur per se.*” For an excellent discussion of *per se* propositions, see Peter Hoenen, S.J., *Reality and Judgement according to St. Thomas*, (Henry Regenery Co.: Chicago, 1952), pp. 95-136. See also Robert W. Schmidt, *The Domain of Logic according to Saint Thomas Aquinas*, (Marinus Nijhoff: The Hague, 1966), pp. 228-231.
that the truth of this proposition cannot be determined independent of determining the
force of the qualifier “man”. He writes:

I respond that it must be said that when it is said 'Christ, insofar as he is a man,' this name 'man' is able to indicate by reduplication either the ratio of the supposit or the ratio of the nature. If indeed it indicates the ratio of the supposit, then 'Christ, insofar as he is a man, is a creature' will be false since the supposit of the human nature in Christ is eternal and uncreated. If in fact the ratio of human nature is indicated, then this statement is true because in virtue of the ratio of human nature, or according to human nature, being a creature belongs to Christ, as it is said above. It must be understood, nevertheless, that a name added in reduplication is more properly understood to indicate the nature rather than the supposit, since the reduplicated name is added as a predicate, which is understood formally…. 121

This passage highlights that when reduplication is used it indicates the precise feature of a thing in virtue of which it possesses the predicate that is attributed to it. Through reduplication, it can be indicated that something possesses a property precisely in virtue of the form it has. Reduplication is used to indicate that a proposition is per se because in a per se proposition the predicate is true of the subject because of the form of the subject.122

121 ST IIIa.16.10 co.: “Respondeo dicendum quod, cum dicitur, Christus secundum quod homo, hoc nomen homo potest resumi in reduplicatione vel ratione suppositi, vel ratione naturae. Si quidem resumatur ratione suppositi, cum suppositum humanae naturae in Christo sit aeternum et increatum, haec erit falsa, Christus, secundum quod homo, est creatura. Si vero resumatur ratione humanae naturae, sic est vera, quia ratione humanae naturae, sive secundum humanam naturam, convenit sibi esse creaturam, ut supra dictum est. Sciendum tamen quod nomen sic resumptum in reduplicatione magis proprie tenetur pro natura quam pro supposito, resumitur enim in vi praedicati, quod tenetur formaliter....” Aquinas also appeals to reduplication in In III Sent. 11.3 and 10.1.1 when he analyzes the questions of whether Christ as man is God and whether Christ as this man is God. On Aquinas’s interpretation of propositions in Christological discussions, see Henk J.M. Schoot, Christ the Name of God: Thomas Aquinas on Naming Christ, (Leuven: Peeters, 1993). On reduplication in medieval logic, see Allan Bäck, On Reduplication: Logical theories of qualification, (E.J. Brill: Leiden, 1996).

122 In III Sent. 12.1.1 ad 6: “....ad veritatem propositionis sufficit quod praedicatum conveniat subjecto; nec oportet quod conveniat ei ratione formae significatae vel appositae, nisi sit praedicatio
Like propositions that are discussed in Christological debates, propositions
that have a general term, such as *man* or *dog*, as their subjects have a certain
ambiguity to them. A general term, like *man*, can supposit for one or more
substances that have the nature that is signified by the term, such as Socrates, Plato
and Thomas, or a general term can simply signify the nature. So when the
proposition *Man is an animal* is considered, it is unclear whether the proposition
expresses that Socrates and Plato, for example, have the form of animality inhering in
them or that there is a formal connection between the form of man and the form of
animality. This ambiguity can be clarified by using reduplicative qualifiers. The
proposition with *Man as man* as its subject expresses claims about the form of man,
while propositions with *Man as this man* express claims about particular men.

Aquinas makes clear that when an attribute is predicated of a subject *per se* it
is possible that the attribute belongs to the subject only in virtue of a certain essential
part that it has. It is not the case that the subject must possess the attribute in virtue of
all that belongs to it essentially. He writes:

> To the second question it must be said that from the fact that some
predicate is *per se* it is not necessary that what is *per se* predicated
belongs to the subject according to all that is implied by the name of
the subject, but it suffices if it belongs to it *per se* according to some
part of it, just as reasoning belongs to man *per se* not insofar as he has
a body, but insofar as he has a soul accordingly this is true: “Man is a
reasoning being.”

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123 In III Sent. 10.1.1 q. 2 co.: “Ad secundam quæstionem dicendum quod ad hoc quod
alia praedicatio sit per se, non oportet quod praedicatum per se conveniat subjecto secundum omne
A reduplication can be used to pick out the precise form of a subject in virtue of which an attribute is predicated of it *per se*. This is the case in the example “A line, as extended, is divisible”. This usage of reduplication is important because it implies that propositions that have proper names as their subjects can also, through reduplication, express formal connections. The proposition *Socrates as man is rational* indicates a formal connection between two forms inhering in Socrates.

In addition to reduplication, Aquinas thought that there was another way in which a *per se* connection between the forms in a subject could be expressed in a proposition. Aquinas thought that conditional propositions expressed a necessary connection between their antecedents and consequents. Aquinas writes:

> Since every true conditional is necessary, it follows from the fact that the antecedent is posited that the consequent is necessarily posited. For example, this is true, ‘If Socrates runs, then he moves’. I hold therefore that whatever runs necessarily will move while it runs.124

What is significant about the antecedent ‘If Socrates runs’ is the verb ‘runs’. The subject Socrates is not as important. What the conditional is expressing is that there is a necessary connection between the form of running and the form of motion. If a supposit is running, it will also have the form of motion. It is only incidental that the

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124 *In Meta.* VI.3 n. 1198: “Cum enim quaelibet conditionalis vera sit necessaria, oportet quod ex quo antecedens est positum, quod consequens ex necessitate ponatur. Sicut haec est vera, si Socrates currit, movetur. Posito ergo quod currat, necesse erit ipsum moveri, dum currit.” *ST* Ia.86.3 co.: “Sicut hoc ipsum quod est Socratem currere, in se quidem contingens est; sed habitudo cursus ad motum est necessaria, necessarium enim est Socratem moveri, si currit.”
supposit that these two forms inhere in is Socrates. The second form would inhere in whatever has the first form. Aquinas explicitly claims that neither a true antecedent nor a true consequent is required for the truth of the conditional. All that is required for the truth of the conditional is a necessary connection between the antecedent and the consequent.\textsuperscript{125}

In this section, we have learned that there is a crucial difference between propositions that express a \textit{per se} connection and those that do not. In the case of a proposition that only expresses a material connection, that which is signified by the predicate inhereis in that for which the subject stands. In a proposition expressing a \textit{per se} connection, however, it is the necessary connection between that which is signified by the subject and the predicate that is of importance. A proposition expressing material connection is adequated to or in conformity with a composition in the subject or subjects that it is about. Aquinas argues that a matter-form-like composition causes the truth of these propositions since the subject and predicate of these propositions are related to each other as matter and form. In a proposition expressing a necessary relation, there is no relation of matter and form between that which is signified by the predicate and the subject. This is because both the predicate and the subject are taken formally. We saw in the last chapter that the reason Aquinas thought that a composition in reality is the foundation for the the truth of predications is because of the matter-form relationship between subject and predicate.

\textsuperscript{125} \textit{In III Sent.} 12.2.1 co.: “Tamen sub conditione potest concedi quod peccare potuit, scilicet si voluisset; quamvis hoc antecedens sit impossibile; quia ad veritatem conditionalis non requiritur neque veritas antecedentis neque veritas consequentis, sed necessaria habitudo unius ad alterum.”
Since in the case of propositions expressing a necessary connection this matter-form relation does not obtain between the subject and predicate of the proposition, it is not going to be a *composition*, i.e. an inherence relation, that grounds the truth of a necessary proposition. In the next section, we will see what it is in reality that Aquinas thought grounded the necessary connection between the form signified by the subject and the form signified by the predicate in a *per se* proposition.

III. The ontological ground for necessary connections between forms

Aquinas does not explicitly raise the question of how the ontological realities underlying essential predicates are "held together," but a certain argument that he made for the unicity of substantial forms gives insight into his thinking on this matter. The question of whether a material substance had one or more substantial forms was fiercely debated at both Oxford and Paris in the 1270s and 1280s. The debate centered on this issue: In any matter-form composite does one substantial form or more than one substantial form account for the essential features that a substance has? For example, does one substantial form account for the fact that an animal is sentient, and another account for the fact that it engages in vegetative activities and a third account for the fact that it has corporeity, or does one form alone account for the fact that the animal is sensitive, vegetative, and corporeal? Answering this question involved metaphysical, physical, logical and theological considerations. It is outside...
the scope of this project to examine all of the complexities involved in this debate. What is most relevant to reconstructing Aquinas's view on the ontological basis for the *per se* connection between essential predicates is a particular argument he made for the unicity of substantial form, which, as is well known, was his position in this debate.\textsuperscript{127}

Aquinas argued that if a substance had its essential features from distinct substantial forms, its essential attributes would not be predicated of it *per se*. Aquinas thought the unicity of form was the ontological basis for *per se* predication. Once diverse substantial forms were posited, *per se* predication was destroyed. Aquinas argues for this as follows: If there are multiple substantial forms in a being, either those forms are ordered to each other or not. If they are not ordered to each other, the forms are only predicated of each other *per accidens*, in the way whiteness is predicated of a sweet thing. If the diverse forms are ordered to each other, a kind of *per se* predication arises, namely *per se* predication of the second mode, but this is not the right kind of *per se* predication for an essential proposition.\textsuperscript{128} An example

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\textsuperscript{127} For Aquinas's position on unicity of Wippel's *Metaphysical Thought of Thomas Aquinas* ch. 9, section 3 on unicity of substantial form.

\textsuperscript{128} ST Ia.76.3 co: "Quae enim sumuntur a diversis formis, praedicantur ad invicem vel per accidens, si formae non sint ad invicem ordinatae, puta cum dicimus quod album est dulce, vel, si formae sint ordinatae ad invicem, erit praedicatio per se, in secundo modo dicendi per se, quia subiectum ponitur in definitione praedicati. Sicut superficies praebamula est ad colorem, si ergo dicamus quod corpus superficiatum est coloratum, erit secundus modus praedicationis per se. Si ergo alia forma sit a qua aliquid dicitur animal, et a qua aliquid dicitur homo, sequeretur quod vel unum horum non possit praedicari de altero nisi per accidens, si istae duae formae ad invicem ordinem non habent; vel quod sit iibi praedicatio in secundo modo dicendi per se, si una animarum sit ad aliam praebamula. Utrumque autem horum est manifeste falsum, quia animal per se de homine praedicatur, non per accidens; homo autem non ponitur in definitione animalis, sed e converso. Ergo oportet eandem formam esse per quam aliquid est animal, et per quam aliquid est homo, alioquin homo non vere esset id quod est animal, ut sic animal per se de homine praedicetur." Aquinas also makes this argument in ScG II.58 and Q Q. De A., 11, co.
of *per se* predication in the second mode is *The thing having a surface is colored.*

Having color is not part of the definition of having a surface, but surface enters into the definition of a color. Color cannot exist apart from a surface. There is a material connection between color and a surface. A surface is the matter that color must exist in. In the second mode of *per se* predication, the subject enters into the definition of the predicate, but the predicate is not included in the definition of the subject. This mode of *per se* predication does not capture what is going on in an essential predication, such as *Man is animal.* *Man* does not enter into the definition of *animal,* but rather the reverse holds true. Predications in which a subject's essential attributes are predicated of it must be *per se* in the first mode.

A premise in this argument that requires closer examination is Aquinas's claim that only the second mode of *per se* predication can arise from the ordering of forms to one another. It seems that the mode of *per se* predication that arises should vary based on the type of ordering that is posited and that it would be possible to order the forms in such a way so that *per se* predication of the first mode would arise. Thinking closely about what *per se* predication in the first way is, however, reveals that this is not possible. For one thing to be predicated of another *per se* in the first way, it must enter into its definition. Accordingly, the ordering of the form of the predicate must be intrinsic to the subject. This ordering cannot be imposed after the subject is constituted because the form of the predicate must be part of the constitution of the form of the subject. If the predicate does not form part of the form of the subject, the only ordering that is possible between the forms of the predicate
and the subject is through the predicate's existing in the subject as a form exists in matter. This is what the second mode of *per se* predication signifies.

Whether or not one finds Aquinas's argument against the plurality of forms based on predication successful, the argument reveals what Aquinas thought was the ontological foundation for the necessary connection of forms expressed in *per se* predication. Aquinas's argument implies that whenever a predicate is attributed to a subject in the first mode of *per se* predication, the form signified by the predicate and the form signified by the subject are in reality identical. If the two forms were diverse, Aquinas argues that there would be no *per se* predication. In the proposition *Man is an animal*, *Man* and *animal* have the same *res significata*, namely the one substantial form in man. The concepts signified by the words *man* and *animal* are distinct concepts of this one reality. Subjects and predicates of essential propositions signify the same substantial form not only in the case of a genus being predicated of a species. Similarly, in the propositions *Man is sentient* or *Man is vegetative*, for example, the subject and predicate terms have the same *res significata*, i.e. the substantial form of man. Aquinas is clear that whatever is predicated substantially rather than accidentally is truly one in reality with that of which it is predicated.129

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129 *Meta.* IV.7 n. 628: "In hoc enim distinguitur substantia ab accidente, idest praedicatum substantiale ab accidentali, quia unumquodque est vere id quod praedicatur substantialiter de eo; et ita non potest dici illud quod praedicatur substantialiter esse non unum, quia quaelibet res non est nisi una. Sed homo dicitur albus, quia albedo vel album accidit ei. Non autem ita quod sit id quod vere est album vel albedo. Ergo non oportet quod id quod praedicatur per accidentes sit unum tantum. Sed multa possunt per accidentes praedicari. Substantiale vero praedicatum est unum tantum. Et sic patet, quod ita est esse hominem quod non est non esse hominem. Si autem utrumque fuerit, iam substantiale praedicatum non erit unum tantum, et sic non erit substantiale sed accidentale." *Meta.* IV.2 n. 7: "Quaecumque duo praedicantur de substantia alicuius rei per se et non per accidentes, illa sunt *idem secundum rem*: sed ita se habent unum et ens, quod praedicantur per se et non secundum accidentem de substantia cuiuslibet rei." (Italics mine.)
Thinkers who held that there was the plurality of substantial forms in any material substance were faced with the challenge of providing an ontological basis for the connection between a substance and its essential predicates, each of which signified a distinct substantial form. Their ontologies required a “metaphysical glue” to hold substances together. Some posited that it was the power of God that provided the necessary connection between essential predicates, which signified different forms, while others held that the connection was primitive and independent of God. ¹³⁰ When one adopts the position that substances have one unique form that accounts for each of its essential predicates, this question cannot arise. Man is rational and animal because the human form itself is what it is. Man itself is a basic essence that is not further composed. It makes just as much sense to ask the advocate of the uniqueness of substantial form why man cannot be otherwise as it does to ask the proponent of the plurality of forms why rationality cannot be otherwise.¹³¹

With regard to Aquinas’s position, the question to raise is not how do different forms compose a unified substance, but rather how does a single form give rise to different concepts. It is the possibility of there being distinct concepts, signified by distinct terms, of one single form that gives rise to per se propositions for Aquinas.

