Two Notions of the Infinite in Thomas Aquinas' *Summa Theologica I, Questions 2 and 46*

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Introduction

Near the beginning of his *Summa Theologica*, the thirteenth century Dominican monk,

Thomas Aquinas, claims that "the existence of God can be proved in five ways."[1] These

arguments are regularly referred to as his *Five Ways* and are for many perhaps the most familiar

reading from Thomas, if not the only reading they have done from his voluminous works. Of

particular interest for my purposes are the first three of these *Five Ways*, in which Thomas denies

the possibility of going "on to infinity." My concern in this paper is the nature of this infinite in

the *Five Ways* of Question 2 which Thomas disallows and how this infinite contrasts with the

infinite in Question 46 which he seemingly allows.

For convenience and clarity I should like to sketch Thomas' style of argumentation that he

uses in his *Summa Theologica* for the sake of my particular references to parts of his arguments.

Thomas' *Summa Theologica* is comprised of a series of numbered questions dealing with what he

considers the basics of theology. For each question, Thomas deals with a number of objections

to his own view to which he offers replies and then lays out his reasons for his own position.

The structure is in this manner. Thomas states the question and lists the issues relevant to the

explanation of the question. He calls these issues 'articles.' The articles themselves are

numbered, first, second, third, etc.   Having stated the question and having listed the articles,

Thomas then begins an analysis of each article by unpacking a number of objections either

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[1]Thomas Aquinas, *Summa Theologica* I, 2, 3. All English translations are from *Summa Theologica of St. Thomas Aquinas*, translated by Father of the English Dominican Province (Westminster, MD: Christian Classics, 1981). Thomas acknowledges that certain of these argument are not completely original with him. They are found for example in Aristotle's *Physics* VII, 1 241^{b}24 and *Metaphysics* XII, 7 1072^{b}23. Though the *Five Ways* are Thomas' most famous arguments for God's existence certain ones of them are expounded with greater detail in other of his works, including his *Summa Contra Gentiles* I, 13.

affirming or denying the article. Next, he quotes an authority which he introduces with the phrase "On the contrary," which is to say, the contrary to the objections. This is followed by Thomas' arguments for his own view regarding the article which he introduces with the phrase "I answer that." After he completes his arguments, he then replies to each objection that he has previously set forth. With these steps taken, Thomas then proceeds to the next article and repeats the process until the question is exhausted, after which he then goes on to the next question, and so on throughout the whole *Summa*. Thus we find:

Question
    Article
        Objections
            On the contrary," (an authority)
                "I answer that" (his own arguments)
                    Replies to the objections.
      Next Article
        Objections
            On the contrary," (an authority)
                "I answer that" (his own arguments)
                    Replies to the objections.

I have discovered a number of philosophy texts that take Thomas' claim in the *Five Ways* that "this cannot go on to infinity" as an argument for the impossibility of an infinite regress in the way that the *Kalam* cosmological argument argues for the impossibility of an infinite regress. I am going to argue that they are taking Thomas incorrectly here.

The *Kalam* cosmological argument was championed by certain Medieval Islamic and Christian philosophers. It has experienced a renaissance within the last twenty or so years largely due to the work of William Lane Craig. The argument says that it is both impossible to traverse an actual infinite and that it is impossible for an actual infinite to exist.[2] Since, according to the

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[2]See, William Lane Craig, *The Kalam Cosmological Argument* (London: The Macmillian Press, LTD, 1979). The argument that flourished in Medieval philosophy and has been revived in contemporary thought largely by the works of Craig. He credits three main sources for the argument in the Middle Ages: al-Kindi [Ya'qub ibn Ishaq al-Kindi, *Al-Kindi's Metaphysics: A Translation of Ya'qub ibn Ishaq al-Kindi's Treatise 'On First Philosophy'*,

this argument, a beginningless temporal past of the universe would require both the traversing of an actual infinite of time and the existence of an actual infinite of time, it is impossible for the universe to be temporally beginningless, and thus must have had a beginning. A beginning implies a beginner.

