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DUNS SCOTUS' ARGUMENT FOR THE EXISTENCE
OF A FIRST EFFICIENT CAUSE

by

William Peter Sweet

B.A. Hons. Carleton, B.A. Hons. Ottawa, B.Ph. St. Paul

A thesis submitted to the Faculty of
Graduate Studies and Research in
partial fulfillment of the requirements
for the degree of Master of Arts.

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Thesis Supervisor

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With regard to the gods, I cannot feel sure either that they are or that they are not, nor what they are like in figure; for there are many things that hinder sure knowledge, the obscurity of the subject and the shortness of human life.

- Protagoras,
Fragment 4

Abstract

It has been alleged that Scotus' argument for the existence of a first efficient cause constitutes the most rigorous proof for the existence of God within Aristotle's norms for demonstration. In order to assess this view, we undertake to compare Scotus' proof with that of his most important predecessor, Thomas Aquinas. In particular, we deal with their respective positions on four aspects central to this kind of cosmological proof: the nature of demonstration and its applicability to proving the existence of something; the notion of cause and causal order -- how causes interrelate to produce an effect and in what this interrelation consists; the possibility and impossibility of certain infinite series; and the relation of effects to the 'first' -- such as problems of univocals and analogy, the nature of dependence, and the possibility of inference.

Subsequent to the presentation and comparison of the views of Aquinas and Scotus, we conclude that their positions are, in many respects, quite similar to one another. Where their positions do differ, it is ultimately on account of some fundamental metaphysical commitment. The differences in metaphysical commitment do not readily allow for selecting the view of one over that of another, and indeed, may not be mutually exclusive.

Moreover, each proof seems to be consistent within its own metaphysical context, so that ultimately the only ground of comparison open to us is that of the sophistication and extensiveness of the proof. On the basis of this, then, we state a qualified preference for the argument of Scotus, though this preference does not seem to warrant any claim that it is, for example, more cogent than that of Aquinas.

Preface

Most theses would not have been completed were it not for the encouragement and assistance of friends and teachers. This thesis is no exception, and I would like to acknowledge the following: Diane Dubrule, my supervisor, for her patience over the past few years, and her help in getting me to sit down and write; Sheila Acheson, who continually encouraged me to keep at it, and who spent several evenings proof reading and helped in countless other ways; Rob, Peter, Jim, and Stephen, who provided much needed reassurance during the course of this thesis, and who helped me in every way they could; Andrew Jeffrey and Orville Conner, for reading and commenting on preliminary drafts of some sections of the chapters and appendices; and, of course, Christine Wirta, who typed my almost illegible manuscript.

References to the works of Thomas Aquinas, Aristotle, and Duns Scotus are included, as far as possible, within the text and those most frequently cited are abbreviated according to the following conventions:

Thomas Aquinas:

Summa Theologiae Part, question, article, reply; e.g., ST I; q.3, a.2, ad 1.;

Summa Contra Gentiles Book, chapter (and, in lengthy chapters, page reference to the translation of the English Dominican Fathers); e.g., SCG I, 13 (p. 29).

Aristotle:

Metaphysics Book, chapter; e.g., Meta 0, 7;

Physics, Posterior Analytics Book, chapter, Bekker pagination; e.g., Phy.,

Post. An., I, 2, 357a 1-7.

Duns Scotus:

De Primo Principio Chapter, section; e.g., DP 3.14;

Ordinatio Book, question, distinction, article (and, where helpful, page reference to the translation by Allan Wolter in Philosophical Writings);

e.g., Ord. q.1, d.2, a.3; 39;

Lectura Oxoniense (Book I, distinction 2, questions 1-2.) Section; e.g.,

Lect. 44.

Sources cited other than the above will follow a similar form of reference.

TABLE OF CONTENTS

INTRODUCTION

A. The Nature and Concern of a Cosmological Proof	1
B. The Justification for Rational Demonstration	4
C. The Object of this Study	5
Notes to the Introduction	10

CHAPTER ONE THE COSMOLOGICAL ARGUMENTS FROM MOTION AND CAUSE IN THOMAS AQUINAS

Introduction	12
A. Aquinas' Metaphysics: The Possibility of a Demonstration of God's Existence	14
1. The Method of Demonstration in Aquinas' Metaphysical Proofs	15
2. The Divine Names	17
3. Analogy	19
4. Summary	23
B. Aquinas' Cosmological Proofs from Motion and Efficient Cause	23
Introduction	23
1. The Argument from Motion	25
2. The Arguments from Efficient Causality	38
3. Metaphysical Principles in the Cosmological and Causal Arguments	52
C. Aquinas' Views on the Four Central Aspects of the Cosmological Arguments	55
Notes to Chapter One	61

CHAPTER TWO THE METAPHYSICAL BACKGROUND TO SCOTUS' PROOF

Introduction	64
A. Metaphysics and Scotus	66
B. Metaphysical Proof	70
C. Scotus' Justification for using a Metaphysical Proof	71
D. Scotus' Justification for a Metaphysical Proof from Efficiency	74
E. The Nature and Requirements of Scotus' Metaphysical Proof .	79
1. Basic Requirements of Demonstration	80
2. The Quidditative Nature of Scotus' Proof	83
F. Summary	88
Notes to Chapter Two	89

CHAPTER THREE SCOTUS' METAPHYSICAL PROOF FROM EFFICIENT CAUSALITY

Introduction	91
A. The Possibility of a Demonstration of a First Efficient Cause	92
1. The Possibility of a <u>Quia</u> Proof	92
2. Demonstration of Existence	94
3. The Possibility of Inference and Univocity	96
B. Scotus' Metaphysical Argument	106
1. Scotus' Arguments Concerning Premise (1)	108
2. Causes and Causal Series	109
3. Scotus' Position on Infinite Series of Causes	121
4. The Uncausability of the First Efficient Cause	132
5. Reversion to the Actual Order	134
6. The Necessary Existence of the First Efficient Cause .	137
7. The Unicity of the First Cause	139

8. The Conclusion to an Infinite Being	141
C. Summary	143
Notes to Chapter Three	152

CHAPTER FOUR CONCLUSIONS

A. A Comparison of the Views of Scotus and Aquinas	155
1. Demonstration	155
2. Causality	170
3. Infinite Series	175
4. Dependence, Inference, and Univocity	177
B. A Final Assessment	185
Notes to Chapter Four	195

Appendix I Aristotle

A. Demonstration	197
B. Analogy	199
C. The Principle of Motion and Physical Proof	200
Notes to Appendix I	203

Appendix II Avicenna

A. Causation	204
B. The First Cause as Absolutely Uncaused	206
C. Univocity in Avicenna	207
Notes to Appendix II	209

Sources Consulted and Cited in the Text	210
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INTRODUCTION

A. The Nature and Concern of a Cosmological Proof

Was it anything more than curiosity that led the early western philosophers to seek an explanation of observed natural events? There is no single answer to this question, but that there was this concern is most evident. The first accounts of why things happened in one way and not some other, and why things of some sort happened at all, were initially attempted through reference to common experience -- that is, within physics. Thus, in some of the first such investigations, the first principle was seen to be a physical principle, as in Plato's 'soul' or 'self-moving motion' and Aristotle's prime (unmoved) mover. It was 'physical', for, outside of the mythical cosmology of the Timaeus, there was no complete effort at an explanation of how the world came to be at all.

These investigations, then, were not so much intended to prove the existence of a prime mover or soul, as to explain the fact that there is motion or dynamism in the world. The speculation which led these philosophers to the existence of a first principle was not directed at proving the existence of a transcendent first cause. Yet it was the search for a more complete explanation of what there is that brought natural science to philosophy and metaphysics. It was on this ground that men were able to provide a cosmological argument for the existence of the gods.

What is a cosmological proof? In the context of the arguments with which we will be concerned, it is simply an argument from some aspect of the existence of things in the world which will lead us to knowledge of

the cause of that aspect. Most frequently, it is an argument of natural theology that attempts to lead us to some being who is the cause of motion or of existence in the world; the argument from efficient causality, then, focuses on this latter although it also includes the former: it attempts to demonstrate that there is a cause of the existence of those things which are themselves causes in the world. Inasmuch as a proof from efficient causality searches for the efficient cause or reason for what there is -- and since this question seems to be commonly posed, it often tends to command our attention. It is believed that, from a demonstration of a first efficient cause, we may conclude that God exists and it is evident how the demonstration of the existence of such a cause is important to natural theology.

It is often noted, however, that the demonstration of a 'first cause' says little that corresponds to our notion of God. A loving, personal deity who exercises justice and mercy, and so on, seems in no way connected with what is argued for by means of this kind of cosmological proof -- a metaphysical ground for what there is -- even though this latter is held to be part of God's nature. Certainly, it is argued by philosophers that from such notions of God we can derive those aspects of God which seem to bring us to those characteristics by which he is commonly conceived. These may be implicit in the cosmological arguments, inasmuch as a first efficient cause may possess all perfections, or they may have to be explicitly argued for. Given the length and complexity of such a chore, however, I concern myself with the cosmological arguments which lead us to a first efficient cause and only briefly indicate how one may proceed from its conclusion to a more satisfactory definition of 'God'. For this reason, then, my discussion will be almost exclusively with

reference to proofs for the existence of a first efficient cause. In many of the places where I refer to 'God', I mean simply 'a first efficient cause'. The exceptions to this intended reference are obvious in the text.

It seems that there are four central aspects to the cosmological proofs with which we will be directly or indirectly concerned i.e., those of Aristotle, Avicenna, Aquinas, and Scotus. These are: the nature of demonstration and its applicability to proving the existence of something; the notions of cause and causal orders -- how causes interrelate to produce an effect; the possibility and impossibility of certain infinite series; and the relation of effects to the 'first': the nature of the dependence of effects on a cause; the possibility of inference; and univocals and analogy. There are two main reasons why I see these aspects as central to the discussion of the cosmological proof in this thesis. The first is that it is with regard to these points, which are to a large extent interrelated, that we see the greatest contrast and development in the formulation of a cosmological proof. This will become evident in the course of my study. The second reason is that it is on these four points that the majority of criticisms of philosophers of the present day are levied. We may give a list, clearly not exhaustive, of some of them here. Briefly, criticisms of the nature of demonstration and its applicability to proving the existence of something have been made by Stace¹, Burrill², Russell³, Hume⁴, and McClelland⁵; of the notion of cause and causal order, Penelhum⁶, Russell⁷, Edwards⁸, Hume's Cleanthes⁹, and McClelland¹⁰; of an infinite causal series, Geach¹¹, Edwards¹², Williams¹³, and Kenny¹⁴; and of the possibility of inference, and its related problems, by Kant¹⁵, Geach¹⁶, and Kenny¹⁷.

4

This is not to mention that, on many of these points, Scotus and Aquinas saw the need for clarification or alteration.

I will not attempt to answer such criticisms directly, but some solutions to problems raised may suggest themselves as the discussion of the cosmological arguments with which we are concerned progresses.

~

B. The Justification for Rational Demonstration

We might next ask 'Why offer a proof for the existence of God or for some transcendent first principle?'. Some philosophers, for example D.Z. Phillips,¹⁸ simply maintain that there is no need to do so, or that such proofs are irrelevant to the faith of believers. Indeed, even Aquinas will say that God's existence is self-evident in itself, and as such would need no proof -- but this fact, he notes, is not evident to us (ST I, q.2, a.1). Historically, such attempts were provided by many major philosophers. This began with an investigation by Plato as to why there is dynamism and whether there is an objective foundation in ethics.¹⁹ In the Laws Plato argues that, without the gods to establish and maintain ethical standards, man would fall into relativism and subjectivity. Thus he provides an argument for the existence of the moral law by arguing for the existence of its founders.²⁰ Similarly, Aristotle sought an explanation of being and of the existence of motion in the universe. Avicenna also sought an explanation of being and of motion, but not simply in terms of their generation, but of their creation. Aquinas as well moved beyond what seemed to be simply a physical investigation leading to a prime mover and, using Aristotelian demonstration, common experience, and natural reason, concluded with a first efficient cause which he identified with God. Generally, however, one end is common to these

differing cosmological arguments, and that is that each seems to attempt to account for the origin of, and the dynamism in, the world.

Recently, there have been other motives for attempting and defending such a proof. Initially there is the role of custom. The five ways of Aquinas are part of the 'perennial philosophy' of Catholicism. Moreover, Taylor suggests that a philosopher can hardly help wondering whether a proof of the existence of God can be supplied.²¹ Another argument noted by Ronald Hepburn is that a defence of such proofs is also a defence of the intelligibility of theism in general.²² Hence, in light of philosophical attacks from an empiricist perspective, theism requires some rational argument. Finally, Anthony Kenny suggests that without a rational proof for God's existence, there is no rational justification for -- and no good reason to adopt -- monotheism.²³ For reasons such as these, it is still justifiable to attempt to provide an argument for the existence of God.

In a cosmological demonstration of a first efficient cause, the burden of proof is on the theist. The theist must, in providing a plausible argument, exclude all alternate possibilities in order that the conclusion be certain. It is difficult, if not often impossible, for us to ensure that our claims to knowledge in general can satisfy such exhaustive criteria. How far is this true of our natural knowledge of the existence of a first efficient cause?

C. The Object of this Study

In this thesis I wish to examine two of the cosmological arguments from efficient causality for the existence of God. I shall be particularly concerned with the proofs of Thomas Aquinas and John Duns Scotus. Scotus

is alleged to have provided a more closely reasoned attempt at a rational demonstration of God's existence than his important predecessors, and given the abundance of critical discussion of Scotus by Thomists, this without a doubt is intended to include Aquinas. Scotus' rejection of the principle of the distinction of the mover and the moved, of the argument from motion, and his formulation of a 'metaphysical' argument from efficient causality, are part of his attempt to improve upon the arguments of his predecessors, and to meet the ideal of a proof of God's existence that has absolute certitude.

It is in order to assess the extent to which Scotus' argument differs from, and is a sophistication of, Aquinas' cosmological arguments that I undertake the present comparative analysis. Such an investigation is not without warrant. Thomas Merton writes that Scotus' argument "for accuracy and depth and scope, is the most perfect and complete and thorough proof for the existence of God that has been worked out by any man".²⁴ Evan Roche says that Scotus "presents at length a proof for the existence of God, which, in our opinion, has never been equalled",²⁵ and Allan Wolter writes that "it may be the most carefully thought out attempt of any schoolman to prove the existence of God within the epistemic norms of Aristotle's Posterior Analytics".²⁶ Finally, we may note Roy Effler's comment that "it is a great proof, the like of which does not exist in all philosophical literature".²⁷ These authors, and those who engage in discussion of the Scotistic proof, make at least a veiled reference to the presumed insufficiency of Aquinas' proof. Despite the obvious metaphysical differences between Scotus and Aquinas that may seem to prohibit any possibility of a comparison between the two, these authors clearly believe that it is possible, and so it also seems from

the study that I here present.

What I shall do is consider the arguments of Scotus and Aquinas in order to determine whether Scotus' proof warrants such high praise. I shall deal particularly with the four aspects, mentioned earlier, which I see as central to the cosmological arguments.

A study of the nature of demonstration requires a justification of its use by Scotus and Aquinas for a cosmological proof. It will presume at least a tacit resolution of questions raised by the other aspects of the cosmological argument. We must also consider in what way the arguments of Scotus and Aquinas are properly called 'metaphysical', and see to what extent their reasons for providing such proofs are similar.

Reflections on the specific criteria employed by each in demonstration will reveal fundamental differences in their respective arguments. On the basis of this, we find ourselves involved in a discussion of the essentialist or existentialist character of these two cosmological proofs. Finally, an account of demonstration must say something of that to which the argument concludes. Is the divine name which we arrive at in the conclusion of the argument, univocal or analogical with some attribute of creatures?

The notions of cause and causal order lead us to ask 'Cause of what?' and 'How can we ensure that we are dealing with the proper causes of an effect?'. Consequently, we must investigate Aquinas' and Scotus' conception of 'efficient cause', and of how one may determine the cause of a thing. Moreover, if 'motion' is understood in Aquinas' rather than Aristotle's sense, will the apparent radical opposition of Scotus to a kinesiological proof disappear? A discussion of these questions will bring us to a clearer understanding of the fundamental underpinnings of

their respective metaphysical arguments from efficient causality.

In the analysis of 'causality' we find that we may compare the Scotist notion of an essentially ordered series with that designated in Aquinas as a transitively-ordered series of causes. I shall spend some time, then, in order to determine which of the two presents a more systematic treatment of causal order -- that is, of relations of priority and posteriority among causes. From this study of causes and causal orders, we will be able to ascertain what we can know through natural reason of the power of the first efficient cause.

Aquinas and Scotus are both in opposition to an infinite series of essentially ordered causes. Again, we will consider which of the two provides a more explicit and rigorous presentation of the relevant counterarguments, and how they are led by this to infer the existence of a 'first' efficient cause. We will take time, at this point, to consider to what extent Aquinas and Scotus are at odds on how the first 'cause' relates in causal activity to the members of the series of essentially ordered causes.

Finally, when we consider the relation of effects to this 'first', in the systems of Scotus and Aquinas, we must employ all that we have learned from our previous discussions. In a way, by means of this aspect our treatment of the four central points of the cosmological arguments as they are presented in these two authors is brought full circle. In particular we will compare the views attributed to Scotus and Aquinas on the nature of the dependency of the effect on the cause, the proper cause of an effect, and the difference in being between causes and effects. We will also consider to what extent there is a similarity of views on how effects can provide evidence for causes, on how we are

9
able to infer from the former to the latter, and to what extent our inference is influenced by the notions of univocity and analogy which are reintroduced at this point in our study.

With the analysis of the respective views of Scotus and Aquinas on these points, we can then attempt the more general problem of an overall comparison of their respective views. We shall assess the extent to which the arguments of Scotus and Aquinas differ, and can consider why they do so. This, then, will allow us to pass judgement on the claims of Merton, Wolter, Effler, and Roche, and enable us to evaluate the extent to which Scotus' argument is a sophistication of Aquinas' cosmological arguments.

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27. Roy R. Effler, "Is Scotus' Proof for the Existence of God an Essentialist Proof?" in Scotus Speaks Today 1266-1966, (Southfield (Mich.): Duns Scotus College, 1966), p. 128.

CHAPTER ONE

THE COSMOLOGICAL ARGUMENTS FROM MOTION AND CAUSE IN THOMAS AQUINAS

Introduction

One of the first major attempts at providing a cosmological argument for a first efficient cause was made by Thomas Aquinas. As is evident in his presentation of these proofs, Aquinas followed to a large extent the arguments of Aristotle which attempted to demonstrate the existence of a prime mover. Part of the reason for this was his desire to incorporate the rational scientific method of Aristotle and of the Aristotelian students of the contemporary Islamic tradition, with the mystical and neo-Platonic writings of the Christian church fathers and the early mediaeval writers. Indeed, much of Aquinas' metaphysical system is built on, or parallel to, that of Aristotle. In his presentation of the cosmological arguments, Aquinas often makes explicit his debt to Aristotle, but the arguments he adopted were subject to a good deal of subtle revision. Thus, whereas we may describe Aristotle's argument as a physical proof, for reasons that I will presently provide, we describe Aquinas' as metaphysical.

Before we can fully appreciate Aquinas' arguments, however, we must have a clear idea of their metaphysical background. Consequently, the first part of this chapter will resolve some of the problems preliminary to such a proof, and the second part will, in the presentation of Aquinas' arguments, comment on them as reflecting his main metaphysical principles. In the first part, then, I shall consider how Aquinas believes the existence of God -- the prime mover and first efficient cause -- to be

demonstrable. Thus, I shall discuss the method and nature of demonstration that Aquinas chooses to employ and the problem of analogy. These two problems are related because, if we are to adopt a quia demonstration and use the attributes predicable of creatures to lead to knowledge of their existence in God, we must know whether we can do so without committing a fallacy of equivocation. Once it is shown how Aquinas can construct such an analogy while at the same time ensuring certainty in demonstration, we will understand how he believes that a cosmological proof is possible.

After these elements of his metaphysics have been made explicit, we will proceed to two arguments given by Aquinas relevant to this project: the arguments from motion and efficient causality, which are found in varying forms in Aquinas' works on natural theology. We will consider these two main arguments individually: elucidating the premises, defining terms, and providing Aquinas' reasons for his various argument claims. In the course of this we will consider what it means for Aquinas' proofs to be called 'existentialist'. Moreover, once we have clear his understanding of the principles of motion and causality, we can examine the method Aquinas alleges is used in bringing about the existence of motion and of substances.

The later sections of this chapter will be concerned with how these arguments, as metaphysical proofs, depend on an analysis of being peculiar to Aquinas. From this notion of being, we will see why Aquinas does not allow terms to be predicated univocally of God and creatures, and how he is led, in the first place, to give a cosmological argument that attempts to explain how things have their 'being'. I will complete this chapter with a review of Aquinas' position on those four aspects which were identified in the introduction as fundamental to the cosmological

arguments from efficient causality: the nature of demonstration and its applicability to proving the existence of something; the notion of cause and causal orders -- how causes interrelate to produce an effect and in what this interrelation consists; the possibility and impossibility of certain infinite series; and the relation of effects to the 'first' -- such as problems of univocals and analogy, the nature of this dependence, and the possibility of inference.

A. Aquinas' Metaphysics: The Possibility of a Demonstration
of God's Existence

It is evident that before one can submit certain arguments as demonstrations of the existence of God, he must first establish that such arguments are possible. Aquinas recognizes three main arguments that might be raised to deny that one can prove the existence of God (Summa Theologiae I, q.2, a.2, obj. 1-3; Summa Contra Gentiles I, 12). The first is that the existence of God is an article of faith and, as such, cannot be demonstrated. The second argument he considers is that, for a demonstration to be given, one must have, as the middle term, the ontological cause of the effect. This supposes that we have total knowledge of God (i.e., as he is in his essence), in order to prove whether he exists. Since we cannot have such knowledge of God, the conclusion to which one seems to be led is that we cannot demonstrate his existence. The final argument that Aquinas considers is that any demonstration of God's existence could only be from his effects. As a cause cannot be demonstrated by an effect not proportionate to it, and as creatures are not proportionate to God, we can have no demonstration of

the existence of God from creatures.

1. The Method of Demonstration in Aquinas' Metaphysical Proofs

Aquinas argues of course that the existence of God can be demonstrated. We should note that this is a demonstration of whether God exists, not what his essence is (ST I, q.2, a.2). Aquinas begins by pointing out that, while it is true that the proposition 'God exists' is evident (i.e., if one knew God's essence totally, one would know that he exists), it is not evident to us. Thus God's existence needs to be demonstrated with regard to the existence of sensible objects, of which we do have knowledge.

To the first objection then, Aquinas replies that, while God's existence can be known by faith, it can also be known by natural reason because it is not strictly an article of faith, but a preamble to such. Thus he submits that God's existence can be demonstrated.

How, then, can the existence of God be demonstrated? With Aristotle and Avicenna, Aquinas acknowledges that demonstrations are of two kinds: propter quid (which can be equated with a priori) and quia (equatable with a posteriori).¹ But apparently unlike Aristotle, Aquinas claims to be using a quia proof.² How was Aquinas able to maintain an argument that was, apparently, of its nature inconclusive?

James F. Anderson argues that the method of proof that one uses is determined by the nature of the object of investigation. A quia proof is, like the propter quid, properly scientific, however, in that it is a causally decisive knowledge in procedure and certitude.³ Propter quid proof, Anderson argues, is "unfitting in any ethical, cosmological, metaphysical, aesthetic context" because it is concerned with "intelligible objects in a state of ideal existence cut off from their actual presence

in real subjects".⁴ Proof, he concludes, is an instrument, "but like all good instruments it needs to be proportioned to the various matters it deals with; otherwise it simply won't work".⁵ We may simply deny, therefore, that a quia demonstration is any less conclusive than a propter quid demonstration.

But how is it that a quia demonstration is adequate for a demonstration of the existence of God? A quia proof is one made 'through the effect' to its cause. Aquinas writes that when we have greater knowledge of some effect than of its cause, we can infer from the effect to the existence of the proper cause. We know this because every effect depends on its cause so that, if the effect exists, the cause must pre-exist (ST I, q.2, a.2, resp.).

In a propter quid demonstration, the middle term must be the ontological cause of that which is to be concluded in the demonstration. When we demonstrate the existence of the cause from some effect, however, the effect takes the place of the cause in the syllogism. This effect cannot be the essence of what we wish to prove for not only would the demonstration remain a propter quid demonstration, but it would presume that we have knowledge of God as he is in his essence, before we knew whether he exists.

The question 'What is it?' is posterior to the question 'Is it?', for "the question of its essence follows on the question of its existence" (ST I, q.2, a.2, ad.2). Besides, were this otherwise, so that the question about essence precedes the question whether the thing exists, we could have no knowledge of God, for we cannot know God's essence. Aquinas concludes, then, that "it is not necessary that the divine essence or quiddity be employed as the middle term . . . but instead of the

quiddity we take His effects as middle term, as is the case in a posteriori reasoning" (SCG I, 12), and from these effects we derive the divine names through which we refer to God. One may object, however, that the conclusion of a quia proof is a contingent proposition, but that a real demonstration requires a necessary conclusion. Aquinas could answer, however, that, while there is no demonstration of existents in their contingency and singularity, we can say of God, or of that being to whom the divine names are properly attributed, that it is a necessary being and hence it can be concluded to by employing such a method.

It is true that we can have no perfect knowledge of a cause if its effects are not proportionate to it. From every effect the existence of the cause can be demonstrated, however, and so sensible things which are God's effects and which depend on him as their cause can serve to show us whether God exists and what must necessarily belong to him as the first cause of all things. But we cannot see God's essence because his effects are in no way equal to his power as cause (ST I, q.12, a.12, resp.). In short, we might say that God is known by natural reason, but not comprehended. We can demonstrate the existence of God from his effects, though from them we cannot perfectly know God as he is in his essence. In this way, then, we see how a quia demonstration is suitable for proving God's existence. It is only by the way of remotion or by the way of excellence, however, that we can know something of God's nature and attributes (ST I, q.13, a.1; SCG I, 14).

2. The Divine Names

How, if the names of God are not univocal with human instances of them, or if they are derived from effects not proportionate to God, can

they be meaningfully applied to both God and creatures? It is with a view to answering this question, and hence anticipating some problems that are alleged to be central for any cosmological proof of God's existence, that this discussion now turns.

It has been suggested by Avicenna that through demonstration we know God as the cause of the existence of creatures.⁶ Aquinas agrees. Since we can give a name to anything to the extent that we can understand it, Aquinas argues, God can be named from creatures, although the name in no way expresses God's essence. The names that we do use are primarily applicable to material things, or they may sometimes signify the form of a thing (i.e., that whereby a thing is). In any event, both these kinds of names are inadequate to express accurately God's being (ST I, q.13, a.1, resp. & ad.2).

How are the divine names related to God? Aquinas says that, with regard to the affirmative and absolute names of God, these ('good', 'wise', and the like) signify God's substance, although clearly they fall short of a full representation (ST I, q.13, a.2, resp.). That such names are attributable to God is evident since God prepossesses in himself all the perfections of creatures (ST I, q.4, a.2). Every creature represents God and is like him inasmuch as it possesses some perfection. They represent him, then, not as something of the same species or genus, but as the excelling principle of whose form the effects fall short, although they have some kind of likeness to him. Just as creatures themselves represent God imperfectly, so the divine names signify the divine substance, but in an imperfect manner (ST I, q.13, a.2, resp.).

Not all names derived from creatures can be properly applied to God, for some essentially entail imperfection. Those which do not do so and

which express these perfections in the mode of supereminence (e.g., 'the sovereign good' and 'the first being') are said of God alone (SCG I, 30). "As regards what the name signifies, these names are applied primarily to God rather than to creatures, because these perfections flow from God to creatures", though they are known to us first through creatures (i.e., the relations of other things to him or by negation) (ST I, q.13, a.6).

3. Analogy

We have seen, then, how Aquinas understands the relation between the divine names and the nature of God. Clearly, in no way is what is said of God univocal with what is predicated of creatures. In the Summa Theologiae (I, q.13, a.5, sed contra) Aquinas notes that God is more distant from creatures than any creature is from any other. But since univocal predication is impossible in the case of things which are not in the same genus, it is clearly no less impossible with regard to univocal predication of terms to God and creatures.

It should be equally evident that such attributes are not applied to God and creatures in a purely equivocal sense, i.e., equivocal by chance. If they were, nothing could be known about God 'for the reasoning would always be exposed to the fallacy of equivocation' (ST I, q.13, a.5, resp.). Thus, these attributes are predicated of God and creatures in an analogous sense.

What precisely is this analogy? Is Aquinas, then, referring to an analogy of proportionality (secundum convenientiam proportionalitatis) or an analogy of attribution (secundum convenientiam proportionis)? By the former we have in mind 'an imperfect likeness or relation between relations or proportions' (e.g., goodness in a grape is related to the

nature of a grape as moral goodness is related to the nature of a man) -- this is the paradigm of analogy in Aristotle. By analogy of attribution we mean 'an imperfect resemblance of two or more because of a simple relation or connection of the secondary analogue or analogues with the principal. Some property of the principal is attributed to the secondaries because of a real or mental connection between them'.⁷ This is identical to the notion of pros hen equivocation in Aristotle. Analogy of proportionality involves four terms (e.g., $A:B = C:D$); analogy of attribution involves only two terms (e.g., health in the man and health in the food, which is the cause of this).

It would seem from his views on the divine names, and given that we do not have sufficient knowledge of God to form an analogy of proportionality, that Aquinas is referring to analogy of attribution. Thus 'being', for example is attributed to things in an analogous manner -- it is predicated of God in its primary sense, and predicated of creatures in a secondary sense. We might, however, enquire whether this analogy is extrinsic (i.e., a resemblance in which the analogous note is truly or formally present only in the principal analogue and is predicated of the other analogues only because of some (extrinsic) relation to the primary analogue) or intrinsic (i.e., where the perfection is truly present in both of the analogues being compared, though differently present in each).⁸ Aristotle saw all instances of analogy as being of the former type, but Aquinas argued that, in exception to this, 'being' was an example of intrinsic analogy. As Aquinas will say: "the perfection attributed to the analogues is really present in both of them, but it is not present in the same way, and the one predicate is used at the same time in senses which are neither completely different nor completely

similar".⁹ Thus, for Aquinas, it is through intrinsic denomination that some attributes are predicated of God and creatures analogically.

But wouldn't a demonstrative syllogism demand that all of its terms be univocal if we are to avoid a fallacy of equivocation? At best an analogical term indicates a similarity between two things on the basis of an identity in some other respect, otherwise one would have no grounds for establishing even this similarity. Since Aquinas asserts that there are no univocal terms linking God and creatures, how could one be sure that an analogy can be made between God and creatures, not to mention be sure that the existence of one could be inferred from the existence of the other?

The main method that Aquinas uses to guarantee a legitimate analogy is based on formal causality and the nature of analogy of attribution intrinsically denominated. Likeness, Aquinas says, is based upon agreement in form, and it varies according to the extent to which it is under the same 'formality' (aspect) and in the same measure. Every agent 'reproduces' itself so far as it is an agent, and acts according to the manner of its form, so that the effect must in some way resemble the form of the agent. However, if there is an agent who is not only not in the same species as the effect, but not even in any genus, its effects will reflect the form of the agent only in a very broad sense -- i.e., according to some sort of analogy. In this way we see how 'being' and the other attributes are analogous (ST I, q.4, a.3, resp.; SCG I, 29).

Consequently, from the nature of agency in things, we see why we can be sure that from the effects we can move to the cause. The form of the effect is found in a secondary and equivocal way in its transcendent cause. In this way of analogy, all created things, so far as they are

beings, are like God as the first and universal principle of all being (ST I, q.4, a.3, ad. 2).

This likeness, therefore, allows for an analogy to be made between effect and cause. Inasmuch as it indicates that the cause prepossesses the perfection of the effect, we not only know that there is a cause, but we also know something of its nature. Consequently, while our inference does not allow the identical attribute to be predicated of God and creatures, it does permit the inference of a similar attribute, that is, the attribute in its primary and most proper sense, to exist in God if that attribute, in its secondary sense, exists in creatures. From the existence of some attribute in a creature, therefore, we can make an inference to its cause, and we know that the cause possesses to a higher degree that perfection which the creature possesses in a secondary way, and that the existence of that perfection in the creature depends on it.

The possibility of this inference indicates in part how it is that Aquinas' argument is a metaphysical proof. As Anderson says of Aquinas, metaphysical proof implies that we are giving the "necessary raison de Être of something"¹⁰ and this seems implicit in the inference of a similar form in a cause from its proper effect. Moreover, it is this concern that distinguishes a metaphysical proof from a logical proof. Thus Anderson says "logical demonstration exists, but it is a business of showing connexions between such objects, not of establishing the actuality of anything. In a typical metaphysical proof, on the other hand, the exercised existence of something is inferred from the exercised existence of something else. That is why the presence of God as First Cause of being can be inferred from the presence of effects actually experienced by us. In other words, this inference is in principle necessarily

possible: if effects exist their cause must pre-exist".¹¹ The possibility of such an inference, therefore, not only exposes the metaphysical presupposition (along the lines of a principle of sufficient reason) that we can make such a demonstration, but provides us with the grounds for establishing how analogical terms may be used in our proofs.

4. Summary

Thus, in the first part of this chapter, I have attempted to bring out something of the metaphysical background at work in Aquinas' arguments. In particular, I have been concerned with explaining how Aquinas believed that a metaphysical argument was possible, the nature of such a demonstration, and how this has implications in his position on analogy. Additional arguments that will serve to establish further the metaphysical character of Aquinas' proofs, as well as explain how these arguments reflect his view of being, will be brought out in the next section. Consequently, I turn now to a detailed consideration of Aquinas' arguments from motion and cause.

B. Aquinas' Cosmological Proofs from Motion and Efficient Cause

Introduction

Now that we have a clear idea of some aspects of the metaphysical background to his arguments, let us consider the two cosmological arguments given by Aquinas that are most relevant to the proof from efficient causality: Aquinas' arguments from motion and efficient cause. I will consider each separately as I attempt to explain and elucidate the claims they make. For reasons I shall give in the course of this

section, it seems plausible to view both of these two arguments as metaphysical, and not physical, proofs. An elucidation of terms of the argument in general with this view in mind may allow us to regard Aquinas' cosmological proofs in the way in which they were in fact intended.

Consequently, as I consider the argument from motion, I shall note Aquinas' definition of motion, and its metaphysical implications which do not eliminate the possibility of interpreting his proof as an existentialist proof. In the elucidation of the notion of an ordered series of movers, I will show how this does not conflict with Aquinas' understanding of motion as expressing a 'tendency towards esse', and how these, together, restrict the possibility of an infinite ordered series of movers. On the basis of this discussion, we can more accurately represent Aquinas' position on the nature of the relationship of the series of movers to the prime mover -- which Aquinas equates with God -- and show how he can provide arguments different from, though similar to, those of Aristotle to prove the 'immovability' of the prime mover.

The argument from efficient causality will be presented and discussed in a way parallel to that of the argument from motion although as its metaphysical character is more evident not as much time need be spent on this aspect. Primarily my concern will be with Aquinas' notion of cause, of ordered series of causes, and of their metaphysical implications in the arguments against an infinite causal series. This will illuminate for us the relation of the first cause to the series of effects. Thus we will be able to see how Aquinas concludes that, given these metaphysical considerations, there exists some uncaused cause.

