

Philosophy and the God of Abraham:
Essays in Memory of James A. Weisheipl, OP

Edited by
R. James Long

James A. Weisheipl, OP, one of North America's most eminent historians of medieval philosophy and science, died unexpectedly at age sixty-one, leaving many friends and several unfinished projects. Among the projected works was a volume tentatively entitled *Philosophy and the God of Abraham*, which was to argue Weisheipl's profound conviction that there was no conflict between the truths of philosophy and the truths of religion.

Borrowing Weisheipl's title and theme, this volume dedicated to his memory is a collection of eighteen studies by colleagues and students. Not surprisingly, given Father Weisheipl's interests and contributions, fourteen of the essays focus on the philosophy of Thomas Aquinas and/or the Thomistic tradition, two on Thomas' teacher, St. Albert the Great, and the remaining essays on contemporaries Roger Bacon and Robert Kilwardby. Contributors include Dominican confreres, colleagues at the Pontifical Institute, and former students.



James A. Weisheipl, OP (1923–1984)

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PHILOSOPHY AND THE GOD OF ABRAHAM

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Editor's Introduction

The memory of the just is blessed.
(Prv 10:7)

Father James Athanasius Weisheipl, Dominican priest and scholar-teacher, was called from this life on December 30, the Feast of the Holy Family, 1984, at the age of sixty-one. It seemed to those of us whom he left behind an unseasonably early death. He was at the height of his intellectual powers and had still so much to teach.

Among the writing projects left unfinished at Father Weisheipl's death was the outline of a book that bore the title *Philosophy and the God of Abraham*. That happy turn of phrase sounded the keynote of his life and therefore suggested itself as a title for this volume of essays dedicated to his memory. For Father Weisheipl, as for his master and exemplar Saint Thomas Aquinas, there was no conflict between the truths of philosophy and the truths of religion, between reason and revelation. Athens for Father Weisheipl had a very active commerce with Jerusalem.

The eighteen essays in this volume all in different ways probe the relationship between reason and faith. Earlier versions of most of them were presented as part of an eight-session memorial conference, likewise entitled "Philosophy and the God of Abraham," held in conjunction with the 24th International Congress on Medieval Studies at Western Michigan University in May 1989. Never in the history of the Congress had there been a memorial of this magnitude and seldom anywhere was the exchange of ideas conducted at such a sophisticated level.

Those who contributed their papers to this collection belong to three classes: Father Weisheipl's Dominican confreres in the United States and Canada, his colleagues at the Pontifical Institute of Mediaeval Studies in Toronto, where he spent the final twenty years of his academic career, and finally his students, with two-thirds of the papers the largest group of all. The final inclusion is an *in memoriam*, appended by Professor William Carroll to the volume of collected Weisheipl articles, *Nature and Motion in the Middle Ages*, which he edited and which appeared shortly after Father's death. This moving tribute, which echoes the sentiments of all who knew Father Weisheipl well, is reprinted here with the permission of the author and Catholic University of America Press.

A volume of this kind owes much to many: to Professor Betsey Price for first suggesting the idea of a memorial conference for Father Weisheipl; to Professor William Carroll for so ably organizing the memorial conference at Kalamazoo; to Professor Otto Gründler, Director of the Medieval Institute at Western Michigan University, for supporting the memorial conference and making it possible; to Mr. Winston Tellis of the Fairfield University Computer Center for his assistance with entering and printing the papers; to Ms. Lee Mihalik for entering on disk the papers that were submitted as hard copy; to Professor J. N. Hillgarth and Dr. Ron Thomson of the Pontifical Institute's Publications Committee for their unfailing encouragement; to Dr. Jonathan Black for his expert technical assistance; to Father Edward J. R. Jackman, OP, of the Jackman Foundation and to the Very Reverend Donald J. Goergen, OP, Provincial of the St. Albert province, for their generosity in financing the publication of this volume, and lastly to all the contributors for their unstinting cooperation. The efforts of these and others too numerous to list have shaped a book that I hope will be a worthy memorial to an extraordinary priest, scholar, teacher, and friend.

Requiescat in pace.

*R. James Long
Fairfield University*

The River Forest School and the Philosophy of Nature Today

Benedict M. Ashley, OP

The work of James A. Weisheipl, OP, was largely concerned with the philosophy of nature and history of science. It is best appreciated when placed not only in the context of the Mediaeval Institute of Toronto, where most of it was done, but also in the earlier context of the River Forest School, in which he studied and where he was inspired to enter this field.¹

The Pontifical Faculty of Philosophy of Aquinas Institute of Theology (now located in St. Louis) operated by the Dominican Fathers of the Chicago Province was located in River Forest, Illinois, a suburb of Chicago from 1939 to 1969. Its leading professor was William H. Kane, OP (1901–1970) who had done medical studies and then studied at the “Angelicum” under Alonzo Fernandez, a specialist in natural philosophy,² who became Master of the Order in 1963. Fr. Kane, with the assistance of two young priests, Raymond J. Nogar and myself, had founded an *Albertus Magnus Lyceum* with the purpose

¹ Weisheipl's own views can best be gathered from his introduction to the *Festschrift* for William H. Kane, OP, *The Dignity of Science* (Washington, DC: The Thomist Press, 1961) which he edited and in the essay, “Medieval Natural Philosophy and Modern Science,” in *Nature and Motion in the Middle Ages*, Studies in Philosophy and the History of Philosophy 11, ed. William E. Carroll (Washington, DC: Catholic University of America Press, 1985), pp. 261–276.

² For Fernandez' views see his article “Scientiae et Philosophia secundum S. Albert Magnum,” *Angelicum* 13 (1936) 24–29. For the history of Dominican thought on the subject see Bernard T. Vinanty, OP, “Les rapports entre la philosophie et les sciences: L'enseignement de la cosmologie a l' 'Angelicum,' ” *Angelicum* 61 (1984) 19–62.

of promoting dialogue between philosophers and scientists, which continued meetings and publications until 1969. On his return from teaching in England Fr. Weisheipl joined this group, in which he was viewed primarily as a historian of science, and he continued to work with it until his appointment to Toronto in 1964. It was he who edited the *Festschrift* for Fr. Kane, *The Dignity of Science*, in 1961. He shared throughout his life and work, I believe, the essential convictions of this particular interpretation of the thought of St. Thomas, which differed considerably from that of Jacques Maritain and Etienne Gilson, not to mention that of the Louvain Thomists such as Mercier and Renoirte, or Joseph Maréchal and Bernard Lonergan, or of those who emphasized the Platonic elements in Aquinas such as Cornelio Fabro or Albert Little, but had much in common with that of Charles De Koninck of the University of Laval and others. While not opposing so-called "Thomists of the strict observance" such as Reginald Garrigou-Lagrange, it had a very different emphasis.³ In my opinion the historical work of Weisheipl and also of William A. Wallace, OP, another member of the Lyceum has amply demonstrated that this reading of Aquinas is solidly grounded in the text of St. Thomas and its historical context, and that recent discussion among Thomists has shown that it is more plausible today than it may have seemed in the time of the Lyceum.⁴

What were the principal theses of this school of Thomism? In my retrospect they can be formulated as follows. The first is that the philosophy of Aquinas, as distinct from his theology, is best gathered not from the

³ For the various schools of twentieth century Thomism see Helen James John, *The Thomist Spectrum* (New York: Fordham University Press, 1966) and Georges Van Riet, *Thomistic Epistemology*, 2 vols. (St. Louis: B. Herder, 1963). The evolution of views at the Institute Supérieur de Philosophie of the University of Louvain on the philosophy of nature can be traced in widely used textbooks: Desiré-Joseph, Cardinal Mercier, *Cours de Philosophie* (1905), 1:26-30, who attacked Wolff's views as "un divorce désastreux" (p. 26, n. 1) but distinguished the "sciences of observation" from the philosophical disciplines of cosmology, psychology, and natural theology which were their "complément"; Fernand Renoirte, *Cosmology: Elements of a Critique of the Sciences and Cosmology*, 2nd ed. (New York: Joseph F. Wagner, 1950), pp. 175-181 who returned to the Wolffian conception of cosmology as "metaphysical"; and A. G. Van Melsen, *The Philosophy of Nature* (Pittsburgh: Duquesne University Press, 1953) who also places it "in the third degree of abstraction" (pp. 94-97). For Maritain's position see *The Philosophy of Nature* (New York: Philosophical Library, 1951): [see review by William H. Kane, OP, *The Thomist* 16 (1953) 127-131]; "The Philosophy of Nature" in *Science and Wisdom* (New York: Scribner's Sons, 1940) and *Degrees of Knowledge*, 4th ed. (New York: Scribner's Sons, 1959), pp. 21-70, 136-201. Gilson did not write expressly on this subject but his views are discussed in John M. Quinn, OSA, *The Thomism of Etienne Gilson* (Villanova, PA: Villanova University Press, 1971). De Koninck's view was expressed in "The Unity and Diversity of Natural Science" in *The Philosophy of Science*, ed. Vincent E. Smith (Jamaica, NY: St. John's University Press, 1961), pp. 5-24 and in "Natural Science as Philosophy" (Quebec, 1959), a privately printed lecture in response to a lecture by Mortimer Adler who argued that the distinction between natural philosophy and science was methodological.

⁴ For Weisheipl see especially *The Development of Physical Theory in the Middle Ages* (New York: Sheed and Ward, 1959) and *Nature and Motion in the Middle Ages*; for Wallace, *Causality and Scientific Explanation*, 2 vols. (Ann Arbor: University of Michigan Press, 1972-74); *From a Realist Point of View* (Washington, DC: University Press of America, 1979); and *Galileo and His Sources* (Princeton: Princeton University Press, 1984).

Summa theologiae (supplemented by the *Commentary on the Sentences* and the *Summa contra gentiles*, etc.), as Gilson for example chose to do, but from the commentaries on Aristotle, in which the philosophical disciplines are treated according to their own principles and methods *via inventionis*. Nor can it be rightly maintained that these works are merely commentaries on Aristotle, not expressions of Aquinas' own thought, since as Weisheipl has shown they were written by Aquinas precisely to defend his use of Aristotle in theology in the face of the so-called "Augustinians" who had accused him of Averroism.⁵

The second thesis is that Aquinas ought to be interpreted as a convinced Aristotelian who vigorously opposes every tendency to Platonize in epistemology, and admits Platonic elements into this thought from the Church Fathers only in so far as he can validate them in accordance with Aristotelian epistemology.⁶ No doubt on such topics as creation, the immortality of the soul, the providence of God, and the participation of Being, he uses Platonic suggestions to push beyond Aristotle in metaphysics, but in doing so he always maintains that these developments are homogeneous with Aristotle's principles and methodology.⁷ Therefore, interpretations of Aquinas which ignore the strongly empirical bent of Aristotle's thought, or attempt to isolate metaphysics from natural science, fall under grave suspicion.

The third thesis is that a correct interpretation of Aquinas' philosophy depends on a careful observance of his theory of the order of the sciences.⁸ According to this theory, since the proper object of the human intellect is *ens mobile*, being-that-becomes, the first science in the order of learning (after the liberal arts of logic and mathematics, the trivium and quadrivium, which are of value more as instruments of science than in themselves) can only be *natural science*. After the scientific study of the human being as part of

⁵ See *Friar Thomas D'Aquino* (Washington, DC: The Catholic University of America Press, 1983), pp. 281–285. Also see Quinn, *Thomism of Gilson*, pp. 93–124; and L. Elders, "S. Thomas D'Aquin et Aristote," *Revue Thomiste* 88 (1988) 357–376.

⁶ Cf. Benedict M. Ashley, OP, *Theologies of the Body: Humanist and Christian* (St. Louis: Pope John Center, 1985), pp. 152–55 with references in notes for a historical discussion of this point. Recently see the extensive discussion by Joyce A. Little, *Toward a Thomist Methodology*, *Toronto Studies in Theology* 34 (Lewiston/Queenston: The Edwin Mellen Press, 1988), pp. 49–112, who, however, neglects the essential question of epistemology.

⁷ See Elders article, note 5 above, for details. Note that Aquinas might well have been surprised at the great efforts of modern Thomists to show his Christian superiority to Aristotle in demonstrating God as Creator of the very *esse* of the world, since he remarks, "Ex hoc autem manifeste falsitas opinionum illorum, qui posuerunt Aristotelem sensisse, quod Deus non sit causa substantiae caeli, sed solum motus est" (*In Meta.* 6.1, 1164 Marietti, on Aristotle, *Meta.* 6, 1026a 11–18).

⁸ The chief texts of Aquinas on this subject are listed in Pierre H. Conway, OP, and B. M. Ashley, OP, *The Liberal Arts in St. Thomas Aquinas* (Washington, DC: The Thomist Press, 1959), pp. 62–64. See also Conway, *Principles of Education* (Washington, DC: The Thomist Press, 1960). Armand Maurer's introduction to his translation, *The Division and Method of the Sciences: Q. V and VI of Aquinas' Commentary on the De Trinitate of Boethius*, 4th rev. ed. (Toronto: Pontifical Institute of Mediaeval Studies, 1986), has many useful bibliographical notes on this topic.

nature it becomes evident that unlike all other natural objects, the human being is free and self-determining, and hence the need of the *ethical sciences* (of the individual, the family, and the polity) to give rational guidance to this freedom, and also of the *arts* (technology) which perfect natural objects for human use.

Last of all comes metaphysics, which is “first” philosophy not in the order of learning but in the order of reflection, whose task is to compare, coordinate, and unify analogically the results of the special sciences. Hence it also deals with the ultimate causes of all things which transcend the formal objects of the special sciences. But why is such a science needed or even possible? Aquinas agrees with Aristotle that natural science would be “first” philosophy if it were not for the fact that in natural science we discover that the First Cause of the existence and action of *ens mobile* is not itself a physical object which can be studied by the principles of natural science, and that this is true also of the human intellectual soul. Hence Being (reality) is wider than the object of natural science, and as such requires to be studied by a science of its own. Otherwise, terms and principles usually labeled “metaphysical” such as *substantia*, *essentia*, and *esse*, as well as the first principles (judgments) composed from them would be restricted simply to *ens mobile* and fall under the subject of natural philosophy.⁹

This Thomistic theory of the order of the sciences was obscured in the late Middle Ages by Duns Scotus who held that the proper object of the human intellect is metaphysical, not physical Being, and therefore that the order of learning begins with the study of Being in its widest sense and the application of its principles to the special sciences. This Scotistic theory was

⁹ I cannot here deal with the many difficulties raised by recent Thomists against this *physical way* to metaphysics, the exegetical problems, or the various and contradictory substitutes proposed (cf. J. F. Knasas, “Immateriality and Metaphysics,” *Angelicum* 65 [1988] 44–76 for recent literature). In all this discussion no one has disproved that St. Thomas considered the physical proofs of the existence of God and the spirituality of the human intelligence to be valid (cf. Vincent E. Smith, *The General Science of Nature* [Milwaukee: Bruce, 1958]). Nor can they reasonably deny that for him the subject of metaphysics is being as precisely immaterial (cf. Thomas C. O’Brien, *Metaphysics and the Existence of God* [Washington, DC: The Thomist Press, 1960]). As for the attempts of some (e.g. J. F. Wippel, *Metaphysical Themes in Thomas Aquinas*, Chapter IV, “Metaphysics and Separatio,” pp. 69–104 [bibliography p. 70, n. 3] and Lawrence Dewan, OP, “St. Thomas Aquinas against Metaphysical Materialism,” in *Studi Tomistici*, Atti dell’VIII Congresso Tomistica Internazionale, vol. 14, *Problema Metafisici* [Città del Vaticano: Libreria Editrice Vaticana, 1982], pp. 412–434) to show that it is possible without proving the existence of immaterial substances to make a valid judgment that *ens inquantum ens* is immaterial, I would reply that such arguments at most conclude that immaterial substances are *possible*, but this is not sufficient to establish the need for metaphysics. These authors seem to start with Kant’s question: “How is metaphysics possible?” (*Critique of Pure Reason* B22), when for Aristotle and Aquinas it was “Is metaphysics needed?” (“Si non est aliqua alia substantia praeter eas quae consistunt secundum naturam, de quibus est physica, physica erit prima scientia,” *In VI Meta.*, l. 1, n. 1170 [Spiazzi]).

adopted by Suarez, made traditional by the textbooks of Christian Wolff, and continues to distort many expositions of the thought of Aquinas.¹⁰

The fourth thesis is that the many attempts (originating it would seem with Wolff and as a consequence of the Scotistic tradition just mentioned) to distinguish the natural sciences as empirical from philosophy as "rational" cannot be admitted in authentic Thomism.¹¹ This divorce of philosophy as dealing with necessary and certain truths accessible to reason from natural science dealing with contingent and probable truths known only empirically obviously derives from Leibnitz¹² through Wolff and is rooted in Descartes and the Augustinian-Platonic tradition. In Neo-Scholasticism it found its most explicit formulation in the textbooks of Ferdinand Renoirte of the University of Louvain,¹³ who in Scotistic fashion also identified "philosophy" with metaphysics, of which natural philosophy was simply a special application. This divorce of natural philosophy from natural science and its treatment as a branch of metaphysics became an unquestioned commonplace among Neo-Scholastics.

Jacques Maritain had the merit of making clear that this conception of philosophy and its divisions was in no sense Thomistic.¹⁴ He defended the autonomy of natural philosophy as distinct from metaphysics, but he still felt compelled to distinguish it formally from modern natural science on the grounds that while natural philosophy as Aquinas conceived it was *intelligible essential* knowledge of *ens mobile*, modern science is only *empirical accidental* knowledge of physical reality, which takes either the form of "empirio-metrical" knowledge when the hypothetical models used to organize the empirical data are mathematical as in physics, or "empirio-schematic" when they are non-mathematical as in Freudian psychology. Maritain admitted, of course, that these distinctions are foreign to the text of Aquinas, but he claimed them as legitimate Thomistic developments in view of the actual character of modern science as it developed after St. Thomas' time.

¹⁰ Suarez, whose Scotistic tendencies are well known, in *Disputationes Metaphysicae, Opera omnia* (Paris: Vives, 1877), Dist. I, Sect. iv, 13, 25:29, attributes the reduction of the other sciences to material parts of metaphysics to Giles of Rome (*I Metaphysics*, q. 22, and beginning of *Posterior Analytics*) and advocates the traditional order of learning. However, in fact his *Metaphysics* absorbs much of philosophy, and this Wolff carried out in full, *Discursus Praeliminaris de Philosophia in Genere*, 3, (Verona: Haeredes Marci Moroni, 1779), nn. 56, 86-87. See also Richard Blackwell, "The Structure of Wolffian Philosophy," *The Modern Schoolman* 38 (1961) 203-318, and José Ferrata Mora, "Suarez and Modern Philosophy," *Journal of the History of Ideas* 14 (1953) 528-547.

¹¹ See William H. Kane, OP, "The Nature and Extent of Philosophy of Nature," *The Thomist* 7 (1944) 202-232, and "The First Principles of Changeable Being," *The Thomist* 8 (1945) 27-67, and "Abstraction and the Distinction of the Sciences," *The Thomist* 16 (1954) 43-68; Pierre H. Conway, OP and G. Friel, OP, "Farewell Philosophy," *The New Scholasticism* 24 (1950) 363-397; Vincent E. Smith, *General Science*, pp. 38-47.

¹² See G. W. Leibnitz, *New Essays in Human Understanding*, abridged edition translated and edited by P. Remnant and N. Bennett (Cambridge: Cambridge University Press, 1982), Book IV, c. 21, "Of the Division of Sciences," pp. 521-525.

¹³ See note 3 above.

¹⁴ See note 3 above.

The River Forest School maintained that the weakness of Maritain's comparison between St. Thomas' conception of natural science and modern science (like that of Renoirte) rested on both an inadequate appreciation of the former and unhistorical understanding of the latter. Instead William H. Kane insisted that for Aquinas *physica* (which Aquinas calls indifferently *scientia naturalis* or *philosophia naturalis*) is a single unified science whose object, scope, and method are not formally distinct from that of modern natural science.¹⁵ It probably was this thesis that provoked the most opposition to River Forest Thomism, because it seemed to many other Thomists that it was a naive example of "philosophical imperialism," a reactionary attempt to deny the unique achievements of modern science evident to everyone and to force it back into the Procrustean bed of an obsolescent Aristotelian worldview.¹⁶

The fifth thesis is that the key to reading Aristotle and Aquinas on natural science is a good understanding of the *Organon* and especially of the *Posterior Analytics* (which by the way deals with the kind of questions which today are commonly called "philosophy of science").¹⁷ The *Posterior Analytics* makes clear that in developing a science of nature based on our empirical cognition of the changing world of which we are a part, the first step, as in any science, must be the formulation of axioms or first principles which are self-evident to the human intellect as necessary. In this case that means evident from our sensible experience and therefore not requiring demonstration.

This does not mean that such principles are evident without painstaking investigation. One of the most serious misunderstandings of Aristotle is to

¹⁵ See the essays in Kane's, *The Approach to Philosophy* (Washington, DC: The Thomist Press, 1962).