These philosophy texts take Thomas to be arguing in his *Five Ways* (or at least in the first three of the *Five Ways*) that the impossibility of an infinite series of motions, efficient causes, or contingent beings implies a first mover, first efficient cause and first necessary being. Several examples will show this common way that philosophy texts take Thomas here. William F. Lawhead, in his introductory text *The Philosophical Journey: An Interactive Approach* says

> Critics have had the most problems with the third premise of Aquinas's [second way] argument. Why can't there be an infinite series of causes? Isn't the series of whole numbers an infinite series?[3]

Manuel Valasquez, in his introductory text *Philosophy: A Text with Readings* says regarding Thomas' second way

> Philosophers have raised two key objections to this cosmological argument. The first concerns its contention that there can be no infinite regress in the causal sequences of the

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with an Introduction and Commentary by Alfred L. Ivry (Albany, N.Y.: State University of New York Press, 1974)], Al-Ghazali [*Tahafut al-Falasifah [Incoherence of the Philosophers]*, trans. Sabih Ahmad Kamali (Lahore: Pakistan Philosophical Congress, 1958)], and Saadia Ben Joseph [*The Book of Beliefs and Opinions*, trans. Samuel Rosenblatt (New Haven, Conn.: Yale University Press, 1948)]. To the list one can add Boneventure (in his commentary on the second book of the Sentences of Peter Lombard, see *On the Eternity of the World: St. Thomas Aquinas, Siger of Brabant, St. Bonaventure*, trans. by Cyril Vollert, Lottie H. Kendzierski, and Paul M. Byrne. Milwaukee: Marquette University Press, 1964.) and John Philoponus (see, Richard Sorabji, "Infinity and the Creation" in Richard Sorabji, ed., *Philoponus and the Rejections of Aristotelian Science* (London: Gerald Duckworth, 1987): 164-178; Richard Sorabji, *Time, Creation and the Continuum: Theories in Antiquity and the Early Middle Ages* (Ithaca: Cornell University Press, 1983): 214-224).

For an analysis of the argument see my *An Analysis of William Lane Craig's Kalam Cosmological Argument* (unpublished Master's Thesis, University of Mississippi, 1990). For other works critiquing the Kalam argument note especially the bibliography of my thesis.

[3]William F. Lawhead, *The Philosophical Journey: An Interactive Approach*, 2 ed. (New York: McGraw-Hill, 2003): 321. I must say that in personal conversation with Professor Lawhead, I have come to believe that he concurs with my analysis that Thomas is not a arguing a *Kalam* Argument here and that his own summary of Thomas' argument is perhaps poorly constructed.

universe. But why not? Isn't it possible that the universe *has simply existed forever* and that things in it have simply been moving forever?[4]

W. T. Jones, in his *A History of Western Philosophy: The Medieval Mind* muses

> The question, however, is whether such an infinite series of motions (or causes) is conceivable. Thomas, of course, denied that it is. In reply, the series of positive integers—1, 2, 3, 4, 5, and so on—could be cited. It is clear that this series does not have a last term … Similarly, it could be said that before any time *t*, however remote in the past, there was an earlier time *t – 1*, in which motion was occurring. If there is no greatest positive integer, why need there be any first motion?[5]

Douglas E. Krueger, in his *What is Atheism? A Short Introduction* asserts

> In order to establish the conclusion of the argument (if the argument were valid), the theist would have to support the premise which asserts that the chain cannot go back infinitely far. Philosophers such as Aquinas have simply assumed that everyone would agree that such a regress is impossible.[6]

Further, Colin Brown, in his *Philosophy and the Christian Faith* says,

> Aquinas believed that one could *argue back* from the things that we observe in the world to a prime mover, a first cause or a great designer behind it. In each case the drift of the argument follows the same basic pattern. Every event must have a cause. Nothing causes (or, for that matter, moves or designs) itself. *If we press far enough back*, we must acknowledge some first cause, prime mover or great designer of all things.[7]

More substantial examples would include Bertrand Russell and John Hick. Russell, in

his *A History of Western Philosophy* summarizes the Second Way as depending "upon the

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[4]Manuel Velasquez, *Philosophy: A Text with Readings*, 8 ed. (Belmont, CA: Wadsworth, 2002): 286, emphasis added. The second objection Velasquez discusses is that the conclusion of the argument is supposedly contradicted by a premise. Somewhere these "philosophers" that Velasquez appeals to have gotten the notion that there is a premise in Thomas' argument to the effect that "everything must have a cause;" a premise which is not in Thomas' argument and which he never defends.