¹³⁰ For references to and summaries of the positions of various second scholastics, see Coombs’ “The Ontological Source of Logical Possibility in Catholic Second Scholasticism.”
¹³¹ John O’Callaghan has made the point that for Aquinas, the unicity of substantial form is the metaphysical grounding for the unity of definition, as well as the necessity of essential predications. See his “Aquinas’s rejection of mind, contra Kenny,” The Thomist 66 (2002): 15-59, pp. 43, 46; and his “Imago Dei: A Test Case for St. Thomas’s Augustinianism,” in Aquinas the Augustinian ed. M. Dauphinais, B. David, and M. Levering, (Washington D.C.: The Catholic University of America Press, 2007), pp. 100-144, p. 123. In the former publication, O’Callaghan uses the term “metaphysical glue” which I have adopted above.
But if man and animal have the same res significata, the one human form, how do the differing concepts of man and animal arise? Aquinas explains that a human form, for example, contains all the perfections that are contained in the form of an animal plus more. In addition to causing the powers that animals have, the human form also causes the power of reason. The human intellect can recognize that there are similarities between the powers of a man and the powers of other specific animals, for example a horse and a dog. From recognizing these similarities, the intellect forms the concept of animal. The intellect can abstract both the concept of man and the concept of animal from a human being because the intellect can consider some of the human being’s powers in abstraction from others. Strictly speaking, the powers themselves are not that which causes a human being and a dog both to be animals. The powers are, rather, the effect of the similarity between the substantial form of a man and the substantial form of a dog. Aquinas does not offer any metaphysical explanation for the commonality that substantial forms of members of different species within the same genus have. He does not think that substantial forms have parts. So the similarity between the form of a dog and the form of a man cannot be

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132 ST Ia.76.3 ad 4: "Ad quartum dicendum quod non oportet secundum diversas rationes vel intentiones logicas, quae consequuntur modum intelligendi, diversitatem in rebus naturalibus accipere, quia ratio unum et idem secundum diversos modos apprehendere potest. Quia igitur, ut dictum est, anima intellectiva virtute continet id quod sensitiva habet, et adhuc amplius; potest seorsum ratio considerare quod pertinet ad virtutem sensitivae, quasi quoddam imperfectum et materiale. Et quia hoc invenit commune homini et aliis animalibus, ex hoc rationem generis format. Id vero in quo anima intellectiva sensitiva excedit, accipit quasi formale et completivum, et ex eo format differentiam hominis."

133 ST Ia.77.1 ad 7: "Ad septimum dicendum quod rationale et sensibile, prout sunt differentiae, non sumuntur a potentis sensus et rationis; sed ab ipsa anima sensitiva et rationali. Quia tamen formae substantialiae, quae secundum se sunt nobis ignota, innotescunt per accidentia; nihil prohibet interdum accidentia loco differentiarum substantialium poni."

134 QQ. De A. 10, ad 17
explained as their both possessing an "animal part". Aquinas is content to accept that there is a primitive resemblance between the forms of dogs and the forms of men, expressed by the possession of shared powers.

IV. An Objection to Aquinas’s View

Now that we have seen what the ontological basis is for the per se connection between subjects and predicates in essential propositions, we can consider an objection to Aquinas’s view that is based on the principle of transitivity of identity. According to this principle, if \( a \) is identical to \( b \) and \( b \) is identical to \( c \), then it can be inferred that \( a \) is identical to \( c \). According to Aquinas’s view, in the proposition *Man is an animal*, that which is signified by *Man* is identical to that which is signified by *animal*. Likewise, in the proposition *A horse is an animal*, that which is signified by *horse* is identical to that which is signified by *animal*. By the law of the transitivity of identity then, it seems to follow that that which is signified by *Man* is identical to that which is signified by *horse*. Aquinas, however, is committed to denying that man and horse share the same substantial form. The res significatae of *Man* and *horse* are the distinctive forms proper to each species. The objection raises the question, though, of how Aquinas can maintain that the forms of these species are distinct from each other if each is identical to the form of animal.

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135 Pasnau has criticized Aquinas's account of cognition and truth since predications of a genus of an individual do not correspond to a real composition in things. Aquinas's theory of the unicity of substantial form commits him to the view that there is no form in an individual that corresponds to its genus. See Pasnau's "Abstract Truth in Thomas Aquinas," in *Representation and Objects of Thought in Medieval Philosophy*, ed. Henrik Lagerlund (Ashgate: Aldershot, 2007), pp. 33-62, see esp. pp. 49-53.
Aquinas has the resources to solve this objection. We saw above that Aquinas held that certain attributes were not predicated of a subject according to all that is implied by the name of the subject.\textsuperscript{136} This is to say that the predicated attribute does not signify all of the perfections associated with the subject, but only certain ones. The term \textit{animal}, for example, only signifies only certain perfections of a human being, while the term \textit{man} signifies all of the perfections of a human being. The \textit{res significata} of \textit{man} and \textit{animal} is the human form. \textit{Man}, however, signifies the entire human form, while \textit{animal} signifies it only in a certain respect. What is signified by \textit{animal} is only identical with a certain aspect of that which is signified by \textit{man}. The same holds for the term \textit{animal} when it is predicated of a horse. In addition to having the perfections of an animal, a horse also has the specific differences that make it be an animal of a certain kind. Both contain more than what is signified by the name \textit{animal}. Since \textit{animal} only signifies a certain aspect of the horse form and a certain aspect human form, we cannot conclude that the human form and the horse form are the same.\textsuperscript{137}

\textsuperscript{136} See text quoted in fn. 8 above.
\textsuperscript{137} Aquinas does not even admit that that which is signified by \textit{animal}, i.e. the sensible nature, is the same in a man and a horse. This is because the sensitive nature in man is possessed through the same form through which the rational nature is possessed, whereas in a horse the form that causes the sensitive nature does not also cause the rational nature. \textit{De Pot.} 8.4 ad 2: "....sicut patet quod homo ab eadem forma substantiali habet quod sit animal et quod sit homo; non enim sunt unius rei plures formae substantiales secundum rem diversae: et tamen ab anima, inquantum est anima sensibilis, tantum habet quod sit animal; inquantum vero est anima sensibilis et rationalis, habet ab ea quod sit homo. Et propter hoc et equus est animal, sed non est homo, quia non habet animam sensibilem eamdem numero quam habet homo: et pro tanto etiam non est idem animal numero."
So far I have only explained Aquinas's view on the ontological grounds of necessary propositions that express essential predications. It was shown, however, in the first section of this chapter there are other types of necessary propositions about creatures. The truth of a proposition in which an essential attribute is predicated of a subject is guaranteed by the real identity of the form signified by the subject and form signified by the predicate of the proposition. A different account is needed, however, to explain the ontological grounds of propositions that are per se secundo modo. An example of such a predication is the attribution of risibility to man. Risibility does not belong to the essence of man and thus, it is an accident. Risibility, however, is a necessary accident because its presence in man is entailed by rationality, which is part of man's essence. As an accident, however, risibility has its own form that is a form distinct from the form of man. It follows from this that the ontological grounding of the necessary proposition Man is risible cannot be the real identity of the form of man and that of risibility as is the case in per se primo modo propositions. These two forms are distinct, so if one is to be necessarily predicated of the other, there must be some necessary relation between these forms that guarantees the necessity of the predication. In this section, I will discuss the relationship that Aquinas thought obtained between the forms signified by the subjects and the forms signified by the predicates of per se secundo modo propositions. It is this ontological relationship that will guarantee the necessary truth of per se secundo modo propositions.

Aquinas discussed the relation that obtains between a substance and its accidents in general, as well as the relation that holds specifically between a
substance and its proper or necessary accidents. 138 These discussions give insight into the ontological grounds for per se predications of propria. It is clear that Aquinas thought that the ontological relation between a substance and its necessary accidents was "stronger" than the relation between a substance and any of its other accidents. He thought that substances were related to all of their accidents as the subject in which they existed. 139 This is to say that substances serve as material causes for their accidents. A material cause does not play an active role in generating that which it causes. Rather, it is a passive recipient of that which it is the subject of. In his *Sentences Commentary*, Aquinas says that substances are related in diverse ways to different accidents. In addition to being the material or sustaining cause of all of their accidents, substances also actively produce some of their accidents. Aquinas says that accidents that are present in all members of a species, namely proper or necessary accidents, or accidents that are necessary to an individual, such as its gender, are caused by the principles of the substance. Aquinas contrasts these accidents that are caused from within the substance with accidents that are caused extrinsically. Heat that is an accident of water is caused to be in the water by a principle that is extrinsic to the water. The heat is not repugnant to the intrinsic principles of water, but it is not caused by them. 140 With non-necessary accidents, the substance plays no active role in causing the accident to be.

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139 See for example *In Meta*. IV.1, n. 539.
140 *In I Sent.* 17.1.2 ad 2: "Ad secundum dicendum, quod subjectum diversimode se habet ad diversa accidentia. Quaedam autem sunt accidentia naturalia quae creantur ex principiis subjecti; et hoc dupliciter: quia vel causantur ex principiis speciei, et sic sunt propriae passiones, quae consequuntur
In the context of arguing that there can be no accidents in God, Aquinas explains in his *De potentia* how a substance is able to both receive an accident and actively cause it. Aquinas explains that a subject receives an accident in virtue of its matter and causes them in virtue of its form. From this point that Aquinas makes, the relationship that obtains between the substantial form of a substance and the form of one of its necessary accidents can be inferred. The substantial form provides its subject with the active, causal power to produce the forms of its necessary accidents. In the *Summa Theologiae*, Aquinas reiterates the view that proper and *per se* accidents are caused by their subjects. There he also explains that subjects produce their proper accidents not through an ordinary production that involves a change, but rather as an "emanation". He claims that "from one the other naturally results, as color from light." A subject's causation of its proper accidents is not a process.
Rather, it is a consequence of the subject's existing as what it is. Because the
subject's causation of its proper accidents in virtue of its substantial form is necessary,
whenever a certain substantial form is present, the forms of the accidents proper to it
are also necessarily present. Strictly speaking, the form's power to necessarily cause
its proper accidents may be impeded by a defect of matter, so in some cases, the form
of a proper accident may not be present in a substance while a substantial form of
given kind is. An example of this is a human being who lacks the ability to laugh
because of certain physical disabilities. Even when the proper accident is not actually
realized in a subject because of an external impediment, the substantial form still
retains the power to produce this accident. It is this power of substantial forms to
cause their subject's proper accidents that serves as the ontological underpinning for
necessary propositions which predicate proper accidents of their subjects.

VI. Conclusion: The cause of the truth of *per se* propositions

In this chapter, we completed our picture of Aquinas's account of the
ontological cause of the truth of propositions. In the last chapter, we saw that
Aquinas claimed that propositions that are about composite substances were caused to
be true by a composition in the thing that the truth is about.\(^{144}\) In this chapter, we

\(^{144}\) *In Meta.* IX.11.1898: “Oportet enim veritatem et falsitatem quae est in oratione vel
opinione, reduci ad dispositionem rei sicut ad causam. Cum autem intellectus compositionem format,
accipit duo, quorum unum se habet ut formale respectu alterius: unde accipit id ut in alio existens,
propter quod praedicata tenetur formaliter. Et ideo, si talis operatio intellectus ad rem debat reduci
sicut ad causam, oportet quod in compositis substantiis ipsa compositio formae ad materiam, aut eius
quod se habet per modum formae et materiae, vel etiam compositio accidentis ad subjectum,
respondent quasi fundamentum et causa veritatis, compositioni, quam intellectus interius format et
exprimit voce. Sicut cum dico, Socrates est homo, veritas huius enunciationis causatur ex
have seen what Aquinas understood as the cause of the truth of necessary propositions. Since Aquinas thought there were varying types of necessary propositions, it is not surprising that not all necessary propositions have the same cause in reality for their truth. A necessary proposition in which an element of a thing’s definition is predicated of it, i.e. a *per se primo modo* proposition, is caused to be true by the substantial form the subject and predicate of the proposition signify. In the case of the proposition *Man is rational*, for example, *man* and *rational* signify man’s one substantial form. When the two different concepts that are joined by the intellect correspond to one substantial form, the intellect’s judgment is necessarily true. In other *per se* predications in which the subject and the predicate do not signify the same form, the proposition is made true by the causal connection between the two forms. In the proposition *Man is risible*, for example, it is not the fact that the form of risibility happens to inhere in something that also has the human form that makes this proposition necessarily true. It is rather the ability of the human form to necessarily produce the form of risibility that guarantees the necessary truth of this proposition.

It is not surprising that *per se* propositions are caused to be true by forms, rather than constituents of objects that are in matter-form-like compositions. Aquinas’s reason for thinking that a composition in a thing is the cause of the truth of a contingent proposition is that the subject and predicate of these propositions are

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compositione formae humanae ad materiam individualem, per quam Socrates est hic homo: et cum dico, homo est albus, causa veritatis est compositio albedinis ad subiectum: et similiter est in aliis. Et idem patet in divisione.”

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related to each other as matter and form. We have seen, however, that in a *per se*
proposition, the subject and predicate are not related to each other in this way. In a
*per se* proposition, both the subject and the predicate are taken formally. The subject
and predicate of the *per se* proposition are joined in virtue of what they are in
themselves and not merely because they happen to exist in the same subject, as is the
case in contingent compositions.
CHAPTER FIVE

THE PERPETUAL TRUTH OF NECESSARY PROPOSITIONS

In the last chapter, we analyzed Aquinas’s thinking on necessary truths. I argued that according to Aquinas’s view the causes or foundations in reality for the truth of per se propositions are the forms that are the res significata of the terms of those propositions. In this chapter, I will reconstruct Aquinas’s account of how necessary propositions can remain true both before and after the existence of the subjects they are about. Aquinas believed that the forms which are the res significata of the terms of propositions are themselves contingently existing beings. The existence of a form depends on the existence of the material substance to which it belongs. The substantial form of almost every material being comes to exist when the substance it belongs to is generated and ceases to exist when that substance perishes. There is one exception to these claims. Aquinas held that the substantial form of a human being is the rational soul and that the rational soul is not subject to generation or corruption. The rational soul is created immediately by God and the only way that it can cease to exist is through annihilation by God.\(^{145}\) When a human being dies, its substantial form continues to exist. Accordingly, this form can continue to ground

\(^{145}\) See for example ST Ia.75.6 co.
truths about human beings. In the case of all other material beings, the substantial form does not outlast the substance, so the difficulty of accounting for essential truth after the being has perished arises. If the substantial form of a dog is the cause of the truth that *Dogs are sentient* and that substantial form depends on a the existence of a dog for its existence, how can *Dogs are sentient* remain true in the absence of dogs? This question is one that plagued later medieval thinkers. In Francisco Suárez’s *Metaphysical Disputation* XXXI, we get his account of the debate among his contemporaries about the perpetual truth of necessary propositions. In treating of this debate, Suárez also takes the occasion of explaining and criticizing what he takes to be Aquinas’s view on this question. In the first part of this chapter, I will outline Suárez’s account of Aquinas’s view. I will then show why Suárez’s interpretation of Aquinas fails. In the rest of the chapter, I will go on to provide my own positive reconstruction of Aquinas’s account of how necessary truths remain true even after the subjects they are about perish.

I. Suárez's account of Aquinas’s view

Suárez considers the difficulty of how necessary propositions about creatures, which are required for scientific demonstration, can be perpetually true in *Metaphysical Disputation* XXXI because there Suárez is considering the manner in which the essences of finite beings exist. The precise question that he is considering is whether the essences of finite beings exist independently of the finite individuals that instantiate them. Suárez, remaining faithful to a genuinely Thomistic
metaphysic, answers this question negatively. The strongest objection that he raises to this position is that if the essence perishes with the individual, then essential propositions cannot be perpetually true.\textsuperscript{146} This is because there would be no subject of which essential attributes could be predicated. Suárez's own solution to this difficulty is not of immediate interest to us at this point. For now, it is his treatment of Aquinas's position that is under consideration.

After discussing the opinion of some "modern theologians" who hold that essential propositions begin to be true when creatures begin to be and cease to be true when creatures perish, Suárez goes on to discuss Aquinas's position. Suárez writes the following about Aquinas's view:

It is not enough if someone were to respond with St. Thomas in I, q. 10, a. 3, ad 3, q. 16, a. 7, ad 1, and q. 1 of \textit{de Veritate}, a. 5, ad 11, and a. 6, ad 2 and 3 that when the existence of creatures is destroyed, those enunciations are true not in themselves (\textit{in se}), but in the divine intellect. \textsuperscript{147} This reply fails because not only do enunciations in which essential attributes are predicated have perpetual truth in the divine intellect in this way, but so also do all true accidental or contingent enunciations.

According to Suárez, Aquinas held that, for example, when all rabbits were destroyed the proposition \textit{rabbits are sentient} only remained true in the divine intellect and not in itself. It is not entirely clear what Suárez means by the phrase true \textit{in itself}, which

\textsuperscript{146} The word that Suárez uses in discussing this difficulty is in fact \textit{perpetua}. Norman Wells, for example, has translated \textit{perpetua} as "eternal" in his translation of \textit{Disputation XXXI} (Milwaukee: Marquette University Press, 1983). Likely he did this to make more explicit the link between this discussion and the modern discussion of eternal truths. This practice, however, can lead to confusion because 'eternal' has a wider range of meanings than 'perpetual'. See my discussion below in the final section of this chapter.