¹⁶ My beloved teacher Yves Simon, although he defended the position of his teacher Maritain and thought the River Forest Thomists suffered from what he called "ontological integralism" (p. 168), in his beautiful book *The Great Dialogue of Nature and Space*, ed. Gerard J. Dalcourt (Albany, NY: Magi Books, 1970), ended with the following formulation not so very different from ours: "But if it is true that there exists a philosophy within positive science, we must conclude that the philosophy of nature admits of two states. It exists in a state of disengagement, of clarity and of consciousness in the discipline which bears this name of philosophy of nature and is the work of the philosopher. It exists in positive science obscurely and vitally. The philosophy of the philosopher receives from the philosophy of the scientists beautiful stimulation. Conversely, the philosophy of the scientist cannot disengage itself from the state of obscurity in which it is kept by the pressure of positive requirements and become critically conscious of itself, unless it becomes a philosopher's philosophy and submits to the general laws of philosophic disciplines." (p. 203) On the other hand Ernan McMullen, "Philosophies of Nature," *The New Scholasticism* 43 (1969) 412-434, and in other writings, while defending a realist interpretation of modern science, has been consistently critical of views like those of the River Forest School. That we made a serious attempt to appreciate the special characteristics of modern science is witnessed by Raymond J. Nogar, OP, "Toward a Physical Theory," *The New Scholasticism* 25 (1951) 397-438 and "Cosmology without a Cosmos" in *From an Abundant Spring* (The Walter Farrell memorial volume of *The Thomist*, ed. by staff of *The Thomist*, New York: Kennedy, 1952).

¹⁷ It is much to be desired that Weisheipl's remarkable notes on the *Posterior Analytics* should be edited and published. A detailed study of the application of this methodology in natural science is supplied in the dissertation of Melvin A. Glutz, CP, *The Manner of Demonstrating in Natural Philosophy* (River Forest, IL: 1956).

think that for him a science proceeded simply by a logical deduction of theorems from a few easily formulated axioms as in geometry. In fact he insists that at every level of a science *new* principles must be introduced, in the present case from new sense observations, so that in a science there are "almost as many principles as conclusions."¹⁸ Moreover, although these principles are not deduced, neither are they conclusions of an *inductive* argument, but are known immediately to intelligence in its function not of *ratio* but of *intellectus*. Such insight presupposes in most cases a considerable preliminary *dialectic* to clear the way. In natural science this dialectic necessarily consists in the collection and classification of the raw empirical data. Thus the fact that modern science seeks to reduce all its theories to observational data gathered by laborious research and that it uses various techniques of controlled experiment to separate relevant from irrelevant data for Aquinas would not in any way imply a formal difference from natural science as he conceived it, although undoubtedly he could not have imagined how vast this research and how ingenious these techniques have now become.

The first principles of natural philosophy must include first of all a definition of its formal subject, namely *ens mobile* or the sensible, changeable world, and then at progressively more and more specific levels, the definitions of all the genera, sub-genera, and species of *ens mobile*. Each of these definitions must be grounded in sense observations dialectically refined.¹⁹ For Aristotle these genera and sub-genera include elements, compounds, vegetative organisms, animal organisms, and the human being, for all of which he dialectically develops an essential definition. In the case of living organisms, and ultimately of the human being as a living organism, the collection of data and its dialectical analysis is very extensive.

For Maritain, however, the significant point is that the only *species* for which Aristotle and Aquinas proffer an essential definition is the human species.²⁰ For elements, compounds, plants, irrational animals, they found it impossible to go beyond the generic, and the very broad generic at that. Therefore, Maritain concludes that natural philosophy as Aquinas conceived it cannot deal with the kind of topics which interest modern science, namely, the specific kinds of elements, compounds, plants, and animals. Only in human psychology do we have a twofold study of the human being, on one hand a philosophy of man based on his essential definition as rational animal,

¹⁸ *Posterior Analytics* 1.32 (88b4).

¹⁹ For further explication of how the results of modern science can be interpreted in this way see my *Theologies of the Body* (note 6 above), pp. 251-412; "Are Thomists Selling Science Short?" (River Forest: Albertus Magnus Lyceum, 1961); "Does Natural Science Attain Nature or Only the Phenomena?" in Vincent E. Smith, *The Philosophy of Physics*, Philosophical Studies 2 (Jamaica, NY; St. John's University Studies, 1961); "Change and Process" in John N. Deely and R. J. Nogar, *The Problem of Evolution* (New York: Appleton-Crofts, 1973), pp. 267-284; and "Causality and Evolution," *The Thomist* 36 (1972) 199-230.

²⁰ *Philosophy of Nature*, pp. 95-97. This position was also strongly argued by Mortimer J. Adler, *Problems for Thomists I: The Problem of Species* (New York: Sheed and Ward, 1940); for a response see my "Does Natural Science Attain Nature" (see note 19 above).

and on the other empirical psychology of an empirio-schematic type which studies his accidental properties which cannot be deduced from his essential definition.

The sixth thesis is that the strikingly apparent differences between natural science as it developed after Galileo and as Aquinas conceived it are not due to any formal difference in the kind of knowledge which modern science achieves, but are due to the confused self-understanding of modern science which resulted from its ideological history after Galileo. This confusion arose from misunderstandings of Aristotle's science on which modern science was historically based and it centers on two chief points.

First, Galileo, whose Aristotelian roots have been clearly traced by William A. Wallace, OP,²¹ introduced a radically Platonic element into science by his over-confidence in the mathematization of natural science. For Aquinas there was a legitimate "mixed" science of mathematical physics, but its relation to natural science was merely instrumental and dialectical, since it "explained" natural phenomena by idealized mathematical models and not by their proper physical causes.²² Maritain was correct in thinking this empirio-metric Galilean science is formally distinct from natural science in St. Thomas' sense, but he failed to see its instrumental and dialectical function in relation to natural science. The genius of Galileo was to perceive how this tool, which before his time had been applied extensively only in Ptolemaic astronomy (less successfully in music, optics, and mechanics), could be extended to all areas of natural science.

Galileo, however, drew two fatal conclusions from his enthusiasm for mathematicizing physics. First, he concluded that since in mathematics, as Aquinas had pointed out, there are explanations only by formal and none from efficient and final causes,²³ he could neglect finality and reduce efficient causality to its measurable effects on locomotion. Moreover, he reduced formal causality to extension and matter to atoms, thus, while retaining his Aristotelian empirical methodology, adopting a mechanistic interpretation of nature.²⁴ Second, Galileo made the mistake of supposing that since in the Aristotelian conception the *doctrinal* (but not the *inventive*) certitude of natural science arises from deductions *a priori*, natural science can proceed mathematically as a deductive science from a small number of axioms. Thus he claimed an apodictic certitude for Copernican astronomy (which got him in

²¹ Wallace, *Causality and Explanation* (note 4 above), 1:176-183, and *Galileo and His Sources*; for the late medieval antecedents of these views see also James A. Weisheipl, *Physical Theory* (note 4 above).

²² See Bernard Mullahy, CSC, *Thomism and Mathematical Physics*, 2 vols. (Dissertation, Laval University, 1946), typescript, partially published as "Subalternation and Mathematical Physics," *Laval Théologique et Philosophique* 2 (1946) 89-107, and Charles De Koninck, *The Hollow Universe* (London: Oxford University Press, 1960).

²³ *De Trin.*, q.5, a.4, ad 7; *Post. An.* 1.4 (43bis), (Spiazzi); *Meta.* 3.1.4, n.375 and 6.1.1, n.1160 (Spiazzi).

²⁴ According to Wallace (see note 22 above), Galileo always retained the notion of the four Aristotelian causes, although he only emphasized the mathematical formal cause.

trouble with the Inquisition) and for his theory of the tides in a truly Platonic manner.²⁵

These two errors have continued to haunt modern science. The first of these accounts for the major apparent difference between the present scientific world-view and that of Aristotle and Aquinas, namely, the absence of *teleology*, that is, final causality.²⁶ Yet this Galilean elimination of teleology is only apparent, because in fact under other names, no modern scientific physical theory has really dispensed with it. Of course it does not appear in the mathematical formulations of these theories, but it does always appear in their physical applications. For example, time in mathematical theories is isotropic, simply a "dimension," but when applied to physical data its anisotropic (one-way) character has to be admitted, because actuality is teleologically related to potentiality, and the world becomes actual only into the future, not into the past.²⁷ The second error led to Descartes' rationalistic reductionism in physics and subsequently to that of Newton's, but after Hume, by way of reaction, led to contemporary probabilism and the hypothetico-deductivism of modern "philosophy of science."²⁸ It is this that gives plausibility to the Leibnizian notion that philosophy may be certainly true, but science can only be probable, since it is based not on certain axioms, but on hypotheses. This has even spread to mathematics itself.

Such interpretations of science are self-contradictory, since if the probability of every statement is based on an infinite regress through other merely probable statements without ever reaching some certain statement, it can have only zero probability, that is, it is not at all probable. Total probabilism is also contrary to fact, since while most scientific conclusions are admittedly only probable, there are many such conclusions which have at least the certitude of fact (for example, the earth is spheroid, not flat) and even of theory

²⁵ On Galileo's over-confidence in his tide theory see Wallace, *Galileo and His Sources*, (note 22 above), p. 348.

²⁶ See my article, "Research into the Intrinsic Final Causes of Physical Things," *Proceedings of the American Catholic Philosophical Association* (Washington, DC: Catholic University of America Press, 1952), pp. 185-194, and *New Catholic Encyclopedia*, articles "Final Causality," 5:915-919; and "Teleology," 13:979-981. Note also that the discussion of the "anthropic principle" (which in its "weak form" states that unless the universe were constructed exactly as it is, life and especially human life could never have emerged) has recently brought the question of finality again to the fore in science. See J. D. Barrow and F. J. Tipler, *The Anthropic Cosmic Principle* (Oxford: Oxford University Press, 1986) and Joseph M. Zycinski, "The Anthropic Principle and Teleological Interpretations of Nature," *The Review of Metaphysics* 40 (1987) 733-757. See also Etienne Gilson (who in spite of his general neglect of the philosophy of nature wrote brilliantly on this subject), *From Aristotle to Darwin and Back Again: A Journey in Final Causality* (Notre Dame: University of Notre Dame Press, 1984).

²⁷ See Benjamin Gal-Or, "The Crisis About the Origin of Irreversibility and Time Anisotropy," *Science* 176.3 (April 7) 11-17, who concludes: "Thus the problem of the irreversibility of nature, which is intimately coupled to the very concept of time and initial conditions, incorporates in it issues that are as far beyond our reach now as they were in the early days of thermodynamics." For other references on this controversy see my *Theologies of the Body*, p. 48, note 44.

²⁸ See R. J. Nogar, "Toward a Physical Theory," note 16 above.

(for example, Newton's law of gravitation within a certain range of accuracy). When these Galilean confusions are corrected and it is seen that modern science is still, in spite of its interpreters, teleological, and that, although most of it is dialectical, hypothetical, and therefore only probable, some of it has been established with genuine empirical certitude (only in a Platonic world is the empirical always uncertain!), it turns out that Aquinas' conception of science and what the modern scientist actually does are not essentially different, however diversely they may be packaged.

The seventh thesis is that the natural science of Aristotle and Aquinas, no matter how obsolete in its details, still can provide modern science with the foundational analysis which can resolve the many paradoxes in which it now is bound up in intellectual incoherence and which have led to disastrous cultural and ethical results. This seventh thesis requires much more discussion than I can give it here, but it should be obvious to anyone acquainted with current philosophy of science that modern physics, biology, and psychology all have severe foundational problems. Physics, for example, suffers from lack of clarity as regards the physical interpretation of the mathematical terms for such basic notions as "cause," "space," "time," "matter," "energy."²⁹ The mechanistic visualization of such concepts has broken down, and nothing more satisfactory has been found to replace it. Consequently, physicists have to operate with several diverse mechanical models such as "particles" and "waves" which are mathematically complementary but which do not yield a unified physical explanation. Biology is divided between the molecular biologists who want to reduce the organism to a chemical complex and the holists who insist on the unique unity of organisms.³⁰ As for psychology, it is notorious that psychoanalytic theory is regarded by some experimentalists as pseudo-science.³¹

These difficulties within modern science do not, of course, negate its immense successes nor doom it as a dead-end. They are, however, not only serious flaws in its intelligibility, but they also generate a very confused world-view. On the one hand we seem to be in a universe whose marvelous order is constantly being further revealed by scientific investigation, and on the other we are told by the same scientists that this universe is without pur-

²⁹ See G. Radnitsky, *Contemporary Schools of Metascience*, 2 vols. (New York: Humanities Press, 1970) and Karel Lambert and Gordan G. Brittan, Jr., *An Introduction to the Philosophy of Science* (Atascadero, CA: Ridgeview Publishing, 1979).

³⁰ For example see Marjorie Grene, ed., *The Understanding of Nature: Essays in the Philosophy of Biology*, Boston Studies in the Philosophy of Science 23; Synthese Library 66 (Boston/Dordrecht: Reidel, 1974) and Grene and E. Mendelsohn, *Topics in the Philosophy of Biology*, Boston Studies in the Philosophy of Science 27; Synthese Library 84 (Boston/Dordrecht: Reidel, 1984).

³¹ See the careful critique by Adolf Grunbaum, *The Foundations of Psychoanalysis* (Berkeley: University of California Press, 1984).

pose or meaning, the product of blind chance, doomed to a heat-death.³² Moreover, these researches have told us more and more about ourselves as human, our bodies, our brains, our unconscious; yet it is claimed they have also shown that some day computers will take over.³³ Finally, this paradoxical science has produced a technology which promises an immense control over nature, yet gives us no clue as to the values or norms which ought to guide our transformation of nature and ourselves.³⁴

One reaction to this dilemma is, of course, simply to concede stoically that the universe is ultimately meaningless and human life pointless. Another is to claim that it is up to human creativity to give meaning to a world which is in itself meaningless, but contemporary philosophy is undermining this hope, “deconstructing” it, by raising doubts about whether human agreement, even human communication, is really possible.³⁵ Even my creative attempt to give meaning to the world in a work of art or a piece of writing means nothing to you until you interpret it and it is susceptible of any interpretation you please. When anything means anything, nothing means anything.

Consequently, it may well be time to take a second look at the ancient and medieval attempt to lay sound and consistent foundations for natural science by the careful analysis of its basic principles. A parallel is to be found in the fact that modern mathematicians admit that the rapid development of their discipline has led to certain logical and conceptual paradoxes that has made necessary a special field of the “foundations of mathematics.”³⁶ Researches in this field are not devoted to proving new theorems, but to analyzing the

³² See Freeman J. Dyson, *Infinite in All Directions*, Gifford Lectures 1985 (Oxford: Oxford University Press, 1988), Chapter 6, “How Will It All End?” pp. 97–122, for a fascinating discussion of this paradox.

³³ M. A. B. in the article “Artificial Intelligence” in *The Oxford Companion to the Mind*, ed. R. L. Gregory and O. L. Zangwill (Oxford: Oxford University Press, 1987), pp. 48–50, seems to believe “it is possible for material systems (which, according to the biologist, we are) to possess such characteristic features of human psychology as subjectivity, purpose, freedom, and choice.” Hence: “A programmed computer may be thought of as a subjective system (subject to illusion and error as we are) functioning by ways of its idiosyncratic view of the world.” Yes, we are subject to illusions!

³⁴ Or the famous claim of Jacques Monod, *Chance and Necessity* (New York: Knopf, 1971) that the only moral norm is respect for scientific truth.

³⁵ See Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979), who from the viewpoint of pragmatism declares that “philosophy is dead” in a sense even more radical than Heidegger; see John D. Caputo, “The Thought of Being and the Conversation of Mankind: The Case of Heidegger and Rorty,” *The Review of Metaphysics* 36 (1983) 662–685 and Dorothy Frede, “Beyond Realism and Anti-Realism: Rorty on Heidegger and Davidson,” *The Review of Metaphysics* 40 (1987) 733–757. Cf. also Kenneth Baynes, James Bohman, and Thomas McCarthy, eds., *After Philosophy? End or Transformation* (Cambridge, MA: MIT Press, 1987).

³⁶ For Aquinas mathematics is the most (subjectively) certain of the sciences: “*Mathematica sunt abstracta materia, et tamen non excedentia intellectum nostrum: et ideo in eis requirenda certissima ratio*,” *Meta.* 2.1.5,336; see also *De anima* 2.1.3,245–246; *Post. An.* 1.1.1,n.10; *N. Eth.* 1.1.3,36 (Spiazzi). On the concept of “metascience” see Radnitsky, note 29 above.

methodology, logic, and fundamental concepts and axiom-sets of the various branches of mathematics. Similarly, we may learn from Aristotle and Aquinas how to begin from our basic sense experience of a changing world to develop fundamental categories and modes of explanation in light of which the vast achievements of modern science may be rendered conceptually self-consistent and unified and also firmly grounded in the world of common-sense.

You may smile at this proposal and say, "But what could we possibly learn from the Aristotelians when it was precisely by breaking with them that Galileo was able to open the way for the vast success of modern science?" It is just here that the researches of Weisheipl and of Wallace on the history of science show us that modern science is continuous with that of Aristotle.³⁷ Galileo's "revolution" consisted not in finding a new way for science, but in narrowing and distorting its scope, with the result that it has developed in a very one-sided manner. The return to foundational analysis is not intended to found some "new science" but to restore its foundations in their full dimensions.

An eighth thesis is that this task of revising modern science on the basis of its original foundations cannot be evaded by a flight to metaphysics or theology. Since the Church in the eighteenth century permitted modern science to be coopted by the Enlightenment, Christian thinkers have attempted to avoid the consequences of this disaster by denigrating the importance of natural science. They have said, "Let the sciences go their way, since they have nothing to say about the big questions of meaning; we have another way to deal with these questions, philosophy, that is metaphysics, completely independent of the shifting sands of the sciences."³⁸ Hence the Cartesian "turn to the subject" and the effort to build a metaphysics *a priori* to sense experience, as did Leibniz. When Kant convinced them that this was a dead-end, they sought a way out in idealism and phenomenology and transcendental Thomism, only to end with Heidegger's and Wittgenstein's declaration that metaphysics is the last gasp of Western civilization's hope to control Being by science and technology, and that the only way out is mysticism.³⁹

We have also seen that this abandonment of philosophy for theology has led thinkers like Karl Barth to declare for a paradoxical faith unrelated to

³⁷ See note 4 above.

³⁸ Thus Jacques Maritain in his *Introduction to Philosophy* (New York: Sheed and Ward, 1930) wrote: "Philosophy is the highest of all branches of human knowledge and is in the true sense wisdom. The other (human) sciences are subject to philosophy, in the sense that it judges and governs them and defends their postulates. Philosophy on the other hand is free in relation to the sciences and only depends on them as the instruments which it employs." (p. 123). He is not speaking only of metaphysics but of philosophy in general and he argues that the sciences serve philosophy only by way of illustration, confirmation, interpretation, and refutation of scientific errors (p. 122).

³⁹ On Heidegger see note 35 above. On Wittgenstein see Anthony Kenny, *The Legacy of Wittgenstein* (Oxford: Basil Blackwell, 1984).

reason, because reason belongs to godless natural science. In Catholic post-Vatican II circles it has led to the dominance of the transcendental Thomism of Rahner and the cognitive theory of Bernard Lonergan, both of which, as we have just seen, are now subject to severe philosophical criticism.⁴⁰ What characterizes this type of theology is that it has given up on the classical proofs of the existence of God used by the Fathers of the Church long before Aquinas gave them a scientific formulation and consequently on the classical apologetics by which faith and reason were reconciled, and substitutes for it a foundation for theology in "religious experience." As we have already seen, "meanings" which can in no way be publicly verified today fall under the gravest suspicion. They are "meanings" without "meaning" to anyone but the one who claims them. Thus theology and religion became private affairs.

Theologians have got into this corner because the philosophers have told them that Kant forever exposed the fallacy of the classical proofs of the existence of God.⁴¹ The Neo-scholastics made mighty efforts to refute Kant's refutation, but they did it on the supposition that these proofs are metaphysical, since they took for granted that natural science, because empirical, could never give a certain proof.⁴² Moreover, had not Newton undermined the premises of the classical proofs?

If we look once more at Aquinas' commentaries on Aristotle, and many other texts scattered through his works, we see that for him there would be no grounds for a metaphysics, unless natural science had first established the existence of non-material *efficient* causes (not merely final causes, as some

⁴⁰ On Rahner see Fergus Kerr, *Theology after Wittgenstein* (Oxford: Blackwell, 1986) and John F. X. Knasas, "Esse as the Target of Judgment in Rahner and Aquinas," *The Thomist* 51 (1987) 222-245 and n. 53, pp. 244-245 on Lonergan. On why Transcendental Thomism is not Thomistic see Robert J. Henle, SJ, "Transcendental Thomism: A Critical Assessment," in Victor B. Brezik, CSB, ed., *One Hundred Years of Thomism* (Houston: Center for Thomistic Studies, 1981), pp. 90-116. Henle notes (pp. 92-93) that Joseph Maréchal, SJ, did not intend this transcendental approach to replace but only to complement that of Aquinas.

⁴¹ For example Hans Küng in his *Does God Exist?* (New York: Random House, 1981), although quite critical of Kant, after the most superficial examination of the classical proofs, ends by accepting Kant's contention that a theoretical proof of God's existence is impossible (pp. 529-551). Allen W. Wood, *Kant's Rational Theology* (Ithaca, NY: Cornell University Press, 1978), very sympathetic to Kant and apparently agnostic as regards such metaphysical proofs, concludes, "Much less successful, as I have argued, is Kant's attack on the traditional proofs for God's existence. In his desire to systematize his criticism of the theistic proofs, Kant organized it around his attack on the ontological proof, claiming that the basic deficiency of the cosmological and physicotheological proofs was their covert reliance on it. But this claim, as we have seen, was simply not convincingly made by Kant for either proof" (p. 148).