[5]W. T. Jones, *A History of Western Philosophy: The Medieval Mind* (Fort Worth: Harcourt Brace Jovanovich College Publishers, 1969): 219.

[6]Douglas E. Krueger, *What is Atheism? A Short Introduction* (Amherst, NY: Prometheus Books, 1998): 149.

[7]Colin Brown, *Philosophy and the Christian Faith* (Downers Grove, IL: InterVarsity Press, 1968): 26-27, emphasis added.

impossibility of an infinite regress."[8]   John Hick in his *Philosophy of Religion* interprets the

Second Way thus

> [Aquinas'] second proof, known as the first cause argument is presented as follows: everything that happens has a cause, and this cause in turn has a cause and so on in a series which must either be infinite or have its starting point in a first cause. Aquinas excludes the possibility of an infinite regress of causes, and so concludes that there must be a first cause, which we call God.[9]

It is my contention that these examples illustrate a fundamental misunderstanding of

Thomas' use of the notion of the infinite here in Question 2.[10] As a *prima facie* argument for my

contention, I should like to appeal to Thomas' comments very shortly on in the *Summa*

Theologica in Question 46. Here Thomas denies that the beginning of the world can be proven

by an infinite regress argument. Objection 6 argues

> Further, if the world always was, the consequence is that infinite days preceded this present day. But it is impossible to pass through an infinite medium. Therefore, we should never have arrived at this present day; which is manifestly false.[11]

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[8]Bertrand Russell, *A History of Western Philosophy* (New York: Simon and Schuster, 1972): 455. See also his *Why I Am Not a Christian and Other Essays on Religion and Related Subjects* (New York: Simon and Schuster, 1957): 6-7.

[9]John Hick, *Philosophy of Religion*, Prentice-Hall Foundations of Philosophy Series, eds. Elizabeth and Monroe Beardsley (Englewood Cliffs, NJ: Prentice-Hall, 1963), 20.

[10]It should be noted that a number of writers, both theists and atheists, acknowledge that Thomas is not making a *Kalam* argument in the Five Ways (even if they do not concur with the distinction I am advocating here between Questions 2 and 46), including Ed. L. Miller, *Questions the Matter: An Invitation to Philosophy* 5th ed. (New York: McGraw-Hill, 2004): 275-276; Samuel Enoch Stumpf and James Fieser, *Socrates to Sartre and Beyond: A History of Philosophy* 7th ed. (New York: McGraw-Hill, 2003): 169-170; Richard Swinburne, *The Existence of God* (Oxford: Clarrndon Press, 1979): 87-88; William Lane Craig, *The Cosmological Argument from Plato to Leibniz* (London: The MacMillan Press, 1980): 174; Antony Kenny, *The Five Ways: St. Thomas Aquinas' Proofs of God's Existence* (New York: Schocken Books, 1969: 12-13; Antony Flew, *God: A Critical Enquiry* (LaSalle, IL: Open Court Publishing, 1984): 79; Katherin A. Rogers, "Philosophy of Religion" in Leemon McHenry and Takashi Yagisawa, eds. *Reflections on Philosophy: Introductory Essays* (New York: Longman, 2003): 192-193; Michael Martin, *Atheism: A Philosophical Justification* (Philadelphia: Temple University Press, 1990): 98; George H. Smith, *Atheism: The Case Against God* (Buffalo: Prometheus Books, 1989): 242-244.

[11]praeterea, si mundus semper fuit, infiniti dies praecesserunt diem istum. sed infinita non est pertransire. Ergo nunquam fuisset perventum ad hunc diem: quod est manifeste falsum.