To complete this part of the present chapter, I will review the arguments from motion and efficient causality as being representative of one monolithic argument, and show how they reflect a metaphysical

analysis of being. This review will show why univocity is not used by Aquinas. Having reexamined these arguments in order to emphasize their metaphysical perspective, I shall conclude with a summary of Aquinas' views on those four points which were noted in the introduction to be fundamental to a cosmological proof.

1. The Argument from Motion

The prima via of the Summa Theologiae (I, q.2, a.3, resp.), reiterated near the beginning of the Summa Contra Gentiles (I, 13) and of the Compendium Theologiae (ch. 3), can be summarized in the following manner:

1. (It is certain that) in this world, some things are being moved.
2. Whatever is being moved is being moved by another.
3. It is not possible to proceed to infinity in movers and things moved.
4. Therefore, there must be a mover that is not moved by any other-- what men call 'God'.

a) In Aquinas we have three distinct senses of motion (motus): change of quality, change of quantity, and change of place. Together, these constitute accidental change in a thing -- that is, they are concerned with change in accidents. Aquinas therefore defines motion in the Summa Theologiae as 'the reduction of something from potentiality to actuality'. This seems similar to Aristotle's definition of motion as 'the actualization of what is potential in an existing thing that is able to be put in motion'. Yet there is in Aquinas an integral connexion made between the definition of motion and esse, which distinguishes his understanding of motion from that of Aristotle. Thus Aquinas says that 'all motion is ultimately a tendency towards esse'. If we understand 'motion' in this

way -- that is, as actus existentis in potentia (Commentary on the Sentences, I, d.8, q.3, a.1) -- we see that it goes beyond the physical fact of accidental change (as it was in Aristotle) to the metaphysical source of this change. Under this analysis, motion is seen to be, not some independent substance, but an accidental being (in esse) that is dependent on some substance and on some cause for its being.

The concern with 'being' is not only fundamental to the definition of motion, in Aquinas' view, but it is also fundamental to the kind of proof that he is presenting. Even in premise (1), Owens claims, "sensible things immediately present to the external senses are grasped in the act of judgement according to this actually exercised esse".¹² Thus the proof begins with a statement of something evident from sense perception -- namely that some things in the world are in motion. This emphasis on things in the world, and with their being, and not with their quiddity, serves to emphasize the existential character of this premise and hence of this proof. Unlike Scotus, Aquinas says there is a real distinction between essence and existence (esse) in a thing (ens), so that, as we shall see, the meaning of the word 'existential' is not the same in these two. Finally, we might note that, since essence and existence are metaphysical principles of being (ens), and since Aquinas' arguments are primarily concerned with one of them -- esse -- his proofs are metaphysical and not physical.

b) Aquinas claims that nothing can move itself from a state of potentiality to actuality except by being moved by something already in that state of actuality, and except as the thing moved has a potency to this actuality. As an example of this Aquinas says that 'that which is actually hot, as fire, makes wood, which is potentially hot, to be

actually hot, and thereby moves and changes it' (ST I, q.2, a.3, resp.). From this follows Aquinas' second premise: that 'it is impossible that a thing should be both mover and thing moved in the same respect and in the same way'.

Aquinas wholly rejects the view that there can be any occurrence of self motion. There can be no passing from potency to act except through a cause that is outside the subject in which the motion is to take place. Were self motion possible, this would mean that a thing is both mover (in actuality) and moved (in potentiality) in the same respect, in the same way, at the same time (SCG I, 13; pp 25-6). Indeed, "act is something over and above the potency, and so has to come from something which already has or is that act"¹³. Consequently, nothing can move itself.

A reductio ad absurdum is offered by Aquinas against the possibility of self motion and provides an argument for premise (2) (SCG I, 13; p 24). If something is a self mover, the principle of motion must be in the thing itself, and the thing, as a whole, must be moved by itself as a whole. As something moved, however, it must be divisible and have parts since, as Aristotle shows, whatever is moved is divisible.¹⁴ If one of its parts were at rest, the whole would be at rest. Were it otherwise, the whole itself would not be moved primarily. If something is at rest because another thing is at rest, then it is also in motion as a result of the movement of the other. Consequently, the self mover is not moved by itself. This clearly is a contradiction, and thus we are led to the conclusion that nothing can move itself. The force of this argument, Aquinas says, is that if a thing moves itself primarily, its being moved does not depend on something. All things in motion are divisible. A divisible thing, being moved, depends on its parts for its motion and cannot move itself

primarily. Thus, whatever is in motion is moved by another.

A second proof of this premise, parallel to an argument in Aristotle,¹⁵ is found in the Summa Contra Gentiles (I, 13). Aquinas argues that things in motion are moved either per se or per accidens. If the former, then they are moved either by force or by nature and, if the latter, either by something in them or something external to them. If, however, something is moved in any of these ways, it is nevertheless not really moved by itself alone (e.g., while animals may have self locomotion,¹⁶ they move because of a desire for food, etc.). Thus, he concludes that whatever is in motion is moved by another.

Having excluded the possibility that motion is caused by something that moves itself directly, Aquinas will also exclude the possibility that something can move itself indirectly, as in a circle of movers. In order to explain how Aquinas proposes to close this option, we must have clear the ways in which movers and causes relate to one another.

Now the per se cause, or mover, of a thing is that which, through its nature, will bring about an effect. When we have the per se cause of some instance of motion, this will involve having all of those causes which, together, are necessary for the occurrence of the effect. This may be one cause or a series of causes and, if the latter, these may be related to one another temporally or non-temporally, according to the nature of their dependence on each other in the act of causation.

The relationship between movers and things moved that Aquinas has in mind when he excludes a circle of movers (and, later, an infinite causal series), is that of a series where the motion of a mover is simultaneous with the motion of the thing moved.¹⁷ Clearly, there are some instances of motion where this is not the case, and Aquinas is

aware of, and makes, such a distinction (ST I, q.46, a.2; SCG II, 38):

Given the simultaneity in action, and the contiguity, of the movers we can describe the instances of motion with which Aquinas is concerned in the cinesiological proof, as being transitive. Although it is true that Aquinas does not explicitly refer to such a relation of movers and things moved in the passages where he gives his cosmological arguments, nevertheless it seems only reasonable in light of this distinction, that he makes later, to assume that he intends this here.

Why would Aquinas not wish to hold that this relationship of mover and thing moved extends over time, even if they were separated by but an instant? If the motion of a mover and of a thing moved were so separated, then it could not be argued that motion in the series is transitive.

Transitivity follows only if what is moved is moved simultaneously with the motion of the mover. Once one admits temporal gaps, it is hard to see -- given Aquinas' view of the possibility of the eternity of the world -- why the series could not be infinite. From this it also follows that Aquinas is not referring in the argument from motion to a temporal ordering of mover and moved.

When it is said that the series of movers and things moved is transitive, however, we do not mean only that the things are contiguous and the motion is simultaneous, but also that the motion is asymmetrical and irreflexive. This implies that, for any mover that is being moved, it too must be moved by something else -- and by 'something else' Aquinas does not simply mean 'not itself', but also, 'not anything else that follows from it'.

Consequently, not only is the mover in a transitively ordered series the mover of both that which it directly moves and the cause of all subsequent

motion in the series, but it is the 'most direct' mover of later movers. For example, if A moves B and B moves C, then A is said to move C 'more strictly' than B. Moreover, these movers so ordered to one another constitute the per se cause of the motion they cause. Under the force of this aspect of motion, C cannot be a mover of A (as might occur in a circular series), then, for C would be at least a partial mover of itself, since A moves C. Therefore, just as there can be no instance of direct self motion, neither can there be a circle of causes. Hence Aquinas has established premise (2).

c) Thus we turn to the third premise of Aquinas' argument. Here it is claimed that the relation of mover and that which is moved is such that not all movers can be moved, i.e., the series of movers and things moved cannot be infinite. Does Aquinas, therefore, deny the possibility of there being any infinite series at all? Clearly not. Aristotelians (including Aquinas) would admit that there are several examples of infinite series. Avicenna, in fact, emphasizes this.¹⁸ Not only would they point to the infinity of mathematical series and to the infinity of the number of points on a finite line, but they also hold that certain non-mathematical series could be infinite. Aquinas felt obliged to acknowledge that "it is not impossible for a man to be generated by a man to infinity" (ST I, q.46, a.2, ad 7) and "by faith alone do we hold, and by no demonstration can it be proved, that the world did not always exist" (ST I, q.46, a.2, resp). Aquinas, at least, will allow this possibility only with regard to non-transitive series.

What are Aquinas' reasons for rejecting the possibility of an infinite series of movers, transitively ordered? One reason is that, since all moved movers are physical entities and are moved at the same

time as they move, and since each member of the series is moved in a finite time, an infinite series would require the motion of an infinite number of bodies in a finite time (SCG I, 13; p 26). This latter is impossible, Aquinas says, since the moved and mover are continuous or in contact, and the motion is simultaneous. Thus the series would be just like one infinite thing moved in a finite time which, he says, Aristotle shows to be impossible.¹⁹

Aquinas' second argument, again derived from Aristotle,²⁰ is that in a transitive series of movers where each thing is moved by another, if the first mover is taken away or ceases to move, since it is the cause of movement in all subsequent movers, none of the others will move or be moved (SCG I, 13; p 27). If this series were such that each mover were moved by something prior, and hence went to infinity, there would be no first mover. If, however, there is no first mover, nothing else will be, or is now, moved. Similarly, since moved movers are 'instrumental' and, in a transitive series depend on something that moves principally, an infinite series of moved movers will have no principal mover, and hence nothing will be, or is now, moved (SCG I, 13, p 27). In both cases, the conclusion to which we have been led is clearly false.

These arguments may be strengthened when we recognize that the initial mover sought is not simply something responsible for a 'push', but for the existence of in esse in the accidents which we find present in things. While motion may be eternal,²¹ Aquinas emphasizes that this does not explain how things in motion are able to acquire that in esse which they possess. In Aquinas, accidental existence (such as motion) has a kind of existence (esse) but, since it is of course dependent upon the existence of the substance in which it inheres, it is called in esse.

In saying that an accident exists, one means that some substance is actually being 'qualified' by it, and it is the source of this 'qualification' that Aquinas seeks in the cinesiological proof.²² In an infinite series of moved movers, none would have the act appropriate to it being in motion (i.e., in esse) of itself. Consequently, since there is sensible motion, there must be something which is of itself in act, in the sense that it is in no way being actualized by anything else.²³ This alone, then, adequately accounts for the in esse in accidents. Thus, on the basis of these arguments, Aquinas argues that we have proven premise (3) -- that it is not possible to proceed to infinity in movers and things moved -- and from this follows premise (4).

Premise (3) derives its force from seeing motion defined in terms of act and potency (as we saw in premise (2)). We know already that Aquinas believes that that which is being moved does not have of itself the act towards which it is being moved. For this reason then, it is held that in an indefinite series of moved movers none would have the act of itself.²⁴ Aquinas, Owens claims, saw motion as essentially imperfect -- since mobile things cannot have a primary and perfect instance in their own genus [every motion presupposes a subject which has to be generated, i.e., presupposes a prior motion] they must ultimately have that motion from something that is not mobile.²⁵ Consequently, motion requires something to account for it that is outside the order of mobile things, and this proof, therefore, is clearly to be understood as being on the metaphysical level.

We should note, however, that it is not because motion is instantaneous that a transitive series must have a beginning (i.e., a first member);²⁶ it is, rather, because the movers are ordered transitively

that they must have a beginning (i.e., the fact that it is a certain type of series).

d) The above explanation of the relation of causes to one another raises a problem concerning the independence of, and the notion of responsibility that is associated with, a 'first member' of such a series. Since we have said that we are particularly concerned with a transitive series of movers and that it is this kind of series that constitutes the per se cause of motion, how is it that we can say that the 'first' is that which is responsible for the motion? For, in a transitive series, it is necessary that all the movers move simultaneously and be related in such a way that they all act together. Together, these movers constitute the per se cause of the effect, and consequently it would seem that not any one of the causes is responsible for the effect, but all of them together. On the other hand, since the argument is to lead us to the existence of God, it would be a problem to hold that the prime mover (which Aquinas identifies with God) must cause together with others (i.e., secondary movers) in order to bring about effects, for then the prime mover would not be omnipotent.

How is it that we can make the first the sole responsible agent for the effect? The answer to this, with regard to the existence of motion, is that if any mover subsequent to the first were not to move, it could be brought to move by the first and, in any event, there is motion without it. Moreover, the first mover is not only a sine qua non of there being any accidental change at all, but without it there could not be any accidental properties, for it is the cause of the inesse appropriate to accidents.

One might also argue that the first mover acts as an agent; subsequent movers act as 'instruments', and since causes are, primarily, agents, the only real cause of the effect is the first. Thus, in attributing responsibility, we refer to an agent alone, not to an instrument or to an agent and an instrument together. A transitive series is just one of an agent and a series of instrumental movers. We can say, therefore, that the first is 'more strictly'²⁷ the mover because it is a sine qua non of motion, and that it is responsible because it is the only agent which is truly an agent and not an instrument.

e) At this stage in Aquinas' argument -- premise (4) --, while we have not been told that this first mover is incapable of change in any respect, clearly we are led to this. In the Summa Theologiae Aquinas does not show how the first mover is immovable and, so far as the argument is concerned, he may appear to have proven little. The critic may even agree that in a transitive series of movers there is a first, but argue that this can be identified with human agents or animals or heavenly bodies (as regards gravitation) or subatomic particles. Thus we are at a crucial stage in the cinesiological proof. We must show that the first mover is absolutely immovable -- that is, neither moved by itself, nor by any other, in any respect. Thus we look to the Summa Contra Gentiles (I, 13, p 29) for Aquinas' argument on this point.

Aquinas has established that there is a first mover that is not moved by anything outside itself. It still remains to be seen whether it is absolutely unmoved or self-moved. This latter option has already been excluded, since it has been shown that it is impossible that a thing be both mover (in act) and that which is moved (in potentiality). Indeed

this implies that it is impossible that the first mover has parts which move one another, for the same conclusion follows. Against this it may be argued that some things, such as animals, 'move themselves'. Aquinas replies that the part which moves in animals, sc., the soul, while itself immovable, is nevertheless moved accidentally insofar as it is corruptible. Thus these things are ultimately moved by some first mover that is everlasting -- which is moved neither of itself nor accidentally -- and is, therefore, absolutely immovable.

For an initial 'explanation' of why the first mover is immovable, then, Aquinas in the Summa Contra Gentiles turns to Aristotle's account that involves the eternity of motion. He argues that, if motion is eternal, we cannot refer to any 'corruptible' self-mover for an explanation because no one of these, nor all of them together, can cause or explain this everlastingness of motion. Not one, because it does not always exist; not all together, because motion is continuous, not successive, and they do not exist altogether. Thus in order to explain the existence of motion, we must turn to this first mover.

To avoid being accused of begging the question here, Aquinas will initially 'allow' this first mover to be a self mover. He argues, however, that since all movement is caused by the first self mover, the first self mover is always in motion or else motion could not be everlasting. Since every self mover is moved through its appetite, this object on whose account the self mover moves, is above the mover in moving and is altogether unmoved (SCG I, 13; p 31). Thus, the first self mover is moved by a mover who is not moved in any respect.

Yet this is clearly not the only proof Aquinas can give for the immutability of the prime mover. It is claimed that Aquinas would hold that we cannot refer to creatures as constituting this prime mover.

The argument from motion as I have presented it views motion as the actualization of a potency to a new act of existence, and a cosmological proof must explain how mobile things originally acquired the accident of mobility, even if motion is eternal. Motion requires more than motion to explain its presence. Aquinas, then, relies on implications of his definition of motion to lead us to more fully understand the function of the prime mover. Thus, the first mover imparts inesse to all accidents as an efficient cause. The source of this inesse must be pure esse, which, as such, lacks all potentiality and is immutable.

Only one being is pure esse, for this entails that there is no limitation (as would be provided by the essence) on the perfections that this thing can receive. This, Aquinas concludes, is God.

This notion of esse as encompassing the totality of perfections, we should note, is in marked contrast to that of Scotus. In Scotus, esse without the limitations of an essence is nothing; in Aquinas, it is everything.

To conclude, then, Aquinas notes that the concept of 'mover', unlike the concept of 'motion', does not imply any notion of dependence. A mover is simply the initiator of movement in something else, and causing motion of itself in no way implies any change in the agent, unless the motion concerned is caused by physical contact. (This is not the case with Aquinas' prime mover, given its metaphysical character as a cause of 'being'.) The only being that does not need a mover in order to move, and which is not open even to accidental motion, must be one that is totally lacking in potentiality (i.e., is pure act) -- but nothing in our experience totally lacks potentiality. This unmoved mover must, therefore, exist outside the universe as we know it. Aquinas concludes

these cosmological proofs by saying that 'this everyone understands to be God'.

f) We may conclude with Owens, then, that the argument of Aquinas is not simply a reiteration of the Aristotelian cosmological proof, even though it uses the same external structure and technique. Owens emphasizes that the argument analyzes motion in terms of act -- not simply form -- and extends thereby into the existential order. Consequently, the wholly unmoved mover to which we conclude is nothing less than 'the subsistent act of existing'.²⁸ Thus, "the /prima/ via is a close and cogent examination of how actually existent motion has to originate from pure subsistent act, which . . . can only be existential. The via is not explaining the creation of things, but the motion of things. . . . The being so meant is the esse of motion and its terminus."²⁹ When we understand the proof in this way, we can see how one will view the proof as providing a metaphysical argument. In light of this metaphysical interpretation, how do we harmonize this interpretation of the argument from motion as reflecting a metaphysical proof involving the cause of in esse in accidents with the fact that Aquinas calls it 'the most manifest way'? Clearly, given the objections of Aquinas' near contemporaries and the interpretations of subsequent Thomists, this interpretation renders this argument far from 'manifest'.

The starting point of the argument from efficient causality, we note, is the acquisition of esse by things which did not have that esse (i.e., substantial change).³⁰ But substantial change is not so immediately evident through sensation as the change from cold to heat or the local motion of the stick that is being moved by the hand. Consequently, these 'more evident' instances are used in the presentation

of the 'most manifest' way of God's existence.

While different from the causal argument, the cinesiological proof is nevertheless closely related. Not only do the arguments share a similar form in Aquinas, share certain general claims as premises, and have a common origin, but some even maintain that not only these two, but all five viae, are the same argument essentially, though each emphasizes a different aspect of dependence on the esse of the first being. Scotus viewed the argument from motion as simply an argument from efficiency in the physical mode -- an argument which, for some very fundamental reasons, he chose to reject. But it is the argument from metaphysical efficiency that Scotus saw as providing a more certain demonstration -- an argument which had its beginnings at least as far back as Avicenna. It is to this argument, as Aquinas presents it, that I now turn.

2. The Arguments from Efficient Causality

a) In Aquinas' writings there seem to be two distinct arguments from efficient causality. The former, which is presented in both the Summa Theologiae (I, q.2, a.3) and the Summa Contra Gentiles (I, 13), begins with a reference to an order of efficient causes that we observe in the world. The latter is found in the De Ente et Essentia (ch. 4), beginning with the distinction between the essence and existence (esse) of a thing. In both cases, however, Aquinas is searching for the cause of the esse in effects, which may be the result of a single cause or of an ordered series of causes, and in large part these arguments overlap. While I present each argument separately, I shall discuss them together.

Aquinas' arguments in the Summae may be presented in the following manner:

- S1. In this world we find an order of efficient causes.
- S2. Nothing can be its own efficient cause.
- S3. An infinite series of caused causes is impossible, for then we cannot account for the existence of effects.
- S4. Therefore there must be a first efficient cause -- which men call 'God'.

In the De Ente, Aquinas gives what seems to be a more general argument:

- E1. Whatever belongs to a being is either caused by the principles of its nature, or comes from some external principle
- E2. It is impossible that 'act of existing' (esse) be efficiently caused by a thing's form or quiddity, and so must exist from another.
- E3. The things which exist through another cannot be infinite, for there is still no per se cause (explanation) of the act of existing of the effect.
- E4. This series must end in some first cause which exists in virtue of itself. This is pure esse -- the First Being and Cause.

b) In these cosmological arguments from efficiency, it is clearly important that we fully understand the sense of the word 'cause' and what is meant by 'causal order'. In the Aristotelian tradition, the notion of 'cause' is divided into formal, final, efficient, and material causes. The concept of 'efficient cause' is very much like our modern notion of cause, inasmuch as it is related to agency. Aquinas understands it as 'the actualization of the potential insofar as it is potential to the actuality which is its end' and, similar to motion, a thing cannot be caused to be something except by a cause that already has that actuality.

For Aquinas, a general causal proposition would have the form 'A brings it about that F is in B' where A is an agent and an efficient cause, F is a form, and B is the material cause (i.e., the subject upon which A's causality is asserted).³¹ From this, we see that Aquinas viewed a cause as a substantial agent, and this notion of 'cause' no doubt influenced Aquinas to seek the explanation of the occurrence of an effect by reference to some preceding agent.³² Indeed, by understanding 'cause' in this way, Patterson Brown connects it with responsibility in what he calls a 'quasi-legalistic sense'.³³ We may contrast this view with our contemporary understanding of 'cause' derived from Hume, wherein one event precedes, and is somehow correlated or conjoined with another. The former holds that agents act to bring something into actuality; the latter simply notes a correlation of events. In this latter view, then, causal propositions are no more than empirical generalizations, having a certain degree of probability.

By 'cause' here we are, of course, referring to per se cause. Aristotelian science, we are reminded, does not deal with accidental causes, and consequently we should not be surprised that the references to 'cause' in the proofs are almost always to per se cause. Indeed, just as we saw in the kinesiological proofs that there is a distinction between per se and per accidens movers, there is a similar distinction in causes. By per se cause we mean that 'a thing is, of its nature, and necessarily, the cause of a particular effect'. With per accidens causes, however, it is not part of their nature to produce some particular effect.

The total per se cause of an effect may be one in number or it may be a series of partial causes ordered to one another such that the

causal power flows through every member to the ultimate effect from the first. In such a transitively ordered series of causes, the causality is also asymmetrical and irreflexive. In short, all the causes must cause together, simultaneously, and interdependently, in order for the effect to occur. Since each prior cause in such a series prepossesses the causal power of all subsequent causes, each cause is related to the ultimate effect in a different way, and for transitivity to hold, each cause is related to another per se. There is a hierarchy of order among them, but inasmuch as they are interdependent in their activity, there is a unity of order.

For example, in a man's causal action in the generation of a child, we do not refer to the temporal originators of the cause -- the man's parents -- for a total explanation, but to that which is responsible for this process to take place now, e.g., to the concurrent action of the elements which enable the man to exercise this causality at the present moment, such as light and heat from the sun, oxygen, gravity, and so on. Though the initial cause of the series is said to be 'more truly' or 'most strictly' the cause of the effect, it is only insofar as these causes are ordered to one another that they, together, bring about the effect. Together, they constitute the per se cause of the effect.

Efficient causality for Aquinas is not understood in the same way as that of Aristotle. Avicenna drew a distinction, as Aristotle had not, between the causality of a physical efficient cause and that of a metaphysical efficient cause.³⁴ Avicenna, and Aquinas after him, wished to make room for a distinction between a 'changer' -- that is, something which changes the quality, quantity, and/or place of a thing and which is primarily concerned with the source of inesse in accidents, but also

with the source of esse in substances -- and a 'creator' of things ex nihilo. Consequently, through this division, Aquinas could have 'creator' as the primary instance of efficient cause and have, as its secondary and analogical instance, 'substantial change' -- both of which were distinct from accidental change -- since both are responsible for the esse to be found in a new being.

c) We note that, in the argument from efficiency, Aquinas begins his proof in a similar way to the argument from motion -- with a premise that is evident from sense perception and which indicates that again he is employing an existentialist proof. Aquinas says that there is, in the sensible world, an order of efficient causes (i.e., cause-effect relations). One problem immediately presents itself: in the proof he says that there is an order of efficient causes -- ordinem causarum efficientium. Should we take this remark in the sense of 'only one' or 'at least one'? The former view seems too extreme, since there seem to be some such series that conclude in man (e.g., those concerning acts of a man's free will). If, on the other hand, there are many such series, which of these series does Aquinas have in mind or how does he propose to unify the possible myriad of transitively ordered series, or of 'prime efficient causes, into one which has, at its head, God?

Geach suggests an interpretation which would allow us to resolve this problem: he asks us to view the world as a unity and searches for its cause. Consequently there would be only one series of efficient causes. Geach argues that Aquinas "did not think God could be reached by following to its end a causal chain starting from a random object".³⁵ Instead, he claims, we should look for the causal series on which the world depends. That is, we treat the world as an 'object' and "ask

about it the sort of causal questions which would be legitimate about its parts . . . For the world shares with its parts certain attributes that give rise to causal questions: it is a complex whole of parts and is in process of change".³⁶ Consequently, the argument from efficient causality asks: 'What is it, then, that maintains this process of change in the world?'

In terms of the argument in the Summae, however, there are a few problems in Geach's suggestion: first, Geach's analysis makes the argument refer to a series of the world, not in the world. Moreover, given the immediacy of God's creation in Aquinas' view, we note that this would render unproductive and, in any event, impossible, any concern with the existence of orders of causes, since an ordered series requires more than one cause and one effect. A further problem with Geach's solution is that, while we may not have to explain how the plethora of transitively ordered series 'combine' to lead to one first member, we do have to account for a plethora of effects which are neither related to one another nor, apparently, resemble a first cause.

Thus I suspect that, while Geach has a point, he neglects the importance of the orders of series of causes. According to my view, we use the 'order' of causes to conclude to a first cause. Moreover, given the analysis of motion and cause provided, since our concern is with the esse or inesse of a thing or accident, we can proceed from any 'random' individual in the world that is evident to our senses.

It may be argued that the notion of 'cause' is ambiguous. If we are looking for why something exists now, we refer primarily to, for example, the present existence of certain forces. If we are interested in how it came to be, presumably we are interested only in those temporally

prior causes which caused it to come to be. Geach claims that Aquinas is interested in 'what maintains the process of change', and consequently sees Aquinas referring to a cause that is a cause in esse (in being) -- a sustaining cause which exists as long as the effect exists. But surely both kinds of causal explanations must be provided to give a full explanation of the present effect.

To this one might reply that, in the example of the transitively ordered series where a man participates in the production of a child, inasmuch as we are referring to the act of production, we must refer only to the former kind of explanation -- how generation is possible. If, however, we wish to account for how this particular man came to be, and how he participated in the production of this child, we refer to the latter kind of explanation, but this includes reference to both transitive and non-transitively ordered causes. Aquinas need refer only to the former in order for his argument to work.

d) Aquinas has, then, established that there are, in the sensible world, instances of causal orders. It is in how it is that they now have their esse that he is primarily interested. Causation in general, we know, can occur only when that which has a potency to an end state later reaches that end state through the agency of something already there. Consequently, nothing can be both in potency to some end and also at that end. Thus Aquinas argues that, just as is the case with movers, nothing can cause itself directly or through a circle of causes.

This should certainly be obvious from the very definition of causality. In the case against self-motion, understood under the Aristotelian definition of motion, we are confronted with what are at

least prima facie counterexamples. Self-causation, however, entails that a thing which has no esse as what is caused and hence is purely in potency to some end state can also be in that actuality to which it is in potency in the same respect in order to actualize its own potency. This is clearly a contradiction, and there can be no escape from this since the cause concerned is a univocal cause. Thus direct self-causation is impossible.

Equally evident should be the impossibility of indirect self-causation, as in the instance of a circle of causes. One may argue that while this holds for a transitively ordered causal series, it does not hold in a non-transitive series where the causes prior to the effect are of the same kind, and are not ordered to one another in the production of the effect. Hence it would follow that there can be self-causation through a non-transitively ordered series of causes.

We can object, however, that since the cause is either itself per accidens, or is part of a per accidens series, it is in fact an equivocal cause, and not the proper cause of the effect. Moreover, even if it were, since in a per accidens series we have no sure knowledge of the per accidens causes or of its ultimate effect, we cannot hold as certain that self-causation occurs. If this cause were the proper cause and we had sure knowledge of the process of causality, this cause would no longer be per accidens but per se -- and we have already seen that a per se self-cause is impossible. Thus we may conclude with Aquinas that there can be no instance of self causation.

e) Given that we are dealing with a transitively ordered series of efficient causes, Aquinas goes on to argue in premises S3 and E3 that

this series cannot be infinite. Were it so, there would be no first and, consequently, no intermediate causes, no ultimate effect, and no explanation or sufficient reason of how things now have esse. Moreover, according to the Aristotelian tradition, unless we know all of the causes of a thing's coming to be, we cannot say that we truly know it. Consequently, if there is an infinite causal series, then we should truly never know the effect to be explained. Aquinas' reasons cited in the cinesiological argument against the possibility of an infinite series may also be noted here. And, foremost of these arguments is that, if there is an infinite series of caused causes, there is no explanation of the original esse in things which do not have it of their nature.

Aquinas believed that when a thing causes because it is caused, that which causes and that which is caused exist simultaneously. As we have seen, the Aristotelians held that 'causal chains are confined to one instant' and that 'causal efficacy must be instantaneous rather than chronological'.³⁷ Consequently, if Aquinas' views are to be taken in the context of his whole work, then it seems wrong to interpret him here as arguing against an infinite series of efficient causes stretching back in time. Rather, he is arguing against the possibility of an infinite, transitive series of causes which would thereby lack a first efficient cause on which each member of the series and its ultimate effect depend for their existence (esse). We should recall that it is not because causality is instantaneous that a transitive series must have a beginning: it is, rather, because the causes are ordered transitively (that it is a certain type of series) that they must have a beginning.

With regard to priority in this series, one can make explicit what seems to be an implicit distinction between non-temporal and temporal priority (e.g., a thing could be non-temporally prior to an effect without being temporally prior to it). Non-temporal priority, therefore, is primarily a relation of dependence. What about the world suggests dependence? The example has been given of the dependence of a man on concurrent conditions in his act of generation, and the fact that 'being' is not held in things by the principles of their natures may lead us to this view. Thus A is non-temporally prior to B if B depends on A for its existence and A does not depend on B for its existence. Indeed, as Avicenna says, it is only accidental that a thing causes in time.

Nevertheless, it is clear from what has been said that some series of efficient causes (sc., those which are not transitive) do constitute a temporal series. This is why Aquinas allows that the non-eternity of the world is but an article of faith, and why man could generate man for an infinite length of time.

Consequently, since Aquinas has rejected the possibility of an infinite series of causes and the possibility of a self caused cause, he concludes that there is some cause which is (though he does not say this in the Summa Theologiae) itself uncaused. This being, the cause of the esse in all things, cannot have its esse from another, and is itself pure esse which, for Aquinas, is the totality of all perfections. It is this, then, Aquinas concludes, to which men give the name 'God'.

f) Having been led to the existence of some first cause, we must now try to understand where Aquinas' proof has brought us. Several of our questions are parallel to those raised in connexion with the character

of the 'first mover'. Given that a search for causes is a search for explanation; the first cause explains the existence of what it effects per se -- that is, it not only elucidates how the effect occurs, but also what is responsible for its occurrence.

How does the existence of a first cause explain the occurrence of an effect? One possibility is that it is the first member of the causal series that brings it into existence, but this is rejected inasmuch as a first cause cannot be in some way a member of a series, for then it is subject to the limits to which other members of the series are also subject -- such as requiring a cause. A second suggestion is that it is an initiator of the series of effects out of which those effects with which we are concerned are generated, but not a member. This seems much more appropriate inasmuch as this emphasizes the distinctive activity of the first cause which 'creates' or brings into being the effect. Yet this too is incomplete for, while it explains the generation, it does not explain the continued existence of the effect. Should we find this description of 'first cause' satisfactory, we are left without answer to the question 'What is the reason for the effect to exist now?'.

A third option is to see the first cause as a source and ground for the initial and continued existence of what there is. As such, and given the mediaeval understanding of an efficient cause as a thing, it seems appropriate to designate this as an agent who is responsible for the effect and who serves as a principle of explanation. Thus the first cause is not a member of a causal series or like any other efficient cause inasmuch as it does not require a 'sufficient reason', but it is a ground for the existence of things and their creator, and

keeps the interrelations that exist among things constant. Its causality, moreover, is of a different nature from the causes whose existence it is used to explain. "Though the relation of creatures to God is analogous in some way to the relation of causal dependence of one finite thing upon another, the former relation is, if we consider it as such, unique."³⁸ It is not so much an analogous sense of efficient cause as the one true instance of efficient cause. Thus it is said to be transcendent.

In sum, then, we are to understand the first cause to which we conclude from our experience of the world, and in the search for its causes, as providing a metaphysical explanation of what there is, by showing the dependency of the effect (as a being which does not have esse of itself) on a cause which is, of itself, pure esse. Moreover, the causality of the first efficient cause is different from all other efficient causes. Indeed, not only do things 'efficiently cause' as generators while the first cause 'efficiently causes' as a creator, but the causality of the first cause is efficient causality in its most proper sense, and all other causes depend on this for their causal power and their esse.

The role of the first efficient cause in 'making' the world, then, is more like 'the minstrel made music' than 'the blacksmith made a shoe'. The shoe is made out of pre-existing material, and, once made, goes on existing independently of the smith; whereas the minstrel did not make music out of pre-existing sounds, and the music stops if he stops making it. Similarly, God did not make the world out of anything pre-existing, and its continued existence depends upon his activity.³⁹

This role is enunciated by Aquinas in the De Potentia Dei (I, 3, 7) when he considers whether God works in the operations of nature. He answers in the affirmative, though clearly this does not imply that nature does nothing alone by its own power. "God works in every natural thing not as though the natural things were altogether inert, but because God works in both nature and will when they work" (De Potentia Dei I, 3, 7). Thus we see this manifested in four ways: by giving something the power to act; in preserving of a power in something; to move something to act (as in the kinesiological proof); and as a principle agent causes the action of its instrument (as in the argument from efficient causality).

g) Just as in the argument from motion we saw that the 'first' is immovable, so also in this argument we show that it is uncaused. Once again, Aquinas does not specify this in the Summae, but this seems to be a natural implication from the nature of causality. This first cause is 'first' inasmuch as a higher principle is said to contain a lower and because it is the sine qua non of all subsequent effects inasmuch as it is the cause of their esse. As 'first' in the causal series, transitively ordered, it is without dependence on any other. Thus it has its esse of itself, and is pure act. In Aquinas' view, pure act is the sum total of all perfections, and may be said to be 'necessary' -- that is, it is a metaphysical impossibility that it not be -- though Aquinas reserves this explicit conclusion to another way of proof. And this, Aquinas concludes, men call 'God'.

h) In the argument from efficient causality, then, we are reminded of the role of esse in determining the proof as metaphysical and as

existential in thrust. This is evident not only from Aquinas' emphasis on facts in the world, but also from the very definition of efficient causality. Moreover, efficient cause for Aquinas was primarily that of an agent, and hence a proof using it does not simply lead to some 'brute fact', but to some agent whose essence explains both his independent existence, and the existence (esse) of the ultimate effect.