⁴² As O'Brien (note 9 above) argues: the Five Ways of Aquinas are first formulated in the philosophy of nature, but in metaphysics are treated more profoundly, and the attributes of God elaborated. Clement Van Steenkiste, editor of the *Rassegna di Letteratura Tomistica* agrees and points out that the demonstration in natural philosophy is *quia* and in metaphysics *propter quid* (ibid. 17 [1981] n. 174), that is, from the established notion of God as Pure Act His necessary existence can be concluded as a "reasoned fact." Hence Aquinas can first prove that God exists (ST 1.2.3) and then in 1.3.3 that He is identical with His essence, and finally in 1.3.4 that God's existence is identical with his essence, that is, why He exists.

exegetes of Aristotle claim) of the material world.⁴³ Of course given the possibility of a metaphysics conditioned by these physical proofs, it remains for metaphysics to elaborate our understanding of these non-material entities (God, angels, human intellects) from the resources of all the special sciences.⁴⁴ Since these proofs rest on the basic principles of natural science, derived from our most general experience of *ens mobile*, they yield certain knowledge and are not undercut by the more dialectical part of natural science, such as Newton's laws of motion, which are hypothetical, heuristic rather than empirical.⁴⁵ Kant's critique of the classical proofs has validity only if we grant his epistemology, which there is no good reason to do, since it was based on the one hand on the skeptical empiricism of Hume and on the other on the rationalism of Newton.⁴⁶

Consequently, a return to the natural science of Aquinas as the foundation for a revision of the world-view of modern science opens the way also to a metaphysics which is not merely subjective but open to public dialogue, and to a theology of the same type. Thus if the River Forest interpretation of St. Thomas was right, a new and more fruitful way to present the Catholic tradition of theology and philosophy to the modern world remains to be explored.

Post Vatican II changes dispersed the members of the Albertus Magnus Lyceum and closed the Pontifical Faculty of Philosophy in River Forest. Its views had made only a small ripple in the American Catholic Philosophical Association. Its surviving members, like myself, have found themselves chiefly occupied either in the history of science or in bioethics, the latter because it has turned out that it is in the field of medicine that the ethics of St. Thomas, and back of it his natural science, has found the most fruitful application.⁴⁷ The crisis of the environment, and of the ethical dilemmas of modern technology provide a practical occasion for dialogue of scientists and

⁴³ See references in note 9 above and also William H. Kane, OP, "The Subject of Metaphysics," *The Thomist* 18 (1955) 503-531 and Melvin A. Glutz, CP, "The Formal Subject of Metaphysics," *The Thomist* 19 (1956) 59-74. Aristotle proves existence of the Unmoved Mover in *Physics* 7 and 8 as efficient cause of the world, while in the *Metaphysics* 12 (Lambda) he discusses this Mover as final cause of the universe, because the final cause as the *causa causarum* which is only analogically a cause pertains especially to First Philosophy (cf. Aquinas, *Meta.* 3.1.4, 378-386 (Spiazzi)).

⁴⁴ Aquinas' proofs of the existence of God arrive at the One Who Is, but this Name remains blank to our understanding until His attributes are demonstrated, and these attributes in turn are themselves almost blank transcendental terms until by analogy they are filled with ever richer analogies derived from our knowledge of creatures. Our natural knowledge of God, therefore, is just as rich and no more than our knowledge of creatures through the special sciences. Talk of *esse* without knowledge of essences is empty. That is why Aquinas says (*N. Eth.* 6.1.7, 1210 [Spiazzi]) that if the young study metaphysics they only learn words, because they lack the prerequisite knowledge of the sciences and arts to give these words real content.

⁴⁵ William A. Wallace, "Newtonian Antinomies Against the *Prima Via*," *From a Realist Point of View* (note 4 above), pp. 329-370.

⁴⁶ See note 41 above.

⁴⁷ For example, *Health Care Ethics*, 3rd and rev. edition (St. Louis: Catholic Health Association, 1989) by myself and Kevin D. O'Rourke, OP, and the work of Albert Morawski, OP, first President of the Pope John XXIII Medical-Moral Research and Education Center and current editor of its *Ethics and Medics*.

philosophers. At the same time the crisis within modern philosophy of which there is much talk today, the ever odder cosmologies which the physicists are proposing, and the debate over artificial intelligence, all show that the issues with which the Lyceum was concerned are more than alive; they are the issues of the future.

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St. Thomas and Charles Hartshorne on Change and Process

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Father James Weisheipl committed his academic life to the advancement of a Thomistic natural philosophy, in large part because he believed that natural philosophy is fundamental to the more advanced areas of philosophy, such as ethics and metaphysics, and to theology; that is, unless certain philosophical principles are properly established in natural philosophy, then philosophical errors are likely to result later on. Small errors in the beginning, we know from Aristotle, result in great errors farther on. Mistakes in natural philosophy can lead to great confusions in ethics, metaphysics, or theology.

The importance of natural philosophy for the more advanced areas of philosophy can be seen nowhere more clearly today than in the currently popular "process theology," a theology which is built upon the natural philosophy of Alfred North Whitehead. The most eminent disciple and exponent of Whitehead's natural philosophy is the American philosopher Charles Hartshorne, and in Hartshorne's philosophy there is a clear and all-pervasive dependence of metaphysical and theological argument upon a fundamental position taken in natural philosophy. The position taken in natural philosophy is an erroneous one, and the consequences for the metaphysical understanding of God and for theology generally have been shown, by numerous able scholars, to be dangerous for Christian faith.¹ But there has

¹ Benedict M. Ashley, "Aquinas and the Theology of the Body," in *Thomistic Papers III*, ed. Leonard A. Kennedy (Houston: University of St. Thomas Press, 1987), pp. 55-76; David B.

been very little attention given to the real root of these dangerous consequences: the understanding of process itself. Here I shall attempt to show that Hartshorne's very understanding of process is inconsistent and untenable. Thomistic natural philosophy can help us to see why the principles of change, not of process, should be the foundation of philosophy. When we see this we will also be able to see why the doctrine of creation, so important for metaphysics and theology, can be built upon a natural philosophy of change but not upon one of process.

I

First, what does Hartshorne mean by process?

The "Philosophy of Process" is not the result of an arbitrary preference for becoming, but of the logical insight that, given a variable V and a constant C , the togetherness of the two, VC , must be a variable. Variability is the ultimate conception. (If you say, there is no variability but only permanence, no becoming but only being, you destroy the contrast upon which both concepts depend.)²

The "ultimate conception" is "variability," "becoming," "creativity," or "process." In Hartshorne's mind, there is a strong disjunction between variability and constancy: either we admit variability (like Heraclitus) or we deny it (like Parmenides). The notions of being or of substance are to Hartshorne Parmenidean denials of the obvious reality of variability or process and therefore they are to be rejected. We may at times talk in terms of being, substance, and of matter, but these terms are abstractions. The truly concrete is process itself. We conceptually freeze reality into something static, but there is no need for us to do so, and when we do so we necessarily exclude what is primarily real: variable process.

The Hartshornean attempt to focus on process is an attempt to focus on what is most concrete.³ Aristotelian logic, Hartshorne claims, gives the primacy of place to the species. This is so because the species is more determinate, or more concrete, than the genus. As proximate genera are more

Burrell, "Does Process Theology Rest on a Mistake?" *Theological Studies* 43 (1982) 125-135; W. Norris Clarke, "Christian Theism and Whiteheadian Process Philosophy: Are they Compatible?" *Logos* 1 (1980) 9-44; William J. Hill, "Does the World Make a Difference to God?" *The Thomist* 38 (1974) 146-164 and "Two Gods of Love: Aquinas and Whitehead," *Listening* 14 (1979) 249-264; John F. X. Knasas, "Aquinas and Finite Gods," *Proceedings of the American Catholic Philosophical Association* 59 (1979) 88-97; Hugo A. Meynell, "The Theology of Hartshorne," *Journal of Theological Studies*, n.s., 24 (1973) 143-157; Mary F. Rousseau, "Process Thought and Traditional Theism: A Critique," *The Modern Schoolman* 63 (1985) 45-64; John H. Wright, "The Method of Process Theology: An Evaluation," *Communio* 6 (1979) 38-55.

² Charles Hartshorne, *Creative Synthesis and Philosophic Method* (London: SCM Press, 1970), p. 14; see also *Whitehead's Philosophy: Selected Essays, 1935-1970* (Lincoln NE: University of Nebraska Press, 1972), p. 115.

³ In this paragraph I summarize Hartshorne's argument, *Creative Synthesis*, pp. 173-176.

concrete than remote genera, so the species is more concrete than the genus. This means that the species has more determinate or concrete information than does the genus: one knows more if one knows dog than if one simply knows animal. But, says Hartshorne, we should not stop this sort of reasoning at the level of the species. The individual is likewise more concrete, contains more determinate information, than does the species: to know Rover is to know all that belongs to the species dog plus all of what makes Rover's personality unique. But here, too, there is no reason to stop at the individual Rover, whose life includes many different stages from puppyhood to death. Rather, we should stop only at the very most concrete instance of Rover, Rover right *now*, at this instant. We might think about Rover in the future, but the future Rover is vague and indeterminant (not real at all, except as a possible outcome of present events). Whereas the Rover of the present includes, in some way, all of Rover's past and all of what belongs to Rover's species and genus.

Hartshorne's doctrine of memory, what Whitehead had called prehension, explains how the present moment in the life of any organism is the most concrete.⁴ On the analogy of human experience, Hartshorne argues that any present moment is the product of many, many past moments. The totality of all past moments that are relevant to my present is called my memory, both conscious and unconscious, but memory is by no means limited to human, animal, or even plant species. Rover's present contains all of his past moments in the sense that they have all combined to produce the present moment, but the same is true also for a tomato plant or for a lump of sugar or for an electron. Whatever we can recognize to be real in the present moment can be said to be an organism that is a product, though not *merely* a product, of many past moments, and in this sense the present moment of every organism "remembers" all of its past moments.

The present moment, therefore, is the most concrete instance of any reality. Hartshorne calls this most concrete instance an "event"; Whitehead had called it the "actual occasion" or "actual entity."⁵ To suppose some other reality, the individual, substance, or matter, to be more concrete is what can be called the fallacy of "misplaced concreteness."⁶ It is the fallacy, according to process thinkers, of supposing what is merely abstract to be what is concretely real. The momentary event and it alone, according to process thinkers like Hartshorne, is concrete; a substance is nothing but a collection or "society" of events. What really exists is events; substances are abstractions.

⁴ Hartshorne, *Whitehead's Philosophy*, pp. 3, 117-118, 125-128.

⁵ Hartshorne, *Creative Synthesis*, pp. 173-204; Alfred North Whitehead, *The Concept of Nature* (Cambridge: University Press, 1964), pp. 15-16.

⁶ Alfred North Whitehead, *Science in the Modern World* (Cambridge: University Press, 1928), p. 64; Hartshorne, *Creative Synthesis*, p. 26.

Thus the taking of process as primary has resulted in the recognition that momentary events are what is real. Three clarifications are needed. First, the event is not a durationless moment, as Aristotle understood the moment (or now), on the analogy of a point to its line. Rather, an event has a minimal duration, but the amount of this duration varies from organism to organism. For human experience, the concrete event (our minimal temporal experience) is about one tenth of a second; for some atomic particles it might be one ten-thousandth of a second.⁷ The concrete events vary in length of duration, but each is a duration with a beginning, a middle, and an end.

Second, the concrete event of any organism is discontinuous with all of the preceding events of the organism. There are several reasons why this is so. One of the most important has to do with the Whiteheadian and Hartshornean notion of creativity.⁸ I said above that, by virtue of memory (or prehension), the present event is a product of all past events, but I qualified this by saying that the present event is not *merely* such a product. Each present event is a product of past events but it is also a new and spontaneous entity that was not absolutely determined by past events or states. At all levels of reality, according to Hartshorne, not just at the human or the divine level, there is real, self-determining freedom. The past is always influential—at lower levels of reality more influential with less freedom, and at higher levels of reality less influential with more freedom—but it never, at any level, entirely produces the present event in a completely deterministic way. This universal principle of freedom or spontaneity is called by Hartshorne creativity. This insistence on freedom, or the rejection of the complete determinacy of the present by the past, entails the separation of the present from the past. If the present event is really continuous with the past events, then it must be absolutely determined by them. Since Hartshorne insists that free spontaneity is a given of all reality, then he must separate all events atomistically. The primacy of process thus reduces to a primacy of atoms: not atomic substances but atomic events. Each event is in a causal relation to its forebears, by virtue of memory, but it is also distinct from them, by virtue of creativity. Hartshorne defines creativity thus: “the freedom or self-determination of any experience as a new ‘one,’ arising out of a previous many, in terms of which it cannot, by any causal relationship, be fully described.”⁹ The new event is *very* close to the preceding events, but still distinct from them.

The individual who now acts creatively is not simply I, or you, but I now, or you now. I yesterday, you yesterday, did not enact and can never enact our today's

⁷ Hartshorne, *Creative Synthesis*, p. 175.

⁸ Charles Hartshorne, *Reality as Social Process: Studies in Metaphysics and Religion* (Glencoe IL: Free Press, 1953), pp. 31–32, 85–109; *Wisdom as Moderation: A Philosophy of the Middle Way* (Albany NY: SUNY Press, 1987) pp. 6–8, 17–20.

⁹ Hartshorne, *Creative Synthesis*, p. 3.

actions; only today's selves can do that. And since there is a new agent each tenth of a second or so, the actual momentary freedom cannot be very large. At any given moment, we are *almost* entirely a product, not a producer.¹⁰

Third, the events themselves are not in process.¹¹ They do not change or alter in any way. Any event is what it is, statically, immutably, for all eternity. As I am remembering all of the atomic units that make up my past, so God is remembering all of the events of the entire universe. These events enjoy an immortality, not as things in themselves, but as memories in the experience of God. The atomic events never alter in themselves nor in the eternal memory of God.

II

I shall turn now to two criticisms of the Hartshornean notion of process. The first is that there is a basic inconsistency in the reduction of process to events. We must recall that the very starting point of process philosophy is process itself. The initial impetus to this new philosophy is the rejection of a philosophical foundation in the static or the constant. The basic insight that reality is dynamically flowing, becoming, a real-world-in-process is the insight that leads the process philosopher to reject some sort of constantly fixed entity as a fundamental unit of reality. Yet, by an irresistible logic, Hartshorne finally insists that reality is indeed composed of static, non-changing, non-process, atomic units.

Since Hartshorne has committed himself to the denial of any sort of underlying subject, he cannot allow that process is the process *of* something. If process were the process of something, then the process would become a sort of accident that inhered in the something. That something would then turn out to be what is fundamentally existent. But neither can Hartshorne allow that process is purely continuous, for if he did, he would have to say, as we have seen, that the present moment is entirely a product of the past. The atomism is required in order to preserve freedom, and the static character of the atomic events is required in order not to admit the reality of substance. But the result is an absurdity: we are supposed to be living in a world of dynamically becoming process, yet, really, we are told, the world that we live in does not change at all. New units of reality come into existence at a very rapid rate, and this produces the illusion of change, just as the individual photographic frames in a movie film produce the illusion of a moving picture, but the units of reality, the events, never change at all.

¹⁰ *Ibid.*, p. 190.

¹¹ "The fully determinate units of reality are momentary actualities that 'become but do not change.' They are created and henceforth indestructible. Retrospectively, or by pre-empting, they have their past in the present, but not their futures, which as definite actualities do not exist." Hartshorne, *Wisdom as Moderation*, p. 18.

Is process given as continuous, or is it merely not given as discrete? There is all the difference, but the answer is often rendered with gay heedlessness. The answer which seems to meet all the essentials of the situation is that experience is merely vague as to any discreteness which may be there. This vagueness is misread as a revelation of actual continuity. Experience is at most quasi-continuous, or pseudo-continuous. To say more implies a fundamental error in theory of perception, of what it could possibly furnish.¹²

The absurdity of this position results in a flat denial of common sense. I think that anyone would, from common sense or common experience, wish to grant that we live, as the process philosophers rightly insist, in a world of dynamically flowing, becoming process. But this very process must be denied in Hartshorne's process philosophy. To Hartshorne, we do not live in a world of process, but only in a world of apparent process. When I walk from my desk to my door, I do not continuously move from here to there. In fact, the "I" who is here now will not even exist, except as memory, when some other "I" reaches the door. This is not a philosophy of process but an atomism of events.

The contradiction of Hartshorne's fundamental position is this: variability or process was taken as the initial given for philosophy, but this variability is explained as being composed of the absolutely invariable. We are to add together so many invariable units and to find that the result is that which is variable, but this makes no more sense than it does to say that the adding together of geometrical points will produce a continuous line. The juxtaposition of many points will produce the illusion of a line, but they can never produce a true continuity. One might say that the universe as a whole varies, for it is different from instant to instant, but this is a misleading way to talk on Hartshorne's analysis. The universe as a whole does not vary, but rather perishes completely, at the end of each instant; after this a new universe comes into existence *de novo*.

It is not possible to demonstrate the existence of process or variability or change. This fact, so much a part of our common experience, must be accepted as a fact, and then philosophers must provide principles to explain the fact. Hartshorne has rejected this fact, although in his initial appeal to process or variability he has apparently not done so. In rejecting this fact, however, Hartshorne has rejected a firm basis for a philosophy of nature and, hence, for his entire philosophy. Theologians have been attracted to process philosophy, I think, because they rightly believe that a sound philosophy should take a full account of process; they have rejected scholastic philosophy because they see it as a philosophy of static forms and substances. It is, however, just the other way around: Hartshorne's so-called process philosophy is a philosophy of static, atomic events. The scholastic philosophy of Thomas Aquinas, as we shall see, can really account for change.

¹² Hartshorne, *Creative Synthesis*, p. 194.

My second criticism has to do with memory, creativity, and causality. Hartshorne has striven admirably to avoid a strict causal determinism, on the one hand, and to affirm the reality of causality, on the other. He has correctly, I think, seen that we can know about real causality best when we look to the past. In his terms, the memory of the past allows us to see real causal necessity. In order for me to be alive now, it is necessary that I have eaten food in the past. But, because of the principle of creativity, we cannot say that the future is strictly determined. We can talk of probabilities or, better, a range of possible future outcomes, but it is never true, from the standpoint of the present, to talk of a causally determined future.

In fact, Hartshorne's project comes close, in many important ways, to the Aristotelian doctrine of necessity given in the *Physics*.¹³ There Aristotle argues for a necessity in nature *ex suppositione*; that is, on the supposition of the existence of an end, we can say that certain events necessarily had to precede the end. But we cannot argue necessarily from initial states to natural ends. Aristotle, no less than Hartshorne, affirms the reality of chance.

Hartshorne's position, however, because of its atomism, is liable to Hume's famous and potent criticism.¹⁴ As is well known, Hume argues that when two events are temporally separate, then it is impossible to establish any sort of necessary connection between the one and the other. Hartshorne recognizes the force of this criticism with respect to the future, but he wishes to deny it with respect to the past. But he has no grounds to accept the criticism in the one instance and not in the other. If events are atomistically separate, no matter how close they may be, then we can find no causal necessity between one and another, whether in the past or in the future. The only way to avoid Hume's criticism is to affirm, with Aristotle and Thomas, that an actual cause is always simultaneous with its actual effect.¹⁵

Hartshorne's process philosophy is, then, a denial of two fundamental features of common experience: change and causality. The denial of causality has repercussions, as we shall see, on the doctrine of creation. The denial of change, which is more fundamental, is a natural consequence of the denial of matter. Or, to put this another way, in insisting on the absence of any substrate, whether matter or substance, Hartshorne has made change impossible.

¹³ Aristotle, *Physics* 2.9 (199b35–200b8). See also William A. Wallace, *From a Realistic Point of View: Essays on the Philosophy of Science*, 2nd ed. (Lanham MD: University Press of America, 1983), pp. 100–114 and "Albertus Magnus on Suppositional Necessity in the Natural Sciences," in *Albertus Magnus and the Sciences: Commemorative Essays, 1980*, ed. James A. Weisheipl (Toronto: Pontifical Institute of Mediaeval Studies, 1980), pp. 103–128.

¹⁴ David Hume, *A Treatise of Human Nature*, 1.3.2–4; *An Enquiry Concerning Human Understanding*, 4–7. Hartshorne has striven to put some distance between himself and Hume, "Causal Necessities: An Alternative to Hume," *The Philosophical Review* 63 (1954) 479–499, but even here Hartshorne concedes what allows Hume's criticism, namely, that cause and effect are temporally successive.

¹⁵ Aristotle, *Physics* 2.3 (195b16–21); St. Thomas Aquinas, *In octo libros Physicorum Aristotelis expositio*, 2.6.195; ed. P. M. Maggiolo (Turin: Marietti, 1965), pp. 97–98.

There are three principles of change that Aristotle argues for dialectically in the *Physics*: form, the privation of form, and matter.¹⁶ The first two principles are not a point of contention between process philosophers and Thomists. Hartshorne would agree that in what is called change there is a before and an after. The "after" is a certain event or a form, and the "before" is the privation of that form. Matter, however, is precisely the principle over which Hartshorne and Thomas differ. Hartshorne denies the existence of matter. By being consistent with this denial he is also committed to an atomism of events and to the denial of change (or process) that we see. Thomas argues that if we grant change as a fact (and it is a matter of common sense that we do), then we must grant also that matter exists.

Syllogistically, Thomas' demonstration for the reality of matter can be put thus.