\textsuperscript{147} \textit{Disputaciones Metaphysicae} XXXI, 12.40: "Nec satis est si quis respondeat cum D. Thom., I, q. 10, a. 3, ad 3, q. 16, a. 7, ad 1, et q. 1 of Veritate, a. 5, ad 11, et a. 6, ad 2 et 3, destructa creaturarum existentia, has enuntiationes esse veras, non in se, sed in intellectu divino. Quia hoc modo non solum huiusmodi enuntiationes in quibus attributa essentialia praedicantur, sed omnes etiam accidentales seu contingentes quae verae sunt, habent veritatem perpetuam in intellectu divino."

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Suárez, like Aquinas, does not admit that propositions could exist apart from intellects. So Suárez likely did not mean by true in themselves that the enunciations had truth apart from any intellect since this would require that a proposition has existence independent from an intellect. Perhaps what Suárez meant to by calling a proposition true in itself is that it is true in any intellect that thinks it regardless of its being known by the divine intellect. According to the view that Suarez imputes to Aquinas, what guarantees the necessity of propositions that enter into scientific demonstrations is the fact that they are eternally known by God, not some feature possessed by the proposition in itself.

Suárez is not impressed with this solution. He thinks that God's perpetual knowledge of a proposition cannot make it the case that it is a necessary truth since contingently true propositions are also perpetually known by God. There must be some additional feature that is proper to necessary truths alone that distinguishes them from contingent ones. Suárez suggests a reply on behalf of Aquinas's so-called position, but only to go on to show where it fails. He writes:

> You might say that there is a difference because although all of these truths are perpetually in the divine intellect, they are not, nevertheless, there with the same necessity. For those truths in which an essential feature is attributed to a subject are in the divine intellect in such a way that they are unable not to be in it. Accordingly, they are simply necessary and necessary without any supposition. But indeed other contingent truths, although they always were in the divine intellect, they are not, however, there with absolute necessity, but only on the supposition that they would be at some future time.\(^{148}\)

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\(^{148}\) Ibid: "Quod si dicas esse differentiam, quia, licet omnes sint perpetuo in intellectu divino, non tamen cum eadem necessitate; nam illae veritates in quibus praeeditum essentiale tribuitur subjecto ita sunt in intellectu divino ut non potuerint non esse in illo, unde sunt simpliciter necessariae et absque ulla suppositione; at vero aliae veritates contingentes, licet semper fuerint in divino intellectu, non tamen cum absoluta necessitate, sed solum ex suppositione quod in aliquo tempore futurae essent..."
Suárez says that this response only makes the position more objectionable because it further brings out the differences between necessary and contingent truths. Necessary truths do not depend at all on what is made by God to exist in time. Even if God did not create, he still would know necessary truths to be true, according to Suárez. This shows too that necessary truths are true in abstraction from time.\textsuperscript{149} Further on, though, Suárez writes:

Again, neither are those enunciations true because they are known by God, but rather they are known because they are true, otherwise no reason would be able to be given for why God necessarily knows these are true. For if the truth of these came forth from God himself, it would happen from the will of God. Accordingly, it would not come forth from necessity, but voluntarily. Again because the divine intellect is compared with respect to these enunciations as merely speculative, not as operative. The speculative intellect however presupposes the truth of its object, it does not make it. Therefore, enunciations of this kind which are said to be in the first, or even in the second mode of predicating \textit{per se}, have perpetual truth not only as they are in the divine intellect, but also according to themselves and prescinding from the divine intellect.\textsuperscript{150}

This passage makes clear again that God's knowledge cannot be the cause of an enunciation's necessity because God knows contingent enunciations as well as necessary ones. Suárez then claims that God cannot be the cause of necessary truths because the only way that God can cause things is with his will. God's will is free

\textsuperscript{149} Ibid.
\textsuperscript{150} Ibid: "Rursus neque illae enuntiationes sunt verae quia cognoscuntur a Deo, sed potius ideo cognoscuntur quia verae sunt, alioqui nulla reddi posset ratio cur Deus necessario cognosceret illas esse veras; nam, si ab ipso Deo proveniret earum veritas, id fieret media voluntate Dei; unde non ex necessitate proveniret, sed voluntarie. Item, quia respectu harum enuntiationum comparatur intellectus divinis ut mere speculativus, non ut operativus; intellectus autem speculativus supponit veritatem sui objecti, non facit; igitur huiusmodi enuntiationes quae dicuntur esse in primo, immo etiam quae sunt in secundo modo dicendi per se, habent perpetuam veritatem, non solum ut sunt in divino intellectu, sed etiam secundum se ac praescindendo ab illo."
and is, thus, able not to cause whatever it causes. So, if God causes a truth to be true, that truth cannot be necessary since it is possible for it not to have been caused to be true. With Suárez's next claim, we see the relevance of the fact that necessary truths do not depend on anything that happens in time for their truth. Things that happen in time are related to the divine intellect as operative or practical. God is the craftsman that creates these things and thus, makes the truths about them to be true. Necessary truths, however, do not depend for their truth on anything that is made by God. Suárez supposes that they are true even in the case where God does not create anything. So Suárez concludes that God does not cause necessary truths to be true, but rather his knowing them as necessary presupposes that they are in themselves necessarily true.

III. Does Suárez get Aquinas right?

Suárez's assessment of the position that he describes as Aquinas's is certainly correct. It is doubtful, however, that he has accurately reconstructed Aquinas's thinking on this issue. Suárez cites four passages from the *Summa Theologiae* and the *De veritate* where he claims that Aquinas holds the view that he has attributed to him. Each of these texts is a reply to an objection and little attention has been paid to the context in which the objections arise. Careful analysis of the context of the texts that Suárez cites reveals that Aquinas's intention in claiming that truth is only eternal in the divine intellect was other than the one that Suárez attributed to him.

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151 See fn. 2.
The first point to be noted is that Aquinas never makes the claim that propositions are only perpetually true in the divine intellect. In the texts cited by Suárez, Aquinas claims that truth is only eternal in the divine intellect. It is significant that Aquinas uses the term eternal rather than the term perpetual when he describes the mode of truth that is only in the divine intellect. There is an important difference between the technical meanings of these terms. Eternity, according to its primary meaning, is a mode of atemporal being that is proper only to God. Being perpetual is a not a mode of existence that is unique to God or even one that is attributable to God since it can only be a predicated of beings that are subject to time. Being eternal, however, is a mode of existence that only belongs to God. For Aquinas, truth only exists in intellects and in things. Accordingly, if truth is to be either perpetual or eternal, that in which it exists must be either perpetual or eternal. It is clear, then, why Aquinas would claim that truth is only eternal in the divine intellect.

In *Summa Theologiae* I.16.7, from which Suárez cited, Aquinas explains in the body of the text that truth can only be eternal in the divine intellect because the divine intellect is the only eternal intellect. In *Summa Theologiae* I.10.3, which Suárez also cites, Aquinas is trying to show that nothing outside of God has eternal existence. An objector claims that necessary truths are eternal and to this Aquinas replies that necessary truths have eternal existence only in the divine intellect since it is the only eternal intellect.152 In *De veritate* I.5 ad 11, Aquinas argues that it does

152 See *ST* Ia.10.3 arg. 3 and ad 3.
not follow from the fact that there are many eternal truths in God's intellect that there are many eternally true things. He explains that truth can be in an intellect without there being a corresponding true thing.

It is not surprising that Aquinas would have argued against the thesis that there are many eternal truths. In 1241, just a few years before Aquinas's arrival at the University of Paris, the chancellor of the university condemned the thesis that many truths have existed from eternity.\textsuperscript{153} The modern editors of the condemnations suggest that the target was Stephen of Venice (Stephanus Varnesia), one of the first Dominican masters in Paris, who taught there until 1248. The historical proximity of this condemned view to Aquinas may explain why he repeatedly argues against the view that there are many eternal truths.

From Aquinas's claim that truth is eternal only in the divine intellect, it does not follow that necessary truths have their necessity because they are eternally known by God. Moreover, it does not follow that necessary truths cannot be perpetually true outside of God's intellect. If there were a perpetually existing intellect outside of the divine intellect, then necessary truths could be perpetual in this intellect while they are eternal only in the divine intellect. Additionally, nothing prevents a necessary truth from being true in a created intellect whenever it exists even if the truth is eternally true only in the divine intellect.

III. Did Aquinas hold that necessary propositions are perpetually true?

We have seen that in claiming that truth is eternal only in the divine intellect, it was not Aquinas’s intention to suggest that necessary propositions are perpetually true only in the divine intellect. This still leaves open the question, however, of whether Aquinas in fact thought that necessary propositions were true whenever they were thought by an intellect, regardless of whether their subjects existed. In order to answer this question, we must analyze texts that speak more explicitly to this matter. There is at least one text in Aquinas’s corpus that suggests that he thought that essential truths were subject to change upon the corruption of the subjects they are about. In the *De veritate*, Aquinas writes:

To the fourth it must be said that while a thing remains, its essential characteristics are unable to be changed…. From this it does not follow that the truth of a thing is in no way mutable, but only that a thing is immutable with respect to its essential characteristics given that the thing remains. Change happens to essential characteristics, nevertheless, through the corruption of the thing. But with respect to accidental characteristics, change is able to happen even with the thing remaining, and so with respect to the accidental, there is able to be change in the truth of a thing.\(^{154}\)

It appears that Aquinas is asserting in this text that the truth-values of propositions about the essential attributes of things change when the thing perishes. After all, he claims in this text that the truth of a thing is able to changed with respect to its

\(^{154}\) *De ver.* 1.6 ad 4: “Ad quartum dicendum quod manente re non potest fieri circa eam mutatio quantum ad ea quae sunt sibi essentialia, sicut enuntiationi est essentiale ut significet illud ad quod significandum est instituta: unde non sequitur quod veritas rei nullo modo sit mutabilis, sed quod sit immutabilis quantum ad essentialia rei remanente re, --in quibus tamen accidit mutatio per rei corruptionem--. Sed quantum ad accidentalia, mutatio potest accidere etiam manente re: et ita quantum ad accidentalia potest fieri mutatio veritatis rei.”
essential attributes through the corruption of the thing. Yet, I think that when read carefully and in context, this statement does not imply that the truth of necessary propositions is mutable. What is important to recognize about this passage is that Aquinas is talking about ontological truth, i.e. the truth of a thing, and not propositional truth. Ontological truth, as was explained in chapter three, is the property that belongs to a thing when it is in conformity with either the divine or a human intellect. If a thing does not exist, it cannot possess this characteristic. Since things always possess their essential attributes as long as they exist, the truth that the thing possesses in virtue of its essential attributes only ceases when the thing is destroyed. Since Aquinas thinks that the human intellect can be in conformity to things that do not exist, the fact that a thing perishes and thus, lacks ontological truth, does not imply that the human intellect cannot form a true proposition about it.\textsuperscript{155}

There is explicit textual evidence which shows what Aquinas’s view was on the perpetual truth of necessary propositions. In his \textit{Commentary on the Metaphysics}, Aquinas makes clear that necessary and impossible propositions are \textit{always} true or false. Their truth-values do not admit of change:

\begin{quote}
But in those things which are unable to be otherwise, namely those which are always composed or divided, it is not possible that the same opinion or saying is sometimes true and sometimes false, but that which is true is always true and that which is false is always false. For example, \textit{man is an animal} is true, this, however is false: \textit{man is an ass}.
\end{quote}

\textsuperscript{155} See for example \textit{De ver.} 1.5 ad 2.
\textsuperscript{156} \textit{In Meta.} IX.11 n. 1900: “Sed in his quae non possunt aliter se habere, scilicet quae semper componuntur vel dividuntur, non est possibile quod eadem opinio vel oratio quandoque sit vera, quandoque falsa; sed quae est vera, semper est vera; et quae est falsa, semper est falsa. Sicut haec est vera, homo est animal; haec autem falsa, homo est asinus.”

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In the *De interpretatione* Aquinas claims that the tense of a necessary or impossible proposition does not affect its truth-value. The proposition *Man will be a rational animal* is just as true as *Man is a rational animal*. This is a significant claim because Aquinas thought that future contingent propositions lacked truth-values and he is denying this is the case with necessary propositions. Aquinas writes, “For in necessary matter all affirmative propositions are determinately true and all negative propositions are determinately false, just as it is with past and present propositions so it is with future ones.”\(^{157}\) If a future-tense necessary proposition can be determinately true, this shows that a necessary proposition’s truth is not dependent on the existence of that which it is about.

Reflecting on the structure of necessary propositions reveals why necessary propositions do not depend on the existence of the subjects they are about for their truth-values. A contingent proposition, such as *A white thing is sweet*, is true if the form signified by the predicate and the form signified by the subject inhere in the same substance. That substance must exist in order for these forms to inhere in it. In a necessary proposition, however, what is expressed is not that two forms exist in the same subject, but rather that there is a connection between the two forms themselves. This connection is independent of the forms’ existing in any subject.

\(^{157}\) *De Int.* I.13 n. 5: “Nam in materia necessaria omnes affirmativae determinate sunt verae, ita in futuris sicut in praeteritis et praesentibus; negativae vero falsae.”
The question still arises, though, of what the ontological grounding is for the truth that there is a connection between forms when the forms themselves do not exist. Even when it is granted that the truth of *Dogs are sentient* does not depend on the existence of a substance in which the forms of man and rational exist, the question still arises of what the ontological grounding is of this truth when no substantial forms of human beings exist. It is to this question that we now turn.

II. Truths about the past

We must recognize that necessary propositions about subjects that have perished form a subset of a larger class of true propositions. Aquinas thought that there were many true propositions about things that are not. In Aquinas’s ontology, properties such as evil or blindness are not themselves real forms that inhere in objects, but are rather the privations of positive forms, such as good and sight. Although evil and blindness are not themselves positive realities, Aquinas still thought that there could be true propositions about evil and blindness.\(^{158}\) Likewise, Aquinas thought that there could be both necessary and contingent truths about past and future things that do not now exist. Earlier we saw that the foundation for every propositional truth, according to Aquinas, was a conformity between an intellect and a thing. The question arises then of how Aquinas can maintain that there are true propositions about what is not, if there is no thing for the intellect to conform to in

order to provide a foundation for the true proposition. Aquinas explains that it is not a necessary condition for the relation of adequation that the thing to which the intellect is adequated exists. He writes in the *De Veritate*:

For there to be an adequation or commensuration of an intellect to a thing, it is not required that both of the extremes are actual. For our intellect is able to be adequated to those things that will be in the future, but are not now. Otherwise, this would not be true: The antichrist will be born. Accordingly, this is true from the truth that is in the intellect alone, even when the thing itself is not.\(^\text{159}\)

Aquinas is essentially denying here his earlier claim in the *De Veritate* that “to every true act of understanding there must correspond some being.”\(^\text{160}\) True acts of understanding about future and past things, as well as truths about privations and negations do not correspond to any actually existing being. When an intellect has a form or a simple concept of a nonbeing it is because of the intellect’s own activity. Aquinas writes: “Accordingly, if a nonbeing is adequated to any intellect, it is not on account of the nonbeing itself, but rather on account of the intellect itself that grasps the intelligible character (*ratio*) of the nonbeing in itself.”\(^\text{161}\) Through remembering or combining and dividing concepts of things it has experienced, the intellect can come to have concepts of things that do not exist.\(^\text{162}\) Although Aquinas allows for the

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\(^{159}\) *De ver.* 1.5, co.: “In hac autem aadequatione vel commensuratione intellectus ac rei non requiritur quod utrumque extremorum sit in actu: intellectus enim noster potest nunc aadeguali his quae in futurum erunt nunc autem non sunt, alter non esset haec vera ‘antichristus nascetur’; unde hoc denominatur verum a veritate quae est in intellectu tantum, etiam quando non est res ipsa....” See also *ST* Ia.16.5 ad 3, Ia.16.7 ad 4.

\(^{160}\) *De ver.* 1.2 ad.1: “eo quod cuiilbet intellectui vero oportet quod respondeat aliquid ens, et e converso.”

\(^{161}\) *De ver.* 1.5 ad 2: “....unde quod intellectui cuicumque aequetur non est ex ipso non ente sed ex ipso intellectu qui rationem non entis accipit in se ipso.”