All causes that do not possess existence (esse) of their nature, depend for it on something else. As Aquinas says in the argument in the De Ente et Essentia, 'every being which is not the act of existing alone has a cause of its existence'. It is contradictory to claim that something is the product of a self-cause or of a circle in causes -- for then something, which is only potential to a certain act, will also have that act by means of which it will actualize its potency to that act. Moreover, the only kind of causal series which is of explanatory value is one which is transitively ordered. As such, however, we cannot have an infinite causal series, since there would be no explanation of the esse in those things which do not have it of their respective natures.

Since there cannot be any self-cause and since there is no possibility of an infinite series of causes, transitively ordered, we are led to postulate the existence of a first cause. This cause, we discovered, is not a member of a causal series as such, and neither is it like any other cause. Indeed, the causality of the first efficient cause is the primary instance of the secondary and dependent causality of creatures. In fact, since the first cause is uncaused it is pure esse, and possesses all perfections. And it is this that Aquinas saw to be God -- pure being. Thus he feels it is rightly said in Exodus 3.14 that the most

proper name of God is just this: 'Ego sum qui sum'.

3. Metaphysical Principles in the Cinesiological and Causal Arguments

From the discussion of the arguments from motion and efficient causality, it is evident that essential to them is the notion of being (esse). While this view is by no means non-controversial, we can see proof for it in the first instance where we are given the definitions of motion and cause, for in both cases Aquinas' concern is with the acquisition of esse by things through their accidental and substantial changes, respectively. Indeed, it has been emphasized that a thing cannot be moved or caused except through acquiring a new act -- accidental, in the case of motion; substantial, in the case of cause. Given this concern with the acquisition of esse (and inesse) or, in other terms, with the actualization of potentialities in things, we see how it is that Aquinas' arguments here are properly called metaphysical proofs. In contrast to Aristotle, Aquinas analyzes motion and cause in new metaphysical terms according to the principles which constitute all being, and this is part of the way in which we distinguish their views.

This preoccupation with esse, however, is not manifested solely in the definitions of motion and cause, for we also see it at work in the very first premise of both of Aquinas' arguments. Since the arguments begin with states of affairs that exist in the sensible world, Aquinas is appealing to our certainty that things have esse or are in a process of acquiring new esse. Since this premise does not depend on an analysis of the quiddity of these things, but on their existence in the world, the proofs are also seen to be existentialist in character. As

we may recall, Aquinas held that there was a real distinction between essence and existence and, on the basis of this, was able to distinguish arguments as either existentialist or essentialist. (In the latter case, the argument proceeds solely from an analysis of the essence or quiddity of the thing.)

We may conclude from this that the argument from motion and that from efficient cause are similar inasmuch as both are existential, metaphysical proofs, and both reflect a concern with their acquisition of being. It would seem that there is a prima facie difference between the two arguments in that the former begins with the fact that some things are acted upon and changed by others, and the second is based upon the fact that some things act upon one another as efficient causes. While this distinction is true, this should not dissuade us from seeing their fundamental similarity: both argue that since creatures do not have esse (or inesse) as a principle of their nature, there must exist some being which is pure act and the cause of all esse. The kinesiological argument explains accidental causality, while the causal argument accounts for substantial change. What is fundamental to the former, then, is the actuality involved in motion, not that which makes mobile things exist as substances.⁴⁰ Thus, while there is no confusion of the principle of motion and that of causality in Aquinas, the distinction is not nearly as great as would be under a 'physical' understanding of the principle of motion. Consequently, Aquinas cannot dispense with an argument from motion as readily as Scotus, for not only is the principle of motion in Aquinas a genuine metaphysical principle, but it is also integrally related to the principle of efficient causality inasmuch as both are reflections of the same concern for an account of the being in things.

Indeed, interpreted in this metaphysical way, the arguments -- and particularly the argument from motion -- become more plausible. Our concern is not simply with some initiator of motion, but with how mobile things came to acquire the accidental change that is dependent upon esse. To allow self-motion is not to state the obvious, but rather under Aquinas' analysis seems to deny the reason on which it depends.

While essè has this role in beings (entes), we are aware that in Aquinas it is attributed to creatures in a secondary sense, and to God alone in a primary sense. The relationship between the two is explained by Aquinas through the use of analogy. Pure esse, for Aquinas, is esse unlimited by essence, and it is therefore able to constitute the maximum of all perfections of a thing. Thus the causal power of the first efficient cause is that of creation, while in creatures it is generation and accidental change. Since the causal power and being of the latter depend in both origin and maintenance on the former, we are able to use effects to lead us to the existence of the first. Yet neither 'being', nor 'efficient cause', nor any other attribute, is a univocal term that may be applied equally to God and creatures, for the terms in their primary sense refer to God alone. Aquinas does not allow that one could abstract the attributes with which we are concerned from their primary or analogous senses, and does not view 'being' or other attributes as univocal concepts divisible into 'finite' or 'infinite' modes.

Again, given the primary concern with esse in the definitions of motion and cause, we cannot have any instance of self-motion or self-cause -- neither directly nor indirectly, as through a circle of causes or movers. Since we are required to obtain the per se cause of those effects from which Aquinas begins his proofs, we are also forbidden

from holding that there is an infinite series of causes or movers that is responsible for the effect. We noted here that Aquinas does not mean to say that there are no infinite series, but rather that there is no infinite series of transitively ordered causes which are partial causes of, and which together constitute the per se cause of, the effect. Once more, it is because an infinite series is simply a series of creatures which do not have esse as a principle of their nature, whereas we must refer to a being which does have it of its nature in order to explain how such dependent esse came to be and continues to be (since there is nothing in the creatures that explains this).

Thus, with the possibilities of self-cause and of an infinite series of caused causes excluded, we are led to a 'first'. This 'first', since it must have uncaused esse, is pure esse. While other, 'relatively first', efficient causes would have to depend on their intermediary causes to produce their effect together, the perfections attributable to God as pure esse are so great that, in fact, God is not required to cooperate with creatures or secondary causes in creation, and his omnipotence is in no danger. In these ways, then, we not only see the importance of esse in Aquinas' proof, but we also see how the arguments from motion and efficient cause are representative of a single metaphysical proof for the existence of a first esse -- a first efficient cause.

C. Aquinas' Views on the Four Central Aspects of the Cosmological Arguments

To conclude this chapter, and to prepare the way for the presentation of Scotus' cosmological argument from efficient causality, I shall review

Aquinas' positions on those four aspects which were identified in the introduction as fundamental to a cosmological argument and, hence, to the arguments provided by Aquinas above: the nature of demonstration and its applicability to proving the existence of something; the notion of cause and causal orders -- how causes interrelate to produce an effect, and in what this interrelation consists; the possibility and impossibility of certain infinite series; and the relation of effects to the 'first' -- such as problems of univocals and analogy, the nature of this dependence, and the possibility of inference.

Aquinas makes it quite clear that his cosmological arguments are to be demonstrations of whether God exists, not what his essence may be. This concern with 'existence' also manifests itself, however, in the first premise of his arguments, for he begins with a reference to some state of affairs that exists in the world. Thus he starts from an existential premise in its nature as an existing thing -- and this reflects the overall tone of his arguments. Aquinas' concern is not with quiddities, because essence follows on existence, which is both ontologically and epistemologically prior. We have seen this element of Aquinas' argument emphasized above.

In particular, Aquinas employs a quia demonstration for his proof for the existence of a first efficient cause. This method is akin to an a posteriori proof inasmuch as it begins with the epistemologically prior (the effects) and proceeds to the ontologically prior (their proper cause). This form of argument is properly scientific and a genuine demonstration. Indeed, the only distinctions Aquinas drew between propter quid and quia proofs were (1) that the former infers from the ontologically prior to the ontologically posterior, while the latter does

the reverse, and (2) that questions of existence are suited to a quia proof, but not to a propter quid proof.⁴¹ From this quia proof Aquinas is led to a 'divine name' in the conclusion -- the divine name being the proper sense of the attribute from whose analogical predication in creatures he has inferred. Thus the divine name of 'first efficient cause' -- later equated with pure esse -- is arrived at through an analogy of attribution but, unlike Aristotle, it is intrinsically denominated.

The definitions of motion and efficient causality also underwent a deepening at the hands of Aquinas, for he placed them in the metaphysical sphere inasmuch as they reflect two different, but related, ways in which things acquire their esse -- in accidental and in substantial change, respectively. That which is the cause of the esse found in things through the processes of accidental and substantial change must prepossess the actuality which it causes in the effect, and, viewing the cause as concerned with being (esse), we are better able to make sense of this view. In other words, the cause is like the effect inasmuch as it is the cause of the esse of the thing -- of whether it exists.

It was noted that Aquinas, like all Aristotelians, was primarily concerned with per se causes. Thus, in light of this and of the nature of causality and of motion, we see that there can be no self-cause or self-motion, either directly or 'indirectly' (i.e., through a circle of causes) -- not only because of the standard Aristotelian arguments, but because of our recognition that the primary concern with esse renders it self-contradictory.

The impossibility of a circle in movers or causes should be equally evident, but the kinds of ordered series of causes that Aquinas acknow-

ledges can be pressed into service here. Aquinas indirectly distinguishes between series of causes where the causes are simultaneous in causality in the production of the effect and are contiguous to one another in this activity. These I call 'transitively ordered' and we note that the causality in such a series is asymmetrical and irreflexive. Since these causes, together, constitute the per se cause of some effect, we see that, if one of the causes included in this series were to be in this way a partial cause of itself, we are led again to a self-contradictory state of affairs.

This notion of a transitively ordered series, however, has its most fruitful application in Aquinas' rejection of an infinite series of causes. It is only such a series that Aquinas claims cannot be infinite. Indeed, this should be evident inasmuch as the series represents the per se cause of the effect, explaining how the effect, which does not have its esse of itself, came to have it and continues having it. Without an uncaused cause -- a 'first' -- no being would have esse of itself, and hence there would be no adequate explanation for how it came to be. After all, we are reminded of the Aristotelian dictum that a search for explanation is a search for causes. Thus, we are led to the existence of a first efficient cause -- a cause of accidental and substantial change -- because the causal series is ordered in this way.

From this, the relation of effects to this 'first' should be clear. We see that an inference from effects to causes is possible in Aquinas because of the analogy of terms predicated of God and creatures. This is not merely a logical relation, but also expresses the metaphysical connexion between that which does not have esse of its nature and that on which it depends for its esse. On account of this relation, and the

nature of agency which it reflects, we see how creatures resemble their causes, so that we may infer similar attributes to exist, though in a higher, primary, sense, in that being which Aquinas identifies as 'Pure Act'. In short, the 'first' being prepossesses the perfection of that attribute that we predicate analogously of God and creatures.

We arrive at these divine names, then, through the conclusion of our quia demonstrations. It is inasmuch as the existence of these attributes in creatures depend on their primary form as it is found in God that we are able to construct a demonstrative inference. But one might ask whether this relation through a series of secondary causes in a transitively ordered series would detract from the omnipotence of this being, seeing that it is the first cause, along with the secondary causes, that constitute the per se cause of the ultimate effect.

Given Aquinas' metaphysical argument in which he searches for the cause of the esse in things, the first cause, as uncaused, is pure esse. Pure esse, as we noted, is perfection unlimited by essence and hence is the totality of all perfections. As such it is most properly a 'creator' and not merely a 'generator' and it has no need to work through secondary causes, although it may elect to do so. Thus, while we may arrive at such a being through a transitively ordered series, there is no need that it be dependent on the latter in the exercise of its causality.

From this chapter, then, one should have a fairly clear idea of the arguments used by Aquinas that are relevant to a demonstration of the existence of a first efficient cause. It does not follow that Scotus had these in mind -- or, at least, as I have interpreted them -- when he prepared his arguments against the principle of motion and for a cosmological proof from efficient causality. Nevertheless, it should

soon become evident how Scotus differs from Aquinas as we examine Scotus' argument , and it is to a presentation of this latter that I now turn.

Notes to Chapter One

1. See Appendix I, A. An example of a propter quid proof is:

- 1) Whatever is near does not twinkle. (M-P)
- 2) Every planet is near. (S-M)
- 3) The planets do not twinkle. (S-P)

An example of a quia proof is:

- 1) Whatever does not twinkle is near. (M-P)
- 2) The planets do not twinkle. (S-M)
- 3) The planets are near. (S-P)

This latter is a quia proof for it is not because they do not twinkle that the planets are near but, rather, because they are near, they do not twinkle. See Thomas Aquinas, Commentary on the Posterior Analytics of Aristotle trans. F.R. Larcher (Albany: Magi Books, 1970), p. 75. Both syllogisms are in the first figure as befits demonstration.

Translators and commentators (such as Allan Walter and the translators of the edition of the Summa Theologiae from the Fathers of the English Dominican province) often equate demonstratio propter quid with a priori demonstration and demonstratio quia with a posteriori. We shall do so as well. For an attempt at a distinction of the mediaeval terms from the Kantian, see Cardinal Mercier, A Manual of Modern Scholastic Philosophy, 3d English edition, 2 vols. (London: Kegan Paul, Trench, Trubner, & Co., 1928) Vol. II, p. 184.

2. Aquinas says specifically of the argument at Physics VII 1, 242a 5-16 that it is a propter quid proof. See Joseph Owens, "The Starting Point of the Prima Via", Franciscan Studies 27 (1967), pp. 249-284, p. 272. In general, it would appear that Aristotle does attempt to meet the rigid requirements of a propter quid demonstration. For one thing, the premises from which we move in our demonstration, are certain and may be argued to be necessary, since motion is everlasting. Moreover, demonstration is of something 'necessary', and Aristotle's arguments lead us to the first cause and mover which is the proper and necessary cause of motion. However, since Aristotle begins with reference to an existential claim -- that there is motion in the world -- and concludes to the existence of some being, quia demonstration seems solely appropriate, for Aristotle does not permit demonstration of singulars. This latter view would seem to be supported by the fact that, as a cosmological proof, we are concerned with the fact, and not the reasoned fact. Nevertheless, in Posterior Analytics I, 14, 79a 18, Aristotle says of demonstratio propter quid that it is 'most scientific'.
3. James F. Anderson, "On Proof in Metaphysics", E. Simmons, ed. Essays on Knowledge and Methodology (Milwaukee: Cook Co., 1965): 99.
4. Ibid., p. 100.
5. Ibid.
6. See Appendix II, Avicenna.

7. Bernard Wuellner, ed., A Dictionary of Scholastic Philosophy. 2nd ed. (Milwaukee: Bruce Publishing Co. 1966), pp. 12; 14.
8. Ibid., p. 14.
9. F.C. Copleston, A History of Philosophy Vol. II Part 2 (Garden City (N.Y.): Image Books, 1962), p. 75. Some hold that this is a controversial view. It will not, however, be debated here.
10. Anderson, "Proof", p. 104.
11. James F. Anderson, Reflections on the Analogy of Being, (Hague: Martinus Nijhoff, 1967), p. 27.
12. Joseph Owens, "The Conclusion of the Prima Via", The Modern Schoolman 30 (1952/3): 119.
13. Ibid., p. 37.
14. Aristotle Physics. VI. 4. 234b 10; Phy. VII. 1. 242a 5-6.
15. Aristotle Phy. VIII. 4. 254b 7-255a 23.
16. Aristotle Phy. VIII. 2. 253a 15-16.
17. See Patterson Brown, "Infinite Causal Regression", A. Kenny, ed. Aquinas (Garden City (N.Y.): Anchor Books, 1969) pp. 219-236.
18. See Appendix II, Avicenna.
19. Aristotle Phy. VI. 7. 238b1-23; Phy. VII. 1. 242b20-243a 3.
20. Aristotle Phy. VIII. 5. 256a 17-256b 4.
21. Aristotle points out that we perceive time and movement together (Phy. IV 11. 219a 4-5) and 'every change and everything that moves is in time' (Phy. IV 14. 222b 30). Those things, therefore, which are subject to perishing or becoming are necessarily in time: for there is a greater time which will extend both beyond their existence and beyond the time which measures their existence (Phy. IV 12. 221b 25-fin). Thus, Aristotle remarks, 'if, then, time is the number of motion or itself a kind of motion, it follows that if there is always time, motion must also be eternal' (Phy. VIII. 1. 251b 14).
22. See Joseph Owens, "Actuality in the 'Prima Via' of St. Thomas", Mediaeval Studies 29 (1967) pp. 26-46.
23. Owens, "Conclusion", p. 38.
24. Ibid.
25. Ibid., p. 42.

26. Brown, "Regression", p. 228.
27. Aristotle Phy. VIII. 5. 257a 13.
28. Owens, "Conclusion", p. 213.
29. Ibid., p. 121.
30. Ibid., p. 214.
31. H. McCabe, "Causes", Summa Theologiae Vol. III, (London: Eyre and Spottiswoode, 1964) Appendix 2. pp. 101-103.
32. Ibid.
33. Brown, "Regression", p. 234; see also P. McClelland, Causal Explanation and Model Building in History, Economics, and the New Economic History, (Ithaca (N.Y.), Cornell U.P., 1975), p. 39.
34. See Appendix II Avicenna.
35. P.T. Geach, "Aquinas", G.E.M. Anscombe and P.T. Geach, Three Philosophers (Oxford: Basil Blackwell, 1961), p. 112.
36. Ibid.
37. Brown, "Regression", p. 221.
38. Copleston, Philosophy, p. 115.
39. Geach, "Aquinas", p. 110.
40. See Owens, "Actuality".
41. See Anderson, "Proof", pp. 101-108 for an opposing view.

CHAPTER TWO

THE METAPHYSICAL BACKGROUND TO SCOTUS' PROOF

Introduction

While Scotus did not see or anticipate all of the criticisms of the cosmological proofs that have since been raised, he did recognize that there were several problems in presenting such a proof. Hence, he naturally sought to produce an argument that would avoid many of the criticisms of prior cosmological and even causal proofs. This is his metaphysical argument from efficient causality and it appears in various forms in the Lectura Oxoniensis I, d.2, pt. 1, qq. 1-2; the Ordinatio (Opus Oxoniense) I, d.2, pt. 1, qq. 1-2; the De Primo Principio, ch. 3; and the Reportata Parisiensia I, d.2, pt. 1, qq. 1-2.

Before we can fully appreciate Scotus' arguments, however, we must have a clear idea of the metaphysical background out of which they developed. In this chapter, therefore, we will be primarily concerned with elucidating several of the fundamental underpinnings of Scotus' proof. First of all we must ask what metaphysics is for Scotus, in order to understand his approach to a metaphysical argument. Here we shall consider some of the implications of his metaphysical system relevant to the language and method of his proof. Next, I shall outline what a metaphysical proof is, in contrast to one from physics. Having explained what a metaphysical proof is for Scotus, I shall then explain why he chooses to use such a method, even though he acknowledges that there is some cogency to a physical proof.

More precisely, Scotus uses a proof from efficient causality, and we might ask why. Part of the reason for this is consequent on his understanding of 'being'. Thus, I turn to explain Scotus' view of God as infinite being. Being, I note, is understood in terms of disjunctive properties, which reflect an essential order between the prior and posterior disjuncts, and causality is one of these disjunctive properties. Once it is clear what efficient causality, as a disjunctive property, means, we see how it is suited to a metaphysical proof. With this, and given Scotus' views on demonstration, we see how he is led to employ a proof from efficient causality.

But what are the requirements for a metaphysical argument to be demonstrative? Scotus notes that there are specific conditions to be met, among which is that the premises be necessary. In order to fulfil this, we note that Scotus' argument is made in the realm of quiddities, but that it is denied that it is an a priori or essentialist proof. Indeed, its a posteriori character is emphasized by Scotus. Given this, we see yet further reasons why Scotus selects efficient causality as the medium of his proof.

Once Scotus' metaphysical background is clear, we can proceed to examine his cosmological proof and his contribution to those areas which were identified earlier as central to the cosmological arguments from efficient causality: the nature of demonstration and its applicability to proving the existence of something; the notion of cause and causal orders -- how causes interrelate to produce an effect and in what this interrelation consists; the possibility and impossibility of certain infinite series; and the relation of effects to the 'first' -- such as problems of univocals and analogy, the nature of this dependence, and

the possibility of inference.

A. Metaphysics and Scotus

It is clear from what has been said that Scotus proposes a metaphysical proof for the existence of a first efficient cause. In order to make sense of this, however, we must have clear Scotus' relevant metaphysical suppositions. The first and most fundamental of these is Scotus' conception of metaphysics itself. For Scotus, metaphysics is the science of transcendentals (Quaestiones Subtillissimae in Metaphysicam Aristotelis, prol., n.5; 3). Transcendentals are either coextensive attributes, or disjunctive attributes, of being, and are transcendental because they are not determined to a particular mode of being (e.g., finite or infinite being) (Ord. I, d.8, q.3; 4). According to Scotus, 'being' is the first of these transcendentals and the first object of the intellect. As such, it is the subject of metaphysics (Rep. Par. prol., q.3, a.1; 10). The concept of 'being' that Scotus refers to, is logically prior to finite or infinite being, and as derived from experience, it has a real foundation in reality. Yet while it is founded in reality, it does not refer to any being or aspect of a being in the world.¹

What is 'being' for Scotus? Scotus argued that there is no real distinction between the essence and existence of a thing (Ord. IV d.13, q.1, n.38). Thus he opposed both Giles of Rome, who held that essence and existence were two physically separable entities, and Henry of Ghent, who argued that the esse essentiae (the essence of a thing as known by God) existed prior to the esse existentiae (the existence of this essence in reality), though there was not a real distinction between essence and

existence in creatures.² Yet though he held that essence and existence in a thing were the same, Scotus also argued that existence is an accident (Ord. II, d.3, q.3, n.2).³ How can we make sense of this prima facie contradiction? By this former point, Scotus means that one cannot have the essence of a created thing without it being the essence of a thing that exists; to conceive of a thing without existence, is to conceive of it as nothing. And, for each and every condition of the essence -- as a 'creable', 'possible', or as a 'created nature', there is a corresponding degree of being (esse) which is exactly proportionate to it.⁴ Moreover, one cannot have existence without it being the existence of some thing, and hence it is necessarily attached to some essence. Thus, existence without the determination of essence is also nothing. In creation, then, God does not will both the essence of a thing and its existence, but the existence of that thing as a whole. This denial of a real distinction does not entail that having a concept of a thing implies that it has existence in the world. We can know what something is to be, without knowing whether it exists in the world. What Scotus denies is that the essence of a thing as something exists before it is brought into existence in reality.

On the other hand, existence is an accident in the sense that there is nothing in the essence of the thing that entails its existence, and that to exist adds nothing descriptively to what a thing is, save in the primum ens. It is accidental, not in the sense that it is in the essence as in its subject, but rather that existence is foreign to essence because it is foreign to its quiddity.⁵ Thus, existence is accidental to the essence of the thing. Existence, however, is the definite modality of essence itself -- i.e., as this kind of essence a thing has, as a con-

sequence, the proportionate kind of existence.⁶ In a sense, therefore, essence is prior to existence, but not in such a way that it pre-exists or separately exists from its appropriate manner of being.

Aquinas held that metaphysics was concerned with real being (ens), and that this is grasped through judgement. Thus, after sensorial experience, the intellect affirms that there are beings. Aquinas would deny that there is any univocal concept of being that is logically prior to the 'being' of creatures and the 'being' of God. Although epistemologically prior, the being possessed by creatures is ontologically posterior and is seen to be dependent on being in its primary sense, which is God.

'Being' (ens), for Aquinas, consists of two constitutive metaphysical principles -- essence and existence. Existence and essence are not separable things -- without existence there is no concrete essence, and vice versa. Nevertheless, existence and essence are really, and not merely conceptually, distinct. In things, essence and existence are created together. Existence is not accidental to a thing, but rather is that by which a thing has being. Yet existence is determined by essence in that it is the existence of that essence. Existence is said to have priority because it is through the fact that a thing is that we know what it is, and it is through existence that we have essence. God, for Aquinas, we note, is pure existence and, contrary to Scotus' view, existence without a determining essence is the highest sense of being (esse).

In both Aquinas and Scotus, however, essence and existence are integrally related, though this is differently conceived. This seems largely on account of the differing notions of what constitutes a real distinction. For both authors, however, creation is the production ex

nihilo of the whole object, and it seems that their respective analyses of 'being' are intended to preserve this view.

Despite the fundamental metaphysical differences of Aquinas and Scotus, it would seem that we can still compare their arguments. In enumerating the points of comparison and points of contrast, however, we should be aware that their different metaphysical suppositions lead them to define certain commonly used words in different ways. Thus the contrast and comparison of the views of Scotus and Aquinas should take this into consideration.

Scotists deny that Scotus' proof is a priori and essentialist, but this is not because the proof does not operate in the sphere of quiddities, and makes no inference therefrom. They hold this view because there is no real distinction between essence and existence and hence an analysis of the quiddity of a thing is that of a thing that exists. Correlatively, the proof is not a priori, since it refers to existents. Aquinas' different metaphysical views on the distinction of essence and existence would lead him to what is prima facie the opposite conclusion. Since Scotus' proof is concerned with quiddities, Aquinas' followers charge that Scotus' argument is clearly essentialist since the actual existence of the thing does not enter the picture.⁷ Consequently, they claim, as Scotus' argument develops on the basis of the analysis of a thing as produced, it is a priori. These and related metaphysical presuppositions have strong implications in Aquinas' and Scotus' respective views on analogy, the principle of motion as a metaphysical principle and, to a lesser degree, on efficient cause (i.e., the bringing of one thing into existence by another) and the nature of this 'existence' into which a thing is brought. These fundamental differences will be noted throughout

these two chapters and will be discussed at greater length in the conclusion.

B. Metaphysical Proof

Given this idea of the nature of metaphysics in Scotus, what does he mean by metaphysical proof -- in distinction from a physical proof? A metaphysical proof is, obviously, concerned with the metaphysical aspects of things and with metaphysical entities themselves. In Scotus, as we shall see, the method of demonstration to be used must meet certain stringent requirements (unique to his system), which thereby guarantee absolute certainty for the conclusion. Unlike a physical proof, then, it allows proper reference to entities not included in physics and hence it is able to transcend the restrictions of natural philosophy. Moreover, it employs concepts of the metaphysical aspects of things in the premises of the proof. Specifically, since metaphysics is primarily a science of transcendentals, we see that the primary concern of a metaphysical proof is being, its nature, and its properties, and this includes those disjunctively convertible attributes which are coextensive with being.

Metaphysical proof concerns itself primarily with the first being (primum ens) as such, and not, as in the instance of a physical proof such as Aristotle's, as a prime mover. The primum ens is absolute and does not, of itself, have any reference to things. This reflects yet another peculiar feature of this kind of proof. Metaphysical proof in Scotus does not allow reference to, or demonstration of, contingent things in their contingency. Thus, while a physical proof will, in Scotus' view, lead to a physical cause of a contingent state of affairs,

a metaphysical proof can conclude to the ontological principle of things, without being subject to the possibility of the falsifiability of a contingent premise (Lect. 56-57).

C. Scotus' Justification for using a Metaphysical Proof

The Lectura Oxoniensis (40) appears to be the only text which contains a specific explanation of Scotus' preference for a metaphysical rather than a physical proof. Part of the reason is that God, as ens infinitum, is the subject of metaphysics, while the principle of motion is not a valid metaphysical principle. Consequently, God's existence cannot be demonstrated by such a proof or by a proof that uses it. At best, the principle will lead to a prime mover, which leaves us short of the primum ens and cannot transcend the natural order to bring us to the existence of a transcendent first principle. Moreover, as Scotus adopts Aristotle's analysis of motion, he finds that motion is dependent upon prior principles of being, and hence cannot itself be a metaphysical principle.⁸ If a physical proof could demonstrate the existence of this being, this would entail that physics is prior, ontologically, to metaphysics -- which Scotus expressly rejects.

Other reasons for Scotus' position include the following. Any attempt at a quidditative of entails a metaphysical investigation. The relative properties of being with which Scotus begins his proof are part of the quidditative concept of being, for Scotus' emphasis in the argument seems to be that we know of the existence of a thing through what it is, not whether it is. Given the proper place of these quidditative matters in metaphysics, they cannot be demonstrated by a physical proof.

Metaphysical proof also provides us with a conception of God which is more perfect than one reached through physics. Metaphysics alone, for example, includes the concept of infinite perfection which is singularly appropriate to God. Moreover, the conception of God provided by metaphysics is superior to that of physics because the notion of a prime mover is a relative notion entailing the existence of moved things, whereas the metaphysician's notion of primum ens is absolute and entails no such thing. We also note that not only is infinity proper to metaphysics alone, but the metaphysician's notion of a first being necessarily implies infinity, whereas that of the physicist has no such implication.⁹ In addition, it seems reasonable for Scotus to employ a metaphysical proof because there are more attributes in metaphysics than in physics which are appropriate to God (e.g., where physics uses motion alone, metaphysics uses the properties of being itself) and metaphysical data are more certain (Lect. 40).

A further reason why Scotus seems to have selected this approach from metaphysics is that it is an implication of the method of demonstration that he chooses. Scotus sought an argument for the existence of an ens infinitum that was demonstrative and indubitable, and this required indubitable premises and a demonstrative argument form. Scotus believed that so long as one is concerned with particular events in the physical sphere, the premises expressing these states of affairs are contingent (Ord. I, d. 2, q. 1; 48; DP 3.6). Consequently, arguments which use such premises are not demonstrations, and hence the conclusion to which they lead is not absolutely certain (Ord. I, d. 39, q. 1; 10). In constructing his proof, therefore, Scotus does not refer to states of affairs in their contingency. Instead, these states of affairs are understood

under the mode of possibility. Thus, the premises that Scotus begins with are necessarily true, and by this means, Scotus thinks that he circumvents the problems that arise from the uncertainty of the premises of previous cosmological arguments (Ord. I, d.39, q.1; 10). As his premises are necessary, and as the argument form -- being in the first figure -- entails validity, the conclusion itself is necessarily true and absolutely certain. Thus, in order to obtain a certain demonstration, Scotus uses a metaphysical proof.

One obvious reason why Scotus uses a metaphysical proof is that his is a metaphysical investigation. The efficient cause is what gives things their existence. Viewing existence as an accident, as Scotus does, one holds that each existing thing must have a cause that causes existence to inhere in it. This is not a temporal demand, but a metaphysical one. Even if there need be no creation in time, a creature must have a beginning, and this requires a metaphysical explanation.

Although Scotus thinks that it is possible to give a metaphysical demonstration of God's existence, in the way outlined above, this does not entail that one cannot provide a reasonable argument using contingent propositions -- for example, 'Something non-eternal exists'. Indeed, nowhere does Scotus claim that natural philosophy is unable to make any contribution towards proving the existence of God: while he rejects the principle of motion, nowhere does he specifically reject the argument from motion.¹⁰ Scotus says that while such propositions as 'Something non-eternal exists' are not necessary, it is nevertheless most evident so, that anyone who would deny the existence of some being which is not eternal needs 'senses and punishment' (Lect. 56). Since contingent facts and beings call for a necessary being, it follows that we can demonstrate

the existence of such a being. At the same time, however, a physical proof could not equal the strict metaphysical approach to God for the reasons given above. Scotus concludes, then, that there is a more logically rigorous, and more appropriate, method of proof than those which begin with the assertion of contingent states of affairs. This is why, in consequence, he adopts a metaphysical proof.

D. Scotus' Justification for a Metaphysical Proof from Efficiency

While we now know why Scotus chooses to employ a metaphysical proof to demonstrate the existence of God, it may not be clear why he selects the way of efficient causality. Thus, first I shall explain how Scotus understands God as infinite being. From the notion of 'being', I will show how we are led to the notions of disjunctive attributes and of essential order, and thence to that of efficient causality. Subsequently, I shall explain what efficient causality means for Scotus, and how this is derived from efficient causality understood as a disjunctive attribute of being.

As for Aristotle, the subject of metaphysics for Scotus is 'being'. Scotus would say that 'being' (ens) in its primary instance is the most proper attribute of God (Ord. I, d.8, q.3; 4). We can recall the passage in Exodus which seemed to the mediaevals to present the most comprehensive characteristic of God: Ego sum qui sum (Ex. 3:14). After ens, the most fundamental attribute of God, according to Scotus, is 'infinity' (Ord. IV, d.13, q.1, n.31; DP 4.47).¹² This conception of God as infinite being is the fundamental notion, and most perfect concept, of God in Scotus' natural theology.

The concept of infinity used by Scotus is not simply the vague sense which means 'the removal of all limits', but has, rather, a positive content -- the possession of all perfections, exceeding the finite out of all proportion.¹³ Duns Scotus is not convinced that he has successfully demonstrated the existence of God until he has also demonstrated the existence of an infinite being.

'Being' includes two kinds of properties that are convertible with it -- disjunctively convertible properties and simply convertible or absolute properties (i.e., properties that are simply equal to 'being', such as, unity, truth, goodness) (Ord. I, d.3, q.3; 5). The former include those relative properties through which, ideally, Scotus will be able to infer from the existence of the inferior term in creatures to the existence of the superior term in God (Ord. I, d.2, q.1; 41). These properties are known a posteriori and, properly speaking, can only be said to exist when creatures exist.

The relative properties, by means of which Scotus constructs his demonstration for the existence of a primum ens, are disjunctive properties of being. These disjunctive properties of being (such as 'possible or necessary') in general can be signified by the notion of an essential order (such as 'prior or posterior'). In the De Primo Principio, the notion of essential order unifies the various disjunctive properties of being.¹⁴ In Scotus' argument we are ultimately led to the existence of a most prior member in the several essential orders, so that the primum ens is also described as the Absolute Prior.

But what precisely is 'essential order'? Among all essences, there is a mutual relation of priority and posteriority and the notion of essential order expresses this. This ordering is not dependent on

temporal relations, but on the ground of the being of its members. It can apply, therefore, not simply to cause and effect, but also to the relation of causes to one another in the production of an effect, as we shall see presently. In short, whenever things are related to one another through their essences, and hence in a relation of priority and posteriority, we have an instance of an essential order.

In the first chapter of the De Primo Principio (1.9), we see Scotus beginning to elucidate the essential order of dependence. The essential order of dependence is divided into: something caused, and that on which it depends is its cause; something caused, and that on which it depends, are both the results of the same cause. The former division is in turn separated into formal, final, efficient, and material cause. The latter expresses the notion of essentially ordered causal series, which is fundamental to Scotus' proof. All causes are, by their nature, essentially ordered to some thing (e.g., to their effect).

Through the notion of essential order, Scotus believes that we have a means of relating the immanent to the transcendent as constituting the terms of a disjunctive attribute of being. In the particular order in which we are interested, we will see that whenever there is an aspect in creatures which touches causality, we can establish a starting point for working our way back to God. So also with all other disjunctive properties.¹⁵ Fundamentally, however, the absolute point of departure whenever we have reference to essential order is that of being.

The particular essential order with which we are concerned in Scotus' proof is that of efficient causality and, to a lesser degree, final causality and eminence. Scotus says that he is concerned with efficient and final causality because, together, they constitute the two essential

orders of extrinsic causality (Ord. I, d.2, q.1; 41; DP 3.3). Why are the orders of extrinsic causality of such importance? Efficient and final causality provide us with the relative properties of creatures from which we derive the absolute properties of God, and the orders of intrinsic causality are dependent upon them. Material and formal causality are dependent in this way because they require an efficient cause to bring the matter and form together. Together, efficient and final cause are called 'extrinsic' because they establish a causal relation between the cause and the thing caused which, according to the Aristotelian analysis of causality, cannot reside in one and the same thing. Consequently, the cause is 'extrinsic' and external to the thing caused.