Any potency for being and non-being is matter. Any change requires a potency for being and non-being. Therefore, any change requires matter.¹⁷

The major premise is merely the definition of matter, and as such it is not the point of contention. The minor premise, however, is the contentious one that separates the process philosopher from the Thomist.¹⁸ Thomas argues inductively, from an exhaustive division of the kinds of change, that all change requires a potency for being and non-being.¹⁹

Change, according to Thomas, is exhaustively divided between accidental and substantial change. In accidental change, there must always be some substance that undergoes the change, because accidents, of their very nature, inhere in substances. The potency for change, thus, in accidental change is

¹⁶ Aristotle, *Physics* 1.7 (189b30–191a22).

¹⁷ "Omne enim quod generatur vel per artem vel per naturam, est possibile esse et non esse. Cum enim generatio sit de non esse in esse mutatio, oportet id quod generatur quandoque quidem esse, quandoque quidem non esse: quod non esset nisi esset possibile esse et non esse. Hoc autem quod est in unoquoque in potentia ad esse et non esse, est materia. Est enim in potentia ad formas per quas res habent esse, et ad privationes per quas habent non esse, ut ex supra habitis patet. Relinquitur ergo, quod in omni generatione oportet esse materiam." Thomas, *In Metaphysicam Aristotelis commentaria*, 7.6.1388; ed. M. R. Cathala, 3rd ed. (Turin: Marietti, 1935), p. 411.

¹⁸ "It is interesting to consider the ancient Aristotelian doctrine of 'substance' as owing its self-identity through time and space to its being made up of the same 'matter' with the same 'essential' form, though with inessential differences from moment to moment. Since sameness of form (for example, the gene structure of a human individual) is admitted by our doctrine, the difference lies in the notion of 'matter.'" Hartshorne, *The Logic of Perfection and Other Essays in Neoclassical Metaphysics* (Lasalle IL: Open Court, 1962), p. 222. Hartshorne does, at times, use the term "potentiality." *Reality as Social Process*, pp. 88–89. But by "potentiality" Hartshorne does not mean, as Thomas does, a real principle of what is actually existent. Rather, Hartshorne means a limited number of future possibilities. Thus, for Hartshorne, potentiality is not a real feature of present actualities but is a limitation upon future possibilities. The question raised by Thomas is, must there not be a real principle of potentiality in presently actual reality? As Hartshorne does not allow that the present actuality, the event, can change, he cannot allow that it has a real potential for change.

¹⁹ Thomas, *In VIII Physicorum*, 1.12.107; p. 54.

always provided by the substance. The substance that possesses one accident is the sort of substance that may lose that accident and acquire another. In Aristotle's example, the non-musical can become the musical only because the non-musical is precisely a non-musical *man*. There is something in man whereby the non-musical may be lost and the musical acquired; this something is a real potency for change.

In substantial change, a new, previously non-existent substance comes into being. In no cases, however, does a new substance come into being from matter that is not specifically appropriate to the new coming-into-being. Thus, for example, a plant is always generated from a specific seed, and from no other, that pre-existed the generation of the plant; a chemical compound comes to be only from pre-existing specific elements; and a chemical element comes to be only from pre-existing specific atoms. At no level of nature are substances generated except from pre-existent matter that is specific to the generation, and must be pre-existent or the generation cannot take place. The pre-existent matter has the ability to become the new substance, when properly acted upon or put into the right circumstances. This ability to become is the potency for substantial change.

What Aristotle and Thomas saw so clearly is that potency for change must be granted to be real if we are to grant that change is real. To deny the potency for change is to say that change cannot occur. This, of course, is precisely what Hartshorne has done. Matter, or the underlying substrate, are but other terms for this potency for change, and hence the affirmation of change must necessarily imply an affirmation of matter. The denial of matter as a real principle of change is always the affirmation of some sort of atomism, and atomism is always, at some basic level, a denial of change.

III

The principles of process philosophy have a crucial bearing on the doctrine of creation, which, in turn, is crucial for metaphysics, natural theology, and theology. Traditionally, creation has been understood to indicate the creature's fundamental dependence upon the creative causality of God. But for God's creative act, the universe would be absolutely nothing. The act by which God makes creatures to exist is called creation out of nothing, *creatio ex nihilo*. It is this traditional doctrine of creation, so essential a part of Christian doctrine, that Hartshorne has denied. This fact is well recognized,²⁰ but what is not so well recognized is the necessity for Hartshorne in making such a denial. Hartshorne's atomism that will allow for no material substrate is fundamentally incompatible with the traditional doctrine of creation.

In numerous passages Hartshorne responds to the doctrine of creation *ex nihilo* with the rhetorical question: "Did God, in creating me, utilize my

²⁰ Meynell, "The Theology of Hartshorne," pp. 149-150; D. W. D. Shaw, "Process Thought and Creation," *Theology* 78 (1975) 346-355.

parents or not utilize my parents?"²¹ The point of this question is to show that there is a strict disjunction between being created out of nothing by God and being caused by another creature. The expression "out of nothing" is meant to indicate the denial of some sort of cause. It is to be contrasted with "out of something." In Hartshorne's philosophy, the *something* out of which present events emerge is the preceding events. The present event is a product, though not completely, of past events; so one might say that the present event is made "out of" the past events. To say, therefore, that creation is an act of producing the present event "out of nothing" can only mean, to Hartshorne, that the present event is produced without the influence of any past event. Thus Hartshorne's dilemma: either past events are influential on the present event, or the present event is created out of nothing.

If the act of creation out of nothing were to take place it would always be an act of producing some event *de novo*. There could never be an antecedent event which has influence. If God creates me out of nothing right now, then the plain implication to Hartshorne must be that my parents have contributed absolutely nothing to the present event that is me. On the other hand, if we think of God as having created only one event "in the beginning," then this first event must have a character that is radically different from all other events, for it must be an event without any memory or prehension of preceding events. "Did Adam have a navel or didn't he?"²² As all events must have memories of past events, the supposition of a first event with no memory is completely incongruous to Hartshorne.

A created event, in Hartshorne's world, would be an event with no memory. God might have created previous events, but they would be completely irrelevant to present events, because present events would have no memory of the previous ones. Thus the atomism, the isolation of one event from another, would become even more extreme, if the events were created. There is no real continuity in Hartshorne's doctrine, but memory is intended to serve as the principle by which a simulacrum of continuity can be explained. Memory, thus, is the analogue of matter in Thomistic natural philosophy. In considering the possibility of creation out of nothing, Hartshorne regards the notion of a created event to be as meaningful as a Thomist would regard the notion of a material thing created with no matter. As natural, physical things must have matter in Thomism, so must events have memories in process philosophy. The doctrine of creation out of nothing is an absurdity precisely because it is a fundamental denial of the basic unit of Hartshornean reality.

²¹ Hartshorne, *Insights and Oversights of Great Thinkers: An Evaluation of Western Philosophy* (Albany NY: SUNY Press, 1983), p. 77.

²² *Ibid.*

When Hartshorne denies that God creates the universe out of nothing, he does not thereby intend to deny that God influences creatures.²³ God is an event and as such exerts influence just as all other events do. God's influence, in fact, is supreme, for He influences all of reality and does so more thoroughly than do other events, but He does not exert some unique sort of influence. God is more influential upon me than is any other event or any collection of events, but His influence differs only in degree, not in kind, from the influence of other creatures.

Thomas, however, precisely because he does recognize the underlying material substrate, is able to affirm both that God creates all creatures out of nothing and that creatures really do exert their own causality. When Thomas explains the meaning of the expression *ex nihilo* with respect to creation, he explains that it means fundamentally two things. First, it means "not from something"²⁴; that is, it means that there is no material cause relevant to the creative act of God. In a philosophy in which matter is an underlying substrate, a material cause is required for any natural change. In fact, Thomas claims that creation is not a change at all.²⁵ It is an activity of God upon creatures, but of a completely different order. In claiming that God creates out of nothing Thomas is claiming that God exerts a causality that is different from that of creatures in that it does not involve the pre-existence of matter as a potential for change. This different sort of causality is indicated by the second meaning of *ex nihilo*: the creature, of itself, is nothing rather than something.²⁶ Left to itself without the continual creative causality of God the creature would cease to exist utterly. This means that God must be continually causing creatures to exist in order that they continue to exist. No creature has its very existence but for God's immediate and continual giving of existence.

Creaturely causality, on this account, has nothing to do with the very being or existence of creatures. Creatures cause the becoming of other creatures; only God causes the being.

God Himself gives being to things. Other causes give a kind of determination of that being. The entire being of no thing has its source from a creature, since matter is from God alone. And being is more intimate to any thing than whatever serves to determine being. . . . So it is that the operation of the Creator pertains more to what is intimate in a thing than does the operation of any creaturely

²³ Hartshorne, *The Divine Relativity: A Social Conception of God* (New Haven: Yale University Press, 1948), pp. 29-30, 134-142.

²⁴ The expression "*ex nihilo*" means "non ex aliquo praexistenti." Thomas, In *2 Sent.* 1.1.2.sol; ed. P. Mandonnet (Paris: P. Lethielleux, 1929), p. 18.

²⁵ "Creatio non est factio quae sit mutatio proprie loquendo, sed est quaedam acceptatio esse." Thomas, In *2 Sent.* 1.1.2.ad 2; p. 19.

²⁶ "Res creata naturaliter prius habet non esse quam esse." Thomas, In *2 Sent.* 1.1.2.sol; p. 18.

cause. Therefore, the fact that a creature is the cause of another creature does not exclude that God operates immediately in all things, . . .²⁷

God makes natural, material things to exist and gives them a real potency for change. Creatures by their own powers are able to bring a new actuality to be from an already existing potency. The creature, thus, acts upon the composite; the creature makes the new composite come to be. But the creature does not make the pre-existent potency for change to exist in the first place. This is what Thomas means by saying that creatures determine being but do not cause being. Creatures generate new composites of form and matter, but they do not make form or matter simply to exist.²⁸

The principle of matter makes possible an explanation of creation, for it provides the key to explaining the different orders to which God's action and to which the creature's action belong. The creature's action always presupposes the potency of matter, but God creates without the potency of matter. We thus have a principle whereby to explain the compatibility of God's creation out of nothing with the creature's causality. This material principle, however, is denied by Hartshorne, and the result is that creation must also be denied, for if God created any event out of nothing there would be nothing left of the event for any creature to cause. The very simplicity of the atomic event makes it impossible to say that God causes in some respect but that creatures also cause in some other respect. Process events can only be caused in one respect, and if God is causing events in that one respect, then He must be doing so in a way no different from the way in which creatures are also causing. God is reduced to but one cause competing among many; He cannot be the unique creator out of nothing of the rich Jewish, Christian, and Muslim traditions.

Small errors in the beginning result in great errors in the end. The small error in the beginning of Hartshorne's process philosophy is the denial of matter. The denial of matter makes some form of atomism necessary, and atomism is incompatible with change and with causality. Two obvious and important features of common experience must therefore be denied in Hartshorne's philosophy. The denial of matter furthermore entails the denial of one of the essential doctrines of Christian thinking, the doctrine of creation *ex nihilo*. A philosophy that stands so flagrantly against common experience cannot be considered a sound philosophy. A philosophy in terms of which

²⁷ "[Deus] ipse est dans esse rebus. Causae autem aliae sunt quasi determinantes illud esse. Nullius enim rei totum esse ab aliqua creatura principium sumit, cum materia a Deo solum sit; esse autem est magis intimum cuilibet rei quam ea per quae esse determinatur; unde et remanet, illis remotis, ut in libro *De causis*, prop. 1, dicitur. Unde operatio Creatoris magis pertingit ad intima rei quam operatio causarum secundarum: et ideo hoc quod creatum est causa alii creaturae, non excludit quin Deus immediate in rebus omnibus operetur, . . ."

Thomas, In 2 *Sent.* 1.1.4.sol; pp. 25–26.

²⁸ "Et agens naturale agit non formam, sed compositum, reducendo materiam de potentia in actum; et hoc agens naturale in sua actione est quasi instrumentum ipsius Dei agentis, qui etiam materiam condidit, et formae potentiam dedit." Thomas, In 2 *Sent.* 1.1.4.ad 4; p. 27.

creation is an absurdity cannot serve Christian theology. As Father Weisheipl has taught us to build the philosophical edifice on the sound foundation of nature, let us remember the example of process philosophy and turn with care to the fundamental principles of nature that he understood and taught so well.

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Robert Kilwardby and the Limits of Moral Science

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The newly translated works of Aristotle that became available to the university masters in the first half of the 13th century provoked a vigorous, and at times acrimonious, debate concerning the contributions of human sciences to man's understanding of his own nature, the universe and the meaning of salvation. In a Christian milieu, few, if any, thinkers of the age disputed the absolute truth of divine revelation; but many were not able to agree on the extent to which rational conclusions might contribute to, or detract from, belief in the teachings of the faith. The more cautious ecclesiastical authorities, suspicious of philosophical conclusions which contradicted scriptural and traditional doctrines, promulgated condemnations against their more daring colleagues.¹ These censures, however, did little to stop the growing importance of philosophical studies in the centers of learning, since Aristotle's philosophy attracted a wide range of thinkers who were eager to examine religious doctrines in light of their own rational conclusions. If Aristotelian thought did not triumph completely in the thirteenth century, it certainly transformed the way in which the university masters viewed the aim and scope of their chosen fields.

¹ For a detailed study of each condemned thesis of 1277, its origin and effect, see R. Hissette, *Enquête sur les 219 articles condamnés à Paris le 7 Mars 1277* (Philosophes médiévaux 22; Louvain-Paris, 1977). The propositions themselves are found in the *Chartularium Universitatis Parisiensis*, edd. H. Denifle and A. Chatelain (Paris, 1889), v. I, #473, pp. 543-561.

The life and career of Robert Kilwardby parallel closely the reception of Aristotle's thought into the medieval university. Kilwardby began his academic career in the arts faculty at Paris by commenting upon the logic, grammar, and ethics that were taught in the first half of the thirteenth century. He showed himself to be a careful expositor of the text to be taught and took great pains to organize his material logically and coherently. Kilwardby's earliest works, his commentaries on Porphyry's *Isagoge*, Aristotle's *Categories*, *On Interpretation* and the *Nicomachean Ethics*, Boethius' *On Division*, and the anonymous *Book of Six Principles*, were intended for beginners in philosophy and explained carefully and clearly the intention of the author. Kilwardby's concern for the classification and order of subjects led him to compose one of his more famous works, the *De ortu scientiarum*, wherein the entire range of human knowledge is treated. By 1256 Kilwardby was a master in theology at Oxford and turned his attention to completing his questions on Peter the Lombard's *Sentences*. While retaining his interest in the philosophical sciences, especially logic, Kilwardby from this time on devoted most of his efforts to theological questions and to his ecclesiastical duties within the Dominican Order and in the English Church.

Kilwardby's knowledge of Aristotle's philosophy never prompted an attempt at a great synthesis of worldly science and religious doctrine that marked the writings of his famous confreres, Thomas Aquinas and Albert the Great. His preference for the authority of Augustine may have prevented him from exploring the relationship between reason and faith as deeply as his contemporaries, but he never ignored the contributions of Aristotle when they were pertinent to his work. Even his condemnations of 30 propositions in 1277, some of which censure Thomas' teachings, arose not from an overt hostility towards the conclusions of reason, but rather from a desire to maintain the authority of Augustine in matters concerning the form and soul of a human being.² Kilwardby's accomplishments as a philosopher and theologian are modest when compared to those of his more famous contemporaries, but

² For the condemnations at Oxford, see D. A. Callus, *The Condemnation of St Thomas at Oxford*, The Aquinas Society of London, Aquinas Paper, 5 (Oxford: Blackfriars, 1955); D. E. Sharp, "The Condemnation of 1277," *The New Scholasticism* 9 (1934) 306-318; L. E. Wiltshire, "Were the Oxford Condemnations of 1277 Directed against Aquinas?" *The New Scholasticism* 48 (1964) 125-132; P. O. Lewry, "The Oxford Condemnations of 1277 in Grammar and Logic," in *English Logic and Semantics from the End of the Twelfth Century to the Time of Ockham and Burleigh*, edd. H.A.G. Braakhuis, et al., *Artistarium Supplementa*, 1 (Nijmegen: Artistarium, 1981), 235-278. For Kilwardby's Augustinianism see D. E. Sharp, "Further Philosophical Doctrines of Kilwardby," *The New Scholasticism* 9 (1935) esp. 39-40; and J. Schneider's introduction to Kilwardby's *Quaestiones in librum primum sententiarum* [hereafter: *Sent.*], (Bayerische Akademie der Wissenschaften, Veröffentlichungen der Kommission für die Herausgabe ungedruckte Texte aus der mittelalterlichen Geisteswelt, 13; Munich, 1986), 55*-56*: "Das Verhältnis der aristotelischen zu den augustianischen Elementen bei Kilwardby wird so beschrieben: Kilwardby nimmt Aristoteles als Quelle, um die Lücken bei Augustinus aufzufüllen. Das stimmt zwar nicht ausschliesslich, aber doch im allgemeinen; bisweilen sucht er auch mit den Rustzeug des bewahrten Magister artium zwischen Augustinus und Aristoteles auszuweichen."

his reasoned and balanced view of the current philosophical texts represents a significant moment in the assimilation of Aristotelian philosophy into the body of thirteenth-century thought.

The ability to organize and classify data, which is demanded of a logician, prompted Kilwardby to regard the science of ethics in a manner which differs significantly from that of his contemporaries in the first half of the thirteenth century. All the other surviving commentaries from the Parisian arts faculty, which explained the partial translations of the *Ethica Nicomachea* (*EN*), known as the *Ethica vetus* and the *Ethica nova*, seemed to regard Aristotle as another authority to support the Christian belief in perfect heavenly beatitude.³ The unknown contemporaries of Kilwardby extended the boundaries of ethics to include the doctrines of grace, heavenly salvation, and divine causality, because they focused upon Aristotle's description of happiness as human perfection. Their own view of human perfection, which they thought to be union with God, led them to disregard the limits that Aristotle imposed upon his own concept of the *finis hominis*.⁴ Kilwardby, however, reacts sharply to what he considers a misguided view of Aristotle and of the aim of ethics, and explicitly criticizes his contemporaries for the naive identification of Aristotelian happiness with Christian heavenly beatitude. In his commentary on the *EN*, Kilwardby concerns himself only with what Aristotle called *doctrina civilis*, which does not consider the possibility of union with God. Whether Aristotle held the possibility of a perfect union with the first being is not a proper topic for a moral philosopher.⁵ Kilwardby's criticisms

³ For the earliest translations of the *EN*, see R.-A. Gauthier, *Ethica Nicomachea*, in *Aristoteles Latinus* (Leiden-Brussels, 1974), 26.1-3, fasc. 1. For the earliest anonymous commentaries on the *EN*, see G. Wieland, *Ethica—scientia practica, Die Anfänge der philosophischen Ethik im 13. Jahrhundert* (Beiträge zur Geschichte d. Philosophie des Mittelalters, Neue Folge, 21: Munster, 1981); A. Celano "The Understanding of the Concept of *felicitas* in the pre-1250 Commentaries on the *Ethica Nicomachea*," *Medioevo* 12 (1986) 29-53.

⁴ For example, an early anonymous commentator on the *Ethica nova* claims that "*felicitas nihil aliud est quam ultima perfectio*," and "*secundum hanc vitam non erit felicitas*." Naples, MS Naz. III G 8, f. 6^{va} and f. 4^{va} respectively. Another anonymous commentator, erroneously identified as John Pecham, describes happiness as a divine gift given by God. "*Bonum autem duplex est: divinum id est a deo collatum, ut felicitas. . .*" Florence, MS Naz. conv. soppr. G 4.853, f. 1^{ra}. For a brief discussion of these works see R.-A. Gauthier's introduction to the *Sententia libri Ethicorum* in *S. Thomae de Aquino Opera omnia* (Rome, 1969), v. 47/1, pp. 234*-238*.

⁵ The commentary on the *Ethica vetus* and *nova* ascribed to Kilwardby is found in two manuscripts: Cambridge, Peterhouse MS 206 (C), ff. 285^{ra}-307^{ob}; and in part in Prague, Czech State Library (Statni knihovna CSR) MS III.F.10 (Pr), f. 1^{ra}-11^{ob}. On the reliability of the ascription of the work to Kilwardby, see P. O. Lewry, "Robert Kilwardby's Commentary on the *Ethica nova* and *vetus*," in *L'homme et son univers au moyen âge*, ed. C. Wenin, Actes du septieme congrès international de philosophie med.(30 Aout-4 Septembre 1982) Philosophes médiévaux, 26-27 (Louvain-la-Neuve, 1986), 799-807. Kilwardby understands the intent of Aristotle's ethics as follows: "Et notandum diligenter quod vocat hic Aristoteles viventes vere bonos quia si non est vere bonus nisi simpliciter felix, et secundum ipsum aliqui viventes sunt veri boni, secundum ipsum aliqui viventes sunt felices simpliciter: quod est contra eos qui dicunt Aristoteles viventem nolle [velle viventem non C] felicitari, nisi incomplete." C, f. 293^{ra}, Pr, f. 9^{ob}. Also: ". . . habemus ergo determinationem prime questionis, scilicet utrum vivens felicitabitur vel non. Et videtur Aristoteles determinasse iam quod sic. Et hoc dico de illa felicitate de qua locutus in hoc libro quam ipse semper et ubique vocat actum perfectum

of an overly religious understanding of the aim of ethics are expressed more forcefully in the writings of Albert the Great and Thomas Aquinas.⁶

Kilwardby's own understanding of human science, in general, and of ethics, in particular, owes as much to Isidore of Seville, Gundissalinus, and Hugh of St. Victor as it does to Aristotle. In the *De ortu scientiarum* Kilwardby initially ignores Aristotle's famous division of science into theoretical, practical, and productive learning,⁷ and divides wisdom into two categories: divine revelation and human science. Sacred Scripture qualifies as wisdom in the fullest sense, since it is intended not only to illuminate the mind, but it also satisfies the will.⁸ Human science is divided into beneficial philosophy and harmful magic.