\(^{162}\) In certain cases, the nonbeing serves as an exemplar or pattern for the concept that the intellect forms. *De ver.* 1.8 ad 6: “Ad sextum dicendum quod non esse non est causa veritatis propositionum negativarum quasi faciens eas in intellectu, sed ipsa anima hoc facit conformans se non
intellect to be adequated with something that does not exist, the question still remains of what existing thing or composition in reality is the cause of the truth of a proposition that is based on the intellect’s adequation with nonbeing.

We can gain insight into Aquinas’s thinking on present and past truths by considering a reply he gives to an objection that is embedded within a larger medieval debate about tense and truth. This debate was over whether propositions with different tenses signify the same content or *enuntiabile*, which is perpetually true. Peter Lombard, for example, expresses this position in his *Sentences*. He claims that when the prophets uttered that *Christ will be born* they were asserting the same thing as later believers who said that *Christ has been born* and the content of these assertions is eternally true. The school of Bernard of Chartres adopted this position and its advocates came to be known as *nominales*. The opposing position held the tense of a proposition affected the content that it asserted. The proposition *Christ has been born*, therefore, asserts something different from the proposition *Christ will be born*. Before Christ was born the latter of these propositions was false and the former was true, but after Christ was born, the truth-values were reversed. This is the position that Aquinas adopts.

Aquinas considers the following objection from the nominalist’s perspective:

> Besides where there is the same cause there is also the same effect. But the same thing is the cause of the truth of these three propositions:

enti quod est extra animam: unde non esse extra animam existens non est causa efficiens veritatis in anima sed quasi exemplaris; obiectio autem procedebat de causa efficiente.”

163 Bk. I, d. 41.

Socrates sits, Socrates will sit, and Socrates sat. Therefore, the truth of these is the same. But it is necessary that one of these is true. Therefore, the truth of these propositions remains immutably.165

What is of most interest to us is the objector’s claim that the cause of future and past propositions about Socrates’s sitting is Socrates’s actual present act of sitting. In Aquinas’s reply, he accepts this claim, although he adds an important qualification. He writes:

To the fourth, it must be said that the sitting of Socrates which is the cause of the truth of this proposition Socrates sits does not have the same status while Socrates sits, after he will have sat and before he sits. Accordingly, also the truth caused by Socrates’ sitting has different statuses and is signified in different ways by present, past and future tense propositions. Hence, it does not follow that although one of the three propositions [i.e. either the present, past or future tense proposition] is true, that the same truth remains invariably.166

In order to understand what Aquinas thought to be the cause of past and future propositions, we must understand what status he thought that an event has before and after it happens.

In contemporary philosophy, there is a well-known debate about the existential status of non-present events. Presentists or A-theorists hold that only the present exists. The past and future have no reality. They believe that this account of time best captures the real change that occurs in the temporal order. Eternalists or B-


166 ST Ia.16.8 ad 4: “Ad quartum dicendum quod sessio Socratis, quae est causa veritatis huius propositionis, Socrates sedet, non eodem modo se habet dum Socrates sedet, et postquam sederit, et antequam sederet. Unde et veritas ab hoc causata, diversimode se habet; et diversimode significatur propositionibus de praesenti, praeterito et futuro. Unde non sequitur quod, licet altera trium propositionum sit vera, quod eadem veritas invariabilis maneat.”
theorists, on the other hand, think that the past and future exist on par with the present.\textsuperscript{167} For the eternalist, the terms ‘present’ or ‘now’ are indexicals that pick out the time that an utterance occurs. So when one says that an event is happening ‘now’ or that it is ‘present’, one is not stating that the event has some ontological privilege, but rather one is claiming that the event occurs at the same time as one’s utterance.\textsuperscript{168}

In the above passage from Aquinas, it appears that he is advocating a B-theory of time since he claims that even the past and the future have a status. There has been much debate, however, about whether Aquinas in fact held this view of time. Throughout his corpus, there are many passages in which Aquinas expresses the view that the future and past are not actual as the present is.\textsuperscript{169} What motivates some to claim that Aquinas held the B-theory or eternalist view of time is his account of God's knowledge of contingents.\textsuperscript{170} In several places, Aquinas claims that God knows which contingents obtain because all contingents are eternally present to him.\textsuperscript{171} It seems that if future contingents are eternally present to God, then future contingents must exist eternally. If God knew from eternity who would win the U.S. presidential election in 2008 because this event is eternally present to him, then it seems that this event must have existed from eternity. John Duns Scotus believed that Aquinas's account of God's knowledge of contingents entailed that all times simultaneously

\textsuperscript{167} For more on these theories and suggestions for further reading, see Ned Markosian’s entry “Time” in the *Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu/entries/time/).
\textsuperscript{169} See for example *De ver.* 1.5 ad 7, *In Physic.* VI.7, *Super Io.* I.1.
\textsuperscript{171} See, for example, *De ver.* 2.12 co.
exist and, because he found this view of time untenable, he rejected Aquinas's account.

Recently Brian Leftow, Brian Shanley and Kevin Staley have given different arguments for the conclusion that Aquinas’s view about how God knows contingents is compatible with his denial the past and future exist on par with the present. I think that Shanley’s argument is the most faithful to Aquinas’s thought. According to Shanley, the causal nature of God's knowledge must be taken into account when interpreting Aquinas’s claim that contingents are eternally present to God’s knowledge. When discussing God’s knowledge of contingents, Aquinas claims that the knowledge of God is the cause of the things that he knows. This is to say that it is in virtue of creating contingent reality that God knows it in all of its details. The time in which things occur is itself a detail of reality created by God since it is God who causes different events to be at different times. God, for example, eternally causes $x$ to happen at $t_1$ and $y$ to happen at $t_2$. It does not follow from the fact that God eternally causes $x$ and $y$ that $x$ and $y$ eternally exist or that $x$ and $y$ exist simultaneously because part of what God causes in causing $x$ and $y$ is their occurrence at a particular time. We can imagine cases in which a creature could simultaneously cause different effects to obtain at different times, so it does not seem contradictory that God could eternally cause different effects to obtain in different temporal instants. Shanley claims that it is only from the perspective of being eternally caused

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173 See for example *ST In.14.8*
by God that contingent objects are eternally present to God.\textsuperscript{174} Shanley also makes the point that there can be no temporal relation between time and eternity. Time and eternity are related only because the eternal is the cause of the temporal.\textsuperscript{175} There are still many details to be worked out in Aquinas’s account of God’s knowledge of future and past contingents, which go beyond the scope of this project.\textsuperscript{176} Shanley’s work shows that there are resources in his thought to explain how he consistently thought both that the future, as such, is not and that the future is eternally present to God.

If Aquinas did not in fact hold the B-theory of time, then the "different statuses" that Aquinas claims that the past and the future have cannot be explained as the past and future having a kind of actual existence as the present does. In his \textit{Commentary on the Metaphysics}, Aquinas claims that past events, although they do not have existence in the present, retain a kind of status in the present since they once existed and true propositions can be formed about them in the present time. Aquinas writes, "....that which is past now is in some way. I say this in so far as a past event has occurred or is past. For although the life of Caesar is not now in the present, it is, nevertheless, in the past since it is true that Caesar lived."\textsuperscript{177} Here Aquinas is clear that the life of Caesar does not exist in the present when the proposition \textit{Caesar

\textsuperscript{174} In \textit{De ver.} I.5 ad 11, Aquinas makes clear that God is eternally conformed to the natures of things, although they do not eternally exist.

\textsuperscript{175} See his "Eternal Knowledge of the Temporal".

\textsuperscript{176} Shanley has examined some of these issues in his unpublished Ph.D dissertation "Thomas Aquinas on God's eternal knowledge of the future," (University of Toronto, 1994).

\textsuperscript{177} In \textit{Meta.} VI.3, n. 1199: "....hoc quod praeteritum est iam est secundum aliquem modum. Hoc autem dico inquantum est factum vel praeteritum. Licet enim vita Caesaris non sit nunc ut in praesenti, est tamen in praeterito. Verum enim est Caesarem vixisse."
existed is true. So the difficulty remains of what causes the truth of the proposition Caesar existed when Caesar is dead. I think that Aquinas thought that the cause of a future or past tense proposition’s truth did not have to exist contemporaneously with the true future or past tense proposition. This is built into his understanding of what the perfect future tense signifies. He writes in his Commentary on the Gospel of John that the perfect past tense “indicates that something has existed, is now determined, and has now ceased to be.”178 If a perfect past tense proposition indicates that something has ceased to be and it is possible for perfect past tense propositions to be true, then Aquinas must have thought it possible for a proposition to be true while that which it signifies or that which causes its truth ceases to exist. Although Socrates’s sitting may not exist when Socrates will sit and Socrates sat are true, I think that Socrates’s sitting is considered by Aquinas to be the cause of truth of these propositions because it was or will be the cause of truth of the corresponding present tense proposition Socrates sits. Aquinas explicitly claims in his Commentary on the Nicomachean Ethics that the truth of a past tense proposition depends on the truth of a corresponding present tense proposition at the time that event it expresses actually occurred. It is now true that ‘Socrates sat’, for example, because at some earlier time, it was true that ‘Socrates sits’.179 If Socrates sits is true at time $t_1$, then Socrates will sit was true at every time before $t_1$ and Socrates sat will be true at every time after $t_1$. So in causing Socrates sits to be true at $t_1$, the sitting of Socrates also causes Socrates

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178 Super Io. 1.1: "praeteritum autem perfectum designat aliquid exitisse, et esse iam determinatum, et iam defuisse."

179 In Ethic. I.15 n.9: “....veritas autem propositionis de praeterito dependet ex veritate propositionis de praeenti. Ideo enim aliquid verum est fuisse, quia verum fuit esse.”
will sit and Socrates sat to be true. Since, however, Socrates’s sitting has a different status, i.e. it does not exist, before and after Socrates sits, Socrates will sit and Socrates sat mean something different and have a different truth-value from Socrates sits.

III. The truth of necessary propositions after their subjects perish

While necessarily true propositions about subjects that no longer exist have features in common with propositions about the past, there are some relevant differences that need to be taken into account. The proposition Socrates sits is false once Socrates’s sitting ceases to exist. The perfect past tense proposition Socrates sat becomes true. Socrates sits cannot be true at the same time that Socrates sat is true because the former signifies that Socrates’s sitting exists at the time of the proposition’s truth, while the latter signifies that Socrates’s sitting has ceased to be when the proposition is true.

It is different, however, with necessary propositions. We saw above that Aquinas thinks that propositions such as Dogs are sentient are perpetually true. What is relevant about this proposition is that it is in the present-tense. If this present-tense

\[180\] The view that I am attributing to Aquinas is similar to the view expressed by Alfred Freddoso in his introduction to his translation of Part IV of Molina’s Concordia (Ithaca: Cornell University Press, 1988). Freddoso writes: “…there are now adequate metaphysical grounds for the truth of a past-tense proposition \( P \) just in case there were at some past time adequate metaphysical grounds for the truth of its present tense counterpart \( p \). Likewise… there are now adequate metaphysical grounds for the truth of a future-tense proposition \( F \) just in case there will be at some future time adequate metaphysical grounds for the truth of its present-tense counterpart \( p \). So in order for propositions about the past or future to be true now, it is not required that any agent now be causing them to be true. Rather, it is sufficient that some agent has caused or will cause the corresponding present-tense propositions to be true” (pg. 72).

\[181\] Since sitting is a repeatable action, the proposition in question should be implicitly understood as Socrates sits for the last time.
proposition is perpetually true, this implies that it is true even before or after any dogs exist. This marks a difference between necessary and contingent propositions because present-tense contingent propositions are not true before or after what they signify exists. It is the future and past-tense contingent proposition that has truth in these cases. With necessary propositions, however, it is the present-tense proposition that is perpetually true.

This seems to pose a difficulty for explaining the cause of the truth of these propositions once the beings that they are about have perished. It seems that a previously existing form of a dog cannot be the cause of the truth of the proposition *Dogs are sentient* after no forms of dogs exist. This is because, according to Aquinas, the form of a dog would have a different status after it ceases to exist from the status it had when it existed. Accordingly, the truth caused by it would also have a different status after it ceased to exist. The truth that the form of a dog that once existed, but now no longer exists, would cause is the truth of the proposition *Dogs were sentient*—not the truth of the proposition *Dogs are sentient*. This latter truth can only be caused by a presently existing human form.

This difficulty can be addressed by considering what Aquinas says elsewhere about present-tense propositions. In his *Commentary on the Gospel of John*, Aquinas explains that the present-tense is the proper tense for designating eternal things. Aquinas writes: “But concerning the notion of the present, the present tense is most fitting to designate eternity, because it signifies that something is in act, which always
belongs to eternal things...." Aquinas uses the word "eternal" in a number of ways. In its most proper sense, it refers to the atemporal existence that is proper to God. In a secondary sense, it is used to designate those things that exist perpetually. Less frequently, Aquinas uses the term 'eternal' to refer to universals. Universals are eternal not in the positive sense of existing at all times, but rather in the negative sense of abstracting from all times and places. Truths about essences are eternal in this sense. The proposition Dog is an animal does not assert that there is now an existing form of a dog and an existing form of animal that are one in the same way that the contingent present-tense proposition Socrates is sitting asserts that there is an existing being Socrates who is now in the seated position. What the proposition Dog is an animal asserts is that there is a connection between the form of dog and the form of animal that abstracts from time and place. The present-tense of a per se proposition indicates its truth does not depend on when and where it is uttered.

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182 Super Io. 1.1: “Sed quantum ad rationem praesentis competit maxime ad designandum aeternitatem praesens tempus, quod signat aliquid esse in actu, quod semper convenit aeternis....”

183 See for example ScG I.15.

184 This is the sense in which 'eternal' is used in the discussion about the eternity of the world. The sense in which the world could have possibly been eternal differs from the sense in which God is eternal since the world, even being eternal, would still have created existence from God that is subject to motion and change. See Aquinas's De aeternitate mundi.

185 In I Sent. 19.5.3 ad 3: "Sicut enim dicimus de universalibus, quod sunt incorruptibilia et aeterna, quia non corrupsumtuir nisi per accidens, scilicet quantum ad esse quod habent in alio, quod potest non esse; ita etiam est de veritate et falsitate, quod consideratae secundum intentiones suas, non accidit eis corruptio per se, sed solum secundum esse quod habent in alio...."

186 ST Ia.16.7 ad 2: "Ad secundum dicendum quod aliquid esse semper et ubique, potest intelligi dupliciter. Uno modo, quia habet in se unde se extendat ad omne tempus et ad omnem locum, sicut Deo competit esse ubique et semper. Alio modo, quia non habet in se quo determinetur ad aliquem locum vel tempus, sicut materia prima dicitur esse una, non quia habet unam formam, sicut homo est unus ab unitate unius formae, sed per remotionem omnium formarum distinguuntium. Et per hunc modum, quodlibet universale dicitur esse ubique et semper, inquantum universalia abstrahunt ab hic et nunc. Sed ex hoc non sequitur ea esse aeterna, nisi in intellectu, si quis sit aeternus." PA 1.42 n. 6. Maurer discusses this passage and others in his "St. Thomas and Eternal Truths."
The ontological grounds or the cause of the truth of a present-tense *per se* proposition when the forms it signifies do not exist are the forms that once existed or will exist at some time in the actual world. Since the connection between forms that are *per se* related to one another does not depend on the fact that they conicide in a particular subject at a certain time or place, the forms themselves, both before and after they exist, are a sufficient cause of the present-tense truth that asserts this connection. It is true that like the status of Socrates's sitting, the status of the form of man is different both before and after it exists. The truth that the form of dog causes, however, does not change in status after the form ceases to exist as the truths caused by Socrates's sitting change after it ceases to exist. This is because unlike the connection between Socrates and sitting, the connection between dog and animal abstracts from all time and place. In the last chapter, we saw that the ontological reason for the unalterable connection between the form of dog and the form of animal is the fact that those forms are identical.