Like Aquinas, Scotus understands efficient cause in creatures as 'the actualization of the potential of a thing towards a new substantial form', and views it (roughly) in terms of an agent bringing it about that a certain form resides in a material cause. As we saw claimed of Aquinas, efficient causality involves the getting of existence by some thing. But, like both Aquinas and Avicenna, Scotus' paradigm of efficient causality is 'creation' -- the causing of the coming into being of a thing which does not have existence as part of its nature. This attribute obviously is predicated of the primum ens. An efficient cause, however, is not simply a cause of change, but is also that which produces and conserves in existence that which changes, by means of substantial change (in creatures) and creation (in God).

What is the role of efficient causality in Scotus' proof? Scotus interprets efficient causality in a metaphysical way. He argues that efficiency, from a metaphysical viewpoint, is a more extensive way of proving the existence of the first cause than this principle as it is

understood in physics (Lect. 40). Efficient cause understood in Scotus' metaphysical way leads to a more extensive proof since 'to give existence to another' is of broader scope, and indicates a more perfect (powerful) cause, than 'to give existence by way of motion and change'. This former understanding allows that the first efficient cause does not merely cause 'fluid existence' or motion or generation, but 'existence' in an unqualified sense.

Physical efficiency, moreover, can never reveal anything more than a physical source of physical motion, and it, therefore, allows for only an inferior proof. Of course, it cannot lead one to a metaphysical proof, since the proof of the existence of the inferior does not include the proof of the existence of the superior (Lect. 40). Only by strict metaphysical argument based on experience, Scotus claims, will the philosopher reach a God who is not merely a moving cause, but the First Principle of all things.

This notion of efficient cause, then, seems to mean 'creation', but since no creature can create (in the sense of production ex nihilo) it must also mean 'substantial change'.¹⁶ Interestingly, for Scotus, philosophers cannot know whether God can create all things without the mediation of secondary causes. This, then, requires that he make a distinction between philosophical and theological creation. The reason for this distinction, it is suggested, is that the philosopher might object that the theological notion of creation destroys the essential order of causation by allowing direct creation of creatables without the medium of the necessary secondary causes.¹⁷ Yet in those cases where he permits the direct creation of things ex nihilo without the mediation of secondary causes, we have all that is needed for us to note the distinction

between the causal efficacy of God and that of creatures.

One thing is clear, and that is that substantial change is clearly more fundamental than that of change of place, quantity, and quality -- which are kinds of accidental change. The most plausible way, then, in which one can understand metaphysical efficient causality is to see it in light of a disjunctive character, i.e., as meaning, in creatures, substantial change, and as having as its superior term, creation (in the philosophical sense). This latter, then, is the perfection of 'creation' that Scotus wishes to attribute to the first efficient cause.

Since an efficient cause can be either a generator or a creator, one would not be able to accuse Scotus of begging the question by referring to the latter as the only sense in which we might understand efficient causality. Moreover, as Scotus' demonstration is an argument from relative attributes to their exemplar which is absolute, he can speak of creatures which produce (generate) and can claim that from the productive capacity we are led to a first being which also produces, but in a higher way (creates). If we understand 'efficient cause' in this univocal sense, then Scotus seems to be able to avoid Kant's charge against an argument from efficient causality that transcends the natural order.¹⁸ Thus, given the relation of efficient cause to being, and that not only the requirement of certainty but the subject matter of being is suitable to a metaphysical proof, we can see at least part of the reason why Scotus is led to employ a metaphysical proof from efficient causality.

E. The Nature and Requirements of Scotus' Metaphysical Proof

We have to this point seen briefly what it is to be a metaphysical proof in Scotus' system, and we have also seen in part how an argument

from efficient causality is related to a demonstration of the existence of an ens infinitum. What remains to be discussed, in providing the metaphysical background to Scotus' argument, is the precise method of demonstration that Scotus employs, what its demands are, and what this implies concerning the nature of his proof -- for example, whether it is a priori or a posteriori and whether it is essentialist or existentialist.

1. Basic Requirements of Demonstration

To begin, we may ask, what is the form of Scotus' metaphysical argument? To answer this, a brief consideration of the method of demonstration that Scotus adopts, and of the way in which he satisfies the requirements of this method in his proof, is in order. Scotus' method of demonstration is in keeping with the Aristotelian tradition of the middle ages. According to Aristotle, the sort of argument that will provide us with certain knowledge (scientia) must be demonstrative. If the conditions of demonstration are not met, the argument is not productive of scientific knowledge, and we are not able to conclude to that at which the argument aims.¹⁹

Scotus introduces us to the two methods of demonstration -- demonstratio propter quid and demonstratio quia (Lect. 40; Ord. I, d.2, q.1; 41). Save with one short passage in the quodlibetal questions On God and Creatures (Quaestiones quodlibetales q.7.7), Scotus does not deal specifically with the conditions for demonstration. We will recall that the distinction between quia and propter quid demonstrations was made first by Aristotle and adopted, with minimal revision, by Avicenna and Aquinas. Aquinas, in apparent distinction from Aristotle, however, allowed that a quia proof was capable of providing certain knowledge.²⁰

These two methods of demonstration are often associated with a priori and a posteriori proof. In Scotus, as in Aquinas, demonstratio propter quid is associated with the former, and demonstratio quia is associated with the latter.²¹ The former, as we know, is a syllogism whose middle term expresses an ontological cause or reason why the predicate of the conclusion inheres in the subject. In the latter, the middle term is something that connects predicate to subject, but does not give the ontological reason or cause why the subject has such a predicate. Thus, for example, it may give the epistemological cause by which we come to know the 'effect', even if this 'effect' be ontologically prior. In short, quia demonstration establishes the fact that the predicate of the conclusion resides in the subject; propter quid demonstration establishes the reason why it does so. For Aquinas and Scotus, in both kinds of demonstration the premises constitute evidence for the conclusion.

From Scotus' brief treatment in the Quaestiones quodlibetales (q.7.7), it seems that both propter quid and quia demonstrations are based on necessary and evident premises. For Scotus, though the former is more perfect than the latter because it refers to the ontological cause, this does not mean that the latter does not lead to a certain and evident conclusion. Both seem to meet the basic conditions for scientia. In short, demonstration simply consists in inferring a necessary truth from another certain truth with which it is necessarily connected. These requirements seem to be, basically:²²

1. Certitude of the conclusion and of the premises from which it is inferred -- without doubt or error.
2. The proposition known must be a necessary truth, for purely contingent truths are incapable of demonstration.

3. This necessary truth which we wish to demonstrate is not immediately evident, but known by reason of other evident and necessary truths.
4. The necessary and evident principles are related to the proposition scientifically known, as the premises of a valid syllogism are related to their respective conclusion. (As in Aristotle's claim that the conclusion is related to the premises of a demonstrative syllogism as effect to cause. In a quia demonstration the cause in question is not the precise reason why the predicate inheres in the subject, but why we know that the predicate is so affirmed.)

It is repeatedly emphasized in discussions of the mediaeval notion of demonstration that there is no reason to believe that a quia demonstration is any less certain than a propter quid demonstration.²³ If a quia demonstration fails against condition 3, it is because the premises were contingent and not necessary.²⁴ However, not only do we have no reason to suppose that a quia demonstration is essentially incapable of fulfilling the four requirements for strict scientific knowledge, but Aquinas, Aristotle, and Ockham seem to agree that it is adequate. And if a quia demonstration in general is not a demonstration because it is based on contingent premises, then, given Scotus' description of the method he will use, he can avoid this problem.

Scotus will use a quia demonstration, since it is impossible for us to provide a propter quid demonstration without knowing the essence of God. Since such a demonstration can, apparently, meet all of the requirements stated for certain knowledge, there can be no criticism on this point of Scotus' proof. Moreover, Scotus would likely argue, that propter quid proof is unsuited to demonstrating the existence of a thing, and hence we need have recourse to a quia proof in which such a demonstration is possible.

In order to satisfy the requirements of a quia demonstration, Scotus must move from what is epistemologically prior to what is epistemologically

posterior, and he finds that this is possible when we examine the inferior terms of the disjunctive attributes of being, relative to creatures (Lect. 38; Ord. I, d.2, q.1; 41). Since these disjunctives are found in metaphysics, a metaphysical proof may properly refer to them. Of the disjunctive attributes, efficient causality is perhaps the most obvious in our understanding of the world because we see instances of causal dependence in things, and hence Scotus refers to efficient causality in his proof. Thus, he can begin with creatures which 'cause' and their natures and, from this which is epistemologically prior, infer the existence of something which causes in a more radical sense, which is epistemologically posterior but which, as we shall see, is ontologically prior. Consequently, from an argument that begins with concepts relative to creatures, one can follow Scotus' method of demonstration to the existence of a first being. In this way, then, we not only see the method that Scotus chooses to employ to demonstrate the existence of infinite being, but we also understand why he chooses to use this.

2. The Quidditative Nature of Scotus' Proof

We have seen something of the demands of a metaphysical proof, and from this we recognize that the requirements that Scotus sets have significant implications concerning the nature of his proof. Perhaps most importantly, our attention is drawn to consider how it is that Scotus can ensure that the premises in his proof will be necessary.

Since God is under no necessity to create, Scotus argues that any propositions asserting that there are contingent things will also be contingent (Lect. 57). Scotus thinks, however, that one cannot provide

a demonstrative argument for God's existence if that argument uses such premises. He argues, however, that one can convert these premises to suit a demonstrative inference by means of a modal rule -- ab esse ad posse valet illatio -- by shifting to what is necessary about any contingent fact, namely its possibility (Ord. I, d.2, q.1; 48). In other words, the proposition 'some being is non-eternal' is contingent as regards what actually exists, but becomes necessarily true when understood as what could possibly exist -- that is, 'It is possible that some being is non-eternal'. Consequently, Scotus avoids what might initially appear to be an insurmountable problem -- that one can never have definite knowledge of contingent states of affairs, and hence cannot provide the kind of premises suited to an argument which is to be demonstratively certain.

This also illustrates the quidditative perspective in Scotus' argument, since he is concerned with things in their possibility (what they are) rather than in their contingency (whether they are). This reminds us of a reason given earlier by Scotus to account for his use of this method. Scotus formulates the proof in the order of possibility, so as to obtain a view of the weak member, not in its contingent aspect as actually existing, but in its quidditative aspect, namely, as having such and such a nature.²⁵ True statements expressing these quiddities are necessary propositions. Scotus would be of the view that we must, in some sense, know what we are looking for before we can determine whether it exists.

In this demonstration, then, we should recall that Scotus' arguments depend on the role of the disjunctive attributes of being. Scotus takes the inferior term of substantial change, which is known a posteriori in

our experience, and understands it in its possibility (and hence according to its nature or quiddity). Given this term he examines, in the mode of possibility, the opposite member -- since the possibility of the existence of the strong member is contained a priori in the content of the disjunctively convertible term. We are led to the strong member, then, in the realm of quiddities. Following this, since the nature of the superior extreme includes uncausability, Scotus reduces its possibility to actuality. And clearly, all of what Scotus says a priori does not presume the existence of what has to be proved. It is naive or mistaken to hold, therefore, with Bourke, that 'we may judge that [these wonderful essences] are possible; however no addition of possibilities will give us an actuality'.²⁶ (This will be shown in the next chapter.) Thus Scotus' proof depends on moving from the quiddity of the first principle established in the order of possibility, to its actual existence. This transition, to repeat, requires that the properties referred to in the proof are viewed initially in the realm of quiddities.²⁷

It should be clear from the foregoing that Scotus' cosmological argument is quite different from others. And, contrary to appearance, Scotists hold that he is not offering an essentialist proof as distinct from an existentialist proof. The shifting to what is necessary about any contingent fact begins with a contingent fact. The proposition asserting what is possible is justified by an inference from a proposition of fact; it is justified by experience. Thus it has some relation to empirical reality. (From what we know of the relation of essence and existence in Scotus, however, we can still make a distinction between the contingent and the possible, despite the lack of real

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distinction between essence and existence.) The charge of essentialism, in the sense in which Joseph Owens raises it,²⁸ does not apply, however -- not because Scotus has, in Owens' sense, an empirical premise, but because it implies that one attribute to Scotus a view that is based on a metaphysical supposition that Scotus would, at least prima facie, reject -- that is, the real distinction between essence and existence.

For Scotus, as we saw earlier, the essence of a thing cannot be really distinct from existence, because essence without existence is nothing. Thus, even a proof from quiddities in some way involves existence -- either as these quiddities are those of concrete beings (things that exist in the world) or as things that exist in God's mind. One might charge that, therefore, Scotus' proof is a priori -- that is, since the proof makes no reference to existing things, and instead attempts to infer to the existence of a first efficient cause from the nature of producible things, it has no reference to the world, and cannot be a posteriori. But those quiddities from which Scotus infers, one might point out, are quiddities of concrete things, and this for him makes a significant difference, since they carry with them the notion of existence. Thus, while an argument using Scotus' terminology would be a priori in a metaphysical system such as that of Aquinas, given Scotus' metaphysical presuppositions his argument is neither essentialist (in Aquinas' sense) nor a priori.

In fact Dumont believes that Scotus' proof is more radically existential than other cosmological proofs. He says that the metaphysical, in its attainment of infinite being, yields even more strongly an existential knowledge despite its abstract epistemological thrust.²⁹ But a consideration of this claim that Scotus' proof is existential

brings us to a different problem than the one with which we have been concerned.

Some may argue that Scotus' argument is obscure, since there seems to be an unclarity in the notion of 'possibility' -- the mode into which the argument shifts. Given Scotus' preference for necessary rather than contingent truths, it would seem that he would prefer to be understood as referring to logical possibility. The conclusion however, should not be understood as a transition from logical possibility to actuality. The point here seems to be that while such a transition may be the appearance of the proof, the First Being is not merely analyzed a priori, but is submitted to a proof of what it is to be such a being.³⁰ It will be legitimate, then, to infer its actuality, from its uncausability, but this is not the same kind of transition that Anselm makes.³¹ In short, the conclusion 'if possible, it exists' means that the positive possibility concerning extramental existence, which is proved a posteriori necessarily implies actual existence in the exceptional case of the first being.³² This positive possibility of the first efficient cause necessarily implies its existence; if it did not exist, it would not be possible.

These remarks, therefore, should make more clear the nature of Scotus' proof, in answer to the method of demonstration that he employs. Not only does Scotus insist on providing a metaphysical proof from efficiency, but we also see that its requirements lead us to understanding it as being quite distinct from other such attempted demonstrations.

F. Summary

With Scotus' metaphysical background made explicit, we are now in a better position to examine his argument and to appreciate his contribution in those areas which we identified earlier as central to the cosmological arguments. It should now be clear that Scotus' peculiar metaphysical presuppositions and their effects on his terminology and method may impede us in a ready understanding of his argument. Particularly, we are warned against claiming too hastily that there are contradictions between Aquinas' and Scotus' views, since they approach metaphysics in general, and specifically a cosmological proof, from different perspectives. Subsequent to this, then, I briefly elucidated the kinds of things that make a metaphysical proof distinct from a physical proof -- predominantly its ability to deal with 'being', transcendentals, and the first being.

We see, as a result, why Scotus elected to employ a metaphysical proof. Its appropriateness to his subject matter and the rigid conditions of demonstration, is consequent on this. Particularly, then, one may see how Scotus is led from these considerations to the formulation of a proof from efficient causality: first, because of its connexion with being and with metaphysics, and second, because it is evident to our senses and suited to a quia demonstration. That Scotus' proof is genuinely demonstrative is no doubt clear from our discussion and we see, from this, how the requirements of demonstration affect the nature of his proof. What remains for us in the next chapter is to elucidate that proof.

Notes to Chapter Two

1. F.C. Copleston, A History of Philosophy, Vol. II, Pt. 2. (New York: Image Books, 1962), p. 230.
2. Ibid., p. 233.
3. Quoted in Etienne Gilson, Being and Some Philosophers, 2d ed. (Toronto: Pontifical Institute of Mediaeval Studies, 1952), p. 88.
4. Ibid., p. 86.
5. Ibid., p. 91.
6. Ibid., p. 87.
7. See Joseph Owens, "The Special Characteristic of the Scotistic Proof that God Exists", Analecta Gregoriana 67 (1954), pp. 311-327.
8. See Roy R. Effler, John Duns Scotus and the Principle "Omne Quod Movetur ab Alio Movetur" (St. Bonaventure (N.Y.): The Franciscan Institute, 1962), ch. 3.
9. Ibid., p. 179.
10. Robert P. Prentice, The Basic Quidditative Metaphysics of Duns Scotus as seen in his 'De Primo Principio' (Rome: Ed. Antonianum, 1970), p. 132.
11. Effler, Principle, p. 178.
12. D.E. Sharp, Franciscan Philosophy at Oxford in the Thirteenth Century (New York: Russell and Russell, 1964), p. 332.
13. Ibid.
14. See Prentice, Metaphysics, p. 97.
15. Ibid., p. 137.
16. Allan Wolter does note that, if by 'creation' we mean 'a production in the absence of a material cause, in co-operation and consequent co-existence of the first cause, a creature could still be said to create so long as it did not make use of any pre-existing matter. An instance of this would be, one might presume, the production by man of an act of will. "The Theologism of Duns Scotus", Franciscan Studies, 7 (1947) pp. 257-273; 367-398; p. 386.
17. C.R.S. Harris, Duns Scotus, 2 vols. (New York: The Humanities Press, 1959), II: 234.
18. I. Kant, Critique of Pure Reason Trans., N. Kemp Smith (London: Macmillan, 1963), p. 511.

19. Aristotle, Posterior Analytics I. 3. 72b 20.
20. According to James F. Anderson, Aquinas also allowed for a metaphysical propter quid demonstration, which involved, as a necessary component, the esse of something.
See "On Proof in Metaphysics", E. Simmons (ed.) Essays on Knowledge and Methodology (Milwaukee: Cook Co., 1965), pp. 99-111.
21. John Duns Scotus, Philosophical Writings, with an Introduction by Allan Wolter (Indianapolis: Bobbs-Merrill, 1962), p. 179, n.9.
See also Appendix I, A.
22. See Wolter, "Theologism", pp. 263-5.
23. Ibid., p. 267.
24. Ibid., p. 269.
25. Prentice, Metaphysics, p. 181.
26. Vernon J. Bourke, "Invalid Proofs for God's Existence", Proceedings of the American Catholic Philosophical Association, 28 (1954)
(Washington: Catholic University of America Press, 1954), p. 43.
27. See Prentice, Metaphysics, pp. 52-3.
28. See Owens, "Characteristic".
29. Richard Dumont "Intuition: Prescript or Postscript to Scotus' Demonstration of God's Existence", Deus et Homo ad Mentem I. Duns Scoti. Congressus Internationalis Vindobonae 28 Sept. - 2 Oct. 1970. Studia Scholastico-Scotistica, 5 (Romae: Societas Internationalis Scotistica, 1972), pp. 81-87, p. 85.
30. Felix Alluntis, "Demonstrability and Demonstration of the Existence of God", John K. Ryan and B.M. Bonansea (eds.), Studies in Philosophy and the History of Philosophy, Vol. III, John Duns Scotus 1265-1965 (Washington: Catholic University of America Press, 1965) pp. 133-170, p. 165.
31. Robert P. Prentice, "The 'De Primo Principio' of John Duns Scotus as a Thirteenth-century 'Proslogion'" Antonianum 39 (1964) pp. 77-109, p. 92.
32. Alluntis, "Demonstrability", p. 168.

CHAPTER THREE

SCOTUS' METAPHYSICAL PROOF FROM EFFICIENT CAUSALITY

Introduction

Having elucidated not only some of the historical background of the cosmological argument, but also Scotus' metaphysical background in particular, we are now prepared to consider in detail Scotus' cosmological proof for the existence of a first efficient cause. In this chapter I shall present Scotus' demonstration of the existence of a first efficient cause as it is found in the Lectura Oxoniensis, Ordinatio (Opus Oxoniense), and De Primo Principio. In doing this, I hope to indicate Scotus' development in those areas which we identified earlier as central to the cosmological arguments from efficient causality: the nature of demonstration and its applicability to proving the existence of some thing; the notion of cause and of causal orders -- how causes interrelate to produce an effect and in what this interrelation consists; the possibility and impossibility of certain infinite series; and the relation of effects to the 'first' -- such as problems of univocals and analogy, the nature of this dependence, and the possibility of inference. In my concluding chapter, I shall attempt to come to some conclusions concerning the extent to which Scotus' arguments represent a development of the cosmological argument. Through this, one should be able to decide whether Scotus' arguments are worthy of the praise accorded it by Merton, Roche, Wolter, and Effler, and to what extent they differ from prior attempts at constructing a cosmological argument.

A. The Possibility of a Demonstration of a First Efficient Cause

As we have seen, Scotus is attempting to provide a quia or a posteriori demonstration from creatures to the existence of a first efficient cause. Perhaps the most fundamental criticism of his attempt, then, would be to deny that one can in fact provide such a proof. Thus, before we turn to the argument proper, we must consider this problem and Scotus' response or possible response. First, we shall look at an argument against the possibility of proof that Scotus notes and specifically answers. Then, we shall consider the problem of whether demonstration allows for the proof of the existence of a singular thing (which Aristotle denied) such as a first efficient cause. Finally we shall examine those arguments of Scotus which explain how a quia demonstration from effects to a first efficient cause is possible. In this connexion we shall review his arguments on univocals as relevant to his proof.

1. The Possibility of a Quia Proof

In the Lectura Oxoniensis (44), Scotus entertains a fundamental objection: that it is impossible to provide an argument for God's existence. The reason for this claim stems from Scotus' rejection of the view that one can give an a priori demonstration of God's existence (Lect. 12). It is argued that if there can be no a priori demonstration, neither can there be an a posteriori demonstration for it. The reason for this is that whenever there is an a posteriori argument (effects to cause), one can allegedly construct an a priori one (cause to effect) (Lect. 44). Consequently, since the existence of contingent things cannot be deduced a priori from God's existence, one cannot argue from

the existence of contingent things to God's existence.

The principle (that, whenever one has an a posteriori argument, one can set up an a priori one) is true, Scotus claims, only when the a posteriori argument establishes the cause as a sufficient reason for the effect (Lect. 58). When we argue from effect to cause we may merely prove that the cause is a necessary condition for the effect. In this instance one would be free from the obligation of (and consequent problems with) demonstrating the converse relationship.

This means of avoiding the demands of the cited principle seems odd. For one thing, it is by no means evident that this principle is true and so we wonder why Scotus bothers to answer it. Moreover, surely the point of providing any argument for the existence of God is to show that the first efficient cause is the necessary and sufficient cause of effects. Otherwise this would imply that God may require the causality of secondary causes in the production of an effect. Scotus could answer, though, that given that we can know of God's creative power through natural reason only in a restricted (philosophical) sense, we have not established that God does not need secondary causes to create certain things, and thus God cannot be shown to be the necessary and sufficient condition of all created things.

Moreover, Scotus might also argue against this principle by suggesting that while effects demand a per se cause, the per se cause causes freely through its will, and hence an a priori argument cannot be made to the existence of effects -- although the metaphysical dependence inherent in the nature of the effect demands a cause. In short, then, Scotus can continue to insist that he can provide a demonstrative argument.

2. Demonstration of Existence

One may still ask, however, whether we can properly use a method of demonstration to prove the existence of something. Aristotle seemed to reject flatly the possibility that the existence of singulars could be demonstrated. If we follow Aristotle, all contingent entities are excluded from the field of scientific knowledge, and there can be no science of contingent truths.¹ Within the framework of Aristotelian demonstration it would seem that no singular -- no contingent fact -- could be demonstrated since, as the conclusion of a demonstrative syllogism, it would not be necessary. Yet from this it does not follow that the existence of a first efficient cause cannot be demonstrated. Given the eternity of motion and its requisite of a prime mover, the existence of a prime mover would be able to be demonstrated, since it is not a contingent fact. This is also true in Aquinas and Scotus, though they employ a metaphysical argument for a being who is uncausable (either as Pure Act, in the case of Aquinas, or as being of a certain nature, in the case of Scotus) and hence necessary. Since the attribute of efficient causality is, in Scotus, a disjunctively convertible attribute, and since it is in the transcendental mode, the attribute, the being concerned -- which is 'necessary' -- and the proof itself, are on the metaphysical plane. Thus, a demonstration of this singular existent is possible. Unlike Scotus, Aquinas does not demand necessary premises for his demonstration. Nevertheless, the premises in Aquinas' arguments are certain,² and hence, he would claim, suitable for a demonstrative syllogism. Indeed, Scotus says that those who deny that some being is contingent should be exposed to torments until they concede that it is

possible for them not to be tormented (Ord. I, d.39, q.1; 10). Scotus would deny contingent premises to be equal to, or better than, those in his argument where they are in the mode of possibility, and are both certain and necessary.

We may find it useful to refer to Ockham, here and elsewhere, to see how a near contemporary viewed Scotus' argument and in order that we more fully understand it. Thus we see that Ockham denies that the existence of something can be demonstrated, and says that the assertion that something exists merely alludes to the dependence of the existence of things on the primum ens. This, however, does not add anything to the dependent essence and, therefore, the question whether or not a thing exists is not, Ockham says, among the demonstrative questions.³ We might explain this by noting that the view Ockham espouses is based on the supposition, which Scotus also made, that there is no real distinction between essence and existence. We have seen in an earlier chapter, however, how this is to be accounted for. We cannot demonstrate the existence of a thing apart from its essence, since essence and existence are integrally connected. Nevertheless apart from the attribution of existence qua 'accident' to a substance inasmuch as there is this noticeable dependence in being of things, Ockham does have a proof for the existence of God -- from conservation -- although he argues that, given this, one cannot go on to prove that God is one.⁴ (It may be argued that this problem would also hold for Scotus, but that is not to the point here.) In consequence, then, it seems as if one can use a method of demonstration to prove the existence of a first efficient cause.

3. The Possibility of Inference and Univocity

We have established, then, that Scotus seeks to provide a demonstratio quia, but it may not be clear how he does so -- that is, how he is able to make an inference from effect to cause. According to Scotus, we can demonstrate that a first efficient cause exists a posteriori from facts about creatures (Lect. 38; Ord. I, d.2, q.1; 41). Like Aquinas, Scotus says that in a quia demonstration we will use as the middle term of the syllogism demonstrating the existence of a first efficient cause those properties of being which refer to creatures (namely, the relative terms of eminence and efficient and final causality) (Ord. I, d.2, q.1; 41). These are, of course, the disjunctively convertible properties referred to earlier. These properties are more suitable as middle terms in a demonstratio quia than the absolute properties of God, since creatures do not possess the absolute properties whereas God can be said to possess the relative properties in the highest degree.

Scotus would hold that once the stage where the relative properties are demonstrated to apply to both God and to creatures has been reached, one can see that the existence of the relative properties (one term of a relation) implies immediately the existence of those properties in their highest degree (their correlatives) (Ord. I, d.2, q.1; 41). Consequently the proof concludes to what we wish -- that is, to the existence of God, understood as most supreme, the first efficient cause, and the most ultimate end.

What is the status of those properties of the primum ens which refer to creatures? Would it not be the case that the properties predicated of God are simply analogous to those of creatures? Further, would this

not entail that we cannot, with absolute certainty, argue from our knowledge of the attributes of creatures to the position that such properties exist in God?

In responding to this, some preliminary, general points must be made. The first concerns how properties derived from, and attributed to, creatures, entail the existence of their correlatives in God. Scotus has said simply that the latter are correlatives of the former. One might hold, however, that unless there is a principle of analogy of attribution, intrinsically denominated, underlying this correlation, we have no reason to suppose that there need be such correspondence of any attribute between creature and God. The mere assertion that the properties possessed by God are correlatives of those properties that creatures possess, does not prove that God has them. On this point one must show the dependence of such attributes as predicated of creatures on their presumed correlatives. Otherwise, from this line of argument it is at best established that God has the attributes as predicated of creatures.

The problem of analogy might again be raised since, if God does possess attributes predicated of creatures 'absolutely', it is questionable whether they are accurately represented by the words signifying relative properties. Since Scotus believes that the efficient causality attributed to God is quite different from that attributed to creatures, can we represent it accurately by means of this relative term?

Scotus would argue that there are at least two reasons why he can infer the existence of relative properties in their highest degree in God. The first is that, since 'like causes like', something caused resembles in some way its cause. Thus, if something caused were to be

an efficient cause, its cause would be like it in this regard.

The second is that, although God's efficient cause is radically distinct from a creature as efficient cause (either as cause of creation differs from cause of substantial change or as creator in a broad sense differs from creator in the sense of cause of human acts of will), this is consequent to the attribute of efficient cause as such, which ~~is~~ univocal. The analogy of the divine attributes occurs only after division into modes, and the attributes are univocal before this. Thus, the terms involved are, in one sense, univocal, and in another sense, analogical (Ord. I, d.3, q.1; 22).

Given this univocal character, we can legitimately infer things about God, but the characteristic attributed to him is not the inferior term, appropriate to creatures -- it is the correlative of the inferior. The inferior characteristic, as imperfect and dependent, is ontologically posterior to (if not dependent on) the superior, and it is in this way that the superior is conceived. Thus, from these characteristics discovered a posteriori, and given this univocal mode of predication, Scotus believes that he has a sound basis for a legitimate inference to the divine attributes, and hence in the formulation of a sound proof.

How adequate is this claim that God's causality is in a sense univocal, but also in a sense analogical, to that of creatures? In the position that he takes on this issue, Scotus represents a significant change from his predecessors in the Aristotelian tradition. Scotus initially deals with this problem when he considers whether, in this life, man can know God apart from revelation (Ord. I, d.3, q.1; 17-36). Univocity is introduced in this discussion as the way by which, Scotus thinks, one can safeguard the objectivity and certainty of that knowledge

which we possess of God (Ord. I, d.3, q.1; 25).

Moreover, Scotus notes in the De Primo (4.57) that at the basis of the transference of any idea which we experience from the world of creatures to the world of God, lies the univocal concept of the perfection to be transferred. Thus it is necessary that there be attributes univocal to God and creatures, if there is to be any demonstration at all. Scotus is searching for a middle term of a valid syllogism from creatures to God, and this is achieved, he thinks, only by a univocal notion of being, or one of its disjunctively convertible properties. Such a univocal term is necessary for the functioning of a demonstrative syllogism to show the existence of a first efficient cause. For, if the middle term of a syllogism does not have a complete unity of meaning, then the syllogism can draw no valid conclusion, since, when the extremes are compared to that middle term having two different meanings, they are not compared to the same thing, and hence cannot be united with each other in the conclusion. Otherwise, one would commit the fallacy of equivocation.⁵

Scotus believes that analogy is made possible only on the basis of a univocal which provides us with a transcendental attribute (Ord. I, d.3, q.1; 28). Thus, while in his cosmological proofs we see Scotus employing analogy in the sense of an analogy of attribution as Aristotle conceived it, an underlying univocity is still active in the background. It would be impossible to have only analogous concepts of God, according to Scotus, since no being can of itself give rise to knowledge that is more perfect than, or for that matter, radically different from, itself (Ord. I, d.3, q.1; 25-6). For analogy to take place, something must coexist which unites the various categories with one another and brings

them together.⁶ This is done through the transcendental disjunctively convertible attributes of being.

What does Scotus mean by 'univocal'? For Scotus, that concept is univocal which possesses sufficient unity in itself so that to affirm and deny it of one and the same thing would be a contradiction or an equivocation. It also has sufficient unity to serve as the middle term of a syllogism, so that wherever two extremes are united by a middle term that is one in this way, we may conclude to the union of the two extremes among themselves (Ord. I, d.3, q.1; 23). Thus, to meet this criterion, one takes the notion of the attribute discovered a posteriori in experience, and abstracts it from its finite mode. When we do this with 'being' we find that the univocal concept of being is the emptiest possible notion of being. And consequently we have a univocal concept referring with exactly the same meaning to the being of God, without his proper modality, and to the being of creatures, without their proper modality. With the disjunctive attributes, predicates are coextensive with being, for there is no being which will not be either infinite or finite, uncaused or caused; and hence we can have univocal concepts of many attributes (Ord. I, d.8, q.3; 5). 'Finite' and 'infinite' are transcendental modes of being -- i.e., of being before division into categories -- and this is why God does not fall into a genus if ens is univocally predicated of him and creatures.

Yet the term 'univocal' is not always used in a univocal sense. Ockham, like Scotus, believes that there is in a sense a concept common to God and creatures.⁷ He finds three senses of 'univocity'.⁸ The first and principal sense is that in which a concept is 'common to things which are perfectly alike in all essentials without any dissimilarity'.

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The second sense denotes 'a concept common to things which are not absolutely similar and not absolutely dissimilar, but in certain respects similar and dissimilar, either intrinsically or extrinsically. Thus they agree on something essential, and in something else they differ. In a third sense 'univocal' denotes a concept common to many things which have no likeness, either substantial or accidental. It is only in this third manner that every concept which applies to God and to creatures is univocal to them, for, according to this view, in God and in creatures there is nothing at all, intrinsic or extrinsic, which is of the same kind. It is univocation in the first sense primarily that philosophers deny is found between God and creatures, and Scotus would have to agree on this point. Nevertheless, the second sense -- understanding 'being' as prior to a specific denomination as 'infinite' or 'finite' -- is the way we ought to understand Scotus' argument that 'being' is a concept univocal to God and to creatures.

Scotus defines the concept of 'being' as, simply, "the opposition of nothingness or not-being . . . anything which is not nothing" (Quaestiones quodlibetales, 3.7). Hence one can use 'being' to apply to God and creatures univocally from the concrete ways in which they are opposed to nothingness, and it would seem that this is 'univocal' in the second, weaker, sense noted by Ockham above. Like Avicenna, Scotus believes that 'being' is the first object of the intellect, but he is opposed to Avicenna inasmuch as he understands it univocally of God and creatures.⁹ All genera, species, individuals, the essential parts of genera, and the Uncreated Being include 'being' as part of their quiddity. Thus, whatever is intelligible either essentially includes 'being' (in quid), or it is included in something which essentially

includes 'being' (in quale). Of those about which being is said in quale, being enters their definition as an addition. For example, if one were to define 'rational' with regard to man, one would need to introduce the subject with the definition in order to be able to speak at all. Thus 'rational' is something -- i.e., a being that can reason. In this way, then, we see that those things to which being is not quidditatively univocal are included in those things to which being is thus univocal (Ord. I, d.3, q.3; 5-9).¹⁰

Scotus provides four specific arguments in the Ordinatio (I, d.3, q.1; 23-8) to support the views that have been briefly summarized above. He begins by pointing out that the concept of 'being' in itself is indifferent to infinite and finite being. Thus, Scotus suggests, whatever predicates can be indifferent to some particular exemplification may be common to, and understood in the same way with regard to, God and creatures.

The first argument in the Ordinatio (I, d.3, q.1; 23-5) begins, then, as follows. Everyone who is certain about one concept is certain about another, since a subject includes its predicate. While we may be unsure whether the primum principium -- God -- is a finite or an infinite being, or a created or an uncreated being, we are still certain that the concept 'being' may be affirmed of him. Indeed, Scotus claims, all philosophers have believed that the first principle was a being. Thus we can be certain that God is a being, since 'being' is included in both of the doubtful notions. Since the concept of being is not tied to finitude or infinitude, it can be legitimately and univocally applied to both finite and infinite things.