It is curious to see a logician designate knowledge as harmful, but Kilwardby obviously believed that certain areas of inquiry could lead a person away from truth and should be avoided.⁹ Philosophy, which is said to be useful but not necessary to salvation, teaches man, in part, about truths concerning the natural world. Because it contributes to a proper method of conducting one's life, the study of philosophy should be pursued as a worthy endeavor. Kilwardby borrows the definition of philosophy from Isaac Israeli, and claims it to be man's knowledge of himself; and since a philosopher aims to know himself completely, all branches of philosophy contribute to his overall well-being. In his commentary on the *EN*, Kilwardby encourages a student of ethics to know all human sciences, since they are all necessary to comprehend the human composite being completely. Physics, metaphysics, mathematics, psychology, and even logic have a moral component as they help one to understand the origins and development of virtue within the human soul.¹⁰ Kilwardby, although certainly aware of the Aristotelian divi-

secundum virtutem. Unde forte non intendit de illa felicitate nisi que dicitur vita secundum modum civilis, nec debuit forte doctrina civilis de alia felicitate pertractari. Utrum enim post mortem felicitetur anima vel totus homo forte non pertinet ad ipsam, nec hoc determinat Aristoteles." C, f. 293^{va}, Pr, f. 9^{vb}.

⁶ Albert writes "Dicendum, quod felicitas non est quaedam generalis beatitudo et ordinatio totius animae secundum omnes potentias, sicut quidam dicunt, sed operatio secundum determinatam virtutem. . . ." *Super Ethica commentum et quaestiones in Alberti Magni Opera omnia* 14.1, fasc. 1 (Münster in W.: Aschendorff, 1968), pp. 75–76, ll. 71–03; cf. *ibid.*, p. 14, ll. 54–62. Thomas concurs: "Ex quo patet quod felicitas de qua Philosophus loquitur non consistit in illa continuatione ad intelligentiam separatam per quam homo intelligat omnia, ut quidam posuerunt: hoc enim non provenit multis, immo nulli in hac vita." *Sententia libri Ethicorum*, p. 14, ll. 90–95.

⁷ *Metaphysica* 6.1 (1025b19–28) and *EN* 6.2 (1139a26–30).

⁸ *De ortu scientiarum* (DOS), ed. A. Judy, *Auctores Britannici Medi Aevi*, 4 (London & Toronto: The British Academy and the Pontifical Institute of Mediaeval Studies, 1976), c. I #1, p. 9; *Sent.* I, q. 1, p. 3, ll. 7–10.

⁹ DOS, c. I #1&2, pp. 9–10.

¹⁰ After defining philosophy as self-knowledge Kilwardby says: "Homo ergo qui vult philosophari debet cognoscere principia constituenta ipsum et etiam proprietates consequentes esse eius. Set principia hominis sunt duo: scilicet natura corporalis et natura incorporalis. Oportet ergo eum qui vult esse philosophus utramque istarum naturarum cognoscere. Philosophia autem corporalis nature habetur in philosophia naturali; cognitio autem

sion of speculative and practical science, does not maintain so rigid a distinction between the two areas as do his successors in the arts faculty. As is evident from his commentary on the *EN* and his *De ortu scientiarum*, Kilwardby believes that all speculative sciences have a practical element, while all practical theories must be based in part, at least, in theory.¹¹

Kilwardby's assertion that the general subject-matter of philosophy encompasses all things leads him to divide human science into the study of divine things and that of human things. The study of the divine includes the fields of physics, mathematics, and metaphysics, since these sciences examine the immutable eternal laws of a universe made by God. The study of humanity concerns actions of man (ethics, politics, and mechanical arts) and his ability to express himself in words (logic). Although Kilwardby devoted much of his effort to the study of logic, his view of the importance of ethics in human education is made clear in his commentary on the *EN*, the *De ortu scientiarum* and his questions on Peter the Lombard's *Sentences*. These works provide the basis for further conclusions on Kilwardby's views on the aim and scope of moral philosophy.

Like Aristotle, Kilwardby and his contemporaries distinguished the theoretical sciences from the practical or active ones. While Aristotle claimed that the end of ethics is not knowledge but action, and thereby removes ethics from the realm of theoretical wisdom,¹² Kilwardby considers the relationship between theory and practice in a different and more complicated manner. Although he clearly states that "the present work (ethics) is not for the sake of contemplation alone, like the speculative sciences, for it does not only consider virtue to discover its nature . . . but its purpose is to make us good," Kilwardby does not exclude a theoretical basis from moral conclusions.¹³ Certainly ethics does not admit of the same certainty as do metaphysics, physics, and mathematics, but in order to practice virtue, one must first speculate theoretically about its nature.¹⁴ Conversely, theoretical sciences have practical application; for example, a carpenter and house-

nature incorporalis, ut anime, habetur in quodam libro naturali in libro *De anima*. Magis tamen habetur cognicio anime in methaphysica ubi traditur cognicio principiorum immaterialium." C, f. 285^{ra}; Pr, f. 1^{ra}. Kilwardby continues by showing how these sciences pertain to human passions and virtues.

¹¹ *DOS*, cc. 42-44 #393-415, pp. 138-145.

¹² *EN* 1.3 (1095a5-6).

¹³ "Dat modum procedendi cum sua causa prima pars habet principale et incidens in parte principali, concludit conclusionem suam ex causa eiusdem sicut presens opus non est tantummodo contemplacionis gracia ut sciamus quid est virtus, ibi statum faciendo, set ut boni fiamus." C, f. 296^{ra}. Note that both here and in the *DOS* (n. 11), the author insists that one must theorize about the meaning of virtue in order to act virtuously.

¹⁴ "Quae igitur quomodo distinguatur penes speculationem et praxim, cum illae quae practicae sunt sint etiam speculativae—oportet enim prius virtute speculativa contemplari quod virtute practica debemus operari—et e converso speculativae non sine praxi sunt." *DOS*, c. 42 #393, p. 138.

builder need geometry to build. It does not seem to have occurred to Kilwardby that when a builder applies mathematical conclusions to his own work, that these applications belong to the science of building rather than mathematics. As a result, Kilwardby sees a more intimate connection between theoretical and practical sciences than do most of his contemporaries.

The idea that ethics is not entirely a practical theory may have its origins in the works of Aristotle himself. In his works, Aristotle indicates that a sound theoretical basis contributes to practical topics.¹⁵ Whether Kilwardby, however, thought he was following Aristotle when he included a theoretical component to moral science remains open to question. What was clear to him is Aristotle's insistence upon the importance of contemplation in the moral perfection of a human being. This understanding of the importance of speculative virtue in book I of the *EN* leads Kilwardby to insist that the human operation which is the concern of ethics must extend to both moral and intellectual virtue: "Note that an operation is said both properly and commonly: properly it is said of an action which is opposed to speculation; speaking commonly, however, an operation encompasses the act of speculating which is reason properly speaking. When he (Aristotle) says 'omnes sunt operatrices,' this proposition should be understood concerning 'operation' commonly (meant) which is extended to the operation of contemplation, and similarly the name of the good should be extended to the good of speculation and not only to the good of praxis."¹⁶ While for Aristotle, "contemplative"

¹⁵ See W.F.R. Hardie, *Aristotle's Ethical Theory* (Oxford: Clarendon, 1968), 30–34. Kilwardby indicates that the practical sciences cannot produce arguments with the same certainty as the theoretical, since the former "dicunt quia sunt," while the latter speak "propter quid." Kilwardby seems to indicate that both types of arguments are necessary in ethics, since an action that follows from the first principles must necessarily be good. The deduction that a singular action is "good," if derived from the moral principles, would be a demonstrative argument (*propter quid*): "Quamvis igitur moralis . . . consideret quid agendum et quomodo et propter quid, tamen finaliter non intendit nisi operationem. . . ." (*DOS*, c. 42 #394, p. 138). That circumstances may affect our judgment concerning any action indicates that ethics cannot claim the same type of certainty as metaphysics, physics, or mathematics. In his commentary on book III of the *Sentences*, Kilwardby claims that prudence is both an intellectual habit and a practical one. When it considers the truth, it is intellectual, when it considers good actions, it is practical and a function of the will. Although Kilwardby prefers the Augustinian definition of prudence as love for the good, he does admit that the intellectual recognition of truth contributes to the desire for the good. But he does not indicate how prudence produces certainty in moral judgments. See *Quaestiones in librum tertium Sententiarum* (Teil 2: Tugendlehre), ed. G. Leibold (Bayerische Akademie der Wissenschaften, Veröffentlichungen der Kommission für die Herausgabe ungedruckter Texte aus der mittelalterlichen Geisteswelt, 12; Munich, 1985), q. 30, pp. 114–115. See also *DOS*, c. 43 #401, p. 140 and c. 41 #380, p. 134; also, C, f. 296^{ra-10}.

¹⁶ "Et nota quod operatio dicitur proprie et communiter: proprie autem dicitur operatio accio que opponitur speculationi; communiter autem dicendo operatio comprehendit actum speculandi rationem proprie dictam. Intelligenda est ergo propositio quando dicit quod 'omnes sunt operatrices' de operatione communiter, que se extendit ad operationem speculationis, et similiter extendendum est nomen boni ad bonum speculationis et non solum ad bonum praxis." C, f. 285^{va}.

describes an intellectual virtue, which is studied in moral science, for Kilwardby it characterizes both the virtue itself as well as certain principles within moral philosophy. Kilwardby may have concluded that any endeavor that emphasized contemplation so strongly, must itself be, in part, contemplative. Even though his understanding of the nature of ethics may have some foundation in Aristotle's writings, it does not seem to be the way in which Aristotle himself viewed the domain of moral philosophy. For Aristotle contemplation constitutes a subject of moral deliberation; it does not describe the science of ethics itself.

While every practical science has an element of contemplation and every theory a practical component, there is according to Kilwardby a distinction between the sciences, which is based upon their intended results.¹⁷ The end of the practical science of ethics is action. Since moral philosophy attempts to condition human actions, it admits of more uncertainty about its conclusions than do the sciences that seek to further knowledge alone. Kilwardby agrees with Aristotle that "the nature of moral affairs (*rerum*) does not permit a certain determination, since they are not from fixed causes, but from the will."¹⁸ The conclusions that result from moral speculation are not wholly arbitrary, but produce a type of certitude, which Kilwardby characterizes as "typice et grosse." Ethics produces a limited kind of certitude, since its main concern is individual human actions and not the universal causes which comprise theoretical knowledge.¹⁹

With his deliberations concerning the aims and methods of moral science complete, Kilwardby turns his attention to the content of moral inquiry. The opening lines of the *EN* indicate that moral science primarily and principally addresses the problem of human goodness. According to Kilwardby, this human good is two-fold: the supreme goodness of happiness and the lesser good of virtue that is ordered to happiness.²⁰ In clearly distinguishing virtue from happiness,²¹ Kilwardby leaves open the question of how the virtues are related to the *summum bonum*. At times, however, Kilwardby comments upon the close connection between happiness and virtue: "it (happiness) exists on account of virtue (*propter virtutem*), and so the best and blessed thing seems to be the end and prize of virtue; but this is happiness; therefore,

¹⁷ "Et dicendum quod omnia operativa scientia aliquid habet de contemplatione et e converso. . . sed tamen bene distinguuntur penes contemplationem et operationem penes fines principaliter intentos." *DOS*, c. 42 #394, p. 138.

¹⁸ "Set natura rerum moralium non patitur determinationem omnino [non C] certam cum non fuit [sint C] ex certis causis, set a voluntate." C, f. 286^{vb}; Pr, f. 2^{vb}.

¹⁹ "Quare non est de hiis determinare secundum omnimodam certitudinem, set typice et grosse." *ibid.*; see also *DOS*, c. 42 #394, p. 138.

²⁰ "Bonum autem humanum dupliciter (duplex, Pr) est: scilicet bonum summum sive felicitas, et bonum inferius ordinatum ad summum bonum, scilicet virtus." C, f. 285^{rb}; Pr, f. 1^{rb}.

²¹ "Felicitas est alter qui est ordinatus ad ipsum, scilicet virtus." C, f. 286^{ra}; Pr, f. 2^{ra}.

happiness is the end and prize, and it is seemingly attained because of virtue."²²

At other times, he wishes to distinguish virtue more sharply from happiness. He finds it difficult to reconcile the position of Aristotle, who is numbered among the "academics who said that virtues are the highest good,"²³ with that of Augustine, who characterized virtue as a means to know God.²⁴ Kilwardby never answers the question of how virtue, as the main element of happiness, could be subordinate to a higher human end. He never defines happiness as virtue; he says only that they are closely related. He seems to have accepted ultimately the authority of Augustine in relegating human rational achievements (both intellectual and moral virtue) to means whereby happiness is achieved.

If Kilwardby is somewhat unclear on the relationship between virtue and happiness, he has little trouble separating what he considers to be the elements of moral philosophy from those of moral theology. According to Kilwardby the concern of a moral philosopher, in general, and Aristotle, in particular, is to discover the nature of a good life and those operations which produce it. In other words, the central theme of ethics is happiness, which is best described as living well and acting well (*bene vivere et bene operari*).²⁵ Ethics is thereby restricted to a consideration of a human life, and does not extend to the question of the fate of the soul after death. Kilwardby criticizes his contemporaries for misreading Aristotle, when they thought he denied perfect happiness to the living. Kilwardby responds that the moral goal of happiness can be designated as perfect, if "perfect" is understood within the limits of moral science. The question whether there is another type of

²² Kilwardby is addressing the problem of the cause of happiness here: "Secundo ponit rationem quod ipsa (felicitas) sit propter virtutem, sic optimum et beatum videtur esse finis bravium virtutis; sed huiusmodi est felicitas; ergo felicitas est finis et bravium, et videtur quod ipsa habeatur propter virtutem." C, f. 291^{vb}; Pr, f. 8^{ra}. "In prima parte [procedit C] intendit talem rationem, cum [tamen C] felicitas sit bonum constantissimum existens circa operationes humanas. . . . Rationale est ut sit circa operationes humanas constantissimas et perfectissimas. Huiusmodi autem sunt operationes que sunt secundum virtutem. Ergo circa operationes huiusmodi consistit felicitas." C, 292^{vb}; Pr, f. 9^{ra}.

²³ "Vel forte loquitur secundum opinionem Academicorum qui dixerunt virtutes esse summum bonum, de quibus videtur Aristoteles in I *Ethicae* ponens (1098a16) quod 'humana felicitas est actus perfectus secundum virtutem.' Et tunc sicut nos dicimus et vere quod non est uti beatitudine, quia est finis nostrum operum, sed est uti his quae sunt ad illam, sic ille dicit secundum opinionem illorum quod virtutibus non est utendum, quia sunt bonum finale hominis, sed ceteris est uti erga virtutem, ut in ea quiescat. Vitiis etiam non est uti secundum illum modum, quia sunt finale malum et contrarium bono finali, sed cetera quae ad vitium ducunt in id cadunt illo modo. Potest autem adhuc aliter dici ad istud. . ." *Sent.*, I, q. 28, pp. 62-63, ll. 51-61.

²⁴ ". . . sed Augustinus . . . dicens, 'Perfecta hominis ratio quae virtus vocatur utitur primo se ad intelligendum Deum, ut eo fruatur, a quo facta est. . . . Utitur etiam ceteris omnibus quae facta sunt, sensis et non sensis. Solo autem Deo non utitur, sed fruatur.'" *Sent.*, I, q. 30; p. 68, ll. 91-94.

²⁵ "Philosophi loquentes de felicitate posuerunt eam esse vitam aliquam bonam et operationem bonam, quia dixerunt eam [om. C] esse idem quod bene vivere et bene operari." C, f. 290^{vb}; Pr, f. 7^{ra}.

human perfection (that is, eternal supernatural perfection) is best reserved for theologians.²⁶

The problem of the cause of happiness, which provoked much controversy later in the thirteenth century, also receives a thoughtful and careful treatment in Kilwardby's commentary on the *EN*. Unlike his contemporaries, who claimed that Aristotle demonstrated the divine causality of happiness, Kilwardby asserts that happiness cannot be entirely caused by God. It must be the result, in part at least, of human virtue, discipline, and care. Kilwardby realizes that he is on dangerous ground here, and adds cautiously that it is reasonable to assume that happiness comes from God, since God is the highest cause of all good things. He concludes his discussion concerning divine causality by dismissing it from the realm of moral speculation and relegating it to metaphysical or theological deliberations.²⁷ Kilwardby's approach to the limits of ethics and his deliberations on the meaning and cause of human perfection may have directed subsequent discussions on these topics by Albert the Great and Thomas Aquinas.²⁸

The last position of Kilwardby to be considered here is his view of the relationship between ethics and all other human sciences. Unlike Aristotle and most Aristotelian commentators, Kilwardby does not elevate the speculative science of metaphysics to the highest level of human achievement. Instead of deriving the value of the philosophical discipline from the objects studied and the certainty produced, Kilwardby evaluates the science from the point of view of the effect on the student. Although the theoretical sciences may consider the will and its nature in an abstract sense, they do not lead man to good actions as ethics does. The will, as the source of goodness, is a principle more noble than nature, and so all speculative sciences are ordered to ethics. Contemplative wisdom, however, is not subalternated to ethics, since the goals of the two sciences differ; but its truths do contribute to the ethical ideal.²⁹ Like Descartes, who ordered philosophical sciences to the production of the ethical fruit, Kilwardby describes ethics as the end of all human wisdom "quodammodo," since all human acts are directed toward the moral goal of beatitude.³⁰ Because moral wisdom leads man to the human good, it must be considered the supreme human science.

²⁶ See *Sent.* 1.12; p. 30, where Kilwardby distinguishes between the "imperfect" science of ethics and the "perfect" science of theology. The former concerns the perfect human act according to virtue, the latter concerns the perfect union of man and God.

²⁷ "Si felicitas non sit a deo penitus immissa, sed propter quandam virtutem sit aut disciplinam aut assuetudinem adhuc videtur esse valde divinum et a deo procedens." C, f. 291^{vb}; Pr, f. 8^{ra}; ". . . rationale est felicitatem a deo datam esse, cum deus sit causarum optima, et felicitas sit bonorum optimum; sed utrum sic sit vel non, alterius scrutacionis est quam civilis, sicut forte metaphysice vel [om. C] theologice." C, f. 291^{vb}; Pr, f. 8^{ra}.

²⁸ See A. Celano, "The 'finis hominis' in the thirteenth-century commentaries on Aristotle's *Nicomachean Ethics*," *AHDL* 53 (1986), esp. 29–39.

²⁹ *DOS* #404–405, p. 141.

³⁰ "Et ita finis ultimus quodammodo totius philosophiae est ethica moralis. . ." *DOS* #409, p. 142; "Et ita totus finis scientiae speculativae ordinatur ad finem ethicae, et tota speculativa ad ethicam et ei famulatur. . ." *DOS* #405, p. 142.

By 1256, when Kilwardby was completing his commentary on the *Sentences*, his understanding of Aristotle's *EN* was superceded by the writings of Albert the Great, Thomas Aquinas, and the later commentators on the entire text of Aristotle. The more profound understanding of the nature of moral philosophy found in these works does not diminish the accomplishments of Kilwardby. His treatment of the problems concerning the nature of the *finis hominis* and the scope of ethical science represents an important advancement over the simplistic identification of Aristotelian happiness with Christian beatitude. After Kilwardby clearly distinguished between the philosopher's ideal of human earthly perfection and the believer's desire for future bliss, the medieval masters could no longer ignore the problems presented by Aristotle's moral theory.³¹ If Kilwardby never resolved these questions, he surely focussed attention upon their most crucial features. His contributions to the medieval moral theory, therefore, should not be ignored.

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³¹ "Ortus autem ethicae huiusmodi est. Bonum hominis spirituale tam secundum catholicos quam secundum antiquos philosophos beatitudo est, quam philosophi plurimum vocant *felicitatem*, sed catholici potius *beatitudinem*. Haec secundum veritatem catholicam non potest plene haberi in hac vita mortali, ut ostendit Augustinus. . . . Tamen secundum opinionem philosophicam antiquam multorum aeternam et beatam vitam Dei visionis ignorantium videbatur aliquando plene posse acquiri et haberi in hac vita, de quibus videtur Aristoteles fuisse, qui posuit quod felicitas est actus perfectus secundum virtutem, quem, ni fallar, posuit hominem habere in hac vita, si sic perseveraverit, agens scilicet secundum virtutem perfectam, ut ei possibile est. Et locutus est ipse de virtutibus consuetudinalibus tantum, non de theologis." *DOS* #352, p. 124.