Without even looking yet at Thomas' reply to this objection, by the very fact that this argument is set up as an objection tells us that Thomas rejects it. Thus, unless one is willing to accuse Thomas of a conflict within a very short space in the *Summa Theologica*, a charitable reading requires us to consider the possibility that Thomas is using the notion of infinite in different ways in Questions 2 and 46. While I have found no writer who explicitly accuses Thomas of a contradiction between these questions, I submit that the interpretations cited above would constitute a conflict with how Thomas argues in Question 46.[12]

I will argue that this common understanding of Thomas' arguments in the first three of his *Five Ways* is mistaken and that no such conflict exists between what he is arguing in Question 2 and what he is arguing in Question 46. To this end, I will briefly expound Thomas' argument in these two questions and propose what this distinction is between the infinite regresses in Question 2 and the infinite regress in Question 46 taking them in reverse order.

Exposition of Question 46, Second Article

Introduction

Question 46 is titled "On the Beginning of the Duration of Creatures." The question contains three articles concerning whether creatures have always existed, whether their beginning to exist is an article of faith and whether the creation of things was in the beginning of time. The article relevant for my purpose is the Second Article "Whether It Is an Article of Faith that the World Began?" In his responses to two objections, Thomas deals with the notions of infinite regress arguments for the beginning of the universe.

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[12]It should be noted that Hick, while still interpreting the infinite regress of the Five Ways as a Kalam type argument, seems to acknowledge a tension between Question 2 and Question 46, though he does not accuse Thomas of a contradiction. Hick comments: "The weakness of the [Second Way] argument as Aquinas states it lies in the difficulty (which he himself elsewhere acknowledges [in Question 46, article 2]) of excluding as impossible an endless regress of events requiring no beginning." (*Philosophy of Religion*, p. 21)

Thomas' Answer to Question 46, Second Article: "Whether It Is an Article of Faith that the World Began?"

Thomas answers this article in the affirmative. Having responded to arguments in the first article that that the universe must be eternal, he does not go on to argue what perhaps one might expect, *viz*., that the beginning of the universe can be philosophically demonstrated. Rather, it is his conclusion that philosophy is not able to make a determination either way. Thus, Thomas, a Christian, maintains that the beginning of the universe is known only because it has been revealed by God that it had a beginning. The Scriptures say in Genesis 1:1 "In the beginning, God created the heavens and the earth." Being given by God in Special Revelation means for Thomas that this truth is an article of faith, which is to say that one must trust God about the truth of the matter since reason cannot judge.

One might be surprised that Thomas would try to refute philosophical arguments, the conclusions of which he is in full agreement. The reason he does this is because he is concerned that specious arguments might be advanced to try to demonstrate that the world had a beginning and "give occasion to unbelievers to laugh, thinking that on such grounds we believe things that are of faith."[13]

Thomas' Reply to Question 46, Second Article, Objection 1

While Objection 1 does not deal explicitly with the matter of infinite regress, it is still relevant to my purpose in this paper. We can see in his response to the objection that for Thomas the issue of a thing having an efficient cause is unrelated to whether the thing at some point did not exist. This first objection to the Second Article says

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[13]ST I, 46, 2. … quae praebeant materiam irridendi infidelibus, existimantibus nos propter huiusmodi rationes credere quae fidei sunt.

It would seem that it is not an article of faith, but a demonstrable conclusion that the world began. For everything that is made has a beginning of its duration. But it can be proved demonstratively that God is the effective cause of the world; indeed this is asserted by the more approved philosophers. Therefore it can be demonstratively proved that the world began.[14]

The objection argues that the beginning of the duration of the world can be demonstrated (and therefore is not an article of faith) since it is the case that everything that is made has a beginning. Since it can be shown that the world has an efficient cause, *viz*., God, as Thomas himself has already done in Question 44, then it follows that at some point the world did not exist and therefore must have had a beginning.