It is false to hold that there is simply a close analogy here. Analogy presupposes univocity for, in order to make a comparison of creatures to God, we need a concept common to both. Further, if univocity is forbidden in this kind of case (i.e., if one cannot abstract from differences), all possibility of the unity of any univocal concept would be destroyed. (E.g., in the predication of 'man' to Plato and Socrates, there could be no univocal concept, for there is something different -- the individual difference (Ord. I, d.3, q.1; 24).) In short, we could never have justification for holding that there are any univocal concepts, since we could claim that all such instances of univocity are but close analogy. Moreover, Scotus argues, generally when we know things as similar, we can nevertheless make a ready distinction between them. Yet we are not able to make such a ready distinction in the concept 'being' prior to its particular representation in God and in creatures. We have no reason, therefore, to believe that there is any such distinction inherent in the concept of being. In short, if there is a real distinction in 'being' prior to its delineation into finite and infinite, why is this not obvious? Since it is not, we have no reason to presume that there is such a distinction.

In his second argument in the Ordinatio (I, d.3, q.1; 25-6), Scotus begins by making the claim that our ideas are solely derived from certain factors which naturally motivate the intellect to produce them (e.g., the sense image, or that of which it is an image). Any concept that we have is univocal with the sense image. We could not have a concept of 'uncreated' unless we could have, as an object of the intellect, something uncreated. ("No object will produce a simple and proper concept of itself and a simple and proper concept of another object, unless it

contains this second object essentially or virtually." (Ord. I, d.3, q.1; 25-6)) Nothing created includes 'uncreated' essentially or virtually, and hence a creature could not give rise to this concept in our understanding. If we knew God only by analogy, then we would not have any concept of God that was not the result of revelation -- which is false. Therefore Scotus infers, we must have a concept univocal to God and creatures.

Scotus' third argument (Ord. I, d.3, q.1; 26-7) claims that, when we have the proper concept of any subject, we can derive from this everything conceivable which necessarily inheres in that subject. We have, however, no concept of God from which we can derive all of his necessary attributes. Thus there must be some other way in which we can come to know naturally these attributes of God which accord with those that we know by faith. This can only be through univocal concepts common to God and creatures.

Scotus' final argument (Ord. I, d.3, q.1; 27-8) here says that either there are some pure or unlimited perfections which are concepts univocal to God and creatures, or there are not. If there are not, it is because either pure perfections are inappropriate to God (which, if they are in fact 'pure perfections', is impossible) or because they are peculiar to God, in which case it is tautologous to attribute pure perfections to him. If this latter be true, however, we might as well say that, because these perfections are applied to God, they are pure, and therefore because they are pure they are applied to God. Surely it is true, Scotus says in sympathy with Anselm, that first we know something to be a pure perfection, and then we attribute it to God. Thus, having eliminated the two options which deny that pure perfections are applicable

to God alone, we are left with the position that there are some pure perfections which are common to God and creatures.

If one still disputed this view, it would follow that, Scotus says, one could infer nothing about God from creatures, for the notion of what is in each would be wholly different. This is clearly out of the question, Scotus would argue, because we do have natural knowledge of God. Thus we find, for those predicates whose notion includes formally no imperfection or limitation, that every inquiry regarding God is based on the supposition that the intellect has the same univocal concept which it obtained from creatures (Ord. I, d.3, q.1; 28).

What, then, is the relation of our univocal concepts to our analogical concepts of God? We have seen something of Scotus' position on this above. Analogy can be seen in virtue of both a commonness, which is present in the common term 'being', and of a difference, which is present by reason of the proper modes of the referents. In short, the univocation of being is not opposed to the analogy of being; ~~it~~ rather accompanies it and makes it possible.¹¹

Will univocity endanger the metaphysical separateness of God? Presumably not, since the concept is univocal only prior to the division into the transcendental modes of finite and infinite. God and creatures are not, then, totally different in their concepts, but they are different in reality, because in reality they have nothing in common (Ord. I, d.8, q.3; 3-4). Being does not become uncreated or created, infinite or finite, because of a new quality added to it, specifying it. These are two wholly different modes of being. Nevertheless, analogy is used to some extent in our attempts to infer the existence of being in one mode from the existence of being in another. In this sense, then, univocal

concepts seem quite compatible with the analogical.

From this lengthy explanation, then, we see how Scotus maintains that a quia demonstration of the existence of a first efficient cause, and hence an inference from creatures to a first cause, is possible. Given that we can make such demonstrations and that they will lead one to the desired conclusion, we can turn to Scotus' metaphysical argument.

B. Scotus' Metaphysical Argument

Scotus tells us that his metaphysical argument is derived from that of Richard of St. Victor (Lect. 41). Thus he begins by reproducing the latter's argument.

1. Something is not eternal (i.e., contingent).
2. Hence, it is from some other being.
3. This latter either gets its existence, and gives others existence, from (or with) another, or not (i.e., it itself is produced or not, and requires a co-producer or not).
4. It is impossible that there be an infinite series of producers whose existence or productive capability comes from another.
5. Thus there must be something which neither imparts existence in virtue of another, nor receives its own existence from another.
6. This is the first efficient cause.

That this involves a metaphysical understanding of efficient cause is evident from the nature of the dependence of effect upon cause. We are here concerned with the source of a thing's existence, not of its motion or process of accidental change. This metaphysical character also seems to be implicit in the inference from (1) to (2), which depends on the view that a thing -- since it is neither self-caused nor caused by nothing -- would have to be the product of something else. While

it is true that the fact that something is not eternal does not logically entail a producer (for then it would beg the question), a metaphysical system that includes a principle of causality founded on a principle of sufficient reason does ultimately demand the existence of such a being.

Scotus notes several objections raised against this argument (Lect. 42-44) and, in answering them, prepares the way for his own distinctive demonstration. Scotus' argument (Lect. 45-57, 59-62; Ord. 40-56; DP. ch. 3)* can be reconstructed in a way similar to that of Richard of St. Victor.

1. Something can produce an effect.
2. This thing is either 'first' or is itself produced.
3. Thus there is either an infinite regress, or there is not (i.e., there is a first efficient cause).
4. It is impossible that there be an infinite regress of produced producers.
5. Therefore, there is a first efficient cause.
6. This cause is such that it is uncaused in every respect.

We should remember, however, that these premises are still in the mode of possibility and, as a result, so also is the conclusion. To complete the proof, then, we must revert to the mode of actuality.

Consequently, Scotus must argue that: (7) The first efficient cause actually exists. And this is the conclusion in which we are interested. But even so, Scotus' argument is not finished here. Scotus does not believe, in contrast to Aquinas, that his proof is complete until he has proved the existence of an infinite

*All further citations to the Ordinatio in this chapter will be to Book I, distinction 2, question 1. Consequently, for the remainder of this chapter I will exclude this from the reference unless otherwise noted.

being, including unicity and necessary existence as complements.

This reconstruction of Scotus' version of this proof is based on it in its most highly developed form, as it appears in the De Primo Principio. Here, the specific argument from efficient causality extends over some twenty sections, beginning at chapter three, section 4. It is clearly a more rigorous formulation of the argument of the Lectura Oxoniensis or the Reportata Parisiensis, and is virtually identical to that which appears in the Ordinatio. We shall use this analysis of the argument as a guide in our discussion of these premises and their presuppositions.

1. Scotus' Arguments Concerning Premise (1)

Scotus begins with a premise that, he claims, is indisputably true -- 'Something can produce an effect'. We note that the verb in this premise is in the mode of possibility. As I noted in chapter two, Scotus presents his premises in this mode so that they will be certain, necessarily true, and suited to a demonstrative syllogism. Placing his premises in this mode of possibility by means of the modal inference rule 'ab esse ad posse valet illatio', however, requires of Scotus that eventually the proof revert to the mode of actuality, for it is only in this way that the proof can establish the actual existence of God. Even the most adamant sceptic may admit that it is possible that God exist. It is just that he does not or, at least, we have no evidence that he does.

Aside from a simple statement of the modal rule he adopts concerning the truth of statements in the mode of possibility, Scotus offers evidence for his claim (Ord. 43; DP. 3.5). Something can produce an effect,

Scotus argues, because it is possible -- both logically and metaphysically -- for something to come into existence on account of another thing which produces it. Scotus denies that something, which at one time did not exist, could exist without a sufficient cause or be caused by itself (DP 3.5). The former should be obvious, given the view that the principle of sufficient reason demands a cause for everything that is not its own sufficient reason. The latter is held as true since nothing is essentially ordered to itself -- that is, something cannot be prior and posterior to itself, i.e., cannot be wholly, or even partly, self causing (DP 2.2). 'Self cause' includes not only direct self causation, but indirect self causation as well. Thus a circle in causes cannot account for the existence of a thing (i.e., If A causes B and B causes C, then C, as caused by A, could never cause A) (DP 2.4).

Clearly, then, the beginning of the a posteriori proof is the knowledge of the inferior term of the disjunctive attribute of efficient causality which we have through experience -- i.e., that some being can be effected. Thus, even though the bulk of the proof is carried through in the realm of quiddities, we are reminded that Scotus' selection of this kind of premise -- even though it does not depend for its truth on empirical fact -- is made because premises that are certain but not necessary are not suitable for his method of demonstration.

2. Causes and Causal Series

After Scotus establishes the premise that something can produce an effect, he claims that the producer is either 'first' or it is not (DP 3.7; Lect. 41, 50-51; Ord. 43). Prima facie, it may seem that 'first',

here, refers to the ontologically most prior member of a series of causes which, altogether, constitutes the per se cause of some effect. A 'first' producer, as prior in this way, need not, and presumably would not, exercise its causality in conjunction with something other than itself. Given, however, the different nature of something that is 'first' from other efficient causes, it seems inappropriate to identify it as a member of a causal series. Thus we may ask how it is connected with the series.

Since Scotus has in mind a transitively (i.e., essentially) ordered series of efficient causes (DP 3.10ff; Lect. 45-48; Ord. 44ff.), if we think of a first efficient cause as a member of a causal series, then it would seem that this first cause must cause together with posterior causes to bring about the effect. The causality of God is commonly understood to be such that it need not cause together with other causes. Thus it is not like any other efficient cause that is first in an essentially ordered series.

In order to understand what Scotus means by 'first efficient cause', which is one of the options that is given by him to explain the possible production of the effect, and, subsequently, what it would mean to have an infinite series of causes, we need to make clear his concept of causality in general. It is through the notion of God as first efficient cause that Scotus connects eminence, efficiency, and finality (and subsequently shows that these are all related to an Absolute Prior), emphasizing as did Aquinas, the breadth of the notion of efficient cause. We have discussed earlier how the attribute of 'efficient cause' is predicated of God and creatures. But this clearly does not exhaust the relevant discussion of cause in Scotus' proofs.

An efficient cause can be either the total cause of an effect or a partial cause. By the 'total cause' is meant the cause which, by itself alone, is adequate for the production of the effect. A 'partial cause', obviously, would necessarily be one that unites or concurs with some other cause or causes so that, together, they produce the effect. Thus, while a thing will never have two total efficient causes, it may well have two or more partial causes. As we have seen earlier -- throughout Aristotle, Avicenna, and Aquinas -- these partial causes will be related to one another transitively or non-transitively or, in Scotus' terminology, ordered per se (essentially) or per accidens (accidentally), respectively. This distinction is clearly important since it is on the basis of such a series of causes that Scotus argues to the existence of a first efficient cause.

Scotus begins his explanation of per accidens and per se orders of efficient causes, by contrasting these with per se (essential) and per accidens (accidental) causes (DP 3.10; Lect. 45; Ord. 44-5). These latter are used to express a one-to-one relationship between a cause and its effect. Scotus clarifies this distinction: a per se cause is that which causes its effect necessarily and on account of something in its proper nature (e.g., 'A philosopher philosophizes') or will. A per accidens cause is one which causes by reason of something incidental to its nature (as 'The carpenter philosophizes'). We should note that there are two basic kinds of per se cause -- where a thing is a per se cause because of its nature, such that on account of what it is, a thing produces its effect, and where it is such a cause because it can will -- that is, its effect is deliberately intended by a voluntary agent. This latter is required to allow for the attribution of responsibility to an agent in

his commission of an act.

It is clearly fundamental to the question that we be able to ascertain the essential cause of a thing, for it is only through this that we can have true knowledge of the cause of an effect. In order to know that something, some things, or a series of things is the cause of some effect, Scotus employs the methods of agreement and difference: we must first isolate that thing with its possible causes, and then observe which of these causes when separately given produces the effect, and also which one's absence fails to produce the effect. Since nature is ruled by a principle of uniformity, the inductive claim as to the per se cause, if based on sufficiently repeated experience, must be valid.¹² Thus Scotus would seem to be protected against the charges of sceptics that he cannot be sure of which particular causes lead to the effect, and hence of which particular cause is first.

This discussion of per se and per accidens causes, then, relates to the first part of the division of the essential order of dependence -- of direct causality -- that Scotus makes in the De Primo Principio (1.9). In the second part of this division, however, something caused and that which causes it are both the result of the same cause (DP 1.9). This refers to the order of causality and conditionality. Indeed one may describe an essentially ordered series as 'ordered gradated conditionality'.¹³ Here, the causes are partial causes, and in this order we mean that two (or more) causes are being related to a single effect, so that there is a two (or more) to one relation. Clearly, then, per accidens and per se causes are not to be confused with accidentally and essentially ordered causes, for these latter are the ways in which per se causes combine to produce an effect. What, then, is the nature of the distinction between

accidentally and essentially ordered series?

This distinction should be clear, given the similar distinction between non-transitively and transitively ordered series of causes that I suggest was, at least implicitly, made by Aristotle, Avicenna, and Aquinas. Causes are essentially ordered if they are ordered to one another such that together, and together alone, they cause the effect; they are accidentally ordered if their being continuous with one another and simultaneously effective is not necessary in causing the effect.

There are many instances of accidentally ordered series of causes, and these are said to exist wherever relations established between two things as prior and posterior are not essential.¹⁴ Thus, all instances of purely temporal (e.g., duration) or spatial (e.g., motion) relation, and relations of priority in eminence existing among individuals (for these are not established on the basis of essences qua essences) could not be included under the concept of essential order. Time and place do not touch the essences of things related, for duration adds nothing to their perfection, and motion presumes the existence of things which are, of themselves, accounted for by means of a genuine metaphysical principle.

Thus we see that the first distinction between per se and per accidens ordered causes is that, in the former, all the causes must be present to produce the effect (DP 3.11; Ord. 44; Lect. 46). The production of an effect by an essentially ordered series of causes requires the concurrent existence of all relevant prior causes of the effect. This can occur in two ways. First, the higher cause moves the lower so that the latter can cause only inasmuch as it is posterior in its causality to the former. Since the inferior cause causes in virtue

of the superior cause and is thus dependent on the latter in its own causality, we can refer to it as a dependent essentially ordered cause.¹⁵ A pertinent example here would be the case of a stick which is moved by a human hand and then at the same time moves a ball.

The second way in which essentially ordered causes can concur is that while the superior cause and the inferior cause have the power to move in themselves, such that the former neither moves nor gives the power to move to the latter, it is prior to the latter since it has a more perfect power of causing than the latter. Here we note the example of the concurrence of the active potency of the mother and of the father in the generation of offspring. Since one is more perfect than the other, there is an order between these two partial causes, but each makes its own contribution independently of the other. These are independent essentially ordered causes.¹⁶ In both ways, however, we see that all the causes must be present together for the production of the effect.

In an accidentally ordered series of causes, the efficacy of a cause may, however, depend on prior causes for its existence or power or motion, but need not depend on the efficacy of that which immediately precedes it in the present exercise of its causality. Even though the parents depend upon grandparents for their being, they do not depend on them essentially for the current exercise of the generative function. Thus a son depends on the existence of his father for his coming into existence, but not for his being able to exercise a similar function.

The second distinction that we note between accidentally and essentially ordered causes is that, in essentially ordered causes, the causality is of a different nature or kind than that of accidentally ordered causes;

this is a consequence of the first distinction noted above. Given this connexion of partial causes, Scotus also argues that the higher cause is the more perfect. Were it not, then something in the exercise of its causality would be essentially dependent upon a cause of the same nature as itself. This, Scotus believes, is to allow a circle in causes. This condition, that the causes are hierarchically ordered, is not the case with accidentally ordered causes.

What, precisely, does Scotus mean when he says that in essentially-ordered series, the causes concerned are of a 'higher' kind or of a different order than those in accidentally ordered series? We can see this in several respects. First, when causes cooperate essentially in the act of causation, the cause closest to the first derives the whole of its causal power from the first. The third stands in the same relation to the second, which has the third cause's causality more eminently, though the latter has it formally. Therefore, the first cause has eminently the total causal power of all other causes and has it more perfectly than if it were to have the causality of all the causes formally, if that were possible.¹⁷ This, then, in part indicates how one cause is said to be 'higher' than another.

Further reasons may be added. We must see that underlying the distinction between higher and lower causes is the idea that to form a per se relation (including an order between cause and effect), two things must differ in kind. For Scotus at least, it is an axiom that whatever differs quidditatively must also differ by a lesser or greater perfection -- that is, one of the two elements in any per se combination must be superior to the other.¹⁸ Consequently, this superior cause is equivocal with regard to its effect since it produces something of a different nature. Were these equivocal causes not so ordered, none of

these causes would be in a position to supply the causal power that is required in the ordered series of causes. Thus, the first efficient cause is not only higher, but is equivocal (of a different order) with regard to all causes.

In accidentally ordered series, we seem to be treating of univocal causes -- i.e., the causality is univocal and hence not higher. Thus, when one is treating of priorities among individuals within the same species, there is no question of a hierarchy in the order of causes since all causes are of the same essential perfection. To move to a higher order, one has to escape from the limits of the species or quiddity and move to a level where the causes can be seen in order of priority and posteriority. In per accidens ordered series, the links are different only as individuals, while in essentially ordered series the links are quidditatively different.

But 'higher' does not simply mean 'being of a greater essential perfection' or possessing causal power more eminently. 'Higher' can also mean that the cause can provide a more wide-reaching explanation. Consider a case of burning straw and ask what caused it. The mediaevals could mention something like John's putting a torch to the straw. But if we were to ask what causes straw to burn in general, we would not be given any particular cause, but something like 'the application of heat'. That is, we are now dealing with a class of causes. Now the application of heat is able to bring about a great number of other effects besides the burning of straw, and in this sense we may say that a cause is higher.¹⁹

That only essential orders have this notion of a 'higher' cause in a very real sense is clear since, if we were asked in our example of a

man moving a stick which, in turn, moved the stone, which of the causes was more important, we would choose the man who pushed the stick over the stick which was pushed by the man. Because the action of the man provides a more fruitful explanation, we say that the man is the higher cause. In the case of an accidentally ordered series, Abraham and Isaac are both fathers; neither is a superior type or kind of cause. Thus, while the man is a higher cause than the stick in the moving of the stone, in the latter case it is obvious that the existence of Abraham neither provides causal power to Isaac, nor is a more perfect cause in Isaac's exercise of causal power, nor provides a wide-reaching explanation of Isaac's causal activity.²⁰ Accidentally ordered causes, then, concur equally in their causal activity. As Scotus says, 'for, to produce anything, one cause of a given kind suffices' (Lect. 46).

Ockham distinguishes two senses of 'higher' in the expression 'higher cause'.²¹ He will allow that a cause that is the total cause may be said to be higher and more perfect than some subsequent cause. If, however, some partial cause is said to be 'higher', it is not necessarily more perfect (i.e., not of an absolutely perfect nature in itself), though it may be perfect because it is more independent in its causality than the inferior cause (i.e., it is more perfect as regards independence, which is a perfection). There seems no reason to regard this as a difficulty in Scotus' position, since, for Scotus, the first superior cause is more perfect in both senses.

The third major distinction between essentially and accidentally ordered causes is that all the causes in an essentially ordered series are required to exist and cause simultaneously in order to produce the effect (DP 3.11; Lect. 48; Ord. 45). Since the necessary causes of the

effect (which together constitute the total cause) are nothing less than the series of essentially ordered causes, all these causes must actually concur in the act of causation. Otherwise, some parts of the total causality would be missing. In accidentally ordered series, however, the causes are of the same kind or order, and each individual total cause has the total power of causality as regards its immediate effect. Consequently, there is no need for all the prior causes to exist simultaneously in order to bring about the effect (i.e., a man's grandfather and father, while ordered to his child, are not required in his production of the child). In this latter order of causes it is sufficient, Scotus says, that the causality be successive.

In light of the relation of the effect to its causes in an accidentally ordered series, one might ask why one need to note that an ordered series precedes the effect at all. If the immediately prior cause is sufficient to explain the effect, why refer to an order of causes? One reason may be that, in this way alone can we provide the total cause of the effect -- i.e., in relating partial causes which are essentially of the same kind, to the effect. Another may be to show the simple relations among 'total' causes as in a person's search for his ancestors. In this instance, we say of some mutable cause that it requires some reason why it exists, and it is this search for its origin that leads us to construct such an order. Of course, this series will in no way provide a sufficient explanation for the production and conservation of the effect.

We see, then, that in an essentially ordered series of efficient causes, every cause is required to exist simultaneously in order to produce the effect. While Scotus does not, in these passages, expressly

give the view of the series as producing and conserving the effect, this is in no way in conflict with his position. Given our understanding of efficient cause as including 'giving existence' -- not merely in the sense of generation -- a series of causes is responsible for the existence of a thing which is its effect. Consequently, the effect exists only as long as the cause exists, since 'giving existence' is different from 'change': it involves not simply producing but conserving, for the effect will never have its existence as a principle of its nature.

This is by no means clear to Ockham, however, who argues that 'in essentially ordered causes the second cause depends on the first for its first existence; not, however, for its conservation'.²² He rejects the view that a first efficient cause can be proved from production as opposed to conservation.²³ There can be a proof of God's existence, he says, only from conservation.²⁴

Ockham's paradigm of an essentially ordered series of causes is where one man is caused by another (i.e., his father). According to natural reason, Ockham claims, 'one man is caused by another, and so ad infinitum. The opposite cannot be proved from production, for it is clear that not all essentially ordered causes concur together in causing, though sometimes they do concur for conservation'.²⁵ The essence of Ockham's objection, however, ignores the very point that Aquinas and Scotus sought to emphasize in their own metaphysical arguments. A mere series of producers, such as the generation of a man by another, can be infinite. Such a series is not an essentially ordered series of causes. In fact, it is Aquinas' paradigm of a non-transitive series, and Scotus' paradigm of an accidentally ordered series. In an essentially ordered series, with our metaphysical understanding of efficient cause, the

series of causes together is responsible for both production and conservation of the ultimate effect. This, then, should put to rest Ockham's objection.

Pervasive in this discussion of causality, Patterson Brown claims, there is a quasi-legalistic concept of responsibility. The claim that 'the earlier mover is that which most strictly moves the effect' seems, he claims, to be a way of saying that an unmoved mover has some sort of causal responsibility in a way that a moved mover has not. Thus, Brown asks us to consider where a driver, D_1 , is stopped at an intersection. Behind him is D_2 , behind whom is D_3 , and so on indefinitely. Suddenly D_1 's car is rammed from the rear, damaging his bumper. D_1 accuses D_2 , who defends himself on the grounds that he had been rammed into D_1 by D_3 . D_1 then accuses D_3 who, it turns out, had been rammed by D_4 , and so on indefinitely. Now if the series of ramblings continued ad infinitum there would be no one D_1 could successfully sue as having caused the dent in his bumper -- there would, in short, have been no cause at all for the accident. But if there was no cause, there would be no effect -- which is clearly false since D_1 's bumper is dented and his car was moved. Therefore there cannot be a regress to infinity of ramming automobiles.²⁶ This interpretation is, I think, helpful, though as Brown himself admits, it is at best an allied notion that is made use of by the mediaevals.²⁷ The notion of an essentially ordered series of causes is, I trust, sufficiently clear that we need not pursue this matter further.

From this discussion, it would seem that in order to explain an effect that was the product of an essentially ordered series of causes, we need have reference to both the first cause, and all subsequent secondary causes. To our knowledge, save with the initial creation of

things ex nihilo, the creation of certain creatables will require a 'first' that is, in a real sense, a part of a causal series. While 'higher' than all other causes in that it possesses the total causative perfection of all other causes, provides a more wide-reaching explanation than other causes, and is of a more eminent nature, this first cause is not known to be always independent in its causation. Nevertheless, it is independent in at least some causation (i.e., in the creation of the secondary causes), and, although part of the series, it is not strictly speaking a member of the series, since it is 'higher' and quidditively distinct from all other causes. Thus, it is this kind of being that Scotus entertains as a possible explanation for the fact that something can be produced and, as we shall see, it is to the existence of such a being that Scotus is led.

3. Scotus' Position on Infinite Series of Causes

Let us review the argument of Scotus up to this point: We have seen that something can produce an effect. Now this thing is either 'first' (in the sense explained earlier) or it is not. If the first option is correct, then Scotus has what he wishes to prove. If the alternative is true, however, then this thing is produced by something else. In this case, we may ask of this producer whether it is first, or whether we must move farther back in the causal series. Consequently, either there is an infinite regress, where each producer is itself produced, or there is not (i.e., we arrive at something which is not produced by another and is most prior). An infinite series of produced producers, however, is out of the question. Thus, Scotus claims, we must conclude

that there is a first uncaused efficient cause.

Scotus argues that he does not beg the question by assuming the existence of an essential order, and inferring from this that there is a 'first' among efficient causes (Lect. 55; Ord. 43). If we establish simply that something can be produced, he claims we can show that there is a first efficient cause. Scotus' subsequent discussion is in three parts.

It is a basic metaphysical supposition for the mediaevals that if there are causes for an effect, there must be an order -- either essential or accidental -- among them. But regardless of whether there is such an order, Scotus can show that whether a series of causes be (a) essentially (Lect. 49-54; DP 3.13; Ord. 45-47) or (b) accidentally ordered (DP 3.14; Lect. 55, Ord. 47), or (c) not ordered at all (DP 3.15; Ord. 47-48), there cannot be an infinity of causes, and hence there is a first cause. This systematic consideration of the three possible states of affairs will prove that Scotus does not beg the question of whether an order of causes exists. Finally, Scotus will argue that there is an ontological primacy among all orders of causes of a per se cause.

First, Scotus will show that if we have an essentially ordered series of causes, we cannot have an infinite series of causes if we wish to account for the effect. In the Lectura Oxoniensis (49), Scotus provides what seems to be his most fundamental argument that there is a 'first' in an essentially ordered series. The argument that he gives here is, interestingly, not repeated in either the Ordinatio or the De Primo Principio. Scotus apparently derives it from Aristotle and Avicenna.

1. If all intermediate causes (between first and last) cause in

conjunction with or on account of the first, then their causality is derived from the first.

2. If the series of causes is infinite, then all the causes are intermediate causes and cause in virtue of the first.
3. Therefore, if the series of causes is infinite, then all causes cause in conjunction with or on account of the first.
4. But if the causes are infinite in number, then there is no first, which is impossible.
5. Thus, there cannot be an infinite series of intermediate causes.
6. Therefore, there is a first among efficient causes.

One might argue against the minor -- premise 2 -- that 'intermediate', by definition, means 'between a first and a last in a series', and hence assumes the existence of the first (Lect. 50). To circumvent this Scotus suggests that we should use as the major not that 'all causes cause by virtue of the first, hence their causality is derived from the first' but that 'every intermediate cause, having a prior and a posterior, derives its causality from the prior, hence the causality of intermediate causes comes from the prior'. The fact that 'intermediate' causes are causes that are dependent upon another at the same time for their power to cause would seem to show the transitive character of this kind of causality. Given this revision of premise 1, and that 'a first' and 'a last' are understood as, respectively, 'a prior' and 'a posterior', and not as absolutely first and last, Scotus constructs the following revision of his first argument.

1. Every intermediate cause (having a prior and a posterior) derives its causality from a prior, and hence intermediate causes cause in virtue of a prior.
2. If there is an infinite series of causes such that all causes are intermediate, then their causality is derived from some prior.
3. Thus, if there is an infinite series of causes such that all

causes are intermediate, then intermediate causes cause in virtue of some prior (i.e., something prior to all intermediate causes).

4. But if the causes are infinite in number, then there is no such prior, which is impossible.
5. Thus, there cannot be an infinite series of intermediate causes.
6. Therefore there is a first among efficient causes.

Scotus feels he has now established that there cannot be an infinite series of causes, essentially ordered (Lect. 51).

In proof of this argument in the Lectura Oxoniensis Scotus argues that, if all of the causes in an essentially ordered series were caused, then the whole series of these causes is caused. (It is interesting to note that this argument stands alone without mention of the previous argument, in the Ordinatio and De Primo Principio.) This series must depend on something other than itself, since there cannot be any self-cause (Lect. 51). A series of contingent entities cannot explain its own existence, since it must have a necessary reason for existing and, as we see in Aristotle, a search for explanation involves a search for the per se cause of the thing. In this example, there must be something outside the series of contingent entities which provides that explanation, or else the series would be its own cause. This, Scotus says, is the first efficient cause (Ord. 45-6; DP 3.13). In fact, even if the series of beings caused were infinite, they would have to depend on something external to that series to account for, and give an explanation of, their existence and their constancy. This concern with the source of being, then, would seem to make this Scotus' most plausible proof.

Scotus' second argument against the possibility of an infinite series of essentially ordered causes is that, since all the causes in

such a series must exist simultaneously for the effect to occur, we are faced with the following. If there is an infinite series, then an infinity of causes would have to act instantaneously in order to bring about an effect. In fact, Scotus adds, no philosopher assumes that an infinity of causes could so act (Ord. 46; DP 3.13). He notes in the Lectura Oxoniensis (52) that an infinity of things cannot so concur to produce one thing, because an infinity of things cannot occur and exercise their causality in a finite time.²⁸ Hence the series is here excluded because of its inherent contradiction. Thus there cannot be an infinite series, and there is a first efficient cause.

His third argument (Ord. 46; DP 3.13) which does not appear in the Lectura Oxoniensis, is that, to be called 'prior', a thing must be 'nearer the beginning'. Obviously, then, where there is no beginning, nothing can be essentially prior to anything else, which is, Scotus argues, clearly false. Indeed, that there must be such a priority was claimed in an earlier argument. Thus we must conclude that there is a first in an essentially ordered series of efficient causes. This third argument, however, seems to operate on an a priori level, and this is likely the reason why Wolter claims that it is simply a 'persuasive argument'.²⁹

Scotus' fourth proof appears to be even less plausible than the third. Scotus remarks that, in essentially ordered causes, since the higher cause is the more perfect, and since this is not true in accidentally ordered causes, the causality in such a series is of a different nature and order than that in accidentally ordered causes (DP 3.11; Lect. 53; Ord. 46). More precisely, the causality of essentially ordered causes differs in kind from that of accidentally ordered causes (a) because the causes are interdependent in the production

of the effect, and (b) each cause has a different relation to the effect than every other. Since the higher cause is more perfect in its causality, what is infinitely higher in causing is infinitely more perfect, and hence of infinite perfection in causing. We are led to this view, Scotus says, because to assume an infinite series is to grant a cause whose causality of that series is infinite. In short, an infinite series is not tenable since it itself leads to something of infinite perfection -- a first efficient cause. Consequently, there must be a first, infinite, efficient cause in an essentially ordered series, since this is what we have just described.

One problem with this argument is that, in a way similar to the second argument, a 'fallacy of composition' seems to be committed. There, we saw how the possibility of an infinity of finite motions by an infinity of finite things in a finite time presumably would lead us to the impossibility of an infinite thing in an infinite motion in a finite time. To a parallel argument in Aquinas, Kenny has objected that there is no reason that a number, n , of finite motions, m , need result in a motion of $n \times m$:³⁰ for instance, it is possible that some of the motions could be over the same distance.

In the fourth argument, a 'fallacy of composition' seems to lead Scotus to ignore the point of the objection made -- that it is possible that there is an infinite series of essentially ordered causes and hence no first cause. / For the critic to say that there could be an infinite series of causes it is not with the intention of postulating that there is an infinitely perfect first cause at the head of it, but that there is no first cause at all. To hold the former presumes, it would seem, that there simply is a first cause, given the nature of an essentially

ordered series, and that there can be no real debate concerning whether it exists. Whether this be true is not crucial to Scotus' position, it may be argued, since he does consider other options to avoid being accused of such a priorism.

The most favourable interpretation of Scotus' position here would be to point out that in the analysis of essential order and of a hierarchy of causes one could claim that every 'prior' cause is more perfect than its 'posterior', and as the series stretches to infinity in priority, the higher causes are more perfect as we approximate a 'first' cause. In short, an infinite essentially ordered series is a contradiction. Moreover, given the role of the principle of sufficient reason in metaphysics, we must account for the existence of things, and this requires a necessary condition for what there is, and which must exist.

Scotus presents yet another argument against the possibility of an infinite series of essentially ordered causes (Lect. 54; DP 3.13; Ord. 46). He argues that 'to be able to produce something' is not a property which of itself entails an imperfection (cf. DP 2.27). Consequently, it can be attributed to something without at the same time including imperfection. If an infinite causal series exists, then efficient causality can never be found without dependence, and hence will never be found without imperfection. We do see, however, that an independent 'power to produce' can be attributed to something without imperfection. This thing would be 'first' and consequently such a first efficient cause is possible. In the Lectura Oxoniensis he concludes there must be a first efficient cause in which it can act in this way; in the De Primo he is satisfied to show this as a possibility. This too Walter calls a persuasive proof.³¹

By means of these arguments, then, Scotus believes that he has shown us the impossibility of an infinite regress in a series of essentially ordered efficient causes, and that there must therefore be some first efficient cause. Since we have shown (a) above, we must now show (b) and (c). We shall see that, even in an accidentally ordered series there cannot be an infinite regress if there is no dependence on a per se cause. Consequently, we see that it follows that a per se cause, and hence an essentially ordered series, is ontologically prior to all other orders of causes. Finally, it will be evident that even if there is no order among causes, there cannot be an infinite series of causes. Thus, by assuming that there is an essential order of causes, Scotus does not beg the question of the existence of a first efficient cause.

We have seen that, in an accidentally ordered series of causes, the causes need exist only successively, not simultaneously. Therefore, while some cause in such an order may depend for its existence on something which precedes it, it does not depend on it for the exercise of its own power to produce. By definition, it has this power, and is equally effective, whether its preceding cause exists concurrently or not. For example, a man and a woman may produce a child, regardless of whether their parents exist. Nevertheless, Scotus argues that an infinite series of such causes as these is, by itself alone, impossible if there is no term in a per se cause.

Such a series can only be perpetuated if there is something permanent, that is not part of the series, on which the whole series and every part thereof depends. In other words, no 'change of form' (DP 3.14; Ord. 47) or deformity (Lect. 55) (difformitas) is perpetuated unless it is brought about or sustained by some permanent cause that is not part of the series.

Nothing that is a part of the series, however, can be the cause of the whole of the series. The reason for this should be evident from the above.