Aristotelian Features of the Order of Presentation in St. Thomas Aquinas' *Summa theologiae, Prima pars, qq. 3-11*

Lawrence Dewan, OP

INTRODUCTION

The effort, through the centuries, to present a systematic, pedagogically appropriate contemplation of God is not, of course, an exclusively Judaeo-Christian project. A work such as Proclus' *Platonic Theology*, with its presentation of the various series of divine attributes to be found in various works of Plato, testifies sufficiently to this.¹ If we limit ourselves here to Christian participants in the endeavor, we still confront a considerable variety of authors and works. We might mention St. John Damascene's *De fide orthodoxa* and St. Anselm's *Monologion*. The effort is intense in the later twelfth and early thirteenth centuries. Let us mention the remarkable *Regule celestis iuris* by Alan of Lille. This twelfth-century work, with its ambition to systematize expressly related to Boethius' *De hebdomadibus*, was clearly well-

¹ Cf. Proclus, *Theologie platonicienne*, bk. 1, text and French translation, ed. H. D. Saffrey and L. G. Westerink (Paris, 1968): Soc. d'ed. "Les belles lettres." In the notes of this paper, I will use the following abbreviation: "CM" for Thomas' *In xii libros Metaphysicorum Commentarium*.

known to thirteenth-century theologians, including Thomas Aquinas.² In the early thirteenth century, one thinks of the *Summa aurea* of William of Auxerre, the *De trinitate* of William of Auvergne, and so forth.

St. Thomas Aquinas shows great enthusiasm for this effort of systematization. In the prologue to the *Summa theologiae* he declares his intention to provide order and economy of questions for the suitable teaching of beginners. We know that this work was begun somewhat as a result of his dissatisfaction with Peter Lombard's *Sentences* as a pedagogical instrument.³ I have elsewhere argued for the Aristotelian character of the order in *Summa theologiae* 1.2.3, that is, the "five ways" of proving the existence of God.⁴ Here I wish to consider some features of the order in qq. 3–11 which have to do with God's mode of being, that is, "how God is, in Himself."⁵

THE PLAUSIBILITY OF AN ARISTOTELIAN RATIONALE

I use the term "rationale" here rather than "background" because I am not so much concerned with what Aristotle historically thought as with what Thomas Aquinas saw as occurring in Aristotle's works, and more precisely with that part of what he there saw of which he approved. Moreover, considering the many actual lines of traditional reflection on the divine essence available to St. Thomas, it would be foolish to speak too categorically here. Hence, I claim only a certain plausibility in the matter.

That Thomas had his eye, in the planning of his work, on what happens in Aristotle is sometimes explicitly stated. One instance, in a part of the *Summa contra gentiles* which parallels *Summa theologiae* 1.3–11, occurs when, after speaking of the divine simplicity, Thomas follows with a chapter on there being nothing violent ("compulsive," one might say) in the divine essence.⁶ In another context in the *Summa theologiae*, he explains his following the discussion of the divine justice and mercy with questions on providence by referring to what is done "in scientia morali," a clear enough allusion to the order found in the *Nicomachean Ethics*.⁷ Hence, it is not at all fanciful to look to the works of Aristotle, as read by Thomas, for help in understanding what Thomas himself does.

² Alan of Lille, *Regule celestis iuris* (ed. N.-M. Haring), in *AHDL* 48 (1981) 97–226; cf. pp. 100–101 concerning Thomas' knowledge of it.

³ See Leonard E. Boyle, "Alia Lectura Fratris Thome," *Mediaeval Studies* 45 (1983) 418–428.

⁴ Lawrence Dewan, "The Number and Order of St. Thomas' Five Ways," *Downside Review* 92 (1974) 1–18.

⁵ See ST 1.12 prologue: "Quia in superioribus consideravimus qualiter Deus sit secundum seipsum . . ."; cf. ST 1.3 prologue.

⁶ See SCG 1.19: "Ex hoc autem Philosophus concludit quod in Deo nihil potest esse violentum neque extra naturam."

⁷ ST 1.22: "Nam et post morales virtutes in scientia morali consideratur de prudentia, ad quam providentia pertinere videtur."

APPROACHING THE PRIMA PARS

In order to appreciate what Thomas does in the *Prima pars*, it is desirable to consider, however briefly, its two main antecedents in Thomas' writings, that is, the *Scriptum*⁸ and the *Contra gentiles*, in their parallel parts. First, let us take the *Scriptum*. We find that one of the parallel topics, the divine unity, is discussed in book 1, distinction 2,⁹ whereas the greater part of the parallels are found much later, in book 1, dist. 8. Let us look at this latter discussion, particularly as regards Thomas' understanding of its content and order.

The topics included in the distinction are (1) the *truth* or *propriety* of the divine nature or substance or essence, (2) its *immutability*, and (3) its *simplicity*. Thomas raises the question: since there are many essential attributes of God, why does Peter Lombard mention these three only? And he answers:

[Lombard] intends to treat only those [attributes] which pertain to the perfection of the divine being (*ad perfectionem divini esse*) inasmuch as it is perfect being (*inquantum est esse perfectum*). Now, the perfection of being can be viewed from three standpoints: (1) either according as *privation* or *non-being* is excluded: and this perfection is treated through "truth" or "propriety," which here are used equivalently . . . (2) or according as *potentiality* is excluded: and for this, "immutability" is put in. (3) Or as regards the *all-inclusiveness* of being itself (*integritatem ipsius esse*): and as regards this, "simplicity" is put in: for whatever is in the simple thing is its very being.¹⁰

The sense of Lombard's "truth" or "propriety" can be seen in such statements as: "He is *truly* and *properly* called "essence" whose essence knows neither past nor future" and again: "God alone *truly is*, in comparison with whose essence *our* being (*esse*) is not."¹¹ Since Lombard uses a text of Augustine which refers explicitly to *Exodus* 3:14, concerning God's name as "I am" and "He who is," and since so much stress is put on the absence of "past" and "future" in the case of God, it is not surprising that the two "questions"¹² Thomas Aquinas provides in the *Scriptum* bear upon the divine *being* (*esse*) and on *eternity*.

Next, in keeping with the Lombard program, we have a "question" on immutability. And this in turn is followed by the treatment of *simplicity*, which

⁸ I will use "*Scriptum*" to refer to Thomas' *Scriptum super libros Sententiarum magistri Petri Lombardi*. References to this work will include the page-numbers in the edition of P. Mandonnet, vol. 1 (Paris: Lethielleux, 1929), preceded by "M."

⁹ See *Scriptum* 1.2.1.1 (M 59); but also 1.24.1.1 (M 574).

¹⁰ *Scriptum* 1.8, *expositio primae partis textus* (M 208).

¹¹ See *Scriptum* 1.8 (M 187). Notice that Peter Lombard supposes we are aware of the identity of essence and existence in God. Thus he writes: ". . . essentiam sive existentiam suae divinitatis . . ." (M 188).

¹² I use quotes to indicate that "question" here is being used in the sense of a large unit of inquiry, itself including more than one part or "article," each article posing a distinct question (in the ordinary sense), that is, a distinct query.

itself extends through *two* "questions," one on the divine simplicity and one on simplicity as found among creatures.

Here in the *Scriptum* then, while St. Thomas is restricted by the order already provided by Peter Lombard, it is of interest to watch how he undertakes to explain that order, moving from privation through potentiality to complete being. He is certainly applying lessons that could be learned from Aristotle's *Metaphysics*.¹³ Nevertheless, the selection and order of attributes is rather different from what we have in the *Prima pars*.

However, when we come to the *Contra gentiles*, Thomas himself is providing the order, and things have changed. Let us note first that in the *Contra gentiles* the conception of God which serves chiefly as the basis for demonstration of his existence has changed from what it was in the *Scriptum*. In the *Scriptum* the notion of *incorporeality* was very central to the name of God used as basis for the proof. In the *Contra gentiles* *immobility* has been featured, and it is accordingly taken as an already established condition of the divine substance. Thus, it is used as the principle for advancing from the question of God's existence to the question of his conditions or attributes. And so it is that we go first to the divine *eternity*. This sequence, *immobility* then *eternity*, will be retained in the *Prima pars*, though at a later point in the questionnaire, and we will come back to that. However, let us note that it differs from the *esse/eternity* sequence in the *Scriptum*.

In the *Contra gentiles*, after the chapter on eternity (15), chapters 16 to 27 all correspond to what will be treated in the *Prima pars* first, after the existence of God, that is, question 3: on the divine simplicity (non-composition). The questionnaire is already fairly close to that in *Prima pars*, q. 3. Next in the *Contra gentiles* comes chapter 28, on the divine perfection, just as the later *Prima pars* will treat perfection (question 4) after simplicity, and as q. 4 includes the issue of similarity to God, so *Contra gentiles* already associates similarity (ch. 29) with perfection. Chapters 30 to 36, however, contain a treatise on the divine names, something that will be left aside until qq. 12–13 in the *Prima pars*. At chapter 37 we come to the divine goodness, with an introductory remark linking it directly to chapters 28–29, on perfection. Thus, despite the interjection of the chapters on the divine names, the *Prima pars* order continues to be anticipated in the *Contra gentiles*, that is, simplicity, perfection, goodness. The treatise on goodness extends through to chapter 41. Chapter 42 is on the divine unity. This is clearly the question of there being one or many gods, just as in *Prima pars* q. 11 (that is, it is not the question of simplicity, which has already been treated). Thus, the sequence of the *Prima pars*, with "one" treated after "good," has been anticipated (not as in the *Scriptum*, where the treatment of unity precedes the treatment of

¹³ Cf. *CM* 9.10: in the edition of M. R. Cathala, entitled *In Metaphysicam Aristotelis commentaria*, 3rd edition (Turin, 1935): Marietti, #1886, where Thomas is commenting on Aristotle, *Metaph.* 9.9 (1051a18–19). All references to *CM* will include the paragraph number from this edition.

simplicity). However, in the *Contra gentiles* there is not, as in the *Prima pars*, the treatment of the divine infinity right after goodness and before unity. Rather, here in *Contra gentiles*, infinity (ch. 43) is treated *after* unity, and following infinity we immediately plunge into chapters on the divine intelligence, that is, into what in the *Prima pars* will come at question 14 and following: the move from essence to *operations*. We might add that the *Contra gentiles* does not present the doctrine of divine ubiquity until book 3, chapter 68, though when it does it derives it from the divine infinity (of power); in the *Prima pars*, ubiquity will be treated (q. 8) as an adjunct of infinity (q. 7).

One can say, however, that the general procedure to be found in *Prima pars* qq. 3 to 11 is already present in *Contra gentiles* book 1: that is, simplicity, perfection, goodness, and unity. In the *Prima pars*, infinity has been resituated after goodness and has been complemented with a question on ubiquity. Following this we have questions on immobility and eternity, and only then comes the question on unity.

THE PRIMA PARS

i) The Overall Order, questions 3–11

Let us begin by noting that the structure of the questionnaire presented in the *Contra gentiles* and retained in the *Prima pars* is in close accord with St. Thomas' presentation of Aristotle's procedure in *Metaphysics*, book 12, chapters 7 and 8. In *CM* 12, Aristotle is presented as saying that there must be a "sempiternal, immobile substance" (*CM* 12.5: 2488). He is also said to show that "in its substance, there is no potency, and that, consequently, it is immaterial" (*CM* 12.5: 2499). Let us now look at Thomas' summary of the discussions which follow that:

After the Philosopher shows that some substance is *sempiternal*, *immaterial*, and *immobile*, whose substance is *act* (*actus*), he proceeds to inquire into the condition of this same substance. And concerning this he does three things. First, he inquires about the *perfection* of this substance; secondly, concerning the *unity and plurality* of it; thirdly, concerning its *operation*. . . . Concerning the first, he does two things. First, he shows the *perfection* of the said substance; secondly, he shows that it is *incorporeal*. . . .¹⁴

One sees immediately how suggestive this is as background for St. Thomas' presentations of the divine substance. In the *Contra gentiles* 1.13, the proofs of God's existence are taken primarily from the discussions in Aristotle's *Physics* 8, showing that it is necessary that there exist an immobile origin of

¹⁴ *CM* 12.7 (2519). Notice the place of the treatment of operation in this analysis, coming after the discussion of unity. This is of interest to our present study, since in *ST* 1 we have the discussion of God's operations (q. 14) immediately following unity (q. 11), save for the interjection of qq. 12–13 on our knowledge of and naming of God.

motion.¹⁵ Thomas, in *CM*, sees Aristotle as presupposing the *Physics* discussion.¹⁶

However, what are we to make of SCG 1.18 and 19, wherein, after having seen that God is immobile, and eternal, and act only, and immaterial, we are presented with “there being *no composition*” in God (c. 18), and then with the rather unusual “nothing *violent* or foreign to his nature” in God (c. 19)? Interestingly, chapter 19 is explicitly presented under the “patronage” of Aristotle. Thomas says: “From this (that is, God’s non-composition), *the Philosopher* concludes that in God there cannot be anything violent or outside (his) nature. . . .” While no reference is given, the passage Thomas has

¹⁵ Notice, for contrast, the prominence given to *incorporeality* for the question of God’s existence in St. Thomas’ *Scriptum* 1.3.1.2 (M 94). Asking whether God’s existence is something “known by virtue of itself” (*per se notum*), Thomas decides that as to likeness and participation, God is so known: truth is his likeness, and the existence of truth is so known; however, if we are speaking of God as regards “God himself, according as he is in his own nature *an incorporeal something*” (“considerando ipsum Deum, secundum quod est in natura sua quid incorporeum”), so taken he is not a *per se notum*. Thomas illustrates the approach to God as follows: “But seeing sensible things, we arrive at God only through a process, according as these things have been caused, and that every caused thing is from some causal agent, and that the first agent cannot be a *body*; and thus we come to God only by arguing. . . .”

Earlier, in the text of Peter Lombard, Augustine is introduced with a procedure which sees that philosophers first judging that God is not a body, thus going beyond all bodies in their search for God, and then seeing that the highest God is other than whatever is changeable, and so they went beyond souls and changeable spirits. (M 80) Thomas, in presenting the argument of Augustine somewhat more systematically, concludes it with: “. . . it is necessary that there be some *incorporeal* and *immobile* and *altogether perfect* being, and this is God”; see *Scriptum* 1.3 *divisio primae partis textus* (M 89). Thus, here, corporeality, immobility, and perfection are all incorporated into what should be described as a proof of God’s existence.

¹⁶ See *CM* 12.6 (2517–18). A translation is worth including, for our present interests. (“2517) . . . he (Aristotle) concludes from what has preceded to the *perpetuity* of the *immobile mover*. For since everything which is in motion is in motion by virtue of another, as has been proved in the *Physics*; if the heaven is perpetual, and the movement is perpetual, it is necessary that there be some perpetual mover. But because in the order of movables and movers three items are found, the last of which is what is only moved, whereas the supreme among them is a mover which is not moved, while the middle item is what is moved and moves (i.e. brings movement about); it is necessary to posit some sempiternal mover which is not moved. For it was proved in *Physics* 8 that since there is no regress to infinity in movers and things moved, it is necessary to arrive at some first immobile mover; because even if one arrives at something which puts itself into motion, from this once again one must proceed to some immobile origin of motion, as was there proved. —(2518) But if the first mover is sempiternal and not moved, it is necessary that it not be a being in potency (*ens in potentia*): for a being in potency is naturally ordered to being moved (*quod est ens in potentia natum est moveri*)—but that it be a substance existent by virtue of itself (*substantia per se existens*), and that its substance be act (*et quod ejus substantia sit actus*). . . .” All of the above is St. Thomas’ exposition of a few words of Aristotle, as follows: “Est igitur aliquid et quod movet. Quoniam autem quod movetur, et movens et medium. Igitur est aliquid quod non motum movet sempiternum, et substantia, et actus ens” (*Metaph.* 12.7 [1072a23–26]). It is St. Thomas who sees the probative background as coming from the *Physics*. —I might add that this recourse to the *Physics* does not entail the conclusion that it is physics which proves the existence of the prime mover. Thomas notes elsewhere that the geometer may at times take on the role of the metaphysician (he does so when he defends the principles of his subject): see Thomas, *In Post. Anal.* 1.21 (117). So also, Thomas, commenting on Aristotle, teaches that demonstrations of both existence and essence, not merely in general, but as regards particular sorts of thing, are the proper task of the metaphysician: *CM* 6.1 (1151).

in mind seems to be *Metaph.* 5.5 (1015a33–b15). As we can see in Thomas' *CM* on that passage, wherein Aristotle is presenting conceptions of necessity, Thomas reads Aristotle as coming to the first of all necessary things, which is most properly called "necessary," and showing that it is *simple*, and concluding from this that there is in it *nothing violent* or foreign to (its) nature. He tells us Aristotle adds this point, that is, that what is simple includes nothing violent, so as to avoid a possible confusion as to what is meant in saying that there is necessity in immaterial substances (that is, someone might take "necessity" to mean "compulsion"). This issue is eliminated from the *Prima pars*, perhaps because there also has been there a noticeable fall from prominence of the Avicennian insistence on God as *necessary being*.¹⁷

But let us focus more closely on *Prima pars*, qq. 3 to 11. We begin with the prologue provided by Thomas at q. 3. Having alerted us to the fact that we will have here really to do with "how God is *not*" rather than with "how he is," he says we can do this by taking away from God those things which do not befit him, for example *composition*, *motion*, and other such things. This pair of examples is already suggestive, pointing us towards the *Physics* of Aristotle, where one begins with a presentation of the composite mobile substance and then follows with the study of motion and associated properties.¹⁸ Thomas now describes what he is about to do as follows:

Firstly, then, there will be inquiry concerning his *simplicity*, by which composition is taken away from him. And because in the realm of corporeal things simple things are *imperfect* and are parts, secondly there will be inquiry concerning his *perfection*; thirdly, concerning his *infinity*; fourth, concerning *immutability*; fifth, concerning *unity*.¹⁹

No explanation is given regarding the selection of the three last topics, but one might conjecture that they are chosen (as is obvious for immutability) as being related to motion. Only the presence of the topic "perfection" is explained, and it is treated as something of an adjunct to the treatment of simplicity, a kind of second-order negation; though God is non-composite, he is not like the non-composites we most readily know, which are imperfect.

Also, in the above list of topics, which presumably gives us our principal points for understanding the order of questions, no mention is made of qq. 5 and 6, on goodness in general and on the divine goodness. In fact, these will be introduced to us through association with *perfection*: qq. 4–5–6 form a group unto themselves, to such an extent that q. 7 is introduced with the

¹⁷ I do not wish to say that God's being a supremely necessary being has been eliminated. There is obviously the deliberate insertion into the five ways of the third way on just this aspect of God: see my paper "The Number and Order . . ."; also my "The Distinctiveness of St. Thomas' Third Way," *Dialogue* 19 (1980) 201–218.

¹⁸ See Thomas Aquinas, *In octo libros Physicorum Aristotelis expositio*, ed. P. M. Maggiolo (Rome/Turin, 1954; Marietti, 3.1 [#276–277]), concerning Aristotle, *Physics* 3.1 (200b12–25). Henceforth, this work of Thomas will be cited as "*In Phys.*"

¹⁹ ST 1.3 prologue (ed. Ottawa, 15a37–43).

words: "After consideration of the divine *perfection*. . . ." Indeed, we might well say that qq. 3–6 constitute a particular group.

If we go on to q. 7, on the divine *infinity*, we find that it too has an associated question, q. 8, "concerning the existence of God *in things*."²⁰ Similarly, q. 10, on the divine *eternity*, is presented as "following upon" immutability.²¹ Lastly, q. 11, on the divine *unity*, is introduced with the laconic: "After the foregoing, the divine unity is to be considered."

Let us, then, look more closely at particular groups.

ii) Questions 3 to 6

We have already noted that q. 3, on simplicity or non-composition, is seen by Thomas as requiring the accompanying discussion of divine perfection, lest we confuse the divine simplicity with the simplicity we find in those beings which are better known to us than is the divine substance.²² By way of further reflection on this location of the topic "God is perfect" between "God is simple" and "God is good," I wish first to return to Thomas' reading of Aristotle's *Metaphysics*. It is remarkable that in book 5 Thomas understands the list of words explained as ordered in accordance with the doctrine of the *Posterior Analytics*. Thus he says:

Now, it belongs to every science to consider the subject, and the properties (*passiones*), and the causes; and so this fifth book is divided into three parts. . . . Thirdly, [Aristotle treats] of the names which signify the properties (*passiones*) of that-which-is, there (where he says) "Now, 'perfect' is said, etc."²³

In other words, he sees the chapter on "perfect" as the first of those which, after the treatment of the subject of the science, begin to treat of what pertains to the properties of that subject. This assessment of the book's order is repeated when we come to Thomas' lesson (*lectio*) 18, treating Aristotle's chapter 16, on the term "perfect." We read:

After the Philosopher has distinguished (one from another) the names which signify the causes, and the subject, and the parts of the subject of this science, here he begins to distinguish the names which signify those which have the character of property (*passio*). and it is divided into two parts. First, he distinguishes the names which pertain to the *perfection* of that-which-is. In the second part, he distinguishes the names which pertain to the deficiency of that-which-is etc.²⁴

²⁰ ST 1.7 prologue.

²¹ ST 1.9 prologue: ". . . de immutabilitate et aeternitate divina, quae immutabilitatem consequitur."

²² An interesting text of St. Thomas in this regard is to be found in CM 1.12 (188).

²³ CM 5.1 (749). On St. Thomas' general approach to book 5, see Ralph McNerny, "The Nature of Book Delta of the *Metaphysics* According to the Commentary of St. Thomas Aquinas," in *Graceful Reason*, ed. Lloyd P. Gerson (Toronto: Pontifical Institute of Mediaeval Studies, 1983), pp. 331–343.

²⁴ CM 5.18 (1033).