We saw in the last chapter that a *per se* connection between forms could also be expressed by a conditional proposition. *Dog is an animal* expresses the same truth as the proposition *If there is a dog, then it is an animal*. Conditional propositions about subjects that do not exist have the same grounds as their present-tense counterparts since these conditional propositions also express a connection between forms.
III. Objections to this account

I have claimed that the ontological grounds or the cause of the truth of propositions about beings that no longer exist or will exist are the forms of those beings when they exist. This is to say that if there were only one dog form that only existed for one instant, it would be both the necessary and sufficient cause of the perpetual truth of the propositions *Dog is an animal* and *If there is a dog, then it is an animal*. The obvious objection to raise to this account is that it does not provide an explanation for what causes or grounds necessary truths about beings that never exist at any time in the actual world. Since the forms of nonexistent possible creatures never exist in this world, there are no grounds for necessary propositions about them. It might not seem problematic to give up truths about nonexistent possibles, but it also follows from what I have given as Aquinas's account that if man never existed in this world then *Man is an animal* would not be true. This seems like too much to accept since it implies that a necessary truth is possibly not true and this is a contradiction.

In response to this worry, it is helpful to recall Aquinas's account of propositional truth, which I explained in chapter three. According to Aquinas, a human intellect is a necessary condition for the existence of propositional truth since subjects and predicates are only joined and divided because of the human intellect's unique mode of knowing. In addition to this, the human intellect can only form propositions about subjects whose forms it is able grasp.\(^{187}\) The human intellect can

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\(^{187}\) Strictly speaking, the imagination can form concepts of fictional kinds, such as golden mountains. As I explained earlier, though, there cannot be science of these fictional beings, since there are no genuine natures to know. Real universals are the object of science.
only grasp the forms of actually existing beings. All of this implies that there can only be propositions about beings that exist at some time. If there can only be propositions about actually existing beings, then an account of the cause of propositions about nonexistent possibles is not needed. If there were no human beings in this world, the proposition *Man is an animal* would not be false; rather, it simply would not exist and thus, would have no truth-value.

IV. Conclusion

We now have a full account of Aquinas's thinking on necessary propositions of the human intellect about contingent beings. We have seen how Aquinas thinks that *per se* propositions remain true even after their subjects perish. It is not the case as Suárez claimed that Aquinas held that once the subjects of necessary propositions perished, those propositions are only true in the divine intellect. Aquinas can account for how necessary propositions remain true in created intellects even after their subjects perish. Since Aquinas can account for the perpetual truth of necessary propositions, he is able to maintain that science of extinct creatures is possible.

In the remaining two chapters of this study, we will examine divine intellect's knowledge of truth. We will consider whether the perfect divine intellect is able to know more necessary truths than only those that are about creatures that exist at some time in the actual world. If Aquinas does in fact accord this knowledge to God, we will consider what the grounds for it are.
CHAPTER SIX

DOES GOD KNOW POSSIBLE CREATURES?

In the previous chapters, I argued that the ontological grounds for necessary truths about contingent beings are the forms of these beings themselves. Since these forms of contingent beings, which ground necessary truths, also exist contingently, there are times when a necessary proposition is true and yet its grounds are nonexistent. I claimed that in these cases when the form of a being that a necessary proposition is about does not exist, the proposition conforms to a form that existed at some other time. I noted that this solution could not explain truths about merely possible beings that never exist at some time in the actual world.

I claimed that explaining the grounds of necessary propositions about possible creatures is not a genuine problem for Aquinas's metaphysics. According to Aquinas's view, there is no science of fictional beings that the imagination invents since they do not have genuine natures that can be known. Even if it is possible for there to be more knowable natural kinds than those that exist in this world, there can be no propositions about these empty kinds. This is because the existence of propositions depends on the human intellect’s joining a predicate to a subject and the
human intellect cannot form simple concepts of natures that never exist at any time. Since it is well known that Aquinas admits of other intellects in his ontology, namely divine and angelic intellects, the question arises of whether these intellects can have knowledge of these purely possible kinds and what their ability to have knowledge of these possible beings implies for our question on the grounds of necessary truths about contingent beings. Consider the following: Let us suppose that God has perfect knowledge of every possible creature that includes knowledge of each of its attributes. It follows from this that even if a man were never to exist, God would know man to be rational. Since it is supposed that man never exists at any time in the actual world, the grounds for God's knowledge of man as rational cannot be the actually existing form of man. It seems then that if God's knowledge, even if it is non-propositional, has a ground other than actually existing beings, then there must be another, perhaps necessarily existing, ontological ground for truths about contingently existing beings. In the following chapters, we will examine various aspects of God's knowledge of truths about creatures and their implications for determining the ontological grounds of truth about contingent beings.

In setting up the difficulty above that God's knowledge of possible creatures may pose for my interpretation of Aquinas, I have only supposed that God knows truths about possible creatures. I have not asserted as a matter of fact that this was Aquinas's view. That is because scholars of Aquinas's thought have debated at length about the authentic interpretation of Aquinas's position on whether or not God knows possibles. The implications that God's knowledge of possible creatures has for the
grounding of necessary truths can only be explored once it is established that God knows possible creatures. In this first chapter on God's knowledge of creatures, I will attempt to resolve this debate.

I. God's knowledge of creatures

Before attempting to adjudicate the scholarly debate about whether Aquinas thought that God had knowledge of possible creatures, it is necessary to examine Aquinas's account of how God knows creatures in general. The philosophical tradition of which Aquinas was a part struggled to explain how God could know things other than himself. Aristotle had described God as self-thinking thought. He thought that if God had knowledge of things other than himself, it would involve a mutability and potentiality that was incompatible with God's perfection.188 The neoplatonic tradition beginning with Plotinus and extending to Proclus and Pseudo-Dionysius re-shaped the problem of explaining God's knowledge of creatures. In the neo-platonic framework, the first being was seen as an intelligent cause of lower beings in an emanative scheme. Accordingly, some knowledge of the lower could be ascribed to the higher in virtue of its causality, but this knowledge did not extend to every singular being in the created world as the Christian doctrine of divine providence requires.189 The objections raised in Aquinas's accounts of God's

188 See his *Metaphysics* XII, 7 and 9 (esp. 1047b 33-35) and *Eudemian Ethics* VII, 12, 1245b 14-19. Interestingly, Aquinas interprets Aristotle as having a position on divine knowledge identical to his own. See his *In Meta*. XII.11.

knowledge make clear that he had both the difficulties of the Aristotelian tradition and those of the neo-platonic tradition in mind when he attempted to explain God's knowledge of things other than himself. According to Aquinas, humans have cognitive access to objects through a reception and assimilation of the intelligible species of the known object. God's perfection rules out that he depends on objects outside of himself, as humans do, in order to have knowledge. Accordingly, an alternative explanation is required to account for God's knowledge of creatures.

Aquinas discusses God's knowledge of things other than himself in each of his major works. In each case, Aquinas appeals to God's causality to explain his knowledge of other things. In virtue of God's own perfect self-knowledge, God knows all to which his causal powers extend. According to Aquinas's understanding of causality and participation, in order for a cause to communicate perfection and existence to an effect, the effect must pre-exist in the cause. Aquinas often uses the example of fire that causes something else to be hot. The fire is able to cause heat only because it is actually hot itself. Since all perfections that God causes pre-exist in him, in knowing himself perfectly, God knows all other things. Unlike the neo-platonic divine beings who only emanate the being below them, Aquinas thought that God's causality extends to every aspect of every created being. Since God's causality extends even to the individuating features of creatures, i.e. matter, God knows

190 See In I Sent. 35.1.3; De ver. 2.5; ST Ia.14.5; ScG I.49.
191 See, for example, ScG I.49 and ST Ia.14.6.
creatures not in a general way, but as individualized particulars. Aquinas describes God's knowledge of creatures as the knowledge that an artificer has of the artifact that he makes. In Aquinas's thought, the relationship of divine knowledge to its object is the reverse of the relationship of human knowledge to its object. While human knowledge follows upon the reception and assimilation of its object, divine knowledge is the cause of the very existence of its object. God's knowledge is prior to the existence of the created things that he knows. While our intellect requires multiple intelligible species in order to know multiple objects, Aquinas is clear that there is only one "means" in virtue of which God knows all other things in their multiplicity. The divine essence is the one single principle that causes the divine intellect to know all else.

Aquinas's lengthy discussions of the divine ideas are central to understanding his view of God's knowledge of things other than himself. Aquinas says that a form that is in the intellect has two roles. First, it is the principle by which a thing is known and secondly, it is the very thing which is known as it exists in the intellect.

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192 See for example In I Sent. 36.1.1. For an account of Aquinas's conception of the causal relationship between God and the world, see Cornelio Fabro, Participation et causalité selon s. Thomas d'Aquin (Louvain: Publications Universitaires, 1961), esp. 397-409.

193 See for example De ver. 2.5.

194 See for example In I Sent. 35.1.2 ad 4.

In God, the divine essence is the only means by which any thing is known, but since God knows many things, the forms of these many things can be described as existing in God's intellect.\footnote{See for example, \textit{De ver.} 3.2 co.: "Forma enim in intellectu dupliciter esse potest. Uno modo ita quod sit principium actus intelligendi, sicut forma quae est intelligentis in quantum est intelligens, et haec est similitudo intellecti in ipso; alio modo ita quod sit terminus actus intelligendi, sicut artifex intelligendo excogitat formam domus; et cum illa forma sit excogitata per actum intelligendi et quasi per actum effecta, non potest esse principium actus intelligendi ut sit primum quo intelligatur sed magis se habet ut intellectum quo intelligens aliquid operatur...." Doolan notes that Aquinas's considering an idea as that which is understood in the \textit{De veritate} marks a difference from his earlier \textit{Sentences} discussion of ideas in which he presents ideas as mediums by which God knows creatures. See his \textit{Aquinas on Divine Ideas as Exemplar Causes}, p. 93.} It is these forms of things known or \textit{rationes} existing in God's intellect that Aquinas calls the divine ideas. Aquinas claims that God's having many ideas is not incompatible with divine simplicity since it is by means of only one species that God knows many things.\footnote{See for example \textit{ST} Ia.15.2 co.} This one species is the divine essence itself so even it does not imply composition in God. Perfect knowledge of God's own essence yields to him a distinct idea of every creature since perfectly knowing his own essence implies knowledge of all of the ways that it can be imperfectly imitated or participated in.\footnote{\textit{Ibid.}: "Unde plures ideae sunt in mente divina ut intellectae ab ipso. Quod hoc modo potest videri. Ipse enim essentiam suam perfecte cognoscit, unde cognoscit eam secundum omnem modum quo cognoscibilis est. Potest autem cognoscit non solum secundum quod in se est, sed secundum quod est participabilis secundum aliquem modum similitudinis a creaturis. Unaquaque autem creatura habet proprium speciem, secundum quod aliquo modo participat divinae essentiae similitudinem. Sic igitur inquantum Deus cognoscit suam essentiam ut sic imitabilem a tali creatura, cognoscit eam ut proprium rationem et ideam huius creaturarum. Et similiter de alis. Et sic patet quod Deus intelligit plures rationes proprias plurium rerum; quae sunt plures ideae."}

It is important to note that God's knowledge of the ways his essence can be imitated just is his knowledge of creatures. It is not as if God knows the ways his essence can be imitated and then by knowing these "ways" he consequently knows creatures. Scotus later showed, in objecting to Henry of Ghent, that this latter view is
problematic.  When a "way in which God's essence can be imitated" is conceived of as a notion distinct from the proper notion of the creature, it is essentially the notion of a relation between God and the creature. God, however, would not be able to know this relation between himself and the creature unless he had a proper notion of the creature itself. This is because knowledge of a relation presupposes knowledge of each of the relata involved. Knowing then a "way in which his essence can be imitated" cannot yield God knowledge of the creature if he does not already have it. When, however, the "way in which God's essence is imitated" is conceived of as identical with the proper notion of the creature itself, it can be seen how God can have this notion simply by knowing himself. By considering certain of his own perfections in various combinations, God has concepts of ways that he is able to be imitated. God has ideas of things other than himself in the same way that one who has an idea of a man has an idea of animal or one who has an idea of the number three also has an idea of the number two. By negating certain perfections possessed by man, one understands an animal and similarly, by negating perfections from the number three one has the idea of two. Aquinas claims that God has the idea of a plant by knowing his own essence as imitable by life, but not by cognition. Likewise, he has the idea of an animal by knowing his essence as imitable by cognition, but not by intellectual understanding. God’s knowledge of things other than himself does not

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199 Ordinatio I, d. 35-36; Rep. IA, d. 36.
involve knowledge of a relation. It is direct cognition of the divine essence considered under some limitation. God’s essence considered under various limitations is identical with the very forms of creatures.

II. Does God have ideas of possibles? Aquinas's Voluntarism

Despite the fact that Aquinas explicitly claims that God has ideas of possible creatures that never exist at any time, there is much debate in the secondary literature about God’s knowledge of possible creatures.201 The notion that God's ideas yield knowledge of a quantifiable domain of distinct possible creatures has been challenged. Aquinas is clear that God’s ideas give him knowledge of creatures in their singularity, so it would seem that if God has ideas of possible creatures, then he knows a set of distinct possible individuals. Yet, there is room to raise questions about the content God’s knowledge of merely possible creatures since Aquinas claims that God’s ideas of merely possible creatures differ from those ideas of things that are

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201 For Aquinas’s claim that God knows possibles, see for example De ver. 3.3 ad 3; De ver. 3.6 co.; ST Ia.15.3 co. and ad 2. As is clear from these texts, Aquinas thought that an idea could serve two functions. First, it could be a principle for knowing and second, it could be a principle for making something, or an exemplar. In the latter texts, Aquinas claims that there are ideas of possible things that never are in time only qua cognitive principles and not qua exemplars.
actual at some time. Consider the following passage from the *De veritate*, for example:

Accordingly, since God has virtually practical cognition of those things which he is able to make, even though he does not make them and will not make them, it follows that there are able to be ideas of that which is not, nor was, nor will be. These ideas, however, are not of the same kind as of those things which are, or will be, or have been because those things which are, or will be, or have been are determined to be produced by a decree of the divine will. Those things, however, which neither are, nor will be, nor have been are not determined to be produced by a decree of the divine will and so things of this kind have in a certain way indeterminate ideas.  

Here Aquinas claims that God’s ideas of merely possible creatures are "in a certain way indeterminate". Unfortunately Aquinas never clarified the precise manner in which ideas of merely possible things are indeterminate. Accordingly, it has been left to his commentators to debate about this. Not only do those who question whether God knows distinct possible creatures rely on passages such as this one to bolster their view, but they also appeal to Aquinas’s other philosophical commitments in order to show that he could not have held that there are distinct possible individuals for God to know. In what follows, I will present the arguments of those who deny that God has knowledge of distinct possible individuals.

James Ross has been the most enthusiastic interpreter of Aquinas who attributes to him the view that God does not know a domain of merely possible individuals.

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202 De ver. 3.6 co.: “...unde cum Deus de his quae facere potest quamvis nunquam sint facta nec futura habet cognitionem virtualiter practicam, relinquitur quod idea possit esse eius quod nec est nec fuit nec erit: non tamen codem modo sicut est eorum quae sunt vel erunt vel fuerunt, quia ad ea quae sunt vel erunt vel fuerunt producenda determinatur ex proposito divinae voluntatis, non autem ad ea quae nec sunt nec erunt nec fuerunt, et sic huiusmodi habent quodammodo indeterminatas ideas.”
creatures. Ross calls the "establishment" interpretation of Aquinas's view on the possibilities "photo-exemplarism" and he claims that according to this view, God knows possibilities as "tin soldiers spread out on a carpet". Ross challenges this view because he believes that it is both inconsistent in itself and incompatible with Aquinas's other philosophical commitments. Ross thinks that exemplarism is inconsistent because there cannot be a domain of all of the possible ways that God can be imitated or of all of the possible things that God can make. This is because being cannot be exhausted by all possible kinds and natures cannot be exhausted by all possible individuals.

Ross thinks that even an infinity of possible human beings would not exhaust "being human." He claims that "this is because an actual infinity need not be the same as all the humans there might have been instead. No matter how many there are, there might have been others instead. All possible humans are not compossible." Next, Ross argues that God cannot know possible individuals since the principle of individuation is *materia signata quantitate*. Ross thinks that it follows from this that only actual beings are able to be individuated since individuation is by limitation of

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205 Ibid., 189.
being. Despite his objections, Ross cannot deny the numerous passages in which Aquinas claims that God has ideas of possibles. Ross has a way of reading Aquinas's claim that God knows merely possible creatures that is sympathetic with anti-exemplarism. He writes, "...God's knowing what might be is virtual and the objects are indefinite, like impersonations of W.C. Fields which are never to be attempted." So instead of knowing a "rank and file" of distinct individual ways his essence might have been imitated, God, in knowing his own essence,-eminent knows every possible imitation of it.