Surprisingly, Thomas denies the notion that if something is created, it must therefore have not existed at some point. For him, the fact that God created the world does not entail that necessarily at some point the world did not exist. The notion that God created the world is a claim about a certain ontological relationship that exists between God and creatures, *viz*., that the act of existing in creatures is continually caused by God. But it could logically be the case that God was eternally causing the act of existing in creatures. Though a foot is "prior" to the footprint it leaves in the dust, this notion of prior need not mean prior in time. An eternal foot eternally in the dust will have left an eternal footprint.

Thomas' answer to Objection 1 allows for his further arguments that philosophy cannot adjudicate the issue of whether the universe has always existed since it allows him to philosophically maintain that God is the Creator of the world while maintaining that it is not philosophically necessary to admit a beginning of the duration of the world. He has deflected in this answer any contention that a commitment to God being the cause of the universe necessarily

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[14]videtur quod mundum incoepisse non sit articulus fidei, sed conclusio demonstrabilis. omne enim factum habet principium suae durationis. sed demonstrative probari potest quod Deus sit causa effectiva mundi: et hoc etiam probabiliores philosophi posuerunt. ergo demonstrative probari potest quod mundus incoeperit.

entails that the universe had a beginning of duration. In his answer to two further objections, *viz*.,
Objection 6 and Objection 7, Thomas takes on more directly the infinite regress arguments that
interest me.

Thomas' Reply to Question 46, Second Article, Objections 6 and 7

Objection 6 and Objection 7 employ a more direct line of argument involving the infinite.

To repeat, Objection 6 states

> Further, if the world always was, the consequence is that infinite days preceded this
> present day. But it is impossible to pass through an infinite medium. Therefore we
> should never have arrived at this present day; which is manifestly false.[15]

It should be clear that, though Objection 6 employs an argument based on the impossibility of
traversing an infinite, Thomas' response to the objections does not so much repudiate the heart of
the objection as much as it denies a fundamental assumption of the objection. He says

> Passage is always understood as being from term to term. Whatever bygone day we
> choose, from it to the present day there is a finite number of days which can be passed
> through. The objection is founded on the idea that, given two extremes, there is an
> infinite number of mean terms.[16]

Thus, here Thomas does not claim that the infinite can be traversed, but rather seemingly denies
that a beginningless past to the world would constitute an infinite. If this is so, then, even though
the infinite is employed, Thomas' comments are not specifically relevant to my present concerns.

Objection 7, however, is directly relevant. It states

> Further, if the world was eternal, generation also was eternal. Therefore one man was
> begotten of another in an infinite series. But the father is the efficient cause of the son
> (Phys. ii., text. 29). Therefore in efficient causes there could be an infinite series, which
> is disproved (Metaph. ii., text, 5).

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[15]praeterea, si mundus semper fuit, infiniti dies praecesserunt diem istum. sed infinita non est pertransire. ergo nunquam fuisset perventum ad hunc diem: quod est manifeste falsum.

[16]transitus semper intelligitur a termino in terminum. Quaecumque autem praeterita dies signetur, ab illa usque ad istam sunt finiti dies, qui pertransiri poterunt. obiectio autem procedit ac si, positis extremis, sint media infinita.

The objection argues that an eternal world would entail the possibility of an infinite series of efficient causes. But since it has already been disproved that an infinite series of efficient causes is possible, then philosophy has demonstrated that the world cannot be eternal. Interestingly, the disproof cited is not Thomas' own argument given earlier in the *Summa* in Question 2, but rather is Aristotle's disproof given in the *Metaphysics*.[17]

In his response to this objection Thomas will allow an infinite series of efficient causes of one type while denying the possibility of an infinite series of efficient cause of another type. Further on, I will try to show the distinction Thomas maintains between these two types of infinite series. First, let me get before us some comments about Question 2.

<div align="center">Exposition of Question 2, Third Article, a.k.a., the Five Ways</div>

Question 2 of Thomas' *Summa* is concerned with the existence of God. It is composed of three articles dealing with whether the existence of God is self-evident (to which Thomas answers 'no') whether the existence of God can be demonstrated (to which Thomas answers 'yes') and whether God exists (to which Thomas answers with his famous *Five Ways*).