Thus, Thomas seems to relate “perfection” and “the perfect” to what is immediately added to a thing’s substantial being. In this connection we might note what he says himself when explaining the notion of “passio”—let us translate it as “undergoing.” He tells us:

“Undergo” (or “suffer”; Latin: *pati*) is said in three ways. In one way, broadly, and thus every receiving is an undergoing, even if nothing is taken away from the thing: as if it be said that the air “undergoes” (illumination) when it is lit up. However, this is more properly “to be *perfected*” than “to undergo” . . . [The soul is said “to undergo”] according to pure reception, as when it is said that to sense and to understand are a sort of “undergoing.”²⁵

Here Thomas seems to be telling us that he would prefer “perfectio” to “passio” for the general description of what is added immediately to the subject by way of positive improvement or completion.

If we return to *Metaphysics* 12, and Thomas’ *CM*, we remember that Thomas, seeking to explain Aristotle’s procedure in chapter 7, puts it all under the umbrella of “perfection.” Aristotle, having presented the prime mover as substance and act, explained that it brings motion about as does an object of appetite and intelligence, and that it is in a state of highest enjoyment and life, being perfect and incorporeal (having infinite power). Aristotle, Thomas tells us, is here treating of the *perfection* of the “eternal, immobile, and immaterial” substance, “whose substance is act.”

Aristotle himself uses the word “perfect” only towards the end of the chapter, in criticizing the Pythagoreans and Leucippus, in a passage referred to by Thomas as *Prima pars* 4.1. One could easily say that Aristotle is presenting God as “good” or as “the best.” Thomas favors the concept of perfection here.

We can note also that Aristotle’s chapter 7 concludes with the discussion of God as having infinite power and no magnitude. This is a key to Thomas’ following qq. 4–6 with q. 7, on just those topics, that is, the “incorporeality” Thomas sees Aristotle talking about is not exactly God not being “a body,” in the substantial sense, but not having magnitude as an attribute or property.

In general, to this point it appears that St. Thomas, in the *Prima pars* and already in the *Contra gentiles*, sees himself as first presenting the divine being or substance, and then as presenting the scientifically discerned properties or perfections of that being. Such perfections are not, of course, really distinct from the divine being.²⁶

Let us look further into Thomas’ simple/perfect/good triad as found in qq. 3–6.²⁷ A good indication of the rationale here is to be found in q. 5, art. 4.

²⁵ ST 1–2.27.1.

²⁶ See ST 1.44.4.ad 4.

²⁷ G. Lafont, *Structures et méthode dans la Somme théologique de saint Thomas d’Aquin* (Paris: Desclée de Brouwer, 1961), p. 46, n. 3, says that Thomas’ simplicity/perfection/goodness triad is without parallel in the scholastic tradition. He comments that it brings

Asking to which of the notions of the level of causality the notion of "the good" is to be related, Thomas answers quite directly that the notion of the good being "that for which all have appetite," and this evidently involving the notion of "goal" (*finis*), it is evident that "the good" conveys the idea of the goal. However, he does not leave it at that. Rather, he launches into a fairly elaborate presentation of the relations among the causes. He is developing for us a conception of the goodness characteristic of the *caused thing*. He is doing this, moreover, to make a point about the *notion (ratio)* of "the good," that is, the very intelligibility expressed by that word. He teaches that "the good," while evidently conveying final causality, *presupposes* the idea of the efficient cause and the idea of the formal cause. In fact, it should be remarked, Thomas is using somewhat overexpressive language here by employing the word "cause" concerning the presupposed notions. Strictly speaking, as he makes clear in this very context and elsewhere, the very idea of "cause" has its intelligible source in final causality, and so the idea of final causality cannot presuppose the ideas of efficient and formal causality. What he is really saying here is that the idea of the *thing* which will eventually be conceived as efficient cause and idea of the *thing* which will eventually be conceived as formal cause must be presupposed to the idea of the good and the final cause. Unless we consider a thing as having form and as having effective power (reproductive power), we will not arrive at the view of it as *good*.

Here is how he argues the point. We see that that which is *first* in the causing (*in causando*) is *last* in the caused thing. For example, an active substance, fire, first brings about the quality of warmth in the bodies it affects, and only subsequently sets them on fire; whereas in the agent, that is, the fire, the quality of warmth *follows* upon the substantial form whereby the fire is fire. Thomas applies this principle to the levels or modes of causality themselves. What is found first in the causing is the good and the goal: this is what "moves" the efficient cause to act. Secondly, there is the action of the efficient cause, moving the matter towards the form. Thirdly, the form arrives. (Notice, we are here in the domain of "happenings," causal events [*in causando*].) Thus, says Thomas, in the caused thing it must be the case that there is first the *form*, through which the thing is a being (*ens*); secondly, there is to be considered the *effective power (virtus effectiva)*, by virtue of which the thing is *perfect in being (perfectum in esse)*, since, adds Thomas, each thing is then perfect, namely, when it can reproduce its like (a reference to Aristotle's *Meteors*); and thirdly, there comes along the intelligible aspect

forth a profound theological view of God (" . . . n'a pas a notre connaissance son équivalent dans la tradition scholastique, et qui dégage une vue profondément théologique de Dieu." He does not say anything about its philosophical background.

expressed by "the good," the very *raison d'être* for which perfection is conferred on the being.²⁸

By using the technique of *in causando* and *in causato* "in the caused thing" here, Thomas seems to me not merely to be getting at the fact that he is talking about the good as found in caused things, but at the fact that the things we know have the duality of being and operation, and that the intelligible line of being must be presupposed to the intelligible line of event or operation.

Thus, what we have in the article is precisely the rationale for presenting first a meditation on the divine *form* (q. 3), secondly on the divine *reproductive power* (q. 4), and thirdly on the divine *goodness* (qq. 5 and 6). Thomas sees this as the appropriate sequence of considerations, the inevitable order of intelligibility for *any being*. The ideas of form and reproductive power constitute the dispositions of the mind leading to the "birth" of the idea of the good.²⁹

From the viewpoint of Aristotelian tradition, then, we see that qq. 3 to 6 exhibit the doctrine of the three causes (that is, those of the four which are compatible with the divine perfection). We see also the Aristotelian background, within q. 4, not merely for articles 1 and 2, each of which begins its main reply with an explicit reference to the *Metaphysics*, but for article 3, the inquiry into the possibility of God (re)producing effects which are *like* himself (*Meteors*). More could be said here about the prominence of the doctrine of God as *efficient cause* in q. 4, but we will forego that for the sake of brevity.³⁰

iii) Questions 7 to 10

We have already seen an invitation from Aristotle to discuss the divine infinity and its relation to corporeal magnitude in the context of the divine perfection and goodness. I wish now to suggest an Aristotelian rationale for Thomas' organizing of the sequence: infinity, immobility, eternity. These correspond to the positive items: magnitude, motion, and time. This latter sequence is prominent in St. Thomas' discussion of Aristotle's definition of

²⁸ ST 1.5.4. The reference to Aristotle is to *Meteor.* 4.3 (380a12). For more on this article, see my paper "St. Thomas and the Causality of God's Goodness," *Laval théologique et philosophique* 34 (1978) 291-304.

²⁹ The locating of the idea of the perfect between that of a being and its being good, where the perfect concerns reproductive power, is related to, though not identical with, the doctrine that first we apprehend "a being," then "something true," and thirdly "something good." (See ST 1.16.4.ad2); that is, the idea of the true is seen when one sees the proportion between primary being and its representation. So also the idea of *reproductive power* includes the notion of representation.

³⁰ I am here thinking of CM 5.18 (1035-1038), on the relation of "the perfect" (*perfectum*) to quantity of power (*quantitas virtutis*). Thomas reads Aristotle as presenting two meanings of "the complete" or (one might say) "that which is *all there*," as referring to the *interior* perfection of a thing. The one has to do with quantity (in the ordinary sense), while the other has to do with *virtus*, the strength proper to a nature.

time,³¹ as “the number pertaining to motion according to the prior and the posterior.” Thomas presents Aristotle as teaching that the “prior and posterior” pertaining to motion and time is found in motion, that is, in motion’s *substance*, but not because of the very *essence* of motion. The very essence or proper intelligibility of motion is that it be “the act of what exists in potency.” On the other hand, that there be found in motion “the prior and the posterior” is something that occurs to or happens to motion, something stemming from the order of parts of *the magnitude*, that is, the extendedness of the *bodies* in and amidst which the motion takes place. Hence, the “prior and posterior” is one in *subject* with the motion but is something *essentially distinct* from it. And thence arises the question: since time follows upon motion, does it follow upon it precisely inasmuch as motion is motion, or inasmuch as motion has “the prior and the posterior” in it?³² The answer is that time follows upon motion inasmuch as motion has in it the “prior and posterior.” This answer is arrived at by considering that the inseparability of motion and time was seen by noting that the two are known together; it is then pointed out that we are conscious of the passage of time precisely to the extent that we distinguish in a motion priority and posteriority.³³

It is important to note an objection and reply introduced by St. Thomas in connection with the definition of time as “number of motion according to the prior and posterior.” Are not “the prior and posterior” determined *by time*, and do we not then have a circular definition? Thomas answers that “the prior and the posterior” are placed in the definition of time according as they are *caused in motion by magnitude* and *not* according as they are *measured by time*. Thomas says that it was precisely to exclude such an objection that Aristotle showed that the “prior and posterior” are in *magnitude* by priority relative to *motion*, and are in motion by priority relative to *time*.³⁴ This shows us how wrong we would be to use such terms as “before” and “after” in place of “prior” and “posterior” in the definition of time. “Before” and “after” presuppose the notion of time (unless, perhaps, in such special uses as referring to the “aftermost” part of a ship, or “placing the food before him,” and so forth³⁵). “Prior” and “posterior,” by virtue of their generality, can serve to point out the features of corporeal magnitude itself to which we mean to refer.

At any rate, these comments by Thomas on Aristotle allow us to appreciate the extent to which Thomas saw the magnitude/motion/time sequence as

³¹ *In Phys.* 4.17 (576–580). Aristotle gives his definition at *Phys.* 4.11 (219b2).

³² *Ibid.* (578).

³³ *Ibid.* (579).

³⁴ *Ibid.* (580).

³⁵ It might be noted, nonetheless, that *The Concise Oxford English Dictionary*, 5th ed. (Oxford: Clarendon Press, 1964), concerning “after,” gives first “behind in place” and then, secondly, “later in time.” One notes, however, that the examples for “behind in place” are a bit archaic: namely, “Jill came tumbling after” and “look before and after.”

one possessing a strictly intelligible coherence.³⁶ Moreover, it is a sequence upon which Aristotle himself is seen by Thomas to have insisted.

CONCLUSION

Though *CM* is a later work, it would seem, than the *Prima pars*, doubtless it sufficiently reflects St. Thomas' general understanding of *Metaphysics*, books 12 and 5, to serve in the way that we have used it to aid in our analysis of the *Contra gentiles* and *Prima pars*. In the *Contra gentiles* St. Thomas began a reform of the order of notions to be considered in thinking about God. Distancing himself from Peter Lombard, he took as his model the sequence of notions he saw in Aristotle's *Metaphysics* 12. He brought the reform to completion in the *Prima pars*.

In *CM* 12, we have : non-composition, perfection (with goodness and infinite power), and unity. In the *Contra gentiles* we have: non-composition, perfection, goodness, unity, and infinity. In the *Prima pars* we have: non-composition, perfection (with goodness and infinity), and unity. Obviously, in carrying out this project, Thomas is not merely aping Aristotle. Rather, he is expressing his approval of what he saw as Aristotle's correct reading of man's scientific and sapiential pathway.

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³⁶ Concerning the linking of the notions of magnitude and *place*, in relation to the following of q. 7 by q. 8, on the divine ubiquity or omnipresence, see the intimate relation between *magnitudo* and *locus* in such a text as *In Phys.* 4.17 (577).

Philosophy and Theology in Roger Bacon's *Opus maius*

Jeremiah Hackett

The aim of this paper is to present a clear view of the correlation of philosophy and theology in Roger Bacon's *Opus maius*.¹ My main argument will deal with the explicit treatment of this topic by Roger Bacon in *Opus maius*, part two, and any reference to related topics elsewhere in that work will be treated in the notes.

At the beginning of *Opus maius* VII, entitled *Moralis philosophia*, Bacon remarks:

The five aforementioned sciences (philosophy) are concerned with the same subject matter as theology, although in a different manner, namely in the faith of Christ. This science, moreover, contains much clear testimony concerning the same faith, and from a distance recognizes the principal truths in a great assistance of the Christian faith, as the following [testimonies] will declare. But theology is the noblest of the sciences. Therefore, that science which is most closely related to it is the nobler science among the other sciences.²

¹ Roger Bacon, *Opus maius*, ed. John Henry Bridges, vols. 1 & 2 (Oxford: Clarendon, 1897); vol. 3 (London & Edinburgh: Williams and Northgate, 1900).

² *Rogeri Baconis Moralis Philosophia*, ed. Eugenio Massa (Zurich: Thesaurus Mundi, 1953), p. 4: "Ceterum, de eisdem negotiatur hec sola sciencia vel maxime, de quibus theologia: quia theologia non considerat nisi quinque predicta, licet alio modo, scilicet in fide Christi, quamquam et hec sciencia multa preclara testimonia de eadem fide continet et a longe articulos principales olfacit in magnum adiutorium fidei christiane, ut sequencia declerabunt. Sed theologia est scienciarum nobilissima; ergo illa, que maxime convenit cum ea, est nobilior inter ceteras."

Moral science, then, for Bacon, is the noblest of the philosophical sciences, and therefore it is the philosophical science which is closest to theology.

One might see the whole *Opus maius* as Bacon's synthesis of philosophy and religion: that is, Bacon, having worked out an explicit interrelation of philosophy and theology in *Opus maius* part two, examines the relation of the other sciences, namely languages, mathematics, optics and experimental science, to theology in later sections of his great work.³ He gives structure and finality to the whole enterprise by an examination of the *preambula fidei* in the six sections of the *Moralis philosophia*.⁴

Bacon's understanding of the relation of philosophy to theology is based on his theory of truth. He holds that the revelation given in the Scriptures is the one source of all truth. He says:

I wish, in this second distinction, to point out that there is one perfect wisdom, from whose roots all truth branches out. I say, therefore, that one science is the mistress of the others, namely, theology, to which the remaining sciences are completely necessary, and without which it is not capable of reaching its fulfillment. Theology claims the strength of these sciences for her own law, to whose nod and rule the other sciences subordinate themselves. Or better, there is one perfect wisdom, which is totally contained in Sacred Scripture, and which ought to be unfolded through Canon Law and Philosophy.⁵

In this manner, Bacon places philosophy alongside canon law as the means by which the truth of Scripture is to be unfolded. Wisdom is presented as a way to salvation, and philosophy as a doctrine of wisdom is subordinated to the wisdom of Scripture, and by implication to theology.

According to Bacon, the natural law (*lex naturalis*) is contained in the Scripture. Canon law, since it is derived from Scripture, is not different from divine law. And the common law (*ius commune*) is both divine and human. It is divine because it has been revealed by God to the world in Scripture and it is human to the extent that it has been discovered by the human mind.

³ The whole of the *Opus maius*, including the book length *Moralis philosophia*, takes up the entire working out of the relation of philosophy and the sciences to theology. *Opus maius*, part two, sets out the foundation for the remainder of the work.

⁴ For an examination of parts one and two of *Moralis philosophia* see my "Practical Wisdom and Happiness in the Moral Philosophy of Roger Bacon," *Medioevo* 12 (1986) 55-109. For a study of parts five and six, see my "Moral Philosophy and Rhetoric in Roger Bacon," *Philosophy and Rhetoric* 20.1 (1987) 18-40.

⁵ *Opus maius* 3.2.36: ". . . volo in hac secunda distinctione ostendere unam sapientiam esse perfectam et hanc in sacris literis contineri de cuius radicibus omnis veritas exivit. Dico igitur quod vel est una scientia dominatrix aliarum, ut theologia cui reliquae penitus sunt necessariae, et sine quibus ad effectum perveniri non valet, quarum virtutem in suum jus vindicat, ad cuius nutum et imperium caeterae subjacent. Aut melius, una est tantum sapientia perfecta, quae in sacra scriptura totaliter continetur, per ius canonicum et philosophiam explicanda."

It would appear then that Bacon has completely abolished philosophy as an independent, autonomous discipline by taking it up into theology in so complete a manner. This, however, would be an extreme interpretation, since it would ignore the positive evaluation of philosophy by Bacon. As we will see, he requires that philosophy be an indispensable factor in the study of theology.

The reader of *Opus maius* II will note one central influence, that of St. Augustine. The treatment of the relation of the sciences and philosophy to theology is based firmly on Bacon's reading of *De doctrina christiana* and *De civitate Dei*.⁶ Moreover, the reader cannot but recognize the polemic in all of this use of St. Augustine. The appeal to divine illumination as the source of truth is linked with the claim by Bede that "Christians may apply as their own to divine matters whatever is useful in the liberal sciences."⁷

The theme of divine illumination and its importance as the foundation of truth is developed by Bacon in the first seven chapters of *Opus maius* II. Yet, the context of Bacon's use of the Augustinian doctrine is quite different from Augustine's problems. It constitutes an attempt by Bacon to interpret the Aristotelian doctrine of the agent intellect in such a way that Augustinian, Arabic, and Aristotelian elements are harmonized. Moreover, it leads Bacon into a vitriolic attack on those theologians and philosophers who would defend the position that the agent intellect is a *pars animae*. With evident reference to the problem of double truth and to the polemics at the University of Paris in the 1260's, Bacon remarks:

For the human soul is called possible by them [the philosophers] because it has of itself the capacity for science and virtues and receives these from another source. The active intellect is the one which flows into our minds, illuminating them in regard to knowledge and virtue. . . . And thus, the active intellect according to the greater philosophers, is not a *pars animae*, but it is an intellectual substance different and separated essentially from the possible intellect. And since it is necessary for the persuasion of my position to show that philosophy exists through the influence of Divine Illumination, I desire to prove this point conclusively, especially since a grave error has invaded the rank and file of philosophers in this particular matter, and has also invaded a large number of theologians. For what a man is in philosophy, that he is proved to be also in theology.⁸

⁶ Bacon derives his understanding of the arts in relation to theology from *De doctrina christiana*. See David C. Lindberg, "Science as Handmaiden: Roger Bacon and the Patristic Tradition," *Isis* 78 (1987) 518-536. Bacon, however, relies on *De civitate Dei* for his schema of a history of philosophy.

⁷ *Opus maius* 3.2.44: "Et Beda super librum Regum dicit quod liberalium scientiarum utilia quasi sua sumere licet Christianis ad divinis."

⁸ *Ibid.*, 45: "Anima vero humana dicitur ab eis possibilis, quia de se est in potentia ad scientias et virtutes et eas recipit aliunde. Intellectus agens ab actu intelligendi, tamen sumendo intellectum agentem, ut ipsi sumunt, vocatur influens et illuminans possibilem ad cognitionem veritatis. Et sic intellectus agens, secundum majores philosophos, non est *pars animae*, sed est substantia intellectiva alia et separata per essentiam ab intellectu possibili. Et quia istud est necessarium ad propositi persuasionem, ut ostendatur quod philosophia sit per influentiam divinae illuminationis, volo istud efficaciter probare, praecipue cum magnus error

Again, Bacon drives home his point, and claims not only the authority of Aristotle and his Arabic interpreters for his position, but also maintains that all the learned experts among the Christians hold the same doctrine. He claims:

Since, therefore, this opinion is in agreement with the truth, and the text of the Philosopher evidently indicates this, and his chief expositors declare it in this form, and these words have been accepted by the Philosopher and not by the Sacred Writers, it is far better in accordance with the opinion of the Philosopher to speak of the active intellect as a substance separate from the soul in essence. For the expert in philosophy has no doubt that this is his opinion, and on this point all the learned experts of the past are in agreement. For when the University of Paris was convoked, I twice saw and heard the Venerable Chancellor, Master William, Bishop of Paris, of blessed memory, in the presence of all teach that the agent intellect cannot be a *pars animae*. And Master Robert, Bishop of Lincoln, and Brother Adam Marsh, and greater clerics of this rank, upheld the same view.⁹

In all of this polemic, Bacon feels that it is necessary to defend his particular interpretation of the notoriously difficult Aristotelian texts on the agent intellect by an appeal to great theological writers and especially by an appeal to St. Augustine. He continues:

And thus it does not follow in any way that the agent intellect is a *pars animae* as the common run of philosophers think. And this teaching is altogether trustworthy and is confirmed by the sacred writers. For all theologians know that Augustine says in his *Soliloquies* and elsewhere that the rational mind is subject to God alone in its illuminations and in all important influences. And although angels may cleanse, illumine and arouse our minds in many ways, and though they may be to our minds like stars to the eyes of the body, yet Augustine ascribes to God the principal influence, just as to the sun is ascribe the flow of light falling through the window, and the angel is compared to one opening the window, as Augustine states in his gloss on the Psalm, "Give me Understanding." And what is more he maintains that we do not learn any truth except in the uncreated truth and in eternal laws, and this at least has to be understood to denote the effect and

invaserit vulgus philosophantium in hac parte, necnon multitudinem magnam theologorum, quoniam qualis homo est in philosophia, talis in theologia esse probatur."