Thus, for there to be any order to those causes accidentally ordered, there must be some per se cause on which the change of form depends for its perpetuation. The change of form is due to some cause which is part of the series, but the continual uniformity of this is due to something outside the series. Thus, if an infinity of accidentally ordered causes which causes this change of form is possible, there will be a terminus (in the sense of a 'ground') in some per se cause. This view, then, can accommodate both the contingency of creatures and the possibility of creation from eternity. If there were an infinite series of accidentally ordered causes, existing from eternity, the only way such a series would be possible is through the existence and sustaining power of the first efficient cause.

Why is it that what perpetuates the whole of the series cannot be part of the series? Scotus explains that everything in the accidentally ordered series, which is in flux, is of the same nature (Ord. 47; DP 3.14). In short, while it is the cause of change, there is a stability in that the change brought about continues to exist. If some part of this series coexisted with the whole of it to perpetuate it, it would be different from the rest and hence no longer would be part of the series. Moreover, if it were part of the series, there would be a self-cause.

In short, no accident is self-subsisting, and therefore the accidentally ordered series must be referred to something to which it is essentially ordered. Thus the perpetuator is something essentially prior to the series, and it is a per se cause that keeps this series going and

which provides a sufficient reason for its existence. The nature of this dependence would clearly be of a different order than that which exists among accidentally ordered causes. This is evident in light of our discussion of 'order' given earlier. The accidentally ordered causes which constitute the series cause the change of form which is their proper effect. The continued uniformity of this change of form is due to a cause outside the accidentally ordered series.

In other words, such a 'deformity' cannot be prolonged to infinity in virtue of itself, since neither the members of the series, nor the series as a whole, could itself explain the continued existence of the 'change of form' or the continued possession of causal power. Thus whatever depends on an accidentally ordered series of causes depends fundamentally and essentially on a per se cause. Consequently, if there is a process of accidentally ordered causes, there will be a dependence on a per se cause which, if an essentially ordered series, will have a terminus in one first efficient cause on which all the accidentally ordered causes depend.

Since accidents have no order except through something which is permanent and fixed, to deny that there is a per se cause is to deny that there is a per accidens series. Thus we conclude that a per se cause and, hence, an essentially ordered series, is ontologically prior to an accidentally ordered series, and (b) above -- that there cannot be an infinite accidentally ordered series unless there is a per se cause on which the accidentally ordered series depends for its continuation -- is proven.

Finally we come to (c) (DP 3.15; Ord. 47-8), where Scotus will show that even if there is no order among causes, there cannot be an infinite

series of causes, and hence can conclude that there is a first efficient cause. This argument, one may note, does not appear in the Lectura Oxoniensis, but it is necessary if his argument is to be complete.

Scotus has established that some nature can produce an effect (DP 3.4; Ord. 43). If we deny the existence of an essential order in efficient causation, then the efficient cause with which we are concerned does not produce an effect in conjunction with or via some other cause (for there is no way in which it could be ordered to it). (Even if we assume that in one individual the power to cause is caused by another, one will still have to say that this causal power exists in some nature which is not caused.) This cause, whose power to cause is uncaused, is that whose existence Scotus proposes to prove.

It would be contradictory to say that in all cases this power to cause that a thing possesses is caused by another, for, in denying an order, one is rejecting this very possibility. Moreover, in maintaining that these caused causes can continue to infinity, he is saying that a defective nature can be prolonged to infinity without the support of a nature that infinitely endures.³² No nature or quality that is caused can exist in some individual such that it is the product of an accidentally ordered series of causes and yet has no essential order to some other nature. This was proved in (b). It is some per se cause, after all, which perpetuates that 'change of form' in the thing. Thus, even where we do not assume an order of causes, we still cannot proceed to infinity in causes, and are led to the existence of a first efficient cause.

Consequently, Scotus claims, we have shown the impossibility of an infinite regress and have thereby demonstrated that something able to

produce an effect is 'first'. Scotus can argue, therefore, that the assumption of an essential order of causes does not beg the question as to the existence of a first efficient cause (Lect. 55; Ord. 43). Before any such proof from efficient causality can lead us to a demonstration of the existence of an infinite being, however, one must have evidence that the first efficient cause is absolutely uncaused. One need show not only that it is uncaused, but that it could not be caused. This, then, is Scotus' next step in his argument for the actual existence of a first efficient cause.

This claim has in a way already been shown, since we have seen that an infinite causal regression of essentially ordered causes, a circle of causes, and a self cause, are impossible. Consequently, the series of essentially ordered causes terminates in some being which cannot be produced but which is independently able to produce some effect. That this nature is absolutely uncaused is implied, given the discussion of the interconnexion of causes in chapter two of the De Primo Principio, and is made explicitly in the subsequent discussion in the various passages in which his proof appears. We shall examine some of his arguments on this point next.

4. The Uncausability of the First Efficient Cause

From the above, we can conclude that this first efficient cause is not caused by any prior efficient cause. Parallel to a discussion in Avicenna,³³ Scotus then proceeds to show that it follows that this being is absolutely uncaused (cf. DP 3.17 and DP ch. 2). Efficient and final causality together constitute extrinsic causality, and extrinsic causality is a necessary prerequisite for intrinsic causality. Scotus

therefore turns from efficient to final causality to see whether the first efficient cause is caused by a final cause different from itself.

A final cause causes in the sense that it is an object of desire or an object of thought. In this way, then, it causes the efficient cause to produce an effect that is related to reaching this end. Only the efficient cause may be caused in this fashion. Thus, when Scotus says that some effect depends on its end as prior, he means to be understood in this way -- that the effect depends on the desire of the efficient cause for the end, in order for the efficient cause to act. Consequently, the efficient cause would not give existence to the effect if the end were not simultaneously contributing its measure of causality. Moreover, the existence of the effect depends both metaphysically and causally on this end as on something essentially prior. It is in this way that an effect depends on the end as prior. For these reasons, Scotus writes that 'what is not ordered to an end is not an effect' and vice versa (DP 2.9; 2.14).

A cause is said to be per se only if that which is caused depends on its cause essentially as upon something prior, and is naturally a product of the cause. Therefore, the thing caused depends essentially on the end, since the final is prior to the efficient cause. Consequently, if we have a first efficient cause, it could not have a separate final cause (a) because something would be prior to it, and hence it would not be independent, and (b) if such a being cannot be produced, neither can it have any final cause (Ord. 49). In short, if something cannot be made, it cannot have some separate purpose for which it was made.

Given that the final cause is prior to the efficient (DP 2.11), and that if a thing has no efficient cause, it cannot be the product of a

final cause, the first efficient cause is said to be its own 'final cause', though strictly speaking it has no final cause. Thus, there is no extrinsic cause of this being, for it has neither an efficient, nor a final cause. If this be true, Scotus argues, it follows that the thing cannot have an intrinsic cause (DP 2.26; Ord. 49). If something is not an effect and has no end other than itself, it can be neither formed nor made of matter. Scotus' argument here for this dependence is a subproof which proves the general point that it has no intrinsic cause, and which, as a whole, goes beyond this point to show that it has no cause at all.

Extrinsic causality of itself does not entail any notion of imperfection but, rather, is compatible with perfection. Intrinsic causality, for example, involves only material -- imperfect -- things. Since what is perfect is prior to what is imperfect, an extrinsic cause has an ontological priority over an intrinsic cause. Moreover, inasmuch as the intrinsic causes are dependent upon the extrinsic, as we have seen earlier, and given the priority of the latter over the former, intrinsic causes are posterior to extrinsic causes in causing. Consequently, because the first efficient cause cannot be caused by extrinsic causes and also not by intrinsic causes, this being is wholly uncaused and, for these reasons, is also uncausable.

5. Reversion to the Actual Order

We should note that all that Scotus has in fact proven to this point is that, in the mode of possibility, there is a first efficient cause. In short, the demonstration is still in the mode of possibility, and the

concept of first efficient cause that we have is nevertheless separate from any formal proof that it actually exists. What Scotus must do at this point in his argument, then, is convert the argument from the mode of possibility to that of actuality -- to argue that, since it is necessary that the first efficient cause is possible, it exists.

It has been established that, in the mode of possibility, there is a first efficient cause which is unable to be caused. Scotus submits, then, that such a being actually exists. In short, we are to return from the mode of ab esse ad posse valet illatio, and show that there exists in reality a completely uncaused first cause. To discover whether any actual nature corresponds to this conceptually possible first efficient cause, then, Scotus must take further steps, which he does through its incapacity to be caused.

His first argument (DP 3.19; Ord. 50; Lect. 57) is that it is clear that, if something exists which cannot be brought into existence by some other thing, then it exists of itself. It is evident that 'being caused' or 'brought into existence by some other thing' is logically incompatible with some thing being a first efficient cause in the manner described earlier. Moreover, it is certainly possible for such an uncaused cause to exist. Clearly, then, some first efficient cause can (i.e., it is possible that it) exist of itself. And if it could not exist of itself, it would not be possible, since there is no cause that could bring it into existence. Therefore, he argues, the first efficient cause actually exists.

As a result, if there can be an effect, then there is a cause. (Otherwise a non-existent being would cause something to exist (Ord. 50; Lect. 57; DP 3.19-20).) Thus, Scotus concludes in the Lectura Oxoniensis

(59) that that which makes all possible things possible -- namely, the first efficient cause -- cannot fail to exist of itself. In short, if it can exist, owing to the fact that to be is not contradictory to it, then it follows that it can exist of itself and consequently that it does exist of itself.

Scotus' second proof (DP 3.19; Ord. 50-51) is simply to insist that there must be a first efficient cause actually existing. Since there would be a deficiency in a universe that did not have present in it the highest possible degree of being, and since God would not permit such a deficiency, he concludes that there must exist in reality a first efficient cause.

Scotus says that there is, then, a kind of corollary that is shown by his argument so far (DP 3.20; Ord. 51). Given that the first efficient cause actually exists, not only is such a cause prior to all others, but it is contradictory to say that another is prior to it. Consequently, and given his argument on uncausability above, Scotus would seem to have shown the connexion between the first efficient cause and it being absolutely prior in all essential orders.

At the root of Scotus' inference, there is the suggestion that a real contradiction would result from accepting such a concept and denying the existence of the being so conceived. To say of some individual that it is the sort of thing that can exist, or that it must exist, or that it can but need not exist, is to say something about the nature (quiddity) of the subject.³⁴ This should remind the reader of our discussion in chapter two concerning the quidditative character of the argument. For its non-contradictory nature tells us that it is possible -- that it is possible to exist of itself. Thus, unless it is also actual, it would

not be possible in that, being uncausable, there is nothing else which could make it exist. If it were not actually existing through itself, then it would not even have the possibility of existing through itself.

It is at a parallel stage in Anselm's argument -- the transition from the possible to the actual order -- that it is commonly presumed to break down. Scotus is in a different position from Anselm, however, insofar as he has already proved the possibility of the existence of a first efficient cause and has shown that it is entirely uncausable. Hence Scotus believes that he can make a valid transition to the actual order. If it is possible and uncausable, it actually exists, for if it did not exist, it would not be possible, since there would be no cause capable of bringing it into existence. But not only does it actually exist, but it must exist since, being uncausable, there is nothing privative or positive which can restrain it from existence. Thus it seems that we are led from the actual existence of the first cause, to the necessary existence of this being.

6. The Necessary Existence of the First Efficient Cause

Having established that an uncaused first cause actually exists, Scotus next turns to show that this being is of itself necessarily existent (i.e., impossible for it not to be) (Lect. 59; DP 3.21-3.22; Ord. 54) and that there is only one such being (DP 3.23-3.27; Ord. 54-56). We may note once again that the sense in which 'necessity' is used in connexion with the existence of this being is not to be confused with 'logical necessity'. It is, rather, to be called 'absolute' or 'intrinsic' necessity. Logical necessity, both the scholastics and

contemporary philosophers hold, applies only to propositions or the conclusions of certain syllogisms. 'Absolute' or 'intrinsic' necessity is the conclusion we arrive at given the nature of the first cause as entirely uncausable.

That there be some being which is wholly uncaused should be evident from Scotus' earlier arguments. Nevertheless, Scotus argues at length for the necessary existence of the first efficient cause, since it is fundamental to his view that the first cause is simple and one in number. Moreover, it is by means of their respective necessary existence that Scotus unites the three primacies in efficiency, finality, and eminence. His argument progresses as follows: The first efficient is uncausable. But an uncausable nature is of itself necessary. There can be only one nature that is necessary of itself. Hence, there is but one necessary being. And thus there could not be some nature which enjoys some, but not all, of the primacies.

The first proof that the first efficient cause is a necessary being that Scotus provides is just this. First, we know that this first efficient cause can exist and consequently cannot have an external cause. As it is possible that it exist, it does exist. This was the proof that the first efficient cause actually exists. Therefore, since it does exist, can have no cause, and is imperishable, it necessarily exists of itself (Lect. 59).

Scotus' second proof takes a radically different approach, and depends on the notion of the Impossible (Ord. 54; DP 3.22). Something exists unless there exists something else that is incompatible with its existence. We know this, Scotus says, because nothing can be non-existent unless something positively or privatively incompatible with it

can exist. Nothing could be incompatible in these ways with the existence of an uncaused being. If something claimed to be so, it would have to exist of itself and would have to be as, or more, perfect than its opposite (in order to be truly incompatible with it). This is impossible, however, for then we would have two incompatible things co-existing -- namely, the uncaused thing which exists of itself, and that which is incompatible with it and exists of itself, whereas clearly, if both existed, they would destroy one another.

What is incompatible with the existence of an uncaused being could not be caused by another, however, for nothing which is caused has a more intense or potent existence than that which an uncausable being has of itself. Therefore such a being would not be more perfect than its opposite. Again, if the incompatible being is caused by another, these two beings would not be ontologically equal, for the possibility of the causable being does not entail its actual existence as is the case with the uncausable. Consequently, since they are not equal, they would not be truly incompatible with one another. Thus, since nothing can be incompatible with the existence of an uncaused being, then the latter cannot not exist.

7. The Unicity of the First Cause

On the basis of these two arguments, then, Scotus reaffirms that there is a first efficient cause that is wholly uncaused (i.e., ungenerated and uncreated), and which can therefore be said to have necessary existence. Scotus continues, then, with the argument that this is true of only one being (DP 3.23-3.24; Ord. 54-56). Briefly, then, his arguments include

the following.³⁵

First, as we can see from looking at any genus and its differentiae, any two entities in a common genus are unequal. Consequently, one will be of a more perfect character than the other. Nothing is more perfect than something necessary of itself, however, and hence if there are two necessary beings which are of the same genus, they cannot be unequal. This is a contradiction, and therefore it follows that two or more beings cannot have necessary being by reason of having a common genus.

A further argument starts from the premise that there is nothing in the universe which is not related by some essential order to the other beings. Indeed, it is inasmuch as the parts of the universe are so ordered that we say it has a unity. If two entities, necessary of themselves, existed, they would be related through the essential order of dependence to other things. Hence one necessary being would be ordered to the other. However, necessary being depends on nothing. Consequently, as there would be no essential order between them, it follows that it would be impossible that both belong to the same universe. Since we know of only one universe and we have no reason to assume the existence of another, we conclude that, because there is only one universe, there is only one necessary being. This argument is claimed by Prentice to be a suasio, and not a demonstratio.³⁶

It may be argued, in response to this alleged incompatibility, that both necessary existents could be related through the order of eminence (DP 3.26). Hence on this point there could be no objection. Scotus notes, however, that the degree of eminence in an order is directly related to its degree of perfection of existence. Since the most perfect degree of existence is necessary existence, then there would be two

'most eminent' beings. Thus it follows that these entities cannot be not ordered to one another through the order of eminence.

Moreover, if there were two 'first' beings, then there are two ultimate terms of reference for order in the universe (DP 3.26; Ord. 55-6). Hence there would be two orders of dependence. But this simply means that there are two universes since, as we have seen above, it is by the essential order of the universe that we say it has a unity. Any additional necessary being would exist outside the universe as we know it, and we have no reason to presume that it may exist. Indeed, there is no need for such a thing to be. Scotus instructs us that more than one thing should not be postulated where one suffices (DP 3.26), and we have no evidence for supposing the existence of two or more universes. Thus there is only one necessary being, and as we see later emphasized in the argument (DP 3.47), this being is the Absolute Prior in all orders.

With this section, then, Scotus completes the project in which we have been interested -- a proof to show the existence of a first efficient cause. Moreover, he shows (DP 3.43; Lect. 61; Ord. 53) that the property of being the highest member of the series of eminence, finality, and efficiency, is attributable to one being alone, which is uncaused and is its own sufficient reason. Before concluding this chapter, I shall briefly review some of these arguments.

8. The Conclusion to an Infinite Being

I have shown earlier how the various kinds of causes are related to one another. It is as an extension of these interconnections that we come to see the relationship of the first efficient cause to the final

cause and to the order of eminence. Scotus argues that efficiency, finality, and eminence exist in their highest degree in some one nature. This position is described by Scotus as the fruit of this third chapter in the De Primo Principio (3.44). Along with specific proofs of the actual (and necessary) existence for something which is the uncaused first efficient cause, the uncaused, ultimate end, and the most eminent nature, we now have a means by which each of these attributes is seen to be predicable of but one being. Consequently, Scotus holds that one existing nature is first in a triple way -- of eminence, efficiency, and finality.

Scotus puts these arguments most tersely in the Lectura Oxoniensis and the Ordinatio. In the former (Lect. 62), we read that the first efficient cause is of necessity fully actualized, and hence (as it has no evil or potentiality) it is best, and is the most eminent among all beings. Again, the first efficient cause, as a per se cause, acts for an end, but it does not act for anything but itself, for otherwise something (sc., that for which it acts) would be better than it. Hence it is the ultimate end. The same thing, then, enjoys a triple primacy.

In the Ordinatio (53), Scotus has a somewhat different argument that the first efficient cause is the supreme nature (i.e., most eminent). Here, he argues that since it is a cause equivocal to other causes, it is more excellent than them, and hence is the most excellent. His argument for the identity of finality and eminence is the same as in the Lectura Oxoniensis, and therefore need not be repeated.

From this, therefore, Scotus concludes that there is one nature which is in no way posterior to anything else, and hence all other things are posterior to it in a three-fold way. This being is, consequently, the

Absolute Prior.

Scotus continues with a discussion of the intellect, power, and will that are attributed to this being. Indeed, on the basis of what he says on the will, Scotus shows that the Absolute Prior is infinite and incomprehensible by what is finite (DP 4.46). Once infinity has been proven, Scotus has arrived at his most perfect conception of God -- that of infinite being. As a result, Scotus has reached the terminus of his metaphysical investigation.

C. Summary

In this second section of this chapter, I have presented Scotus' metaphysical proof for the existence of a first efficient cause. This, along with the proof of divine infinity, Scotus believes will establish the existence of God. We have seen how, in some respects, Scotus' proof is distinct from his predecessors. Yet two related questions remain to be resolved: specifically, what does Scotus say on the four aspects which we identified as fundamental to a cosmological proof? How is Scotus' proof different from that of his important predecessor and rival, Thomas Aquinas? I shall deal with the former question here, and with the latter in the conclusion of the thesis.

Those areas which we identified earlier as apparently central to the cosmological arguments were: the nature of demonstration and its applicability to proving the existence of some thing; the notion of cause and of causal orders -- how causes interrelate to produce an effect and in what this interrelation consists; the possibility and impossibility of certain infinite series; and the relation of effects to the 'first' --

such as problems of univocals and analogy, the nature of this dependence, and the possibility of inference. What is Scotus' position, in summary, on these points?

Scotus clearly follows the Aristotelian tradition of the middle ages by distinguishing two distinct types of demonstration -- propter quid and quia. Both kinds of proof, apparently, are capable of providing us with certain knowledge, but the former is suited to investigations concerning existents -- showing that they exist. In this latter method, the middle term served as the epistemological cause of the conclusion. Quia proof is associated with a posteriori, inasmuch as it is dependent on empirical fact to found the proof; correlatively propter quid is associated with a priori. Consequently, in the demonstration of the existence of an infinite being, Scotus selects a quia proof, and in particular he uses one that is in the first figure. While it is objected that Scotus is using an essentialist -- and hence, it is assumed, an a priori -- proof, we see that these charges presuppose an entirely different metaphysics. Given Scotus' conception of metaphysics, and of the relation of essence and existence, we will agree that, in Scotistic terminology, his is truly called an 'existentialist' argument.

Despite the fact that his argument draws on empirical reality in the way elucidated in this chapter, nevertheless it is not a physical proof. His argument from efficient causality understands 'efficient cause' in a metaphysical sense -- not as a cause of accidental change, such as motion, as it is defined by Aristotle. Moreover, while providing a quia proof, Scotus has strict requirements for the possibility of certain knowledge -- scientia. Unlike other quia proofs, the premises of Scotus' argument are necessary truths. While in a sense they refer to contingent

states of affairs, nevertheless they do so in the mode of possibility, so that the premises are not contingent but necessary. These premises are derived by the modal inference rule ab esse ad posse valet illatio. In this mode of possibility, not only are the premises more certain, but this indicates the overall tenor of Scotus' approach is to be concerned with quiddities -- with the natures of things -- and what we can infer from them. This preoccupation with quiddities also demonstrates well Scotus' metaphysical bent.

An argument in the mode of possibility, however, does not itself entail anything in existence, and yet clearly Scotus wishes to be led to the existence of the ens infinitum. Thus he must reverse this modal inference rule, so that he can show that this being actually exists. This demonstration of the existence of a thing is possible under Scotus' understanding of scientia, since it is necessary, and hence fulfills the criterion of such a method of demonstration, that it be a necessary truth that is shown.

Although Scotus' proof has reference to 'possibility', it is not a version of the ideological proof, since it uses a principle of causality, and not the principle of sufficient reason as the operative factor.³⁷ Scotus clearly rejects the view that he is giving an a priori proof, even though some aspects of his argument have similarities to the argument of Anselm. Nor are we obliged to give an a priori proof of an infinite being because we are able to give an a posteriori argument. The possibility of an a posteriori, quia demonstration, however, depends on the relation of the presumed first to the presumed effect, i.e., whether one can legitimately infer from the existence of the latter to the existence of the former.

Fundamental to Scotus' discussion of cause and conditionality, and indeed to the whole of his proof, as we see in its latest version, is the notion of essential order. This notion simply asserts the relation between two things -- prior and posterior -- that is based on the essences of the things concerned. Among those things that are essentially ordered are causes, and this we see inasmuch as an effect is related to (i.e., is dependent on) its cause, and inasmuch as the various kinds of causes are related to each other. These latter are especially important, we see, when we attempt to expand our concept of -- or at least our knowledge of -- the first efficient cause, with which our investigation is concerned.

We have seen that Scotus' proof is a metaphysical proof, and the many reasons that he gives for using this method. Necessary to metaphysics and the notion of being with which it is primarily concerned, is that the notions used in it are suited to it. Thus, rather than refer to 'cause' in the sense of a cause of accidental change, such as motion, Scotus has for us a notion of metaphysical cause. It is through this notion that he begins his demonstration of the existence of the first being. How is this possible?

In the examination of 'being', Scotus noted that there are certain properties with which it is absolutely convertible, and others with which it is disjunctively convertible -- the latter include, 'created or uncreated', 'infinite or finite'. Efficient cause, while not absolutely convertible with 'being', nevertheless does seem to have this disjunctively convertible character which is meaningful prior to its division into those modes which refer, on the one hand, to infinite being and, on the other, to finite being. Thus 'efficient cause' is understood in creatures as 'cause of substantial change' on the one hand, and 'creator' and

'sustainer' on the other, which is its correlative, and which is predicated of God. The former is dependent on the latter, but so also with the inferior extremes of disjunctively convertible attributes. Nevertheless, efficient cause is univocal before division into transcendental modes. Moreover we can infer something of the character of God from his effects by the principle of 'like causes like'. For, knowing that the cause is like the creature, we can in turn infer something of the nature of the cause.

But the cause of a thing is only one part of an essential order, and hence we must enquire how it is related to its effect. Primarily, then, we distinguish between per se causes and per accidens causes -- roughly, between those by whose nature (or, in the case of voluntary agents, by whose will) the effect follows, and those which are only incidentally the cause of the effect.

In the Aristotelian conception, however, there can be no science of per accidens causes. But the per se cause of a thing need not be one thing -- it can be a series of things related to one another. Thus, when two or more things of different natures combine together to produce an effect, we have what is called an essentially ordered series of causes. This kind of series demands that all the causes, together, must occur simultaneously to produce the effect. And since there is a hierarchy in order of the natures of these causes or conditions, its most primary member is said to possess most strictly the causality that brings about the ultimate effect. Obviously, then, this kind of series -- especially as regards the transmission of existence -- must be finite.

An accidentally ordered series, however, is not so restricted. Here, the nature of the causes are of the same kind, the causality can be

successive since the causal activity of all, together, is not needed for the bringing about of the effect, and obviously the prior causes need not be 'higher'. For the maintenance of its effect, however, the series cannot in itself supply an adequate account of why it exists. Everything needs an explanation, but an accidentally ordered series can in no way explain its existence. As a result, it must depend for this on the existence of some per se cause.

In an essentially ordered series, all the causes must concur in order to produce the effect, even though the highest member has this causal power 'most strictly'. In short, the primary requires all the secondary causes to produce the ultimate effect. But God is said to be the first member of an essentially ordered series of efficient causes, so is he also dependent? Scotus believes, as we have noted, that God has genuine creative power. Nevertheless, we cannot know through natural reason that all creatable things can be produced by God without the medium of secondary causes. Thus, to preserve philosophical consistency, Scotus distinguishes between theological and philosophical creation. In the latter sense, for all we know by reason, God, like all other first efficient causes, might need to act with secondary causes to produce certain effects; we know by faith, however, that this is not so.

In that he rejects the possibility of some infinite series of causes, Scotus is no different from Aristotle, Avicenna, and Aquinas. Primarily, this is because the dependent requires a cause and, since there can be no self-cause (in the sense of self generation or creation), the dependent thing requires a cause other than itself. However, Scotus denies, in particular, that there can be an infinite series of essentially ordered causes. This is because the causality in such a series is

transitive, asymmetrical, and irreflexive. Since each effect requires a cause different from itself, there must be a first cause in such an ordered series. Scotus allows for the possibility of an infinite series of accidentally ordered causes, but even such a series is dependent on some cause to which it is essentially ordered for its being able to be the kind of series that it is (e.g., perpetuates in the things concerned the continued power to produce what they produce). His rejection of the infinite series, however, does not beg the question by referring only to an essentially ordered series. Scotus systematically rejects all possibilities where an infinite series could occur. First, he shows that there could not be an infinite series of essentially ordered causes. Then he shows that for an infinite series of accidentally ordered causes to be possible, there must be some other cause, not part of the series, on which the whole series depends per se. Finally, Scotus says, if there is no order among causes at all, there still cannot be an infinite series of causes. In short, we must come to an uncaused cause, if we are to provide a total explanation of the ultimate effect; this cannot be achieved by an infinite series.

When Scotus considers the relation of effects to a 'first', he does so in two ways: first, how the 'first' brings about the effect, and second, how the existence of effects can lead us to some knowledge of the existence of the 'first'. Since God's creation is voluntary, and since we cannot know him in his essence, we cannot have an a priori knowledge of God's existence. We do know that there is an essential order among things, and that one of these orders is dependence of the posterior on the prior as effect to the cause. We must keep in mind that the causality with which all Aristotelian science is concerned, is per se

causality. Scotus argues that this dependence requires -- since there must be some cause for the effect -- a producer and a conserver on which all things depend either mediately or immediately for their existence. Thus we are led to the existence of a first efficient cause. Indeed, as we see in Scotus' cosmological argument, even the possibility of the existence of things demands the existence of a first efficient cause. This may be, in part, due to the fact that Scotus saw that possibles had, themselves, a kind of being which had to be accounted for.

If effects depend on their causes in this way, how does it help us to obtain some knowledge of their causes? First, since efficient causality is a type of essential order, and since essential order is a disjunctively convertible aspect of being, we see efficient causality as a disjunctively convertible aspect. But 'being', as such, is univocal. By this, Scotus means, this characteristic can be attributed equally of God and creatures, and the reason why this is possible is that Scotus takes it in its broadest possible sense, before it is divided into finite and infinite modes, so that it is neutral with respect to the being of God and creatures. Thus, 'finite or infinite', 'generator or creator' are disjunctively convertible aspects of being.

Consequently, if, in a quia demonstration from efficient causality, we are dealing with efficient cause in this broad sense, we may avoid the fallacy of equivocation. While traditionally one problem with the proof is that it falls victim to this fallacy, nevertheless, Scotus believes he has dealt with it. A lesser way which claims to guarantee an inference from effects to cause without equivocation is that, in efficient causality, 'like causes like'. Thus we know that at least some aspect of a cause is like its proper effect, and from the existence

of efficient causes we know that at least one aspect of the primum ens is that it is a first cause.

Scotus does not believe that only univocal terms can be used in speaking about the first efficient cause. Clearly, once we have the division of these terms into their proper modes, we also require analogy to say more about them. Scotus notes that this analogy is only possible because of the prior existence of univocal terms on which the equivocal terms are founded. Thus some of what we say of God is so predicated by analogy of attribution. Inasmuch as it is univocity that explains how analogy is justified without collapsing into total equivocation in an argument for the existence of a first efficient cause, we might presume that in Scotus, as in Aristotle, this analogy is only extrinsically denominated. Scotus, therefore, has no need of intrinsic denomination (in distinction to Aquinas, who denied the possibility of univocal predication of terms of God and creatures). Indeed, we have no evidence that Scotus ever recognized the possibility of analogy of attribution, intrinsically denominated.

In this and in the previous chapter, then, I have presented and elucidated Scotus' cosmological proof for the existence of a first efficient cause, and have presented some of the metaphysical background necessary for an adequate understanding of Scotus' position. I have attempted to emphasize some of the many features of Scotus' proof that are distinct from others that have been presented from within the Aristotelian tradition -- particularly, in those four areas which were identified earlier as being central to the cosmological arguments from efficient causality, in general. What remains to be given are some conclusions concerning the extent to which Scotus' arguments differ from prior cosmological arguments -- and particularly that of Thomas Aquinas.

Notes to Chapter Three

1. Aristotle, Metaphysics. Z. 15.
2. Scotus also allows this (DP 3.6; Lect. 56; Ord. I, d.2, q.1; 48).
3. William Ockham, Summa totius logicae III, II, cxxvii ed. P. Boehner, Ockham: Philosophical Writings (London: Thomas Nelson & Sons, 1957), p. 94.
4. William Ockham, Quodlibeta I q.1. ed. P. Boehner, op. cit., pp. 125-6.
5. Robert P. Prentice, 'The Basic Quidditative Metaphysics of Duns Scotus as Seen in his De Primo Principio' (Roma: Antonianum, 1970) p. 25.
6. Timotheus A. Barth "Being, Univocity, and Analogy according to Duns Scotus" ed. J.K. Ryan and B.M. Bonansea Studies in Philosophy and the History of Philosophy Vol. III, John Duns Scotus 1265-1965 (Washington D.C.: Catholic University of America Press, 1965), pp. 210-262, p. 261.
7. William Ockham, Ordinatio d.2, q.9, ed. P. Boehner, op. cit., p. 102 /-106/.
8. William Ockham, Reportatio III q.8, ed. P. Boehner, op. cit., pp. 106ff.
9. A.M. Goichon, The Philosophy of Avicenna, trans. M.S. Khan (Dehli: Motilal Banarsidass, 1969), pp. 13; 99.
10. Prentice, Metaphysics, pp. 50-51.
11. See Prentice, Metaphysics, p. 28.
12. See Ord. III, d.24, n.3. D.E. Sharp, Franciscan Philosophy at Oxford in the Thirteenth Century (New York: Russell and Russell, 1964) p. 327.
13. Robert P. Prentice, "Some Aspects of the Significance of the First Chapter of the 'De Primo Principio' of John Duns Scotus", Antonianum 36 (1961) pp. 225-237, see pp. 229-233.
14. Ibid., p. 229.
15. Roy R. Effler, John Duns Scotus and the Principle "Omne Quod Movetur ab Alio Movetur" (St. Bonaventure: Franciscan Institute Publications, 1962), p. 156.
16. Ibid., p. 157.

17. Robert P. Prentice, "Primary Efficiency and its Relation to Creation, Infinite Power and Omnipotence in the Metaphysics of John Duns Scotus", Antonianum 40 (1965) pp. 395-441, p. 429.
18. Allan Wolter, "Duns Scotus and the Existence and Nature of God", Proceedings of the American Catholic Philosophical Association 28 (1954) (Washington: Catholic University of America Press, 1954), pp. 94-121, p. 107.
19. This example is taken from R.G. Wengert, "The Logic of Essentially Ordered Causes", Notre Dame Journal of Formal Logic 12 (1971) 406-422, p. 20.
20. Ibid., p. 406.
21. William Ockham, Quaestiones in librum I Physicorum q.cxxxiii ed. P. Boehner, op. cit., pp. 115-6.
22. William Ockham, Quaestiones in librum I Physicorum q.cxxxii, ed. P. Boehner, op. cit., p. 115.
23. William Ockham, Quaestiones in librum I Physicorum q.cxxxv, ed. P. Boehner, op. cit., p. 118.
24. William Ockham, Quaestiones in librum I Physicorum q.cxxxvi, ed. P. Boehner, op. cit., p. 122.
25. William Ockham, Quaestiones in librum I Physicorum q.cxxxv, ed. P. Boehner, op. cit., p. 120.
26. Patterson Brown, "Infinite Causal Regression", ed. A. Kenny Aquinas (Garden City (N.Y.): Anchor Books, 1969), p. 234.
27. Ibid., p. 235.
28. See footnote 19, chapter 1.
29. Wolter, "Existence", p. 108.
30. Anthony Kenny, The Five Ways (London: Routledge and Kegan Paul, 1969) p. 25.
31. Wolter, "Existence", p. 108.
32. Prentice, "Primary Efficiency", p. 406.
33. See Avicenna, Avicenna on Theology ed. A.J. Arberry (London: John Murray, 1951), pp. 26-31.
34. Allan Wolter, "Is Existence for Scotus a Perfection, Predicate or What?" De Doctrina Ioannis Duns Scoti. Acti Congressus Scotistici Internationalis Oxonii et Edinburgi 11-17 Sept. 1966 celebrati. Vol. II: Problemata Philosophicae (Romae: Cura Commissionis Scotisticae, 1968) pp. 175-182, p. 178.

35. For a similar discussion which may have influenced Scotus, see Avicenna, The Healing Metaphysics ed. A. Hyman and J. Walsh, Philosophy in the Middle Ages (Indianapolis: Hackett Publ. Co., 1973), First Treatise, Chapter 7.
36. Robert P. Prentice, "The Evolution of Scotus' Doctrine on the Unity and the Unicity of the Supreme Nature", De Doctrina Ioannis Duns Scoti, op. cit., pp. 377-408, p. 389.
37. See Bernadino M. Bonansea, "The Ideological Argument for God's Existence", ed. J.K. Ryan Studies in Philosophy and the History of Philosophy, Vol. I (Washington D.C.: Catholic University of America Press, 1961), pp. 1034.