The First Way argues from motion in the world to a first unmoved mover. The Second Way argues from the order of efficient causes in the world to a first efficient cause. The Third Way argues from the contingency of things in the world, i.e., the possibility of things to be or not to be, to a first necessary being. The Fourth Way argues from the graduation of goodness, truth, and nobility among things in the world to an ultimately good, true and noble being. The Fifth Way argues from the governance of the world, i.e., that things without intelligence nevertheless act toward some end, to a being that is the final cause or goal or end to which and by which these things are directed. He concludes that this first unmoved mover, this first efficient cause, this

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[17]Metaphysics Ia, 2, 944ª1

first necessary being, this ultimately good, true and noble being, and this final cause or goal or

end to which and by which things are directed are God.

Of particular interest for my purposes is what Thomas has to say about infinite regresses

in the first three of the *Five Ways*. In the *First Way* Thomas says

> If that by which it is put in motion be itself put in motion, then this also must needs be put
> in motion by another, and that by another again. *But this cannot go on to infinity*, because
> then there would be no first mover …[18]

In the *Second Way* he says

> Now in efficient causes, *it is not possible to go on to infinity*, because in all efficient
> causes following in order, the first is the cause of the intermediate cause.[19]

In the *Third way* he says

> But every necessary thing either has its necessity caused by another, or not. Now *it is
> impossible to go on to infinity* in necessary things which have their necessity caused by
> another, as has been already proved in regard to efficient causes.[20]

Several things should be noted about Thomas' arguments here. First, it is commonly

thought that Thomas is using the impossibility of an infinite regress as a proof of the necessity of

the first mover, cause or necessary being. But I submit to you that Thomas is actually making the

converse argument. He is not saying "Since there cannot be an infinite regress, therefore there

must be a first mover." Rather he is saying "Since there must be a first mover, therefore there

cannot be an infinite regress." To state these as truth-functional syllogisms, the common reading

of Thomas here says

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[18] si ergo id a quo movetur, moveatur, oportet et ipsum ab alio moveri; et illud ab alio. **hic autem non est procedere in infinitum**: quia sic non esset aliquod primum movens. [emphasis added]

[19]"**non autem est possibile quod** in causis efficientibus **procedatur in infinitum**. quia in omnibus causis efficientibus ordinatis, primum est causa medii …" [emphasis added]

[20]omne autem necessarium, vel habet causam suae necessitatis aliunde, vel non habet. **non est autem possibile quod procedatur in infinitum** in necessariis, quae habent causam suae necessitatis sicut nec in causis efficientibus. [emphasis added]

    1. $\sim$IR $\supset$ F

            $\sim$IR / $\therefore$ F

But I am suggesting that Thomas is saying something more akin to

    2.   IR $\supset$ $\sim$F

            F / $\therefore$ $\sim$IR

Second, regardless whether Thomas is arguing that the impossibility of an infinite regress necessitates a first cause or whether he is arguing that the necessity of a first cause precludes an infinite regress, he clearly maintains that this infinite regress is impossible. If we take the former as Thomas' argument, then it is conspicuous by its absence why such an infinite regress is impossible. Indeed, this constitutes a common objection to his argument as my earlier citations show. If, however, my interpretation is correct that the latter is Thomas' argument (that a first cause precludes an infinite regress) then such an objection is irrelevant since it misses what exactly it is that Thomas is trying to demonstrate.