Ross's positive explanation of his own view consists in his "voluntarism." On Ross's reading of Aquinas, God creates the content of the natures with the individuals. This amounts to the claim that in creating men, God determines the content of human nature. Ross's argument is two-fold. First, he cites passages in which he thinks that Aquinas claims that the reason why a given creature is such and such depends to an extent on other creatures and ultimately on the will of God. In the second part of his argument, Ross goes even further to claim that absolute possibility and impossibility are also posterior to creation. Aquinas claims that certain "kinds" are impossible because they imply being and non-being at the same time, while those that do not make this implication are possible. It seems that this absolute possibility and impossibility of certain natures is "pre-given" independent of God's actions. Ross, however, argues that whether or not a given nature implies

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206 Ibid., 174.
207 Ibid., 182.
208 De Pot., 3.17, co.
being and nonbeing together depends on what else God makes. Thus, possibility *ad extra* is consequent to the will of God.\(^{209}\)

Ross is not the first interpreter of Aquinas to attribute "voluntarism" to him. Beatrice Zedler and Gerard Smith have also argued that for Aquinas an object's possibility depends on God's will. Although they are often mentioned with Ross, their view differs significantly from his. Zedler and Smith first took the occasion to write about Aquinas's view of the possibles in attempt to offer a contrast to Avicenna's position.\(^ {210}\) They think that a key difference between Avicenna and Aquinas is that on Avicenna's view possibles are possible in themselves, solely in virtue of what they are. For Aquinas, on the other hand, something cannot be understood as possible apart from a cause that is able to produce it.\(^ {211}\) Zedler explains of possible creatures that "however compatible their intelligible notes might be (and whether or not they ever actually exist), if God could not freely will to give them actual being, they would not be possible existents."\(^ {212}\) Zedler and Smith's view is that both the existential and essential meaning of possibility must be taken into account when determining the origin of possibility. Accordingly Zedler gives a two-fold answer in reply to the question of why possibles are possible. She writes:

Why then for St. Thomas are the possibles possible? Because, founded on the divine essence they are known by God as ways in which that essence can be imitated *and* because God is able to give

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\(^{209}\) "Aquinas's Exemplarism; Aquinas's Voluntarism," 191-4.
\(^{211}\) "Why are the possibles possible?" 128-129; "Avicenna and the Possibles," 353.
\(^{212}\) "Why are the possibles possible?," 130.
them actual existence and can freely will to do so. If one thus takes account of the existential as well as the essential meaning of possibility, there should be no feeling of surprise at Fr. Smith's saying that God is the cause of possibility of the possibles.\footnote{Ibid., 127-128.}

This quote from Zedler brings out the difference between the position of Zedler and Smith and that of Ross. Ross, as explained, thinks that the natures of creatures at least to some extent are freely constituted by choices of the divine will. Accordingly, one cannot speak of $x$ or $y$ as being possible antecedent to God's creative act of will because there is no definite nature of $x$ or $y$ until God decides what he will create. On Zedler and Smith's view, the content of natures is founded on God's essence independent of any decision. These natures cannot be understood as possible, however, apart from the divine power that is able to cause them. Smith explains:

...the intelligible content of a subject of existence, e.g. a possible man as distinguished from a possible cabbage, can be understood without understanding a cause through which it can be. But any intelligible content as being able to be, that content cannot be understood as being able to be, except through a cause able to make that content exist.\footnote{"Avicenna and the Possibles," 355.}

Whether or not Zedler or Smith's reading of Aquinas is correct, these authors cannot be appealed to as corroborating Ross's interpretation of Aquinas.\footnote{I think Zedler and Smith are in fact mistaken in their reading of Aquinas on the origins of possibility. For literature that has been critical of their reading, see Wippel, "The Reality of Non-existing Possibles" 169-171; Lawrence A. Dewan, "St. Thomas and the Possibles," The New Scholasticism 53 (1979): 76-85. Another scholar who shares Smith and Zedler's view, whom both cite, is A. Forest. In his La structure métaphysique du concret selon saint Thomas d'Aquin (Paris, 1956), he writes, "Pour saint Thomas, ce qui fait que les notions sont possibles, c’est qu’elles ne sont pas contradictoires, autrement dit, qu’elles sont de l’être et par là une imitation du premier être. Mais ce qui fait que les possibles sont tels, c’est qu’ils procèdent d’une volonté qui les constitue librement en accord avec la sagesse" (p. 153).}

All three authors
may be called voluntarists, but Ross's voluntarism is very different in character. Ross is unique in claiming that the content of created natures depends on God's choices.

It is most crucial to address Ross's voluntarism since it his interpretation of Aquinas that has consequences for necessary truths about creatures. If Ross is correct that God creates the natures of things in creating individuals, then there are no necessary truths even for God to know about things that never are. Ross writes:
"When God knows forever Men are sentient what he knows is not a relation among divine ideas, but rather something about things of a real nature: i.e., that to be human is to be sentient. Yet, there is no real nature unless there are individuals."\(^{216}\) Ross also clarifies that truths about creatures that we regularly call necessary truths are not in fact absolutely necessary. They are only necessary given a certain choice of God's will.\(^{217}\)

III. Response to Ross

Ross claims that there is textual evidence in Aquinas’s corpus for his views. So in order to determine the validity of Ross’s interpretation, each of those texts must be examined. To bolster his claim that the content of created natures depends on what else God makes, Ross cites a passage from Aquinas’s De potentia in which he claims that although the whole universe is caused by God, particular effects within the universe can be traced back to created causes. Aquinas writes, “For when one speaks of the production of some singular creature, the reason why the creature is so

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\(^{216}\) "Aquinas's Exemplarism; Aquinas's Voluntarism," 181.
\(^{217}\) Ibid., 196.
is able to be assigned to some other creature or even to the order of the universe to which each creature is ordered as a part to the form of the whole.”\textsuperscript{218} For this passage to support Ross’s claim that the content of the natures of creatures depend on what else God makes, Aquinas must be claiming that essential features of creatures depend on other creatures or the order of the universe as a whole. It seems, however, that Aquinas is only talking about accidental features here because in the rest of the passage the aspects of creatures that he mentions are quantity and place.\textsuperscript{219} These and other accidental features of creatures could clearly depend on other creatures and the order of the universe while the essential features that belong to their natures remain prior to and unalterable by creation.

Ross claims without citing any passages that magnets attract iron is one such example Aquinas gives of a natural necessity that depends on what else God makes. I have in fact located a few passages where Aquinas claims that a magnet’s attracting iron depends on the celestial bodies. Consider this passage for example from Aquinas’s treatise against the Averroists \textit{De unitate intellectus}:

\begin{quote}
We see in many cases that some form is indeed the act of a body made of mixed elements, but nevertheless it has some power that is not the power of any element, but it belongs to such a form from a higher principle, such as the celestial bodies, e.g. magnets have the power of attracting iron, and jasper of restricting blood.\textsuperscript{220}
\end{quote}

\textsuperscript{218} \textit{De pot.} 3.17 co.: "Cum enim loquimur de productione alicuius singularis creaturae, potest assignari ratio quare talis sit, ex aliqua alia creatura, vel saltem ex ordine universi, ad quem quaelibet creatura ordinatur, sicut pars ad formam totius." Ross also cites \textit{De pot.} 1.3, co., but I cannot see what in this passage would support his view.

\textsuperscript{219} Ibid.

\textsuperscript{220} \textit{De unitate intellectus}, c.1 co.: “Videmus enim in multis quod aliqua forma est quidem actus corporis ex elementis commixti, et tamen habet aliquam virtutem quae non est virtus alicuius elementi, sed competit tali formae ex altiori principio, puta corpore caelesti; sicut quod magnes habet
This passage appears to support that at least in some cases, natural necessities depend upon what else is created. It seems that if there were no “higher principles,” then the lower forms would not have the powers that belong to them in virtue of these principles. The issue of lower bodies possessing powers in virtue of higher is a matter that Aquinas treats at greater length in a letter dedicated explicitly to this topic, which is known as *De operationibus occultis naturae*.221

In this letter, which is addressed to a “soldier beyond the mountains”, Aquinas explains that there are certain actions of natural bodies that are able to be explained in virtue of the elements (earth, air, water, fire) that compose them. A stone, for example, moves downward because of the element of earth dominating in it. Other actions, however, cannot be explained in terms of the elements. Some examples Aquinas gives are the magnet’s attraction of iron, the ebb and flow of the tides, and the powers of certain medicines to purge humors. These actions, Aquinas claims, must be explained by a higher principle.222 He then explains that there are two ways that a higher agent can produce the action of a lower agent. The higher agent can

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221 For an English translation of this text and analysis of the historical background and content of it, see Joseph Bernard McAllister’s dissertation *The Letter of Saint Thomas Aquinas De Occultis Operibus Naturae Ad Quemdam Militem Ultramontanum*, vol. XLII of The Catholic University of America Philosophical Studies, (CUA Press: Washington, D.C., 1939). The Leonine edition of the text was not completed at the time of McAllister’s study. I refer to this text by the title used in the Leonine edition from which I quote.

222 *De operationibus occultis naturae*: “Quaecumque igitur actiones et motus elementatorum corporum sunt secundum proprietatem et virtutem elementorum, ex quibus huiusmodi corpora componuntur, huiusmodi actiones et motus habent manifestam originem, de qua nulla emergit dubitatio. Sunt autem quaedam huiusmodi corporum quae a virtutibus elementorum causari non possunt: puta quod magnes attrahit ferrum, et quod quaedam medicinae quosdam determinatos humores purgant, et a determinatis corporis partibus. Oportet igitur huiusmodi actiones in aliqua altiora principia reducere.”
either impress a form in a lower agent from which the lower agent then acts or it can move the lower agent solely in virtue of its own power the way that a carpenter uses a saw. Aquinas thinks that one can tell in which way a lower agent’s act is caused by a higher agent by examining whether the action is always produced by members of the same species. If all agents of a certain kind perform the same action, then it must follow from some form impressed in it by a higher agent. If the action happens irregularly and is not performed by all members of the same species, then it must be attributed to the higher agent using the lower agent as an instrument. Aquinas thought that magnets and certain natural objects that had medicinal effects were the types of bodies that had forms implanted in them by higher bodies. Although the forms through which they caused their “occult” actions and effects came to them from a higher cause, Aquinas thought that these actions were to be considered natural since they follow from an intrinsic principle. Aquinas also describes these actions as following from the agent’s species.

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223 Ibid.: “Est autem considerandum, quod aliquod agens inferius secundum superioris agentis virtutem dupliciter agit vel movetur. Uno quidem modo inquantum actio procedit ab eo secundum formam vel virtutem sibi impressam a superiori agente, sicut luna illuminat per lumen a sole receptum. Alio vero modo inferius agens agit per solam virtutem superioris agentis, nulla forma recepta ad agendum, sed per solum motum quo a superiori agente movetur, sicut carpentator utitur serra ad secandum: quae quidem sectio est principaliter actio artificis, secundario vero serrae inquantum ab artifice movetur: non quod talis actio sequatur aliquam formam vel virtutem quae in serra remaneat post motionem artificis.”

224 Ibid.: “Primo quidem, quia praedictae operationes quae non consequuntur aliquam formam impressam, non inveniuntur communiter in omnibus quae sunt eiusdem speciei: non enim omnis aqua fluit et refluit secundum motum lunae, nec omnia mortuorum ossa apposita sanant aegrotos. Quaedam vero operationes occultae in quibusdam inveniuntur corporibus, quae similiter conveniunt omnibus quae sunt eiusdem speciei, sicut omnis magnes attrahit ferrum. Unde relinquitur huiaismodi operationes consequi aliquod intrinsecum principium quod sit commune omnibus habentibus huiaismodi speciem.”

225 Ibid.: “Actiones vero quas supra diximus consequi corporum formas, sunt naturales, utpote ex principiis intrinsecis procedentes.”
It might seem that Aquinas’s belief that higher agents have the ability to give natural or essential powers to lower agents proves Ross’s point that the natures of things are not constituted prior to creation. If the celestial bodies have the power to cause the property of attracting iron to be part of a magnet’s nature, then it seems that the content of a magnet’s nature depends on whether or not celestial bodies exist, which is contingent on God’s creative choice. There are some alternative interpretations, however, of this phenomenon. First, it may be the case that magnets have as a part of their nature the potency to receive the form that allows them to actually attract iron. What is essential to the magnet is the power to attract iron, but the form infused by the heavenly body is needed in order for the magnet to actually attract iron. We saw earlier in chapter one that Aquinas thought that objects could essentially possess powers without actually being able to exercise them. The actions that are caused by these powers are natural even if they require a condition outside of the agent. If it is the case that Aquinas believed that magnets, for example, have essentially the power to attract iron, then the celestial bodies do not have any effect on the nature of the magnet by giving it the condition needed to exercise this power.

There is also a second way to interpret the case of the magnet and the heavenly bodies that avoids Ross’s desired conclusion. Let us suppose that the existence of a certain essential feature of a magnet depends on the existence of the heavenly bodies. Since an object cannot exist without what is essential to it, we can conclude that magnets can only exist in worlds in which the heavenly bodies exist. Magnets have a fixed and pre-given nature prior to creation, but this nature can only be instantiated in
worlds where the heavenly bodies exist. Something just like a magnet, but lacking the property of attracting iron can exist in worlds without the heavenly bodies, but it is not a magnet. The texts do not clearly indicate how to interpret Aquinas’s position on the ability of higher bodies to affect the essences of lower bodies. It must be kept in mind, though, that there are only a handful of qualities of natural bodies that Aquinas claims are derived from forms infused by higher bodies. Most qualities of natural bodies are in no way traced back to other creatures.

The next argument of Ross’s that must be addressed is his claim that there are no ideas of possible individuals since possibles cannot be individuated. He reasons that since *materia signata quantitate* is the principle of individuation, only actual creatures can be individuated. It should be noted that this argument cannot be construed as an argument against there being distinct ideas of species since species are not diversified according to matter. God only needs to have distinct ideas of species for there to be implications for the ontological grounds of essential truths. Nevertheless, I will still address this argument since the responses to it are apparent. Ross does not completely explain how it follows from *materia signata quantitate* being the principle of individuation that possibles cannot be individuated. His argument can be fleshed out, however, by explaining what *materia signata quantitate* is. *Materia signata*, or designated matter, is the matter that one grasps with the external senses. It is the matter that one can point to in an actually existing individual. Undesignated matter by contrast is the matter that belongs to the definitions of material creatures. It is part of a human being’s definition, for example,
to have flesh and bones, but not any specific flesh and bones, such as the flesh and
bones that belong to Socrates. Matter is rendered designated or subject to three-
dimensions by quantity, which is an accident of matter that is individuated of itself.\textsuperscript{226}

It is clear that possible creatures have no physical dimensions and lack spatial
location. If it is these features that render a material substance individual and these
features only belong to actual creatures, then it seems that there cannot be any
individuation prior to creation. This argument fails, however, because a form need
not actually be determined by matter in order for there to be an idea of it as
determined by matter. God can have an idea of a form limited by designated matter
without that form’s actually being so. It seems that God would be able to conceive of
a human being that is a particular size and shape and in location even if it doesn’t
exist in the same way that we are able to conceive of non-existent objects under
determinate dimensions. I, for example, can imagine two cubes of different sizes
sitting on different parts of my desk. The cubes need not actually exist for my
intellect to have distinct ideas of them. God, through conceiving of every possible
dimension and spatial location that could limit a nature, is able to know all of its
individual instantiations. Aquinas is clear that in knowing composites, God also

\textsuperscript{226} For citation of the relevant texts for Aquinas’s views on individuation and analysis of
historical developments in his position, see Wippel’s \textit{The Metaphysical Thought of Thomas Aquinas},
351-375. It should also be noted that there is not universal consensus among Thomistic scholars about
the principle of individuation. Joseph Owens has argued that although it is by matter that individuals
are recognized, in the ontological order, it is \textit{esse} that is the first cause of individuation. See, for
example, his chapter “Thomas Aquinas” in Individuation in scholasticism : the later Middle Ages and
Aertsen also argues for this position. See his “Die Thesen zur Individuation in der Verurteilung von
1277, Heinrich von Gent und Thomas von Aquin,” in \textit{Miscellanea Mediaevalia} 24 (Berlin-New York,
knows their matter. 227 There is a further argument that can be made in response to Ross’s point about individuation. In the *Summa contra Gentiles* Aquinas claims that the ultimate foundation for the diversity of creatures is God’s intention. He writes:

> Diversity and inequality is therefore in created things not from chance; not from matter, nor on account of the intervening of any causes or merits, but from the proper intention of God willing to give to the creature perfection of the sort that it was possible for it to have. 228

If the cause of diversity among creatures is not matter, but rather God’s desire to create things with the diverse perfections that they are able to have, then the fact that possibles are not material objects does not entail that there is no numerical diversity of possible objects. If God knows all of the possible ways that he could intend creatures to have perfections, then God knows individual possible creatures.