CHAPTER FOUR

CONCLUSIONS

Up to this point, we have explained the views of Scotus and Aquinas on the cosmological arguments for the existence of a first efficient cause. What remains, then, is a comparison of their positions on the four central aspects of this argument as developed in this thesis, and comments on the extent to which their views diverge. In the course of this, I suggest that while the respective views of Scotus and Aquinas are distinct, the extent to which they are in opposition to one another is less than might initially appear. To this end I shall expand on the arguments presented in the previous chapters.

Once we have completed this comparison, we can assess the overall positions of Scotus and Aquinas. This will entail a summary of those points on which their arguments seem to differ significantly, and suggestions as to why they differ where they do. On this basis, we can ask ourselves whether their respective positions are sufficiently different for us to state a preference of one view over the other, and hence decide whether Scotus' arguments merit the praise given to them by Merton, Roche, Wolter, and Effler.

A. A Comparison of the Views of Scotus and Aquinas

1. Demonstration

It is clear that a precise notion of demonstration, and a resolution of the problem whether the existence of some entity can be demonstrated, are fundamental to any cosmological proof. These are required inasmuch

as demonstration is necessary in order to possess sure knowledge, and the question whether God exists, being a preamble to faith, is open to natural reason and hence is capable, Scotus and Aquinas claim, of demonstration.

a) The role of demonstration in a cosmological proof is especially fundamental since it is both dependent on, and entails, a resolution of other problems associated with the proof. Thus, the possibility of a cosmological demonstration presumes, according to the Aristotelian method of demonstration, the validity of a principle of causality and of a principle of sufficient reason, which lies at its source. Scotus allows that these principles are not logically true, but would insist that if one is to have a coherent view of the world, then they are metaphysically necessary. Aquinas too would agree that there is no force of logical necessity underlying these two principles, but unless one is to adopt scepticism (which Aquinas does not feel it necessary to refute), one (he, she) must adopt them.

The possibility of a cosmological demonstration also requires that we know what a cause is, and when we have a satisfactory answer to a question. Otherwise, we can make no certain inference from effects to a cause, nor be sure that our causal explanation is complete. Once we have a demonstrative cosmological proof, it is possible to infer from effects to cause.

Whether the middle term of our syllogism is univocal or analogical will also influence the course of demonstration, for we must ensure that the argument form remains valid (e.g., does not permit equivocation) and know whether the conclusion of the syllogism is properly a divine name. Thus the certainty of our demonstration is influenced by whether the

middle term of the syllogism allows for an equivocation. Given the roles of these various concerns associated with the cosmological proof, we see how they are reflected in the notion of demonstration.

b) In a study of the cosmological arguments there are two basic kinds of proofs: physical and metaphysical. A physical proof involves, primarily, principles of physics and particularly the principle of motion. Aristotle, who presented a systematic and comprehensive physical proof, sought the 'first principle' of motion. He defined motion as "the actualization of the potential insofar as it is potential", and this applied to motion in its wide sense of accidental change (i.e., change of quality, of quantity, and of place).

In the cosmological arguments of Avicenna and later mediaeval authors, however, a physical proof was not adequate to the task of demonstrating the existence of God. God was the goal of metaphysics, whereas a physical proof, which argued from the physical nature of the world, does not lead beyond physics. Such a proof was, then, unable to transcend natural phenomena. It did not explain how there are things at all, and led only to the existence of a prime mover. A physical proof, then, could give neither a transcendent efficient cause of what there is (since, as it is often claimed, Aristotle's prime mover was a final cause), nor a proper concept of God independent of creatures, such as the concept of primum ens. This latter notion could be arrived at only through metaphysics.

Scotus launched a thorough attack on the principle of motion and, while it may be true, as Effler claims, that he did not specifically refer to the argument from motion when he presented his own metaphysical proof, he nevertheless rejected the possibility of an Aristotelian

cinesiological proof.¹ Scotus' attack on the principle of motion -- whatever is in motion is moved by another -- was motivated by the view that this is not a genuine metaphysical principle at all, and he attacks it in its most general sense which includes local motion, qualitative and quantitative change, and acts of intellection (knowing) and volition (willing). Scotus says that the principle of motion is tenable only if we refer to substantial and qualitative univocal change, since a denial of this would also deny the principle of causality.²

Scotus feels that the central reason for adopting the principle of motion and rejecting the possibility of self-motion is the alleged incompatibility of potency and act. Scotus therefore analyses these notions in order to test their incompatibility, and argues that, in a large class of cases, not only are potency and act compatible, but no fellow philosopher would contest this compatibility.³

But we may ask 'How can a thing move itself if, as even Scotus believes, nothing can give what it does not have?'. In the case of a univocal cause, according to Scotus, the active principle possesses the perfection of its nature. The perfection must be in 'formal act' in the thing. In the case of an equivocal cause, however, the perfection is possessed virtually -- i.e., the equivocal agent has the power of causing such a perfection. For example, the will, prior to the act of willing, has the actual virtus or power to produce the act, so that the will functions as an equivocal efficient cause.⁴

Virtual and formal act, Scotus argues, are not contradictory, and they can exist in one and the same thing. Thus, one and the same thing can be in act (virtually) to a given perfection and can be in potency (formally) to this same end.⁵ For Scotus, then, "the principle of

causality asserts that a being which begins to exist requires a cause, that nothing causes itself; that of motion asserts that a being which begins to exist is always and necessarily caused by a being other than the principle which receives the new or contingent being".⁶ Scotus ultimately rejects the cinesiological principle that 'the same thing cannot be in virtual act and potency to formal act in reference to one and the same perfection' then, because it is contrary to experience.

Scotus recognizes that an opponent might insist on more than virtual containment of the effect in its cause -- but this, he points out, is to deny equivocal causality. By definition, an equivocal cause produces an effect which is different in nature from itself. Consequently, the equivocal cause cannot contain its effect formally.

All that is entailed by this view, is that one and the same thing can be both active and passive in reference to one and the same accidental perfection, such as being a mover and being moved.⁷ Consequently, it should be evident that the perfection reached through self motion can only be some accidental form or perfection -- it can never be a new substantial form.⁸ Motion, for Scotus, does not necessarily require a cause which is external to, or really distinct from, the being in motion.⁹ Thus Scotus denies that the principle of motion has any claim to being regarded as a valid metaphysical view. Aristotle, Scotus states, never held it as a first principle, and "not even as a tenth principle. It cannot be found anywhere in the Metaphysics" (Quaestiones subtilissimae super libros Metaphysicorum Aristotelis, IX, q.14).¹⁰ What truth there is in such a principle depends on its reflection of the principle of causality.

Scotus' opposition to the kinesiological proof seems unambiguous given this thorough rejection of the principle of motion. Aquinas, however, uses an argument from motion in one of his demonstrations of the existence of God, and even claims that such a way is the most manifest. Do we conclude therefore that Aquinas is using a physical proof, and that the views of Scotus and Aquinas in this regard are contradictory?

In Aquinas, there is no confusion of the principle of motion and the principle of efficient causality, and each provides its own way to God. Aquinas does not simply adopt Aristotle's definition of motion, however, nor does he merely repeat Aristotle's arguments, though he clearly employs their external structure. Aquinas, then, revises the Aristotelian definition of motion, with reference to its 'being'. The motion of a thing is a movement towards a new act of existence, which is expressed by the term inesse. Thus, in his argument from motion, Aquinas is interested in how these accidental properties of things acquired their being (inesse) -- not how these things came to exist as created. Aquinas, therefore, provides a metaphysical analysis of the fact of motion that is radically different from that of Aristotle, even though it employs much Aristotelian terminology. For this reason, Aquinas' argument from motion is in no way a physical proof. While both of Aquinas' cosmological proofs have this common concern with 'being', nevertheless they are clearly distinct from one another. The argument from motion deals with the source of the inesse of accidents; the causal proof deals with the cause of the esse of substances.

It would follow, then, that both Scotus and Aquinas agree that there can be no demonstration of God's existence from natural philosophy. Such

arguments cannot lead us to transcend natural phenomena. Both, then, clearly exclude a cinesiological proof stated by Aristotle. Does this affect the prima facie antagonism between Scotus and Aquinas on the possibility of an argument from motion? With the definition of motion given by Aquinas, could Scotus allow that an argument that makes use of it is legitimate and will bring us to a primum ens?

The basis of Scotus' opposition to the principle of motion was that it was not a valid metaphysical principle inasmuch as equivocal causality in things invalidated it. Scotus does agree, however, that there can be a legitimate metaphysical proof of God's existence based on the mutability of things. Isn't it just this point that Aquinas is focussing on in his presentation of the argument from motion? He argues that some things are in motion -- that is, some things are acquiring accidental properties through a change of quality, quantity, and place, and these properties have their own being (inesse). The existence of this inesse is not self-explanatory. An accident which does not have its inesse cannot give it to itself, since a thing cannot be its own efficient cause. Thus one must refer to something apart from itself for the cause of its appropriate 'being'.

Scotus, we know, argues with regard to an accidentally-ordered series of causes that there must exist a per se cause on which it depends for its continued existence and for the change of form that it brings about. This dependence on an external cause for its being, then, is parallel to Aquinas' denial that an accident can be the univocal efficient cause of its inesse. Since Scotus does not hold there is a real distinction between existence and essence, their positions are not identical. Nevertheless, Scotus does acknowledge that the existence of a thing must be

accounted for.

In Aquinas' argument from motion there is no equivocal causality exercised by accidents with regard to their own in esse, and hence he excludes the possibility of self-motion. Scotus' denial of self-motion, however, seems to be made within the context of the Aristotelian definition of motion. If we adopt Aquinas' definition, Scotus would seem to be obliged to allow some kind of self motion, for self motion here is concerned with the cause of the being of a thing. It would seem plausible to hold, then, that the opposition between the positions of Scotus and Aquinas on this point is more apparent than real.

To a large extent Scotus and Aquinas seem to be in agreement on how the appropriate kind of demonstration for a cosmological argument is a metaphysical proof. They agree that, in order to have a demonstration of God as a primum ens, and as cause of the existence of things, we cannot employ an argument from natural philosophy. Both have a concern with the being of things, and, as their arguments are of such a broad nature, both Aquinas and Scotus can move from any random instance of an existing thing and seek out the appropriate cause of its current existence. This concern with being, then, not only distinguishes their arguments from a physical proof, but also from a purely logical proof inasmuch as a logical proof does not establish the existence of anything.

The insistence on finding a cause for an effect is not a simple reiteration of a principle of sufficient reason, although clearly the principle of causality depends on it. It is a metaphysical demand. If we hold that there need be no cause of being, nor any being which conserves others in being, we not only deny the universality of an apparent law of thought, but we then cannot explain how or why things

cease to be. Aquinas and Scotus both accept the principle of causality, despite skeptical attacks, and on this basis are able to construct their respective cosmological arguments.

In answering the question of the cause of effects (and also, for Scotus, how effects are even possible), then, both seem to agree that there must be an external cause, and given that the cause is a cause of being, we are confirmed in the view that these cosmological proofs are metaphysical. Scotus' arguments are also seen to be metaphysical given his apparent preoccupation (in contrast to Aquinas) with the quiddities of things, but this aspect of Scotus' proof will be dealt with later.

c) The next stage in our comparative analysis of Scotus and Aquinas on demonstration involves the kinds of demonstration suitable to a metaphysical proof of the existence of a first efficient cause. We may recall the two basic kinds of demonstration common to an Aristotelian methodology -- demonstratio quia and demonstratio propter quid. In both Aquinas and Scotus the former involves an inference from effect to cause and is roughly equivalent to an a posteriori proof. Correlatively, the latter moves from the ontological cause to its proper effect, and it is commonly equated with an a priori proof. Both Aquinas and Scotus deny that there can be any propter quid demonstration of God's existence inasmuch as we can have no knowledge of God in his essence (which would be required for a middle term in a propter quid proof), and because God's creation is voluntary.

Whether Aristotle actually employs a propter quid proof, as Aquinas claims, is of little concern since, not only is his argument a physical proof, but Aristotle can have knowledge of the essence of the prime

mover, and the relation of the prime mover to the source of the 'coming into being' of things is not an issue in Aristotle. While it may be true that Aquinas has, and uses, a propter quid proof in some of his demonstrations no mention of this is made in any of the cosmological arguments, and indeed Aquinas explicitly states that he is using a quia proof.

Both Aquinas and Scotus hold, then, that quia proofs are productive of knowledge and enable us to demonstrate the existence of God. Indeed, quia proof is claimed to be the kind of proof appropriate to questions of the existence of things and, in particular, to the demonstration of causes from effects, since every effect depends upon its cause. One might argue, however, that this ignores the demand of Aristotelian science that demonstration deals with necessities, or else we have no guarantee of sure knowledge in the conclusion. In their cosmological proofs, however, both Aquinas and Scotus seek to provide a demonstration of a necessary being and as such the demands of the method seem to be satisfied. Indeed, in his search for a demonstrative argument, Scotus sought to ensure that his premises were necessarily true and the argument form valid. While Aquinas did not claim to arrive at a necessary conclusion in his cosmological arguments, and while his premises, though certain, were not necessary, he seems to have held that all that is required for knowledge is certainty of the conclusion.

Despite their similarities, the proofs of Aquinas and Scotus differ. Scotus' method of demonstration not only requires much more stringent criteria, but the starting point of the argument is a necessary truth. Aquinas is concerned with whether God exists, not what his essence is (since we can never know this). Scotus, on the other hand, is interested

in what God is -- at least under some name -- before we can know whether he is. (This may no doubt be explained by Scotus' apparent view that essence precedes, ontologically, existence inasmuch as existence is a mode of essence.)¹¹ This procedure of a demonstration of God's existence from some prior notion of what God is, then, leads us to designate Scotus' proof as quidditative. The implications of this on Scotus' avowed quia demonstration will be brought out presently. First, however, we must turn to a presentation of Scotus' and Aquinas' respective views on the criteria necessary for demonstration.

d) In a quia demonstration we are making an inference from effects to their proper cause. What is it about things that we are inferring from? Scotus and Aquinas are one in that they are concerned with the lack of independent being in things. This is so pervasive that, in the case of any random instance of effects, we can move from the notion of their metaphysical dependency to the existence of that on which they depend. In order to provide a demonstrative argument, and lead to a necessary conclusion, Scotus begins with a premise referring to effects in their possibility -- a premise which is necessarily true. Scotus is able to do this by using the modal inference rule ab esse ad posse valet illatio and, once he has completed his argument in the mode of possibility, he will revert to actuality.

Even though premises expressing contingent things in their contingency may be certain, Scotus insists -- contrary to Aquinas who begins his proof with them -- that only necessary premises are suited to a demonstrative syllogism. Scotus' justification for such a strict approach would seem to be the result of the view that God is under no necessity to create and hence, although it is mere sophistry to hold it, we cannot

be absolutely certain that there are created things.

This divergence can be attributed to different views of Scotus and Aquinas on what a demonstration should be. It has been claimed¹² that Aquinas is concerned simply with explanation whereas Scotus is further concerned with the nature of the evidence that underlies the explanation. We can, for example, explain something without giving evidence for the truth of those terms in which we explain it. Thus Aquinas accepts -- and will not debate -- that there are things which are the effects of causes; Scotus cautiously maintains that this is possible and, as possible, is not only certain but necessarily true. By means of such strong criteria, then, Scotus hopes to remove the impact of the charges of skepticism.

Despite this difference between Aquinas and Scotus, both agree that a metaphysical demonstration uses metaphysical principles and is concerned with referring to (the existence of) metaphysical entities -- that is, entities not demonstrable through physics. Thus, the demonstration is able to transcend natural phenomena and is able to lead us to the notion of the primum ens. On the other hand, when it comes to a question of ensuring certainty in demonstration, Aquinas and Scotus differ.

Scotus, unlike Aquinas, argues that the middle term in our demonstrative argument must be, like all the terms, univocal. He is led to this both for reasons of the requirements of demonstration and for metaphysical reasons. For instance, Scotus claims, if God and creatures are said to be different and distinct beings, their very distinction implies that they are being compared in different ways with regard to a common notion of being (Ord. I, d.8, p.1, q.3). Moreover, in Scotus, 'being' is the subject of metaphysics, and we have certain disjunctively convertible attributes which are equivalent to 'being' when it is a

transcendental (i.e., abstracted from being in a certain mode). As transcendentals, these terms -- which include 'efficient cause' -- are univocal to God and creatures. Unless there are such univocal terms, Scotus holds, our argument from certain characteristics of effects to their predication of God would succumb to a fallacy of equivocation.

Aquinas, on the other hand, denies that 'being' is divisible into 'finite' and 'infinite' modes. Rather, it is understood in primary and secondary senses. 'Being' and other attributes are predicated of God and creatures through analogy of attribution, intrinsically denominated. Thus the attribute concerned is truly present in both God and creatures, but it exists in the latter only on account of the former. We know of the existence of the primary sense through the requirement that the effect be like the cause. Thus the divine name concluded to by Aquinas is only analogous to the corresponding attribute in creatures, but given that the attribute is intrinsically denominated of both, we have no problem in moving from the effect to the transcendent cause. In Scotus, the disjunctive convertible attribute 'efficient cause' implies substantial change and creation as the inferior and superior terms, respectively, of the disjunct; in Aquinas, the two are related through analogy.

Given their respective criteria for demonstration, both Scotus and Aquinas conclude that they can provide a proof for God's existence. Scotus, however, admits that while God is a necessary condition for the existence of the effect, he is not a sufficient condition for what there is. The reason for this, as we shall see, is that, unlike Aquinas, Scotus holds that, without revelation, we cannot know whether God requires secondary causes in the production of some effects. Thus, while God is

required as a primary cause, we have no reason to believe that he is the sole cause of (and hence the sufficient reason for) the effect.

e) As we saw above, both Scotus and Aquinas are concerned with how things in the world came to exist. In Aquinas' terminology, then, our concern has been with the cause of the esse of substances, and of the inesse of accidents. Aquinas, however, begins his demonstrations with empirical premises while Scotus uses premises that are necessary truths. As a result of this, we see that Scotus' orientation is quidditative, and has been designated an essentialist (as opposed to an existentialist) proof.

Definitions of these terms are vague, but we may describe the former as an argument that attempts, solely by an analysis of the nature of a subject, to demonstrate the existence of something. An existentialist proof, on the other hand, is concerned primarily with the existence of things in the world and makes reference to existence in both the conclusion and the premises of the argument.

In Scotus, existence and essence are not really distinct, and thus one may hold that the existentialist/essentialist dichotomy is inappropriate here. Scotus' proof, while concerned with what a thing is (in order to avoid skepticism), is also 'existentialist' or, at least, it is not diametrically opposed to such a proof. Indeed, Aquinas and Scotus are concerned with the source of existence in things which do not have it from their natures. Moreover, in Scotus, without existence, essence is nothing and for even a quidditative proof we need at least something to analyze. Finally, we note that the first premise of Scotus' argument is that of a contingent existential premise understood in the mode of

possibility, and in this regard it may seem that there is a strong existential concern.

Nevertheless, Scotus' proof is in the possible mode. He recognized that existence is an accident, and hence an analysis of the nature of a thing apparently does not include reference to nor could it lead to existence in the world. Actual existence does not enter the proof until the end. How can Scotus' proof be considered existentialist -- or at least non-essentialist -- in view of this?

Clearly, Scotus' argument is quidditative. This is evident from the stage in his argument where he reverts to the mode of actuality through the claim 'if it did not exist, it could not exist' and infers from this that it does exist. Moreover, the use of the Impossible in his deduction to a single, necessary, being is obviously a quidditative tactic. Scotus also claims that we must know what a thing is before we can say whether it exists, and that essence is prior to existence ontologically (although the latter is an intrinsic mode of the former). It has also been suggested by Owens that, since the first efficient cause does not immediately reveal itself as infinite being, the argument is not concerned with existential act.¹³ It would seem to follow, therefore, that concern with concrete existence in Scotus' argument is lacking. What must be resolved, then, is whether an existentialist proof need be primarily concerned with existence in the world, with essentialism the alternative.

Owens' view is that, since Scotus is not directly concerned with existential act in the proof, the argument is essentialist. It is true that the initial premise deals with a quiddity -- but it is the quiddity of an actual and contingent fact. The intrinsic mode of these essences is, for Scotus, concrete existence, and hence his discussion of it

cannot wander from this existential element. Nevertheless, the logical claim that 'Something can be produced' is purely in the possible mode. Thus it would seem that Scotus can retain an existentialist argument without falling victim to the mere contingent truth of his premises, and have a quidditative proof without it being a Thomistic essentialist proof. Moreover, to hold that Scotus' view is essentialist would suggest that Scotus' argument becomes a priori, which Scotus explicitly rejects. We may, however, be unwilling to grant that there is a real distinction between a quidditative and an essentialist proof. Thus, any final decision on whether Scotus' proof is essentialist or existentialist must wait upon a subsequent treatment.

What of the conclusion of the demonstration? Do we arrive at a divine name? For Aquinas, as we have seen, our conclusion is a divine name properly related by analogy of attribution to an attribute of creatures. For Scotus, however, the term in the conclusion is univocal, and requires a subsequent argument showing how the inferior term applies to creatures and how the superior term is properly predicated of God.

2. Causality

We turn now to the notions of cause and causal order as they are discussed by Aquinas and Scotus. Both agree on several aspects of the notion of cause. They agree on its division into formal, final, efficient, and material, and on the various ways in which we can determine the cause of an effect. In general, the mediaevals, assuming a uniformity in causality, employed the method of agreement and difference in ascertaining the cause of a thing. Particularly, they saw the metaphysical dependence of effects upon causes, and hence could infer the latter from the former.

Inasmuch as efficient causality was defined as an agent inducing a form in some matter, and since it was believed that a cause cannot give what it does not have, they held that the cause resembles the effect and, again, the latter would lead us to some knowledge of the former. Moreover, this notion of 'cause' has been called 'quasi-legalistic' inasmuch as it is the cause that is said to be responsible for the effect. Most certain of all, however, was that causes, having certain natures, also had activities natural to them. In these instances of per se cause, then, there is no question why the cause produces its effect. From this we can see how the mediaevals thought it possible that, from the effect we can infer to its proper cause.

While Scotus seems to justify his selection of a metaphysical proof from efficient causality through its relation to essential order, the disjunctive attributes of being, and metaphysics itself, in general it is because, like Aquinas, Scotus is interested in an explanation of how things have their existence. Aquinas and Scotus could not allow a reference to 'brute fact' to 'explain' what there is. Indeed, for Scotus the very possibility of the existence of things requires a cause.

The notion of cause, then, is connected with the being of a thing. It is with per se causes in particular, however, that Scotus and Aquinas are interested, for only here can we have true knowledge of the effect. Admittedly, the precise nature of the way in which things are conceived to acquire their 'being' differs in Scotus and Aquinas: Scotus understands existence as an accident, but also as an intrinsic mode, of a thing. Thus it is, in a way, both essential to a thing, and caused externally by another. Aquinas viewed all being in creatures as derived from the first efficient cause, and the essence and existence of a thing as being

two, equal, constitutive metaphysical principles.

The causality of this metaphysical cause is roughly analogous to the notion of a minstrel as a cause of his music. He is the ex nihilo creator of the music, and functions as both its originator and its sustainer. So also with the activity of the metaphysical efficient cause. This latter, though not explicit, is a necessary aspect of both Aquinas' and Scotus' views. The originator must sustain the 'being' inasmuch as things do not come to possess it intrinsically and, if they did, it could not be explained how they cease to be. While Scotus holds that efficient cause, so far as the causal proof itself is concerned, is univocal, the radical nature of a thing that causes being ex nihilo must ultimately make it, as Aquinas holds, an equivocal cause. This cause is the ultimate explanation of both the being and the causal power of creatures. Given the nature of this dependence of the effect upon its cause, then, an inference to the existence of the cause is possible.

One point on which Scotus and Aquinas seem to diverge is whether creatures can create. Aquinas unequivocally denies this. Scotus seems to allow 'creation', in the sense of giving existence to things, in instances of acts of willing. There is, however the co-causality of a material cause required for this effect and, inasmuch as the causal power of creatures is continually dependent on God as its first, and sustaining, cause in this 'creation' is not an independent creator. This view seems, upon analysis, in no way in conflict with Aquinas' view, and hence we seem to be able to resolve another prima facie conflict between their respective positions.

With this clarification of Aquinas' and Scotus' positions on causality, we turn to their views on how causes interrelate, and at least initially

this does not seem to lead them into conflict with one another. In Aquinas we noted the distinction between transitively and non-transitively ordered causes. Since our concern, in Aristotelian science, is with the per se causes which are those responsible for the occurrence of effects, in those arguments where we deal with ordered series we deal with transitively ordered causes. Transitively ordered series of causes are so named because the causes are contiguous, and act simultaneously with, one another in the production of an effect. Scotus saw this relation as illustrating the ways in which the causes were related to one another through their essences inasmuch as one was prior or posterior, ontologically, to another. He called such series -- which were only implicitly mentioned in Aquinas -- 'essentially ordered'. Not only was the causality in these series transitive, but it was also asymmetrical and irreflexive. Given that 'cause' in these proofs means cause of being in things, there cannot be any self cause directly, or indirectly through a circle of causes ordered essentially.

The interrelationships existing among causes, then, were given a more explicit treatment in Scotus. Nevertheless, both Scotus and Aquinas would agree that, in such a causal order, for the effect to occur, all the causes must be present, there must be simultaneity in the causal action, and the causality of causes in this series is hierarchically ordered and hence of a different kind than non-transitively or, as Scotus calls them, accidentally ordered series of causes. Between any two things that are qualitatively different and essentially ordered, Scotus says, the superior is prior to the inferior in power, in essential perfection, and as an explanation. It is in this way that essentially ordered series of causes are hierarchically ordered. Accidentally ordered

series of causes are not at all like this, but neither can they constitute the per se cause of some effect.

What, then, is the per se cause in an essentially ordered series? On this point, Scotus and Aquinas disagree. Aquinas would hold that the first efficient cause of the being of things is pure esse and possesses the sum total of all perfections. Consequently, it is omnipotent and need not cause with any secondary causes to produce the effect. For Scotus, however, such a position would entail that the first cause can disregard the relation of inferior and superior causes and this is, for him, repugnant to natural reason. Nevertheless, this is a truth we can possess through faith. Consequently he distinguishes between philosophical omnipotence -- which holds that, to our knowledge, God can cause some things directly and other things only indirectly -- and theological omnipotence, in this unrestricted sense. Despite this difference, however, both Aquinas and Scotus argue that in an essentially ordered series there can be no self-cause through a circle in causes, and -- for reasons which will presently be given -- no infinite series of causes.

Given Aquinas' view on the causality of the first cause in relation to an essentially ordered series, how relevant is such a series to Aquinas' proof? Inasmuch as we can show the need for a cause that will give 'being' to those things which do not have it of their natures by starting from any random instance, how is the notion of an essentially ordered series important? (These questions do not apply with as much force to Scotus' argument inasmuch as he allows for the possibility that the first efficient cause needs secondary causes to produce the effect.) Such series may not be needed to explain the existence of effects. Nevertheless, inasmuch as it is only by this kind of order that partial causes

can combine to form the per se cause of an effect, and that such a series excludes, by its nature, the possibility of an infinite series (and, by reference to the nature of causality, self-cause) we can exclude two of the three options that may be alleged to account for the existence of the effect. This third is the existence of a first efficient cause, and it is to a more detailed account of how we are led to this conclusion with the aid of the notion of essentially ordered series of efficient causes that I now turn.

3. Infinite Series

In criticisms of the cosmological proofs, it is common to deny the implication that, if everything which is caused is not self-caused, then there must be a first cause, by claiming that the explanation for an effect can be referred to an infinite series of caused causes. When Scotus and Aquinas exclude the possibility of an infinite series, we should recall that they do not exclude all infinite series. Indeed, Scotus and Aquinas explicitly allow that some series of causes cannot be known by natural reason not to be infinite. They do, however, deny that there can be an infinite series in essentially ordered causes, and this entails the exclusion of an infinite series of movers in Aquinas. Thus Scotus and Aquinas are led to a principle agent cause.

Foremost among the reasons that lead them to exclude this option is the argument that an effect must have a necessary and total explanation for its existence. Thus, even if the world (or any series of accidental changes) is eternal, there must nevertheless be an original cause of the esse (or inesse) in things. Otherwise, there would be no cause, and

hence no explanation of how things which do not have being of their natures, come to possess it. Without knowing the proper cause of the being in things, we can have no knowledge of the effect, since we have such knowledge only through its causes. Thus Scotus and Aquinas conclude that, given that an essentially ordered series of causes is a per se cause, this type of series cannot be infinite.

Scotus anticipates the objection that, by asserting that there is an essentially ordered series, he begs the question of whether there is a first cause. Thus, he provides a systematic examination of the possibility of an infinite series of causes by excluding each of the ways in which such a possibility would have to occur -- there is no infinite series in essentially ordered causes, accidentally ordered causes (unless there is a per se cause which acts as a sustainer of their 'change of form' and of their being and power), or in causes not ordered to one another,

Aquinas has a similar argument, though it is not explicitly developed. He allows the possibility of what Scotus calls an accidentally ordered series (such as motion or creation from eternity) only if it is clear that it depends on an external cause for its esse or inesse. He also excludes an infinite essentially ordered series of causes, although again the terminology and the explicit consideration is absent. Indeed, while the nature of what it is that is caused may vary among the proofs of Aristotle, Avicenna, Aquinas and Scotus, they all agree that there cannot be an infinite series of causes transitively (or essentially) ordered, and in fact the external framework of their respective arguments are quite similar. Basically, the arguments bring out the fact that the effect could have no explanation of its existence save through some first

cause that was responsible for its occurrence. In order to counter the view that an infinite causal series may be used to account for the effect without reference to a first cause, both Scotus and Aquinas require this step in their causal proofs.

As we have noted before, however, the relation of the first cause to the series is different in Scotus from that in Aquinas. In Scotus, the first usually requires secondary causes in the production of some effects. Even though we know the first cause to be equivocal in its being and its causal power in reality with that of creatures, it remains contrary to reason, Scotus says, that God dispense with the relation between superior and inferior causes in creation. Aquinas, however, in no way considers the first cause as a member of a causal series. As we shall see in the next section, there are several reasons for his view, but among them we may count the following. The first cause is not an initiator of the series, given the temporal element of this term, but is, more appropriately, a ground of being -- its originator and sustainer. In this latter role, it keeps both essentially ordered and accidentally ordered causal series -- as well as all other kinds of causes and beings -- in existence. Thus, in order to make clearer the relation of this first cause to effects, and illustrate how inference from the latter to the former is possible, we must explore this more closely.

4. Dependence, Inference, and Univocity

When we consider the relation of effects to the 'first', we find that this involves the nature of dependence, and the possibility of inference from effects to causes. The nature of dependence is determined

in part by whether the characteristic so dependent is univocal or analogical to that characteristic in God.

a) It would seem, from this study, that Scotus and Aquinas agree on the nature of the dependence of effects upon their proper causes. The proper cause of a thing is a necessary explanation for that which does not have its esse of itself. It provides a foundation for the metaphysical dependency of things and, hence, is their sufficient reason for their current existence. Specifically, in Aquinas the first cause explains both the being of accidental changes in things, and the origin and sustenance of being (esse) and the causal power (inasmuch as the first 'works through' succeeding causes) in things. Scotus would seem to share this view and, in fact, claims that the very possibility of the existence of things depends on this cause.

Scotus and Aquinas disagree, however, on the question whether this, being and causal power can always be caused by a single total cause, or whether the per se cause must be, in some case, a series of essentially ordered causes. As we have seen earlier, the problem is that, if the per se cause must, in some instance, be such that all the causes are required in order to have the effect, what then becomes of divine omnipotence? We saw, in Scotus, the distinction between philosophical and theological omnipotence although there remains some independent causation qua creation (such as the creation of secondary causes). Aquinas, however, held that inasmuch as this being has all perfections in their primary sense, it is not required to cooperate with secondary causes in the production of the effect.

In both Aquinas and Scotus, however, it is only the 'first' that has existence of itself and it is that which explains how existence can

'come into being'. Neither can we refer to an infinite series of causes, for the reasons noted above. Given that the first has existence of itself, we can see the nature of the difference between God and creatures and that the latter depends on the former. In Aquinas, it is through an analogy of attribution that this dependence occurs. In Scotus, too, the relation in reality is an analogical one, but we can refer to this, however, because of a logical relation of univocity between the characteristic predicated of creatures and that predicated of God. Without some such relation, Scotus holds, there can be no inference from effects to their proper causes.

b) The existence of this relation of dependence and of univocity allows for the possibility of inference inasmuch as it is the effect that, in Scotus, provides the evidence for a first cause. In Aquinas as well, it leads us to seek the explanation of things which do not have esse of themselves. Thus we are confronted with the metaphysical demand that dependent esse requires independent esse which is responsible for the origin and conservation of the former. That which cannot explain its own coming into being must have this from another, since creatures do not possess this, or any of the absolute properties attributable to God. Scotus begins, in his proof, with a univocal term (a disjunctively convertible attribute of being). Once we know that the higher term of this disjunction is appropriate to infinite being, however, we can properly attribute this absolute term to God, as cause of the inferior term. To this extent, then, Scotus' use of analogy appears in his proof, though in a way different from Aquinas.

c) Univocal and analogical terms are used in the cosmological proofs to express the relations that exist between effects and causes. For Scotus, the use of a univocal term enables us to say that there is a conceptual identity between an attribute predicated of God and creatures, although there is clearly no such identity among the attributes in reality. This univocal term is a logical notion that is, in a sense, the emptiest notion that we can have inasmuch as it is entirely abstracted from its finite mode. It does not designate any property existing in reality.

Why does Scotus make use of univocals? We can discern three related reasons why he does so. First, Scotus is concerned that knowledge be objective and hence he will not permit the possibility of equivocation in the argument. Second, he insists that there be certainty in the syllogism. The terms that we use, if primarily predicated of God alone, would be of no cognitive use to us in their attribution to creatures. Indeed, it would follow that we could have no natural knowledge of God. Moreover, Scotus holds that no being can give rise to the knowledge of something greater than itself and hence we can properly have only univocal concepts. (Aquinas would deny this claim. He may, indeed, suggest that Scotus is here thinking only of an analogy of proportionality, and forgetting that this is not true of analogy of attribution.) Finally, Scotus claims, if we are to make an inference from effects to a transcendent cause, only the use of a univocal term will enable one to do so without equivocation, transcend natural phenomena, and hence lead to a first cause.

Scotus makes use of univocals in the middle term of his syllogism, insofar as it is a disjunctively convertible attribute. Thus, in the conclusion, the divine name at which we arrive is seen to be univocal

with that of creatures. Once it is properly recognized as the correlative of the term of the attribute predicated of creatures, then, we see the attribute in reality in its most proper sense as predicated of God. Nevertheless, it is through the relative term of the disjunctively convertible attribute that we can derive the absolute property. Scotus, then, allows both univocity and analogy, though he conceives of analogy in Aristotle's sense as extrinsically denominated. Univocity, however, is always the ground in our reasonings about God inasmuch as analogy depends on univocity.

Aquinas believes that an analogy of attribution intrinsically denominated best expresses the connexion of those terms which we predicate of God and creatures. Inasmuch as this analogy is intrinsically denominated, the attribute with which we are concerned is really present in both God and creatures. Thus, Aquinas believes that if we understand the analogy involved in this way we need have no worry about the objectivity of our knowledge, the certainty in the syllogism, and the assurance that we can make a valid inference from effect to cause. Nevertheless, despite the fact that this attribute is really present in God and creatures, and even though God prepossesses certain creaturely attributes, such characteristics are in no way univocal with God, nor do they express him in his essence.