    Arguments that the Infinites of Question 2 are Different from the Infinites of Question 46

       Several points might be made in support that the notions of the infinites are different between Question 2 and Question 46 before I suggest exactly what the difference is. First, in Question 46 Thomas explicitly claims that it is an article of faith that "God is the creator the world: hence that the world began."[21] Yet, again explicitly, Thomas claims in Question 2 that the existence of God is not merely an article of faith (though some might take the existence of God on faith) and marshals philosophical arguments to demonstrate the existence of God. Thus, if on the one hand he is dealing with something that is fundamentally an article of faith and yet on the other hand he is dealing with something that is philosophically demonstrable, there must be something fundamentally different between the two questions. The fact that the existence of

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    [21]ST I, 46, 2

the world necessitates the existence of God as its cause is a different question than the beginning of the duration of the world. One can be known by philosophy but the other only by faith. This should suggest that arguments employed within each, though they might seem to be the same, are in fact different. The rejected infinite that is utilized by Thomas in a philosophical argument for the existence of God must be different from the allowable infinite that is utilized by others to demonstrate what Thomas thinks cannot be demonstrated.

Second, one should note regarding Thomas' response to Objection 7 of the Second Article of Question 46 that here he explicitly repudiates the type of infinite regress argument that characterizes the *Kalam* Cosmological argument. In his reply to Objection 7 Thomas denies that the infinite series employed in the illustration is impossible, *viz.*, the case of one man begotten of another man in an infinite series.

This gets us to the heart of the matter. Thomas explicitly rejects an infinite series of efficient causes in Question 2 but explicitly allows an infinite series of efficient causes in Question 46. Thus, taken at face value, Thomas' comments regarding the infinite regress in Objection 7 stand in stark contrast to the interpretation that some philosophers give of his comments of the infinite regress in his *Five Ways* since they have Thomas denying the possibility of an infinite regress there. As I stated earlier, unless one is willing to accuse Thomas of a contradiction between these two proximate questions, then it must be the case that Thomas means different things regarding the infinite regress he allows in Question 46 and the infinite regress he rejects in Question 2. Exactly what this difference is I will discuss below.

Third, as I have argued earlier, in the *Five Ways* Thomas is not arguing that since an infinite regress is impossible, therefore there must be a first cause. Rather he is arguing that since there must be a first cause, therefore there cannot be an infinite regress. But this line of argument would make no sense if his objection to the infinite regress of the *Five Ways* was

merely a *Kalam* type of objection. He would in effect be arguing the converse of the way the *Kalam* cosmological argument goes since the *Kalam* cosmological argument attempts to prove a first cause on the basis of the impossibility of an infinite regress. But I argue that Thomas's argument for a first cause in his *Five Ways* is not on the basis of the impossibility of an infinite regress. Rather, Thomas is pointing out that since there must be a first cause, therefore there cannot be an infinite regress. Thus, the two arguments are utilizing different notions of the infinite.

The Difference Between the Two Infinites

It is now time to try to draw the differences out more explicitly between the infinite in Question 2 and the infinite in Question 46. It should be clear that the notion of the infinite in Question 46 is the one that most readily comes to mind in such discussions and, as I have argued, is the notion of the infinite that some philosophers mistakenly think obtains in Question 2. It is the infinite of the *Kalam* cosmological argument. It is an infinite that Thomas thinks philosophy is incapable of demonstrating either its necessity or its impossibility. But the infinite of Question 2 is an infinite of which Thomas explicitly denies the possibility.

A further look at Thomas' reply to Objection 7 of Questions 46 will give us his explanation of the difference. Remember that the objection employs an example of an infinite regress of efficient causes, *viz*., one man begotten of another in an infinite series. Thomas allows for such an infinite even though the objections cites this as an example of an infinite efficient causal series. But how can he allow for this infinite series of efficient causes in Question 46 while denying an infinite series of efficient causes in Question 2? His answer lies in his distinction between proceeding to infinity *per se* in efficient causes and proceeding to infinity *accidentally* as regards efficient causes.