There does not seem to be compelling argument for the conclusion that God does not know possible creatures. It seems then that it is most reasonable to accept at face value Aquinas’s claim that God has ideas of things that are not, never have been and never will be. Ross suggests that God knows merely possible creatures eminently

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227 *De ver.* 3.5 co.: “Nos autem ponimus materiam esse causatam a Deo, unde necesse est ponere quod aliquo modo sit eius idea in Deo, cum quidquid ab ipso causatur similitudinem ipsius utcumque retineat. Sed tamen si proprie de idea loquamur, non potest poni quod materia prima habeat per se ideam in Deo distinctam ab idea formae vel compositi, quia idea proprie dicta respicit rem secundum quod est producibilis in esse, materia autem non potest exire in esse sine forma nec e converso, unde proprie idea non respondet materiae tantum neque formae tantum, sed toti composito respondet una idea quae est factiva totius et quantum ad formam et quantum ad materiam. Si autem large accipiamus ideam pro similitudine vel ratione, tunc illa possunt distincte considerari quamvis separatim esse non possint, et sic nihil prohibit materiae primae etiam secundum se ideam esse.”

228 *SCG* II.45, n.1227: “Est igitur diversitas et inaequalitas in rebus creatis non a casu; non ex materiae diversitate; non propter interventum aliquarum causarum, vel meritorum; sed ex propria Dei intentione perfectionem creaturae dare volentis qualem possibilem erat eam habere.” Kevin White discusses similar comments that Aquinas makes in his commentary on Boethius’s *De Trinitate*. See his "Individuation in Aquinas's *Super Boetium De Trinitate* Q. 4," *American Catholic Philosophical Quarterly*, 69 (1995): 543-556. See especially pp. 549-550.
in the same way that one who knows W.C. Fields knows every possible W.C. Fields impersonator. Aquinas, however, seems to deny this in his *De potentia dei*. There, he claims that God has “thought out” ideas of possible creatures. Aquinas denies that there is any distinction in God’s knowledge between actual and habitual knowledge. Everything he knows, he actually knows and he has “thought out” ideas of all that he knows.\(^{229}\) We saw that Aquinas holds that the ideas of merely possible creatures are indeterminate.\(^{230}\) There is no incompatibility, however, between an idea’s being “thought out” and indeterminate. God can have a notion of a specific individual while some of its accidental features remain indeterminate. It is true that certain accidental features of creatures depend on God’s creation, while its essential features and necessary accidents are determined independent of any act of God. In the *De veritate*, Aquinas writes that "although that which neither is, nor was, nor will be does not have determinate esse in itself, it nevertheless exists determinately in God's cognition."\(^{231}\) Aquinas claims that since God is the creator of all that is, his knowledge of a thing does not depend on its actual existence.\(^{232}\)

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\(^{229}\) *De pot.* I.5 ad 11: “Ad undecimum dicendum, quod in hac quaestione versatur, utrum eorum quae nec sunt, nec erunt, nec fuerunt, quae tamen Deus facere potest, sit idea. Videtur dicendum, quod si idea secundum completam rationem accipiatur, scilicet secundum quod idea nominat formam artis, non solum intellectu excogitatam, sed etiam per voluntatem ad opus ordinatam, sic praedicta non habent ideam; si vero accipiatur secundum imperfectam rationem, prout scilicet est solum excogitata in intellectu artificis, sic habent ideam. Patet enim in artifici creato quod excogitat aliquas operationes quas nunquam operari intendit. In Deo vero quidquid ipse cognoscit, est in eo per modum excogitati; cum in ipso non differant cognoscere actu et habitu. Ipse enim novit totam potentiam suam, et quidquid potest: unde omnium quae potest habet rationes quasi excogitatas.”

\(^{230}\) See the text quoted in fn. 15.

\(^{231}\) *De ver.* 3.6 ad 1: "...quamvis quod nec est nec fuit nec erit non habeat esse determinatum in se, est tamen determinate in Dei cognitione."

\(^{232}\) *De ver.* 2.8: "...apud intellectum divinum vel artifcis indifferenter est cognitio rei sive sit sive non sit."
IV. Possibles and Creation

Some scholars think that affirming that possibles are individuated prior to their existence has disastrous effects on the religious doctrine of creation. Consider the following lengthy quote from Fr. David Burrell:

Can one speak of individuals constituted \textit{before} they exist; is it coherent to speak in this sense of “individual essences”? Again, one need not picture them over against the creator; in fact, one may consider them to be “in the mind of God,” thereby preserving, it seems, the primacy of the One from whom everything comes. Yet the questionable metaphysical point does not lie in the picturing, but in the assertion that “they” are what they are \textit{before} their coming into existence. And since “coming-into-existence” does not represent a change in \textit{them}, any more than the act of creating involves motion, we quickly realize that any talk of “individual essences,” or of “exemplars” of individuals in the mind of God, makes the act of creating into that of a demiurge. And it makes little difference whether the demiurge is gleaning, as it were, from its own intellectual constructs, because what is at stake is the role which \textit{existing} plays (or not) in individuating and, as a result, the primacy of \textit{this} world as God’s creation. For if we can speak of individuals as fully constituted short of “their” coming into existence, then \textit{existing} is indeed an “accident” (or in the undifferentiated discourse of contemporary metaphysicians, a \textit{property}), for it is something which “happens to” the already constituted individual: namely, its “actualization.”²³³

Burrell claims that if possible creatures are individuated prior to creation, then the creator is nothing more than a demiurge. What is distinctive of Plato's demiurge in the \textit{Timeaus} is that it "creates" the world from pre-existing materials. The God who has exemplar ideas of creatures is like a demiurge, according to Burrell's opinion, because in his creative act, he does not determine the content of essences, but rather

actualizes a content that is already pre-given. Burrell does not think it matters whether these pre-given essences are thoughts of God or self-subsisting independent of God. What is significant is the fact that their content is predetermined and existence comes to them from without as a "accident."

I think that Burrell's concerns about creation are unfounded. The fact that God is able to conceive of that which he is able to make independent of his actually making it does not imply anything about the relationship of essence and existence in the actual thing produced by God. The mere fact that God can conceive of individual things that he can make is compatible with God creating both the essence and the existence of these individuals *ex nihilo*. Aquinas denies the inference from God’s knowledge of an essence to the essence’s existence. Aquinas claims that whether or not something exists is irrelevant to God’s knowledge of it.234 Even though God does not freely determine the content of essences through the act of creating, the content of creaturely essences is still traced back to God. Every created essence is what it is because it is a way of imitating God's essence. Being a human is being a rational animal because rational animals are imitations of God's essence. If God did not exist, rational animals would not be possible. Aquinas thought that exemplar causality was a genuine type of causality and things depended on their exemplars for their possibility. Unlike Plato's demiurge, God is the ultimate cause of the content of created essences even though he does not cause this content through willing.

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234 See for example the texts quoted in fn. 231 and 232.
V. Conclusion

In this chapter, we have seen that textual evidence supports that Aquinas held that God has distinct ideas of merely possible creatures. We have also seen that the arguments to the contrary can be adequately answered. In the next chapter, we will see if God's knowledge of possibles has the drastic consequences that Ross claims. Ross thinks that admitting that God knows possible creatures has serious implications for the grounding of essential truths. Ross implies that if God knows possible creatures, then divine ideas will be the realities to which necessary truths about creatures conform. Since divine ideas have no being of their own except for the being of God himself, God will be the res to which all essential truths are adequate. This is a startling conclusion and in the next chapter, we will determine if it was one that Aquinas held.

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235 "Aquinas's exemplarism; Aquinas's voluntarism," 196.
It is not difficult to see why one may think that God is the ground of all necessary truths about creatures if God has knowledge of possible creatures prior to creation. If God has ideas about possible creatures, it seems that God knows truths about creatures. Every truth is adequate to some thing that is its ontological ground and antecedent to creation nothing except for God exists. It seems to follow from this that God must be the ground for the truth he knows about creatures. If God is the ground of truths about creatures before creation, shouldn’t he also ground necessary propositional truths after creation too? In this chapter, I will explore whether God’s having ideas of creatures prior to creation entails that created realities are not in fact the ontological grounds for necessary propositions about themselves. There are many thinkers who have claimed that God is the ontological ground of necessary truths, yet their explanations of how God grounds necessary truths diverge. Descartes famously claimed in at least one place that necessary truths were true because of a decision of
More recently, Alvin Plantinga raised the question at the end of his influential 1980 Aquinas Lecture, "Does God Have a Nature?," of whether necessarily $7+5=12$ can be explained or made true by the necessary truth it is part of God's nature to believe that $7+5=12$ and John Peterson has argued on the basis of Thomistic principles that “the fact which is the ground, measure, and model of a true statement exists a priori or ante rem in God’s mind.”

Interpreters of Aquinas who agree that God grounds necessary propositions also disagree about the precise feature of God that allows him to play this function. We saw that Ross implied that for those who interpret Aquinas as holding that God has ideas of possible creatures, these ideas are the res to which necessary propositions conform. In his unpublished doctoral dissertation of this year, James Stone explicitly defends the view that, according to Aquinas, God’s ideas serve as the ontological ground of necessary propositions. In recent literature, another view of how God serves as the ontological grounding of necessary truths according to Aquinas has also emerged, namely that truths about what is necessary and possible are grounded by God’s power. In this chapter, I will consider whether either of these views presents a more plausible interpretation of Aquinas than the view that I have advanced.

236 A Mersenne Amsterdam, 27 Mai 1630, in Descartes, Correspondance, eds. C. Adam and G. Milhaud, (Paris: Alcan) 1836, pp. 141-142: "Je vous répons que c'est 'in eodem genere causae' qu'il a créé toutes choses, c'est-à-dire 'ut efficiens et totalis causa.' Car il est certain qu'il est aussi bien auter de l'essence comme de l'existence des créatures: or cette essence n'est autre chose que ces vérités éternelles; les quelles je ne conçois point émaner de Dieu comme les rayones du soleil mais je sais que Dieu est auteur de toutes choses et que ces vérités sont quelque chose, et par consequent qu'il en est auteur...."


I. Does God’s power ground necessary truths?

Recently, Brian Leftow has argued that, according to Aquinas, it is in virtue of God's power that necessary truths about creatures are true. The following quote from Leftow summarizes this view:

For Thomas, before God makes some dogs, every possible dog exists in God’s power, and only there. Every possible dog is a mammal. This makes it the case that necessarily, dogs are mammals. So before God makes dogs, the contents of the deity alone make this outer-most necessary. Or: it is not in God’s power to bring it about that some dog is not a mammal. So every possible dog is a mammal, and the rest goes as before. If the contents of deity make a proposition necessary, they suffice for its being true.²³⁹

Leftow thinks that the fact that none of the dogs that exist in God's power are not mammals, which is to say that God cannot bring it about that there is a dog that is not a mammal, explains why it is necessarily true that there are no dogs that are not mammals. Leftow supports his claim textually by citing Aquinas's claim in the *Summa Theologiae* that "something is said 'able to be created' not through a passive power, but only through the active power of the creator."²⁴⁰ Leftow thinks that in this text Aquinas is making the positive claim that statements about what is possible, such as *Tony Blair is able to exist*, are true in virtue of God's power. This is the only textual evidence that Leftow seems to give for his view. Leftow’s interpretation of Aquinas essentially claims that a state of affairs \( p \) is possible because God is able create \( p \) and a state of affairs \( n \) is necessary because God cannot bring about the

²⁴⁰ *ST* Ia.75.6 ad 2: "...posse creari dicitur aliquid non per potentiam passivam, sed solum per potentiam activam creantis....” Leftow, 180.
contradictory state of affairs (~n). I have emphasized because above since the crucial feature of Leftow’s account is that the scope of God’s power explains why certain things are possible while others are not. Aquinas, however, seems to state that the explanatory order between what is possible and God’s power runs in the reverse direction from Leftow’s view. It is not the case that certain things are possible because God is able to do them, but rather certain things fall under the scope of God’s power because they are possible in themselves.\(^{241}\) In the *Summa Theologiae* Aquinas claims that the scope of the possible is whatever does not imply a contradiction and it is with respect to all of those things that do not imply a contradiction that God is said to be omnipotent.\(^ {242}\) What is possible is defined independently of God’s power and in turn, serves to define the scope of God’s power. Aquinas explicitly claims in the *Summa Theologiae* that “the absolutely possible is said neither according to superior causes, nor according to inferior causes, but according to itself.”\(^ {243}\) This implies that the relationship of God’s power to a thing does not make it the case that the thing is possible. Aquinas also clarifies that it is not in virtue of God’s power that he is able

\(^ {241}\) Jeff Brower raises this objection to Brian Leftow. See his “Aquinas’s Metaphysics of Modality: Reply to Leftow”, *The Modern Schoolman* 83 (2005): 210-212. Brower writes, "If anything, what’s possible would appear to constrain God’s power, not the other way around….When Aquinas says that God can do all things “that are possible in themselves or “that don’t imply a contradiction,” this suggests that he too thinks of God’s power as being “constrained” by what is possible, and hence of the order of explanation as running from possibility to God’s power” (pp. 205-6). Leftow has a reply to Brower in the same journal issue. See his “Power, Possibilia and Non-Contradiction,” *The Modern Schoolman* 83 (2005): 231-243.

\(^ {242}\) ST Ia.25.3: "Unde quicquid potest habere rationem entis, continetur sub possibilibus absolutis, respectu quorum Deus dicitur omnipotens…. Quaecumque igitur contradicitionem non implicat, sub illis possibilibus continetur, respectu quorum dicitur Deus omnipotens. Ea vero quae contradicitionem implicat, sub divina omnipotentia non continentur: quia non possunt habere possibilium rationem. Unde convenientius dicitur quod possunt fieri, quam quod Deus non potest ea facere.”

\(^ {243}\) ST Ia.25.3 ad 4: "....possible absolutum non dicitur neque secundum causas superiores, neque secundum causas inferiores, sed secundum seipsum.”
to do certain things, but rather it is in virtue of God’s nature that his power extends to
certain effects. He writes, "For God makes something because he wills to make it; he
is not therefore able to make it because he wills, but because he is such in his
nature."\textsuperscript{244}

In his commentary on Aristotle’s \textit{De Interpretatione}, Aquinas makes a similar
claim about the necessary. He denies that the necessary also cannot be defined with
respect to a power. It is not the case that an effect $e$ is necessary because its
contradictory $\neg e$ cannot be brought about by any power, but it is rather the case that
the contradictory of an effect cannot be brought about by any power because it is
necessary.\textsuperscript{245} The fact that no power can bring about the contradictory of an effect
gives us epistemological evidence that the effect is necessary. Aquinas is clear,
however, that it does not provide an ontological explanation for why the effect is
necessary.

Aquinas’s texts leave no doubt that he did not hold the view that Leftow
ascribes to him. Aquinas is very clear that God’s, or any other agent’s, power cannot
explain why a given being or property or effect of a being is necessary or possible.
Aquinas is clear that a thing is necessary or possible in virtue of its own nature. It is
because a thing is what it is that it is able to be or not able to be. Now we move on to
consider the suggestion that it is God’s ideas ground necessary truths.

\textsuperscript{244} \textit{ST} Ia.25.5 ad 1: "Ideo enim Deus aliquid facit, quia vult; non tamen ideo potest, quia vult, 
sed quia talis est in sua natura."

\textsuperscript{245} \textit{De Int.} 1.14, n. 8: "Stoici vero distinxerunt haec secundum exteriora prohibitia. Dixerunt
enim necessarium esse illud quod non potest prohiberi quin sit verum; impossibile vero quod semper 
prohibetur a veritate; possibile vero quod potest prohiberi vel non prohiberi.... [N]on enim ideo aliquid 
est necessarium, quia non habet impedimentum, sed quia est necessarium, ideo impedimentum habere 
non potest."
III. Does God’s essence ground necessary truths?