Given the real presence of the attribute in God and creatures, why does Aquinas insist that there can be only an analogical and no univocal predication involved? In short, why does Aquinas insist that there is a difference in kind and not simply a difference in degree? He begins by noting that univocity is impossible since God is more removed from creatures than any creature is from any other -- yet in many of these

latter cases, there is no univocity. Indeed, the difference between God and creatures is infinite; having esse through another and having esse through itself (and, with this, the sum of all perfections) cannot be expressed save as two different kinds of being. The reason why Scotus does not appreciate the full force of this objection is that, in his view, the essence and existence of a thing are not really distinct. Each 'essence' has a corresponding manner of existence. Consequently, while the power of the first cause may be great insofar as it is pure act, nevertheless every instance of existence insofar as it is opposed to non-being is univocal, and thus the being of creatures and of God need not be distinguished, in the syllogism, as wholly different.

Aquinas would maintain, however, that, if God were a cause univocal with other causes, he would be a self-cause, which is impossible. Scotus, could agree with this, for he maintains that God and creatures are not univocal in reality. The essential difference between Aquinas and Scotus on univocals seems to be that Scotus allows 'being' to be divided into modes, whereas for Aquinas, 'being', and every other attribute, cannot be abstracted from the finite mode in which we discover it.

Yet even this difference may be more apparent than real, for the univocal nature of the disjunctively convertible attributes is but a logical move; in reality there is no such attribute, and it is adopted apparently only as a logical device. Indeed, in terms of the demonstration of the equivocal causality of the first cause, Scotus uses analogy although he maintains that it depends on univocity. Thus, there is no problem in Scotus' analysis with ensuring that that being at whose existence we aim is unlike all other beings.

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How far, then, is univocity compatible with analogy in Aquinas and Scotus? For Scotus, analogy occurs once the attribute with which we are concerned is divided into modes. God and creatures are different in reality and constitute two different modes of being. Aquinas, as we saw, denies that being is divisible into modes, but it has been suggested that this does not make his view of analogy incompatible with that of Scotus. Certainly we know that it was not with Aquinas' view of analogy, but with that of Henry of Ghent, that Scotus' criticisms were concerned.¹⁴

Ralph McInerny argues, however, that in univocal predication in general, not only does the name have the res significata (i.e., the perfection from which the name is imposed to signify) but it also signifies that perfection in the same way (it has the same modus significandi).¹⁵ Aquinas' main, and irreconcilable difference from Scotus, it is alleged, lies in the fact that the various things called, for example, 'healthy' do not relate to the quality or res significata equally or in the same way, even though they possess the same core (res significata).¹⁶

It would seem to me that McInerny is making too strong a distinction here. Scotus' univocal predicates are not to be identified univocally when understood under a mode (i.e., in particular beings), and indeed, this is how he introduces analogy of attribution in his argument. He does nevertheless insist upon a common core, and this aspect seems acknowledged by McInerny. A prima facie position here, then, would be to allow that, at least within the notion of 'being' as Scotus understands it, some primary -- though restricted to the logical sphere -- univocal predication is possible.

From the preceding discussion, therefore, it is clear how Scotus can properly attribute the aspect of being an efficient cause to both

God and creatures. Particularly, one should be able to see how this predicate has both a univocal and an analogical sense, and how it is that the univocal sense is primary to, although not exclusive of, analogy. Thus, the conclusion of the demonstration can employ the terms 'first' and 'efficient cause' in a meaningful sense, univocal to creatures. Hence, in the inference from the existence of creatures to the existence of a first efficient cause, according to Scotus, one does not commit any fallacy of equivocation.

d) By way of concluding our comparative analysis of the positions of Scotus and Aquinas on the relation of effects to the 'first', we might summarize the notion of the first cause as wholly uncaused. While Aquinas does not explicitly argue for this claim in the Summa Theologiae, it is clearly entailed by his view. Unless the first efficient cause is uncaused, we will have no explanation of the continuous nature of motion and, without something which is not potential in any respect, we can have no adequate account of the esse or inesse in the world. Thus the first cause is pure esse; this is distinct from Scotus inasmuch as for Scotus, pure esse without an essence is nothing.

Yet Aquinas' God has, as his essence, his existence, and inasmuch as Aquinas believes that there is no possibility of total separation of the essence from the existence, and that the essence and existence of a thing are co-created, it would seem that the distinction between the two on this point lies more in their conception of 'real distinction' than in what this signifies in reality. Both Aquinas and Scotus agree that the first cause is not in potency to anything else and that the most proper name of God is 'being'.

Unlike Aquinas, in whose work it is nevertheless implicit, Scotus goes beyond the argument from efficient causality to establish that God is infinite being. Yet Scotus provides not only a more extensive treatment of the relation of infinity to the first efficient cause, but, as a preliminary, systematically excludes the possibility that the first efficient cause is caused by any other kind of causality, and establishes it as 'absolutely prior' -- this, in connexion with essential order. Once again, therefore, it would seem that while Scotus' concerns are made much more explicit, those aspects in which they are distinct from those of Aquinas do not seem as different as may initially appear.

B. A Final Assessment

On many aspects of the cosmological arguments from efficient causality, the views of Scotus and Aquinas are quite similar, if not identical. With regard to demonstration, they hold that God, as primum ens, is demonstrable from any random existence. Only this being has existence of itself, and it is the cause (i.e., the origin and conserver) of being in things. Moreover, we can establish a causal proof for this. Both agree on what a cause is, that the principle of causality is true (though not logically necessary), and that one can ascertain the cause from its effects.

Indeed, when we understand 'cause' as 'cause of being', we see why Scotus and Aquinas insisted on a metaphysical rather than a physical proof. A demonstration of the existence of God is possible only through a metaphysical proof, then, since he is the goal of metaphysics and, were we to provide a physical proof, we could not transcend natural phenomena and hence could have no proper knowledge of God as primum ens.

The particular method of demonstration that Scotus and Aquinas employ is that of quia proof which alone is appropriate to questions of existence. We cannot have a propter quid (or a priori) proof because we have no knowledge of God in his essence, and such a proof would also entail a denial of God's free creation. In a quia metaphysical proof, Scotus and Aquinas can use metaphysical principles -- motion, for example, is a metaphysical principle in Aquinas -- and can properly refer to metaphysical entities. It is only through such a proof that we can be led, with certainty, to the existence of a first cause.

Scotus and Aquinas also agree on the general point that there must be a cause of what there is which is not itself caused. Given their concern with efficient cause as a cause of being, they are able to exclude the possibilities of there being no cause, a self cause, or an infinite series of causes for what there is. (It would seem, however, that it is Scotus, rather than Aquinas, who provides a more extensive and explicit treatment of the nature of causality and causal order.) Thus, effects depend upon their cause for their very being, and insofar as the cause is the sufficient reason for its proper effect, from the latter we can, Scotus and Aquinas claim, make an inference to the existence of the former.

Initially, however, it seems that while Scotus and Aquinas may agree in a few basic respects, they do not agree on several other important points. As was shown in the previous section, it is in only a few areas that their respective cosmological arguments differ significantly. Let us briefly explore these again.

Perhaps a strong prima facie example of opposition between Scotus and Aquinas is that Scotus attacks the principle of motion and, by

denying that it is a metaphysical principle, also rejects the possibility of a cinesiological proof for the existence of God. Aquinas, however, has no complaint with the principle of motion, and indeed claims that a cinesiological argument provides the most manifest way to God. Upon study, however, Aquinas and Scotus seem to be using two different definitions of 'motion' when they refer to this principle. Once one recognizes the metaphysical underpinnings of Aquinas' definition and its connexion with being, it would seem plausible that, if Scotus adopted such a definition, he also could allow the possibility of a metaphysical argument that uses the principle of motion.

Another prima facie case of antagonism between Aquinas and Scotus focusses on the middle term in the argument from effects to a first cause. Scotus claims that this term is predicated univocally of God and creatures, whereas Aquinas holds that there can be no univocal, but only analogical, predication of terms to God and creatures. After a study of the role of univocity in Scotus' argument, and in light of his claim that the first efficient cause is a cause equivocal to all other causes, we see not only that univocity and analogy are compatible in Scotus' system, but that the views of Aquinas and Scotus may be compatible.

In his arguments against the use of only analogical terms predicated of God and creatures, Scotus was not attacking Aquinas, but rather of Henry of Ghent. Scotus' use of univocity in his argument seems, fundamentally, to be a logical device. Scotus seeks to employ univocity because he thinks that such terms are essential to constituting not only cosmological proofs, but any valid argument. 'Being' and the disjunctively convertible attributes are univocal terms and are arrived at through abstraction from experience but, insofar as they are univocal, they do

not refer to anything in reality. Scotus would deny that God's being, or any other attribute, is univocal to the attribute as possessed by creatures, in part because this would entail that God and creatures are species of the same genus.

It is true that, in the conclusion of Scotus' cosmological argument, we do not arrive at a characteristic that is properly a divine name. Nevertheless, we can arrive at a divine name through an inference from the existence of the inferior term of the disjunctive convertible attribute which the argument employs, to the existence of the superior term. Aquinas, we know, insisted that only an analogous term was expressive of the relation between God and creatures. There existed created and divine being -- this latter having being of itself. Insofar as the latter was radically different and more powerful than the former, its being was not simply quantitatively but qualitatively distinct.

The extent to which 'being' was, for Scotus, a univocal term, was simply that in all cases it was opposed to non-being. Inasmuch as Scotus could, then, refer to God and creatures as 'being' (in this sense of being opposed to non-existence) without entailing that they had the same kind of being, his position need not be seen to be a major departure from that of Aquinas in this respect. Admittedly, there seems to remain a difference in the question of how the characteristic with which we are concerned in a cosmological proof is founded in the argument -- for Aquinas points to an intrinsic denomination of the analogous attribute, whereas for Scotus, it is a univocal term. Nevertheless, what this amounts to, it would seem, is quite similar.

That we can 'reduce' some instances of prima facie opposition between Scotus and Aquinas to a similarity, if not identity, in what they mean

to signify by their respective views, should not lead us to think that the argument of one is but another's in different words. For example, Scotus begins with necessary premises in his argument, whereas Aquinas makes use of contingently true, though certain, premises. Moreover, Scotus' proof concentrates on the quiddities of things, whereas that of Aquinas does not. We may argue that the divergence between Scotus and Aquinas on this latter point is not as great as it may first seem, but let us begin by considering the former point.

Scotus employs a particularly rigorous method of proof, which attempts to reflect the power of Aristotle's view of demonstration, apparently because he wishes to ensure that his argument is immune to skeptical attack. Premises which are necessarily true, he believes, are best suited to demonstration, whereas Aquinas seems satisfied with the certainty that both he and Scotus attribute to certain contingent premises. Earlier, it was suggested that one reason for this may be that, in demonstration, Scotus was not only interested in providing an 'explanation', as Aquinas was, but also in the degree of evidence supplied by the premises of the 'explanation'. Aquinas takes contingent premises as certain, and is not concerned to refute skepticism. Scotus, however, argues that inasmuch as God's creation is free, we cannot use even certain premises without admitting the possibility of a doubt that such things do exist, and hence allowing a possible flaw in our demonstration.

By using premises in the mode of possibility -- a device apparently unknown hitherto in the Aristotelian tradition -- Scotus' concentration seems to be on the quiddities of things. This is not a problem for Scotus since, he feels, the existence of a thing is but a mode and an

'accident' (though not in Aquinas' sense of 'accident') of the essence, and that essence is prior to (though not separable from) existence. Thus we first establish what a thing is, and what we can know of it, before we go on to establish whether it is. This in turn leads us to two important facets of Scotus' argument. First, Scotus' proof is a quidditative proof, which seems to conflict with Aquinas' existentialist proof -- certainly, as we have seen, the form of the initial premises differs. Second, Scotus, unlike Aquinas, claimed that there is no real distinction between essence and existence.

To this first point, Scotus is not dealing with mental beings but, rather, with actual, contingent things, although in the mode of possibility. Indeed, while he is concerned with the quiddities of these things, inasmuch as Scotus is of the opinion that the quiddity is necessarily connected with the existence, the premise retains an existential facet. Thus, while Scotus' argument is a quidditative proof, it is not essentialist in a Thomistic sense (i.e., separate from the existence of things), and given its apparent concern with concrete existence, we might even allow that it is existentialist (although, again, clearly not in the Thomistic sense). Consequently, it is difficult to establish a clear opposition of Scotus and Aquinas on this point since a) Scotus never seems far removed from the existential realm, and b) they do not seem to share the requisite metaphysical presuppositions.

The second point that we must consider is the extent to which the essence is distinct from existence in Scotus. Since we can have at least a distinction in essential priority between the two, inasmuch as existence is a mode of essence, and since existence is not inherent in creatures, how much more of a distinction need we have in order to be

in Aquinas' position? Aquinas would agree that there is a distinction between essence and existence, but nowhere asserts that a real distinction implies, as Scotus seems to think it would, that each could 'exist' wholly without the other. In fact, Scotus' opposition to a real distinction between essence and existence seems to be directed against the view of his contemporary, Giles of Rome. This discussion admittedly does not resolve the problem of whether essence precedes ($=\phi$) existence (or the reverse), and clearly Aquinas disagrees with Scotus here. Yet it is not easy to decide whether 'what a thing is' ϕ , in some way, 'whether it is'. The justification for holding that essence ϕ existence, however, seems not to be resolved in terms of some readily observed fact but, rather, seems to reflect a fundamental metaphysical divergence on metaphysical principles.

Without delving too deeply into the historical situations of these authors, we do recognize that Scotus was strongly influenced by the Condemnations of 1277 which, among other things, forced a re-evaluation of the extent to which faith and natural reason are compatible. This manifested itself to some extent in the inclination to distinguish certain conclusions as philosophical, but not theological, truths. Writing on the basis of what we can know through natural reason, Scotus considered the proof of God to show that he is a necessary, though not a sufficient, condition for what there is -- although, as a theologian, he believes the latter as well.

Why does ~~Scotus~~ make this distinction? Scotus claims that there is a relation in causes between the superior and inferior in the production of some effects. To believe that God could be the sufficient and direct cause of all things would entail that such an order need not be required

in the production of the effect. This conclusion, however, is repugnant to our natural reason. Thus Scotus claims that, so far as natural reason is concerned, we cannot know that God need not, on occasion, cause alongside other causes in the production of the effect (although these other causes may be the result of a prior direct act of causation on his part). This latter kind of causal power is called, by Scotus, 'philosophical omnipotence' in distinction to the view that we hold through faith, that God can create all things directly -- which is called 'theological omnipotence'.

Aquinas, however, would argue that this latter sense of omnipotence can be attributed to God through natural reason. God is pure esse and hence is the sum of all perfections, for he is 'being', unlimited by essence. For this reason, God need never cause in conjunction with secondary causes, and can be the sole and per se cause of all effects.

We should not believe that Scotus wholly denies this view. God's causal power is clearly equivocal to that of any other cause, he is the source of all other causal power, and the notion of theological omnipotence applies to him and him alone. One might attempt to reinforce Scotus' distinction by noting that, for Scotus, esse without essence is nothing -- whereas in Aquinas it is everything -- and hence, given their different conceptions of pure esse, they have different views of its causal power.

Scotus, however, does not have to take this route. In Aquinas, God's esse is his essence, and indeed his being is not separate from it. On this point Scotus and Aquinas would agree. Instead, the root of their difference seems to be with whether one can claim that God can create all things directly, inasmuch as Scotus can find no reason to hold that God deserts the relation of order of primary and secondary causes. Scotus

seems to be enough of an empiricist to insist that, as far as we can see through natural reason, there can be no divine supervention of this relationship, so that there remains another ground of divergence between his views and those of Aquinas.

One final point on which Aquinas and Scotus may seem to be at odds is whether creatures can create. Scotus will allow this, but again, if we examine what is signified by this view, we see that Scotus limits creation by creatures to causing through a material cause, and remaining dependent on the continued causal power of the first cause. Given these qualifications, there would seem to be no real opposition to the view of Aquinas that creatures cannot create.

Ultimately, then, when we compare the views of Aquinas and Scotus in this way, we seem to be left with but three apparently fundamental points of difference: that Scotus' concern with absolute certainty in demonstration requires him to employ necessary premises; that essence ϕ existence (and, as a consequence of these two, that Scotus is led to employ a quidditative proof); and finally, that Scotus will insist on a distinction of philosophical and theological omnipotence. In a more general respect, we might point out that some of Scotus' arguments are distinct from those of Aquinas in their extensiveness, sophistication (i.e., are more systematic), and rigor -- but this is not so much an inherent difference as an explicit development of certain notions which seem to be implied in Aquinas. Thus Scotus develops the notion of causal order, and anticipates some subsequent objections to the cosmological arguments through pointing out the utter impossibility of an infinite series, and by making use of the logical device of univocal concepts to avoid problems of equivocation in the proofs.

In large part, however, the ways in which the views of Scotus and Aquinas are significantly different, are not so much part of the cosmological proofs, as part of the metaphysical perspective out of which they grow. Generally, then, their respective proofs are not radically different, and where they are, it seems to be for reasons that are not readily open to selection and preference. Indeed, ultimately their metaphysical presuppositions (if, ultimately we see the distinction of their views being founded there) may not be 'exclusive' of one another, or be so only in a way that is not open to a rational proof. A resolution of this problem obviously cannot be attempted here.

Apart from these considerations, while it may remain unclear whether Scotus' quidditative proof can successfully avoid Anselm's error and claim to be an a posteriori proof, in general, the proofs of both Aquinas and Scotus seem to be consistent within their own respective metaphysical contexts. Nevertheless, given Scotus' more explicit treatment of the problems and concepts associated with the cosmological argument, we may give a qualified support to Scotus' proof. However, while acknowledging the strengths of Scotus' argument, we cannot lend our support to the view that it is more cogent than that of Aquinas. Hence, the praise accorded to it by Merton, Roche, Wolter, and Effler is not justified: we cannot agree that "for accuracy and depth and scope, it is the most perfect and complete and thorough proof for the existence of God that has been worked out by any man".

Notes to Chapter Four

1. Roy R. Effler, John Duns Scotus and the Principle "Omne Quod Movetur ab Alio Movetur" (St. Bonaventure (N.Y.): Franciscan Institute Publications, 1962), p. 17.
2. A 'univocal cause' is 'a cause which induces in a subject a form which is of the same specific nature as the form of the agent's activity'. An 'equivocal cause' is a cause which induces in a subject a form which is not of the same nature as the active form of the agent. Thus, if we allowed univocal causality as an instance of self-motion, the result would be that the subject has and does not have a form of the same specific nature -- which is impossible. Equivocal causality, however, would simply involve, for example, the acquisition of new positions in place, or growth, or qualitative change. See Effler, Principle, pp. 37-39.
3. See Effler, Principle, pp. 67-95.
4. Roy R. Effler, "Duns Scotus and the Physical Approach to God", John K. Ryan and B.M. Bonansea (eds.), Studies in Philosophy and the History of Philosophy, Vol. III, John Duns Scotus 1265-1965 (Washington: Catholic University of America Press, 1965), pp. 171-190, p. 183.
5. Effler, Principle, p. 84.
6. Effler, "Physical", p. 173.
7. Effler, Principle, p. 96.
8. Ibid., p. 98.
9. Ibid., p. 127.
10. Cited in Effler, Principle, p. 95.
11. See Etienne Gilson, Being and Some Philosophers, 2d ed. (Toronto: Pontifical Institute of Mediaeval Studies, 1952), p. 87.
12. Edward D. O'Connor, "The Scientific Character of Theology according to Scotus", De Doctrina Ioannis Duns Scoti. Acti Congressus Internationalis Oxonii et Edinburghi 11-17 Sept. 1966 celebrati, Vol. III (Romae: Cura Commissionis Scotisticae, 1968), pp. 3-50, p. 44.
13. Joseph Owens, "The Special Characteristic of the Scotistic Proof that God Exists" Analecta Gregoriana 67 (1954), pp. 311-327, p. 314.
14. Robert P. Prentice, The Basic Quidditative Metaphysics of Duns Scotus as seen in his 'De Primo Principio' (Roma: Antonianum, 1970), p. 23.
15. Ralph McInerny, "Scotus and Univocity", De Doctrina Ioannis Duns

Scoti. .Acti Congressus Internationalis Oxonii et Edinburghi 11-17
Sept. 1966 celebrati, Vol. II, Problema Philosophica (Romae: Cura
Commisionis Scotisticae, 1968), pp. 115-121, p. 118.

16. Ibid., p. 120.

APPENDIX I - ARISTOTLE

A. Demonstration

Aristotle holds that we may acquire knowledge in different ways, but one important way is by demonstration. Although not all truths are demonstrable (Posterior Analytics, I, 3 72b 20), it is necessary to possess a demonstrative syllogism if we are to have sure knowledge (epistasthai) (Post. An. I, 2 71b 9-16). Aristotle distinguishes two kinds of knowledge: knowledge of the fact (quia) and knowledge of the reasoned fact (propter quid) (Post. An. I, 13 78a 22). The former enables one to know that a thing is so; the latter enables one to know why a thing is so. For knowledge of the reasoned fact, the premises must be 'true, primary, immediate, better known and prior to the conclusion, which is further related to them as effect to cause' (Post. An. I, 2, 71b 20-22). If one has the first and immediate cause as the minor premise, then, one has a syllogism propter quid. To know propter quid, then, one must know through the proper cause.

In a demonstratio quia, however, the truth of the minor premise is obtained through induction or through sense perception, inasmuch as, in this instance, the effect is better known than the cause. Thus, the syllogism is a demonstration from effects or from remote causes -- roughly, a posteriori.

Demonstration involves an inference from necessary premises, and the conclusion obtained by such means is also necessary (Post. An. I, 4, 73a 21-25). How are the premises 'necessary'? Aristotle states that they are either 'true in every instance of their respective subject', are 'essential' attributes or belong to a subject primarily, or can be shown

to belong to any random instance of that subject (i.e., are 'commensurate and universal') (Post. An. I, 4, 73a 26-27). Since demonstrative knowledge of something entails that it is impossible for it to be otherwise, there is no demonstrative knowledge of accidents (i.e., of contingent states of affairs) (Post. An. I, 6, 75a 18-19; Metaphysics Δ , 30).

Moreover, it is impossible that any attribute be 'demonstrated' to inhere in something which is perishable, since the connexion of the attribute with its subject would not be a necessary one (Post. An. I, 8, 75b 24-26).

To have demonstrative knowledge in a syllogism also requires that the premises be necessarily connected, and therefore the syllogism must contain a necessary middle term. Otherwise, one will know neither the cause why, nor the fact that, the conclusion is necessary (Post. An. I, 6, 75a 12-15). Indeed, our knowledge in the conclusion of the connexion of an attribute with a subject is accidental unless we know that connexion through the middle term of our syllogism, and as a result of an inference from basic premises which are appropriate to that subject (Post. An. I, 9, 76a 4-6).

Aristotle says that the first figure is the only arrangement of terms in a syllogism which enables us to pursue knowledge of the essence of a thing (Post. An. I, 14, 79a 23), inasmuch as to know the essence of a thing is to know its cause. The nearer to the first principle (i.e., the cause) the minor premise is, the more powerful is the demonstration. Consequently, demonstratio propter quid is considered by Aristotle to be the 'most scientific' (Post. An. I, 14, 79a 18).

B. Analogy

While Aristotle provided the source for, and the basic distinctions between, univocal and analogical terms, he does not seem to make use of them in his presentation of the arguments from motion or with respect to the causality of the prime mover. Nevertheless, his enumeration does provide the foundation for the subsequent discussion of analogy in the middle ages.

Things are univocal when they have both the same name and the same corresponding definition. Equivocals can be divided into three kinds: equivocals by chance, equivocals by reference, and analogy. Things are equivocal when, though the name is identical, the definitions (as denoted by the name) are different.¹

When things are equivocal by chance, although they share the same name, their definitions are absolutely different (Categories 1, 1a 1-6). Aristotle divides equivocals by reference into aph henos and pros hen -- 'because of a common origin' and 'because of something to which they all, in one way or another, have reference', respectively.² These two designations are regularly combined, however, and denote the same kind of equivocal.³ An example of pros hen equivocal is found where Aristotle writes that "everything healthy is expressed in reference to health, one thing through preserving health, another through producing it, another through being a sign of health, and another being receptive of it" (Metaphysics Γ, 2, 1003a 34-35). These latter are equivocal, then, but "not because of any intrinsic quality in themselves", and for this reason we say that the term is equivocal through extrinsic denomination (Topics I, 15, 106a 8).

In the Poetics, Aristotle defines analogy as "when the second is related to the first as the fourth is to the third" (Poetics 21, 1457b 16-18). In analogy we have four terms of a relation such that between each pair the terms have an equality or similarity of proportion; this shows the derivation of analogy from mathematics. Owens notes that it is used "as a means of obtaining knowledge in regard to things which we do not immediately perceive".⁴

Some characteristics of the prime mover which involve pros hen equivocation are mentioned in Metaphysics A, 7-10, although Aristotle shows no interest in opening this question. For example, while he acknowledges that sensible substance is held to be equivocal in this way with the unchangeable substance, Aristotle's main concern is with the nature of the immobile Entity itself, and not with any way in which it might be expressed in secondary instances".⁵ Nevertheless, while Aristotle does not raise the question of the kind of analogy or univocity that would be appropriate to the prime mover, one might suggest that, following the concept of 'being', one regard the attributes of a first mover as equivocal by reference to those said of sensible substance. This seems to be the route taken by Aquinas.

C. The Principle of Motion and Physical Proof

Aristotle's remarks on motion (kinesis) are closely related to those on change (metabole). In many passages in the Physics he does not bother to distinguish between them. Only change from some definite form to some definite form is motion, however, and there can be motion only in respect of quality, quantity and place. It is with these alone that there are a

pair of contraries which can provide the termini of motion (Physics V, 2, 226a 23-25). Those kinds of change which imply a relation of contradiction (i.e., perishing and generation) are not motions.

Motion is 'the actualization of what is potential in an existing thing that is able to be put in motion' -- the fulfilment of what is potential as potential. Inasmuch as potentiality and actuality are distinguished in each class of things, then, motion is connected with things. While motion is the actualization of a thing, and is an activity, motion is not -- nor does it lie in -- the form of a thing. This is how motion is distinguished from action (Metaphysics Θ, 6).

In order to reach the prime mover Aristotle begins with principles of natural philosophy, and only subsequent to this does he turn to metaphysics to bring him to his desired conclusion. This primacy of physics to metaphysics in providing a cosmological proof, then, leads us to the view that Aristotle's proof is primarily a physical proof. Indeed, the principle of motion in Aristotle is a principle of physics, and the demonstration of the existence of a metaphysical entity does not seem appropriate through a principle of another science.

Aristotle is never able to transcend fully the limits of the physical world, inasmuch as his proof only extends to accounting for the existence of substantial form in a thing, and not to how there are things at all. Thus his arguments lead to a physical cause -- not to an ontological principle of being -- and this being is not an efficient cause, but simply a final cause. Moreover, the designation of the first being as a 'prime mover' seems to require that there exist mobile things (whereas the first principle concluded to by Aquinas and Scotus does not entail the existence of any other things).

In fact, Aristotle's most extensive argument for a prime mover, in the Physics, seems exclusively concerned with physical entities under their physical aspects. The arguments in the Metaphysics, as we have noted, are dependent on the Physics in this regard. Thus, even when Aristotle deals with metaphysical issues relating to motion, his argument has its roots in natural philosophy.

Notes to Appendix I

1. Joseph Owens, The Doctrine of Being in the Aristotelian 'Metaphysics', 2d ed. (Toronto: Pontifical Institute of Mediaeval Studies, 1963), p. 111.
2. Ibid., p. 117.
3. Ibid., p. 118
4. Ibid., p. 123.
5. Ibid., p. 443.

APPENDIX II - AVICENNA

A. Causation

Avicenna deals with 'causality' inasmuch as 'cause' and 'that which is caused' are "among the consequences which belong to that which exists insofar as it exists".¹ He accepts the Aristotelian division of 'cause' into formal, material, efficient, and final, but distinguishes two types of efficient cause. There is, on the one hand, the metaphysical -- "the cause which bestows existence apart from itself on that which does not have existence as a principle of its nature".² On the other hand, a physical efficient cause which, temporally prior to what it causes, is responsible for change and motion.³

Like Aristotle, Avicenna believes that only something already actual can actualize a potency to that end. Thus, a metaphysical cause cannot be a part of that to which it gives existence, nor can it be potential in relation to the actuality that it brings about. The existence which belongs to the effect belongs to it only because "some other thing exists in its plenitude, from which /plenitude/ it follows necessarily that the other has existence from the existence which it /the cause/ has essentially".⁴

Avicenna rejects the view that, once created, a thing is self-sufficient.⁵ In order to demonstrate his position, he begins with an argument that a thing that has come into being and exists has either necessary or non-necessary existence. If it has necessary existence by its nature (quiddity), it cannot have 'come to be', and is sufficient to itself. It cannot have, and later lose, this character. Something which needs a cause for coming into being, however, possesses this existence

non-necessarily and "through a cause from the outside".

Having a cause from outside that acts as an agent does not mean that this agent is necessarily and truly the cause. In fact, an agent is often only potentially a cause -- even in the physical sense -- and it is only when there is something added to this agent that it becomes a cause in actuality. This addition is the activity of a prime sustaining cause. Thus change can be 'brought about' only as long as that which has existence through itself exists. Ultimately, then, the effect is dependent on that cause which has existence of itself.

In Aristotle, the prime mover is a final cause and is only in this way the cause of the perfection of every entity. Avicenna differs, then, by relating the creation and generation of every existent to the necessary being. Though he does not fail to account for the proximate cause, he emphasizes that this metaphysical cause, which is necessary being, is the sufficient reason of every entity, since it brings the contingent entities into existence and sustains them in existence.⁶

Avicenna argues that every cause exists simultaneously with that which is caused by it. To hold otherwise, he says, is to be ignorant of what the cause really is.⁷ Thus, "the cause of the shape of the building is the coming together of its materials and . . . the cause of that is the natures of the things which come together and their remaining together as they were put together. The cause of that in turn is the incorporeal cause which produces the nature".⁸ He concludes, then, that the builder who produces that building is not the cause of the subsistence of that building; he is not even the cause for its existence.⁹

Avicenna does not deny that there can be an infinite number of preparatory (i.e., accidental) causes, one prior to the other. Indeed,

it is necessary that this be so, since motion is eternal. He does, however, deny that there can be an infinite series of essential causes which are simultaneous with the existence of the thing caused, and through which the essence of the thing exists in actuality.

Avicenna concludes from this that "when something through its essence is continually the cause for the existence of some other thing, the cause belongs to it continuously as long as its essence continues to exist. A cause of this kind is /a cause/ in the highest degree, for it prevents absolutely the non-existence of something and it is that which provides the perfect existence for something. This is the meaning of that which is called 'creation' by the philosophers, namely, the bringing into existence of something after absolute non-existence."¹⁰ But only that caused object whose existence is not preceded by time can be called 'created'. Thus we see the important distinction between something being caused by a metaphysical cause and something being caused by a physical cause. Thus Avicenna writes that "it is proper that everything which does not exist through a preceding matter should not be called generated, but created, and that we posit as the most excellent of that which is called created that which does not come to be from the first cause through an intermediate cause, be it material, or acting, or some other."¹¹

B. The First Cause as Absolutely Uncaused

Having argued that there is a first necessary being which exists and on which contingent beings depend for their existence, we enquire whether this being has any cause whatsoever.¹² Avicenna says that it does not. He enumerates the four kinds of causes, these being all the causes

that there are. A necessary being has no efficient cause -- that is, something from which it has being -- for then it would have a reason for being and this reason would be its cause and that on which it depends. If this were so, this other thing, and not it, would be the necessary being. This being also has no material cause, for to have such is to be potential to being perfected. A necessary being, however, is a perfection inasmuch as it is pure actuality, and can derive no perfection from any other. This necessary being has no formal cause, because it has no matter and 'a formal corporeal cause only exists and is confirmed when a thing is possessed of matter'. As a result, it is also to be denied all attributes appropriate to (i.e., univocal to) things. Finally, Avicenna notes that this being can have no final cause since the final cause is that on account of which a thing has being, and which activates the efficient cause. But the necessary being does not have its being for the sake of any thing, and indeed, everything exists on its account, consequent to and derived from its being.

C. Univocity in Avicenna

While some historians argue that Avicenna adopted the theory of univocity of being, it has been suggested that this is not so. The support for the claim that 'being' is a univocal term in Avicenna seems to be derived from his view that the mind naturally apprehends the idea of being.¹³ Thus if we possess the idea of 'being' prior to its division into infinite and finite, our initial notion is univocal, and there are two 'species' of it.¹⁴ A.M. Goichon, however, states that in Avicenna, the idea of being is always derived from creatures, either by the experience of one's contacts with them or by the intuition of one's own

existence.¹⁵

Goichon argues that the idea of being concerns the being of things met with, although remaining more general than any of them. It is, however, in considering them that Avicenna is led to think that that 'being' which corporeal things possess, is insufficient to explain the fact of their existence. Thus he concludes that there must be a necessary being whose being is different from that of corporeal beings; like other attributes predicated of necessary being, it is analogous. This is evident from Avicenna's claim that that which has necessary existence is in no way co-equal with any other thing that has existence. Consequently, the concept of 'being' is not applied to necessary and contingent being in the same sense; it is attributed to contingent being 'only secondarily and analogically'¹⁶, for contingent being cannot exist without a non-contingent cause.

Goichon concludes, then, that 'being' is an analogous term. Indeed, even though one might think 'being' is univocal from Avicenna's theory of emanation, according to Goichon "the ideas of 'being' and 'necessary' have led Avicenna to declare explicitly that there is a question of analogy here".¹⁷

Notes to Appendix II

1. Avicenna, The Healing, Metaphysics, ed. A. Hyman and J. Walsh, Philosophy in the Middle Ages (Indianapolis: Hackett Publ. Co., 1973), Sixth Treatise, chapter one, p. 246.
2. Ibid., p. 235.
3. Ibid., p. 235.
4. Ibid., Sixth Treatise, chapter one, p. 248.
5. Ibid.
6. Avicenna, The 'Metaphysics' of Avicenna ed. Parviz Morewedge (New York: Columbia U.P., 1973) p. 209.
7. Ibid., Sixth Treatise, chapter two, p. 251.
8. Ibid.
9. Ibid.
10. Ibid., p. 252.
11. Ibid., p. 253.
12. Avicenna, Avicenna on Theology ed. A.J. Arberry (London: John Murray, 1951), pp. 26-31.
13. F.C. Copleston, A History of Philosophy, Vol. II Pt. 1. (Garden City (N.Y.): Image Books, 1962) p. 216.
14. J. Paulus, "Henri de Gand, essai sur les tendances de sa metaphysique", p. 55, cited in A.M. Goichon The Philosophy of Avicenna trans. M.S. Khan (Dehli: Motilal Banarsidass, 1969)p. 13.
15. A.M. Goichon, Avicenna, p. 13.
16. Ibid., p. 13, n.1; p. 93.
17. Ibid., p. 99.

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