Thomas says

In efficient causes it is impossible to proceed to infinity *per se*—thus, there cannot be an infinite number of causes that are *per se* required for a certain effect. … But it is not impossible to proceed to infinity *accidentally* as regards efficient causes …[22]

One can begin to get at the difference between the infinite *per se* and a *per accidens* infinite by looking at Thomas' examples of each. For the infinite *per se*, he uses the same example as in Question 2, *viz.*, "that a stone be moved by a stick, the stick by the hand, and so on to infinity."[23] For the *per accidens* infinite, he uses the example of the man having been begotten by a man back to infinity. The specific difference seems to me to be this: In a *per accidens* infinite, the cause of an effect is only accidentally related to the effect being itself a cause whereas in an infinite *per se* the cause of the effect is what causes the effect itself to be a cause. When the cause of w is the cause of w's causing x and x is the cause of y's causing z, then this series cannot be an infinite regress, otherwise, z would not be caused. However, when the cause of w is not the cause of w's causing x and x is not the cause of y's causing z, then this series can be infinite since the infinity of the series is only accidental to z's being caused.

Consider again Thomas' illustration. He says

It is accidental to this particular man as generator to be generated by another man; for he generates as a man, and not as the son of another man.[24]

If a man causes his son to exist, and the son causes the grandson to exist, the man is not causally related to the son's being a cause of the grandson. In other words, it is not by virtue of the fact that the son is caused by the man that the son is the cause of the grandson. The man causing the

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[22]in causis efficientibus impossibile est procedere in infinitum per se; ut puta si causae quae per se requiruntur ad aliquem effectum, multiplicarentur in infinitum ... sed per accidens in infinitum procedere in causis agentibus non reputatur impossibile ...

[23]lapis moveretur a baculo, et baculus a manu, et hoc in infinitum

[24]accidit huic homini, inquantum generat, quod sit generatus ab alio: generat enim inquantum homo, et non inquantum est filius alterius hominis

son is accidental to the son being a cause of the grandson. Thus, for Thomas, there could be an infinite regress of such causes.

However, if a hand moves a stick and the stick moves a stone, it is precisely by virtue of the fact that the hand is moving the stick that the stick is able to move the stone. The hand causing the stick to move is also the cause of the stick itself being a cause of the stone to move. Thus in this instance, the series cannot be infinite otherwise there would be no "first" mover that accounts for the motion of the stone. The same reasoning applies to the existence of the world.

Now it might be thought that the term 'first' here is ambiguous. We should not suppose that the 'first' cause here is first in a distant temporal past. The possibility of a series of this type is expressly admitted by Thomas. The critical element is summarized by Etienne Gilson

> The proof in no way considers movement as a present reality the existence of which requires an efficient cause in the past, which is God. It aims simply at establishing that in the universe as actually given, movement, as actually given, would be unintelligible without a first Mover communicating it to all things. In other words the impossibility of an infinite regress must not be taken as an infinite regress in time, but as applying to the present consideration of the universe.[25]

The same could be said of efficient causality of existence, *mutatis mutandis*. Since the causation here is simultaneous, an infinite series would preclude any sufficient cause of either the motion or existence.

Perhaps a more modern way to say this is that there cannot be an infinite regress of instrumental causes since there must be a "first" efficient cause. Take the motion of a freight train as an example. Though the motion of a given boxcar can be instrumentally explained by the motion of the preceding boxcar, an infinite series of moving boxcars is impossible since this would negate the existence of the engine which alone can account for the motion of the train. No

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[25]Etienne Gilson, *The Philosophy of St. Thomas Aquinas*, trans. by Edward Bullough (New York: Dorset Press, n.d.): 76.

boxcar *qua* boxcar can account for its own motion or the motion of any other boxcar. In like manner, no creature *qua* creature can account for its own motion or existence. Thus, for Thomas, the infinite that he disallows in Question 2 is the infinite *per se*. The infinite that he allows in Question 46 is a *per accidens* infinite.

Conclusion

Clearly there is much more to be said concerning the metaphysics of motion, efficient causality and necessary and contingent being. Thomas' argument as they occur in the *Summa Theologica* presuppose a robust metaphysics, explicated in his earlier works such as *On Being and Essence*, *Commentary on the Sentences of Peter Lombard*, *Summa Contra Gentiles*, and *De Aeternitate Mundi*. My purpose here was not to unpack all these notions, but only to try to show that Thomas' understanding of the infinite in Question 2 is different than the infinite in Question 46 and that a common way that the infinite in Question 2 is interpreted is wrong.