Claiming that God’s ideas ground necessary truths is really to claim that necessary truths are grounded by God’s essence since God’s ideas are in reality one in being with his essence. It seems that God's essence may be the grounds for all truths about creatures since it is God’s essence that grounds his own knowledge of possible creatures. Aquinas claims that in knowing his essence as limited in a particular way, God knows particular creatures.\footnote{ScG I.54 n.451: “Divina autem essentia in se nobilitates omnium entium comprehendit, non quidem per modum compositionis, sed per modum perfectionis, ut supra ostensum est. Forma autem omnis, tam propria quam communis, secundum id quod aliquid ponit, est perfectio quaedam: non autem imperfectionem includit nisi secundum quod deficit a vero esse. Intellectus igitur divinus id quod est proprium unicuique in essentia sua comprehendere potest, intelligendo in quo eius essentiam imitetur, et in quo ab eius perfectione deficit unumquodque: utpote, intelligendo essentiam suam ut imitabilem per modum vitae et non cognitionis, accipit propriam formam plantae; si vero ut imitabilem per modum cognitionis et non intellectus, propriam formam animalis; et sic de aliis. Sic igitur patet quod essentia divina, inquantum est absolute perfecta, potest accipi ut propria ratio singulorum. Unde per eam Deus propriam cognitionem de omnibus habere potest.” See also De ver. 2.4 ad 2 and De ver. 3.2, co.} He also claims that the forms of creatures pre-exist in God who is their cause.\footnote{Ibid.} Since God’s own essence contains all perfections of creatures, God can know creatures by knowing his own essence. I argued earlier in this dissertation that necessary propositions about creatures are adequate to the forms of the creatures that they are about. The form of a dog, for example, is what grounds the truth that \textit{A dog is a mammal}. Aquinas holds, however, that the form of a dog, in so far as it is a perfection, pre-exists in God’s own essence.\footnote{See the text quoted above.} Before dogs existed, the perfections of a dog were part of God’s essence and if dogs become extinct, these perfections will continue to exist in God. Why then, should we not consider forms as existing in God to be the ontological ground of necessary propositions, such as \textit{A dog...}
is a mammal? In this section we will determine whether the form existing in itself or the form existing in God should be properly considered the ground of necessary propositions about creatures.

In certain contexts, Aquinas describes the nature of a creature as existing in God as prior to and explanatory of the creature’s nature as it exists in the actual creature. In question one, article one of the eighth *Quodlibetal Question*, Aquinas is pressured with the odd question of “whether the number six, according to which all creatures are said to be perfect, is the creator or a creature.” There Aquinas explains that there is a hierarchy of the various ways in which a nature can be considered. At the bottom of the hierarchy is the nature as understood in the human intellect. Above that is the nature as it exists in created things. Prior to both of these is the nature absolutely considered, which is indifferent to being in the mind and in things. At the top of the hierarchy is the nature as it exists in the divine intellect. He claims that that which is prior is the *ratio* for the posterior. The reason that Socrates and Plato are rational is that rationality belongs to human nature absolutely considered. The reason that rationality belongs to human nature absolutely considered and as it exists in individuals is that it belongs to God’s idea of human nature.

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249 *QQ*. 8.1.1: “...an senarius numerus, secundum quem omnes creaturae dicuntur esse perfectae, sit creator vel creatura;”

250 *QQ*. 8.1.1 co.: “Vnde uniuscuiusque nature causeate prima consideratio est secundum quod est in intellectu divino; secunda vero consideratio est ipsius nature absolute; tercia secundum quod est in rebus ipsis uel in mente angelica; quarta secundum esse quod habet in intellectu humano.... In hiis semper id quod est prius est posterioris ratio, et remoto posteriori remanet prius, non autem e converso; et inde est quod hoc quod aliquid competit nature secundum absolutam considerationem, est ratio quare competat nature alicui secundum esse quod habet in singularibus, et non e converso: ideo enim
themselves and the nature as it exists in God is prior, as this text claims, then the nature as it exists in God should be the ground of necessary propositions about creatures. The nature as it exists in God does not depend on anything prior, so it seems that it would be the ultimate reality which guarantees the truth of necessary predications about creatures. Whether or not a creature exists, its nature exists in God, and so claiming that this nature grounds all truths about the creature neatly explains how these truths can persist after the creature has perished.

Although this view has its advantages and some textual support, we must consider whether it is on the whole a solution that is faithful to Aquinas’s thought. Aquinas addresses another question that is related to the issue of whether the natures of creatures existing in God or in the creatures themselves are the ground of the truth of necessary propositions. In the *De veritate*, he asks “whether things are more true in the Word or in themselves.”251 By “the Word”, Aquinas means the second person of the Trinity. Things as they are “in the Word” are things as they exist in God. In answering this question, Aquinas says that the truth of things must be distinguished from the truth of predication since the word “true” in the initial question could refer to either one of these types of truth. In chapter three, I explained that Aquinas thought that there was a property that belonged to things in virtue of their conforming

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Socrates est rationalis quia homo est rationalis, et non e verso; unde, dato quod Socrates et Plato non essent, adhuc nature humane rationalitas competeret. Similiter etiam intellectus divinus est ratio nature absolute considerate, et in singularibus, et ipsa natura absolute considerata et in singularibus est ratio intellectus humani et quodammodo mensura ipsius.” For literature on this text, see Kevin White's “Creation, Numbers, and Natures”, in *Medieval Masters: Essays in Memory of Msgr. E. A. Synan*. Edited by R. E. Houser. Houston: Center for Thomistic Studies, 1999, 179-90.

251 *De ver.* 6.4 For literature on this text and those that follow in this section, see Jan Aertsens, *Nature and Creature: Thomas Aquinas’s Way of Thought*, (Brill: Leiden, 1988), 180-182. This section of his book is entitled "Are things more true in themselves than in the exemplars?"
to an intellect. This is the truth of things. Something is said to be true according to the truth of predication when a name applies to it truly. Aquinas says that the natures of things existing in themselves are more true according to the truth of predication than the natures as they exist in God. He writes: “For the name ‘man’ is more truly predicated of the thing which is in its proper nature than that which is in the Word.” Earlier in this article he explains why names refer more properly to things existing in their own nature, as opposed to in the Word. He writes:

On account of the distance of the caused thing from its cause, is truly predicated of the caused thing that is not predicated of its cause.... this indeed only happens when the mode of the causes is more sublime than those things that are predicated of the effects.

When a cause causes an effect that falls short of its own perfection, the effect possesses attributes that differ from the cause. Accordingly, certain names will apply truly to the effects, but not to the cause. Although, the divine essence is the exemplar cause of human beings, the name ‘man’ cannot be truly predicated of the divine nature because the divine nature contains far more perfection than what this name implies.

Later, in the Summa Theologiae, Aquinas takes up the issue of whether things existing in the divine mind are more truly what they are than those things existing in

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252 The truth of predication differs from the truth that inheres in intellects, i.e. logical truth, that Aquinas usually contrasts with ontological truth in his discussions of truth.
253 De ver. 4.6 co.: “verius enim praedicatur homo de re quae est in propria natura quam de ea secundum quod est in Verbo....”
254 Ibid.: “....et propter istam distantiam causae a causato aliquid vere praedicatur de causato quod non praedicatur de causa.... quod quidem non contingit nisi quia modus causarum est sublimior quam ea quae de effectibus praedicantur....”
themselves. There Aquinas explains that all things have uncreated being in the divine mind. This is because God’s ideas have no being distinct from God’s own being. Things existing in themselves have created being, which is less noble than God’s own uncreated being. Yet, Aquinas claims that natural things are more truly what they are when they exist in themselves. This is because it belongs to their natures to be material. He writes:

Just as a house has being more nobly in the mind of the artificer than in matter, but nevertheless ‘house’ is said more truly of that which is in matter than that which is in the mind because the former is a house in act, while the latter is a house in potency.

What Aquinas means in claiming that an actually existing creature is more properly a thing of its kind than God’s idea of that creature, is that the term that is used to signify creatures of a given kind applies more properly to material creatures of that kind than to the divine exemplar for that kind. The term dog, for example, is more

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255 ST Ia.18.4 ad 3
256 Ibid.: “Sicut domus nobilius esse habet in mente artificis, quam in materia, sed tamen verius dicitur domus quae est in materia, quam quae est in mente; quia haec est domus in actu, illa autem domus in potentia.” This is the full text of Aquinas’s reply: “Ad tertium dicendum quod, si de ratione rerum naturalium non esset materia, sed tantum forma, omnibus modis veriori modo essent res naturales in mente divina per suas ideas, quam in seipsis. Propter quod et Plato posuit quod homo separatus erat verus homo, homo autem materialis est homo per participationem. Sed quia de ratione rerum naturalium est materia, dicendum quod res naturales verius esse habent simpliciter in mente divina, quam in seipsis, quia in mente divina habent esse increatum, in seipsis autem esse creatum. Sed esse hoc, utpote homo vel equus, verius habent in propria natura quam in mente divina, quia ad veritatem hominis pertinet esse materiale, quod non habent in mente divina. Sicut domus nobilius esse habet in mente artificis, quam in materia, sed tamen verius dicitur domus quae est in materia, quam quae est in mente; quia haec est domus in actu, illa autem domus in potentia.” It must be noted that Aquinas’s view has shifted somewhat from his view in the De veritate. There, he claimed that things in themselves were more true according to the truth of predication because they fall short of their cause and accordingly, names are applied more properly to them than to their cause. Here, Aquinas claims that an immaterial object existing in the divine mind is more true according to every mode of truth. Presumably, this includes the truth of predication.
truly a name for a material creature that barks and chases its tail than for the divine essence that is the exemplar of this being.

Aquinas’s claims in his discussion of whether things in themselves are more true than their counterparts existing in the divine mind have implications for our question of which of these realities grounds necessary propositions. Earlier I argued that the ontological grounds for a necessary proposition’s truth is the the identity in reality of the form signified by the proposition’s subject and its predicate. The question arose, however, of whether the form that guarantees the necessary truth of a proposition was the form as it exists in God or as it exists in itself. It is clear from the texts that we have just examined that this form must be the nature as it exists in itself in created things and not that nature as it exists in the divine mind, which is the exemplar cause of created things. Aquinas’s view of how language works rules out that the terms of propositions can apply in their primary signification to divine ideas. According to Aquinas, we name as we know. The primary significates of the terms we use, therefore, can only be objects known by the human intellect. Because the divine nature transcends the human intellect, man cannot cognize the divine nature in this life. It follows from this that the terms of human language cannot properly signify the divine nature. The names that we impose on things signify perfections under limitation since these are the only perfections that we know.

In addition to this epistemological reason for why human terms cannot primarily signify the divine essence, there is a parallel ontological reason regarding the divine essence itself. All of the perfections existing in God are identical with one
another and the divine essence. The divine intellect can conceive of distinct ideas of creatures because it can conceive of its undifferentiated perfection under certain limitations. There are no divisions, however, between perfections inherent in the divine nature. The limitations of the divine nature that the divine intellect conceives of are rational constructions, not real limitations that divide one perfection from another in the divine essence. Terms of human language, however, such as *dog* or *horse*, signify a certain set of perfections, e.g. the powers to sense and metabolize, as limited from other perfections, such as the power to know. In the divine essence, perfections are not received or limited, so the terms of human language, which have the concept of limitation built into their signification, cannot properly refer to God’s perfections.

**III. An objection**

One might counter my claim that God cannot ground propositions about creatures since the terms of propositions do not primarily signify God’s essence by arguing that the truth of a proposition is able to be caused by an object other than that which is the primary signification of the proposition’s terms. According to this objection, although the terms of necessary propositions about creatures do not signify perfections in God, nevertheless, God’s perfections are the cause of the truth of necessary propositions about creatures. This view may seem plausible, since we can come up with other examples of entities that cause the truth of propositions and are not immediately signified by the terms of the proposition. The cause of the truth of
the proposition *Socrates is white*, for example, is the inherence of the form of whiteness in Socrates’s matter. The term *Socrates* does not signify Socrates’s matter and, yet, Socrates’s matter is an element of the composition that causes this proposition’s truth.

When one reflects on what Aquinas understands a necessary proposition to be, one will see that this objection fails. I argued earlier that Aquinas thought that the necessity of an essential proposition was guaranteed by the fact that the subject and the predicate signify the same thing in reality. Because an essential proposition’s signification is inextricably linked to its necessary truth, a necessary proposition’s truth cannot be grounded by something other than what its terms signify. *Man is rational*, for example, is necessarily true because *man* and *rational* signify what is one in reality. It is the unity of the *res significata* that grounds this proposition’s necessary truth. A relationship between objects other than the *res significata* cannot ground the necessity of the truth of an essential proposition.

**IV. Conclusion**

In this chapter, we have seen that the fact that God is able to know every possible imitation of his essence does not imply that God's essence is the ontological ground for necessary *propositions* about creatures. While God’s essence, in so far as it serves as an exemplar for all created beings, grounds the non-propositional truths that he knows about possible creatures, the actual creatures themselves ground the necessary *propositions* that the human intellect forms about creatures. We need not
seek any further cause beyond the form of man existing in created men for why
rational is predicated necessarily of man. Rational is a necessary attribute of man
because the rational form is necessarily one with the human form because they are
identical. There is no cause for their oneness, just as there is no cause that makes
Cicero and Tully one. Just as no fact about God explains the truth of the proposition
Cicero is Tully, so no fact about God is needed to explain why Man is rational is
necessary. Moreover, because of the propositional structure of human knowing,
nothing other than the objects that are signified by the terms of necessary propositions
can guarantee the truths of these propositions. While God’s essence serves as the
exemplar of all creatures and functions to give God knowledge of non-propositional
truths about possible creatures, God’s essence cannot play the role of grounding the
necessity of the propositional truths that are the conclusions and premises of human
science.
CONCLUSION

In this dissertation, I have argued that, according to Thomas Aquinas, the res to which the human intellect is adequated when it knows an essential proposition is the contingently existing created form of the subject of the proposition. The particular feature of a created form that guarantees the necessary truth of essential predications is its unicity. The main evidence for this interpretation of Aquinas is his own claim that *per se primo modo* predication can only arise when the subject and the predicate of the proposition signify the same substantial form. The form signified by *dog* and *sentient* in the proposition *Dogs are sentient*, for example, is one and the same form. The proposition *Dogs are sentient* cannot be other than true because the identity of the form signified by *dog* and *sentient* makes it necessarily one in reality.

I argued that if it were the case that no dogs existed, the proposition *Dogs are sentient* could still remain true in virtue of the human intellect’s adequation to forms of dogs that existed in the past. I reasoned that Aquinas held this position since he makes clear in several texts that he thought that truths about the past were grounded by the beings that existed in the past and caused the corresponding present tense propositions to be true in the past.

I do not claim that all *truths* known by *every* kind of intellect are grounded in the contingent substantial forms of creatures. My claim in this dissertation is limited
to the *propositional* truths known by the human intellect, which comprise our human science of creatures. My attempt to locate the ontological grounds for necessary propositions in Aquinas’s thought is informed by Aquinas’s own conception of what a proposition is. An essential proposition is the human intellect’s uniting a concept that it acquired from its simple apprehension of a material being to its concept of the material subject itself. These essential propositions are necessarily true since both of the concepts that are united are concepts of one and the same reality. The possibility of there even being necessary essential propositions depends on the human intellect’s ability to form multiple concepts of one and the same reality. If the human intellect could not form multiple concepts of one reality, it could not use multiple terms to signify that reality. Thus, there could be no propositions in which the subject and predicate terms had the same signification. Once essential propositions are formed by the human intellect, nothing other than the reality that the terms of these propositions signify is required to account for the necessity of their truth.

There is no need to appeal to God to explain why *Man is an animal* or *Dogs are sentient* is necessarily true. The necessity of these propositions is grounded in the forms of the created realities themselves. This is not to deny that, for Aquinas, God is both the efficient and exemplar cause of the contingent forms that ground necessary propositions and that God’s own knowledge of truths about creatures is grounded in his essence. While God is the ultimate cause of created reality, once creatures exist, they are sufficient to cause the truth of the propositions that are formed about them, even the necessary ones.
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