⁹ Ibid., 47: "Cum ergo haec sententia sit consona veritati, et textus Philosophi hoc evidenter praetendat atque ejus expositores maximi ipsum sub hac forma declarant, et haec verba agens et possibilis sunt a Philosopho non a Sanctis accepta, longe melius est secundum Philosophi sententiam agentem intellectum penitus dicere substantiam separatam ab anima per essentiam. Non enim est dubium experto in philosophia quin haec sit sua sententia, et in hoc omnes sapientes antiqui experti concordant. Nam Universitate Parisiensi convocata, bis vidi et audiivi venerabilem antistitem dominum Gulielmum Parisiensem Episcopum felicitis memoriae coram omnibus sententiarum quod intellectus agens non potest esse pars animae. Et dominus Robertus Episcopus Lincolnensis et frater Adam de Marisco et hujusmodi majores hoc idem firmaverunt." For a study of this and related texts, see my "Scientia experimentalis: From Robert Grosseteste to Roger Bacon," *Proceedings of the Warburg Institute Grosseteste Symposium (May 1987)*, ed. James McEvoy (forthcoming).

influence of the truth on us. Augustine maintains this position, although he hints at something else in his words. For this reason, some have believed that he is thinking here of greater matters, as is generally known. All this is evidence of the fact that the active principle illuminating and influencing the possible intellect is a separate substance, that is God himself. Since, therefore, God has illumined the minds of those men in perceiving the truths of philosophy, it is evident that their labor is not opposed to the divine wisdom.¹⁰

If philosophy is aided by divine illumination, what, for Bacon, is the goal of philosophical knowledge? That goal, for Bacon, consists of a *reductio artium ad theologiam*, not unlike that of St. Bonaventure. As Bacon puts it:

But the whole devolution of philosophy consists in this: through the knowledge of the creature, one knows the Creator. . . . For speculative philosophy reaches up to the knowledge of the Creator through creatures, and moral philosophy establishes the honesty of morals, just laws and the worship of God. And it makes a useful and worthy argument about future happiness, in so far as that is possible for philosophy. These things are certain to those who go through all principle parts of philosophy, as the following account will show. Since, therefore, these things are entirely necessary for Christians and utterly consonant with the wisdom of God, it is evident that philosophy is necessary for divine law and for the faithful who glorify it.¹¹

This very succinct statement by Bacon sums up his views on the purpose of philosophy: it is a preamble or propaedeutic to theology. The practical goal of philosophy is a knowledge of things in this world leading to a knowledge of God and the creation of a just and peaceful society on earth which

¹⁰ *Opus maius* 3.2.48–49: “Et sic nullo modo sequitur quod intellectus agens sit pars animae, ut vulgus fingit. Et haec sententia est tota fidelis, et a sanctis confirmata. Sciunt enim omnes theologi, quod Augustinus dicit in *Soliloquiis* et alibi, quod soli Deo est anima rationalis subjecta in illuminationibus et influentiis omnibus principalibus. Et quamvis angeli purgant mentes nostras et illuminent et excitent multis modis, et sint ad animas nostras sicut stellae respectu oculi corporalis, tamen Augustinus ascribit Deo influentiam principalem sicut soli influentia luminis cadentis per fenestram ascribitur, et angelus aperienti fenestram comparatur, secundum Augustinum in glossa super illud Psalmi, ‘Da mihi intellectum.’ Et quod plus est, vult pluribus locis quod non cognoscimus aliquam veritatem nisi in veritate increata et in regulis aeternis, et hoc saltem habet intelligi effective et per influentiam licet Augustinus non solum hoc velit, sed aliud innuit in verbis suis, propter quod quidam posuerunt eum majora hic sentire, ut scitur communiter. Quae omnia attestantur in hoc quod agens principale illuminans et influens intellectum possibile est substantia separata, hoc est ipse Deus. Cum igitur Deus illuminaverit animas eorum in percipiendis veritatibus philosophiae, manifestum est quod eorum labor non est alienus a sapientia divina.”

¹¹ *Ibid.*, 51: “Caeterum et totus philosophiae decursus consistit ut per cognitionem creaturae cognoscatur Creator, cui propter reverentiam majestatis et beneficia creationis et conservationis et futurae felicitatis serviatur in cultu honorifico et morum pulchritudine et legum utilium honestate, ut in pace et justitia vivant homines in hac vita. Philosophia enim speculativa decurrit usque ad cognitionem creatoris per creaturas, et moralis philosophia morum honestatem, leges justas et cultum Dei statuit, et persuadet de futura felicitate utiliter et magnifice secundum possibile philosophiae. Haec sunt certa discurrentibus per omnes partes philosophiae principales, sicut sequentia docebunt. Cum igitur haec sint omnino necessaria Christianis et omnino consona sapientiae Dei, manifestum est quod philosophia necessaria [est] legi divinae et fidelibus in ea gloriantibus.”

will be a foretaste of future happiness. Philosophy and science open up the material, formal, and efficient causes of natural events. Divine wisdom illuminates the ultimate purpose of natural and human events. As an example of this, Bacon gives a brief account of the causality of the rainbow, which he will later examine in *Opus maius* VI. In the latter, he will give a causal-scientific account of the material, formal and efficient causes of the rainbow. Here, he will argue that even the great philosophers and scientists who added to our knowledge of these causes were deficient about the ultimate significance and purpose of the rainbow. From Scripture, according to Bacon, we learn that the purpose of the rainbow was to glorify God. In this, Bacon is setting a limit to the competence of philosophical and scientific knowledge. One cannot know the meaning of Scripture without a divine illumination. And created things are mentioned in Scripture to lead to a knowledge of God which is hidden from Philosophers. "And so they [the philosophers/scientists] do not come to the ultimate power of wisdom of created things such as the Sacred Scripture contains in its depths."¹²

This self-limitation of philosophy on Bacon's part would no doubt be rejected by anyone who believed that philosophy and science is absolutely self-sufficient: that is, that academic philosophy and science contains the last word on the meaning of human life to the exclusion of poetry, common sense and fundamental beliefs about forms of life and worldviews. It also raises difficult issues about the history of philosophy as a history of wisdom. Could, for example, a *reductio artium ad theologiam* become narrow and self contained? Could the establishment of a particular "philosophy" as the normative Christian Philosophy become an ideological tool in which true science and religion would become impossible? Could the intellectual riches of antiquity become mangled in a narrow ecclesiasticism which would exclude the great philosophical wisdom from Aristotle to Virgil? In a word, could a "theologism" develop in which philosophy and science would be a convenient but dismissible slave? Or indeed, could a "philosophism" develop in which the very possibility of a fundamental decision in favor of a religious commitment would be legislatively forbidden? Could a narrow minded intellectualism, equally as blind as a narrow theologism, demand that Wisdom be set within the narrow psychological boundaries of the latest experience?

These questions and issues arose in the context of Bacon's remarks in *Opus maius* II. And it is a sign of the breadth of Bacon's vision that he faced up to them and tried to present a coherent answer to these issues. In many respects, Bacon's answer was much more mature than that prejudice, which began to dominate in later centuries and which, especially in its expression in

¹² *Opus maius* 3.2.53: "Nam creaturae accipiuntur ibi propter veritates gratiae et gloriae eliciendas, quas philosophi nesciverunt. Et ideo ad potestatem ultimam sapientiae creaturarum non venerunt, sicut sacra scriptura eam in suis continet visceribus."

some European philosophers, set the tone for much narrow thinking in the humanities.¹³

Any thinking person who believes in Deity and who is equally committed to upholding the autonomy of science and philosophy must equally oppose a narrow ecclesiasticism and a narrow minded scientism. The latter can be as dogmatic as the former. Wisdom, however, is not a respecter of persons, and wisdom in its history transcends the narrow limits of genres, types, styles of thinking. Following the tradition set out by Philo Judaeus, Bacon offered a correlation of the Greek tradition of wisdom (philosophy) and the tradition of wisdom found in Judaism, Islam, and Christianity. And although he does reflect the common medieval religious polemics, his appreciation of the positive aspects of religious and philosophical belief in Judaism and Islam is stated.

In order to maintain that the revelation of wisdom given to the world was not the sole patrimony of any one race, Greek or otherwise, Bacon followed the tradition of Philo in presenting the view that the ancient Hebrews were granted a revelation not only of matters purely religious but also of philosophy. Central to this view is the belief that there is a universal wisdom which is required for the common happiness and peace of mankind.

Bacon's account of the History of Wisdom is derived mainly from the *De civitate Dei* of St. Augustine. However, influences such as Abu Mashar's *Introductorium maius* and Josephus' *Antiquities* among other works enable Bacon to qualify and interpret Augustine's history of wisdom.¹⁴

In brief, then, it was Bacon's view that God revealed all wisdom to his prophets, and illumined them. Subsequent philosophers, Indian, Persian, Greek and Latin, received from the Hebrews the beginning and origin of philosophy. Further, Bacon makes a fundamental distinction. All wise men will take up and develop the broad history of wisdom from these sources. Only the narrow rank and file of philosophers and theologians will limit the history of wisdom to the detriment of both philosophy and theology. This is not the place to give a detailed source-analysis of Augustine's and Bacon's history of

¹³ One thinks of the tradition beginning with Feuerbach and which continues up to modern atheistic existentialism for which the "Death" of God inevitably leads to the freedom of man. For a clear account of the internal atheism of this tradition, see Patrick Masterson, *Atheism and Alienation* (Dublin, 1972). That this "Promethean" tradition had its medieval prehistory will be shown below. The inability of modern philosophy to keep open any tension between temporal and eternal inevitably leads to a proscription of any language about deity. And in terms of a monotheism, it leads to the "idolatry" of contingent, ambiguous, fallible human being. Such a proscription has no place in philosophy: it belongs to the rhetoric of the dictator. It is precisely the task of philosophy to hold open the tension between the temporal and eternal, the sacred and profane. And when philosophy oversteps the "limits of reason," then, it has already ushered in the rule of force. In all this, it should be noted that philosophy can say very little about the eternal as such. One impinges here on the limits of language. But without a firm affirmation of the distinction of temporal and eternal, it is difficult to see any role for philosophy other than as a "rationalization" of the latest world-view.

¹⁴ In general, Bacon uses Josephus and Abu Mashar to corroborate and extend the positions which he finds in Augustine.

philosophy.¹⁵ However, one important item is addressed by Bacon. And it needs to be mentioned.

Bacon gives an account of the history of wisdom from the sons of Noah, who taught the Chaldaens, down to Solomon, who renewed the tradition of wisdom. The Egyptians and especially the Greeks, "because they were more studious," received and perfected the tradition of wisdom. In his account, Bacon concludes that although Plato came to the same knowledge of God as did the Hebrews, including a knowledge of God's name ("I am who I am"), the one who purged the errors of all previous philosophy was Aristotle! He was The Philosopher. Bacon remarks:

Aristotle, on the testimony of all great philosophers, is the greatest of them all, and that alone must be ascribed to philosophy which he himself affirmed. Whence at the present time, he is called by the title Philosopher in the realm of philosophy, just as Paul is understood by the title Apostle in the doctrine of Sacred Wisdom. But the larger portion of the philosophy of Aristotle received little attention either on account of the concealment of the copies of his work and their rarity, or on account of their difficulty, or unpopularity, or on account of the wars in the east, until after the time of Mahomet, when Avicenna and Averroes and others recalled the philosophy of Aristotle to the light of full exposition. Although only some of his works on Logic and certain others have been translated from the Greek by Boethius, yet, from the time of Michael Scotus, whose translations with authentic expositions of certain parts of Aristotle's works on Natural Philosophy and Metaphysics appeared in the year of our Lord 1230, the philosophy of Aristotle has grown in importance among the Latins. . . .¹⁶

¹⁵ Bacon's general account of the genesis of philosophy has one evident parallel, namely, the account in book one of the Pseudo-Grosseteste, *Summa philosophiae*. The latter work is thought to have been written in the 1260's or later and to have strong influences from Bacon's school. A comparison of both accounts of the origins of philosophy will be presented in another place.

¹⁶ *Opus maius* 3.2.67: "Hic omnium philosophorum magnorum testimonio praefertur philosophis et philosophiae adscribendum est illud solum quod ipse affirmavit. Unde nunc temporis antonomastice PHILOSOPHUS nominatur in auctoritate philosophiae, sicut Paulus in doctrina sapientiae sacrae APOSTOLI nomine intelligitur. Quievit autem et siluit philosophia Aristotelis pro majori parte, aut propter difficultatem, aut propter invidiam, aut propter guerras Orientis, usque post tempora Machometi, quondo Avicenna et Averroes et caeteri revocaverunt philosophiam Aristotelis in lucem plenae expositionis. Et licet aliqua logicalia et quaedam alia translata fuerint per Boetium de Graeco, tamen a tempore Michaelis Scoti, qui annis Domini 1230 transactis apparuit deferens librorum Aristotelis partes aliquas de Naturalibus et Metaphysicis cum expositionibus authenticis, magnificata est philosophia Aristotelis apud Latinos. Sed respectu multitudinis et magnitudinis sapientiae suae in mille tractatibus comprehensae, valde modicum adhuc in linguam Latinam est translatum, et minus est in usu vulgi studentium." Note: The latter remark about the use of Aristotle among the generality of students ought to be taken seriously. Such remarks coupled with the remarks of Albertus Magnus in his *Physics* inform us that the likes of Albertus, Bacon, and Aquinas had to fight much uninformed prejudice to see to it that philosophy of the calibre of an Aristotle be given its rightful place. The uninformed "modernism" of some modern theological writers, who denounce Aristotle had their medieval counterparts, most of whom, like Tempier, were reactionaries.

Thus, from the time of the sons of Noah down to Aristotle there arose a tradition of science and philosophy, which the Stagarite perfected in his time. At the same time, according to Bacon, there arose from the beginning a tradition of anti-philosophy. Bacon refers to its adherents as abusers of wisdom. They include "in the first instance, Nemroth, Zoroaster, Atlas, Prometheus, Mercurius Trismegistus, Aesculapius, Apollo, Minerva, and the like, *who were worshipped as Gods because of their wisdom*."¹⁷ In ancient times, God darkened the foolish heart of the multitude and gradually the knowledge of philosophy disappeared until Solomon again recalled and perfected it.

Nimrod the Giant thus becomes the leader of a philosophy which worshipped itself, which saw its own self-possession of wisdom as an end in itself, "a that than which nothing greater could be thought." For such a wisdom, any transcendence whatsoever was automatically closed off. In Greek times, according to Bacon, Aristotle, taking up the history of philosophy from the Milesians, destroyed the viewpoint of the unworthy Gentile philosophers, and led philosophers to a true wisdom. For Bacon, the "bad" Gentile philosophers had rejected any reference to God as the ultimate source of meaning and value. They themselves were the place, the site, the occasion and cause of any revelation of truth of any kind. In brief, the psychological self and not the universal logos became the ultimate beginning and end of truth.

Hence, one sees the importance of Nimrod the Giant as the one who destroyed the unity of language and meaning. He is the predecessor of Prometheus. That Nimrod as represented in the *Historia scholastica* and other sources must be seen as the "Nimrod gigans" who shattered the unity of language is beyond doubt. What is clear from Bacon, however, is the presence of another tradition, that of Nimrod as the father of a Godless philosophy and science. This Nimrod is clearly foreshadowed in the character Nimrod in the opening passage of the *Liber Nimroth*, the medieval Latin text on astronomy which raises great difficulties of interpretation.¹⁸ For it is clear that in spite

¹⁷ *Ibid.*, 67–68: "Sed propter malitiam hominum qui abusi sunt viis sapientiae, ut primo Nemroth et Zoroastes et Atlas et Prometheus et Mercurius Trismegistus et Aesculapius et Apollo et Minerva et hujusmodi qui colebantur sicut Dii propter sapientiam, Deus obscurabit insipiens cor multitudinis, et cecidit paulatim usus philosophiae usquequo iterum Solomon eam revocavit et perficit omnino, sicut Josephus docet octavo Antiquitatum." Note: it is clear from what follows that Bacon sees the tradition of philosophy which begins with Thales and is perfected in Pythagoras, Plato, and Aristotle as that tradition in philosophy which continued the work done by Solomon in disabusing the abusers of philosophy. In other words, the ontological-theological structure of Platonic-Aristotelian philosophy is seen by Bacon as a very coherent critique of the mythological Prometheanism of Nimrod and his followers. And in this Bacon was but following the lead of Aristotle: it is the task of philosophy to make a fundamental criticism of all popular mythological accounts of the cosmos.

¹⁸ The literature on this topic has expanded in recent years. For an account of the codicology of the *Liber nimroth*, see the lengthy study by S. J. Livesey and R. H. Rouse, "Nimrod the Astronomer," *Traditio* 37 (1981) 203–266. Much of the discussion concerning Nimrod in the Middle Ages has centered on Dante's account of Nimrod, especially his placing Nimrod in the deepest hell. Professor Richard Lemay in "Le Nemrod de l'Enfer de Dante et le *Liber Nimroth*," *Studi Danteschi* 40 (1963) 57–128 and in "Mythologie païenne éclairant la mythologie

of the odd reference to Nimrod being worshipped and held in awe on account of his great knowledge of the cosmos, the author(s) or indeed editors of the *Liber Nimroth* lead the medieval reader to see a Nimrod who ends up being an apologist for monotheism at the level of science and philosophy.

The context of Bacon's remarks makes it clear that for Bacon, and a specific medieval tradition, present at least from the 12th century, Nimrod is not just the traditional figure of the Nimrod Gigans who destroyed the unity of language. He is the anti-type of the theist: he is the leader of a tradition of atheistic philosophy. More than that, he is the one who insists on being worshipped on account of his own self-possession of science. That science, knowledge, and philosophy *in se* might be the result of the revelation of the Logos to mortal man is unthinkable for him. That truth might be more primordial than the fallible projections of ever changing representations never occurs to Nimrod. There could be no *reductio artium ad theologiam* in Nimrod's world. By comparison with the tradition of wisdom as revealed by the great philosophers among the Greeks, Nimrod's science is a severe self-limiting of wisdom.

chrétienne chez Dante: le cas des Géants," *Dante et les Mythes* (special supplement of *Revue des Études Italiennes* 11 [1965] 236-279) argued that the *Liber Nimroth* was especially relevant to Dante's condemnation of "Nimrod gigans." That is, Dante condemned him not only on account of his role in the traditional interpretation as the one who by building the tower, destroyed the unity of language. Rather, according to Lemay, the prologue to the *Liber Nimroth* presents the image of an astronomer who is worshipped by the multitude on account of his intimate knowledge of the heavens. Bruno Nardi in "Intorno al Nembrot dantesco e ad alcune opinioni di Richard Lemay," *Saggi e note di critica dantesca* (Milan-Naples, 1966), pp. 367-376, sees no evidence of a rebellion against God in the figure of Nimrod. And more recently, Peter Dronke in his *Dante and Medieval Latin Traditions* (Cambridge: Cambridge University Press, 1986) takes up the topic. In his view, the figure of Nimrod in Dante's works shows no evidence for Nimrod as an atheistic astronomer. In a recent review of the matter, Richard Lemay presents new evidence for a well-established tradition among astronomers and astrologers in the thirteenth century which saw Nimrod as the leader of those who would storm the heavens of God. See Richard Lemay, "De la scolastique à l'histoire par le trouchement de la philologie: itinéraire d'un médiéviste entre Europe et Islam," in *La diffusione delle scienze Islamiche nel medio evo Europeo* (Rome: Accademia Nazionale dei Lincei, 1987), pp. 399-535, especially pp. 485-535. My aim in this paper is simply to point out that in the case of one central thirteenth-century philosopher, Roger Bacon, who was deeply concerned with the polemic on science and religion, and who had the most comprehensive grasp of the conflicting ideas, Nimrod was most certainly presented as the leader of the Prometheans. And further, he and his followers were worshipped on account of their wisdom. That this wisdom was not limited to their knowledge of "language" is clear from Bacon. His point is that true philosophy and true science, including astronomy, is neither the prerogative of "pretend" philosophers like Nimrod, nor of the "ostrich-like" theologians who he condemns in his account of astronomy. If the Nimrod of the *Liber Nimroth* is indeed only a Christian apologist, it seems odd that the main tradition among the astronomers and a tradition among the philosophers of the thirteenth century thought otherwise. Further, Bacon was not the only thirteenth century philosopher to link Nimrod to a knowledge of astronomy. But that will have to be the subject of another paper whose point of departure is: was there a polemic concerning astronomy and theology in the thirteenth century in which Nimrod figured as a central representative of a God-less science? Or was Roger Bacon just a voice crying in the wilderness, out of touch with his contemporaries? And further, to what extent did Dante know this tradition?

The polemic on Nimrod leads Bacon to severe statements such as: philosophy by itself is of no utility. Bacon, taking his cue from Al-Farabi, maintains that philosophy cut off from and isolated from sacred wisdom is the wisdom of the foolish. It belongs to the tradition of the fool, mentioned so skillfully by Anselm.

Does this mean, then, that philosophy is taken up and rendered null and void in theology? Does this mean that philosophy as an autonomous intellectual practice is complete, final, and unchangeable? Does it mean that the Jew or Christian or member of Islam who believes in a creative Logos is acting in bad faith by practicing philosophy? For that matter, was a Plato or an Aristotle lost in oblivion in coming to grips with a universal logos? Does it mean that the inclusion of the Scriptures of the world's religions in a tradition of wisdom, philosophy, and science ends the time of discovery in philosophy and science?

Bacon's point is simple and direct: any science, philosophy, or wisdom which deflects from the ultimate goal of the human striving for meaning and value is anti-wisdom. The study of wisdom in human life, according to Bacon, "can always continue to increase in this life, because nothing is perfect in human discoveries." Again, according to Bacon, people of a later age should use and expand the knowledge of "the greats" (*nani gigantes*). But one must stand on the shoulders of true giants, and not on the shoulders of pretenders. For Bacon, the true philosopher will always be on the track of new knowledge. For him, the philosopher or scientist who is a Christian must investigate things and complete the ways of the pagan philosophers, not only because he is of a later age, but in order to complete the task of the revelation of truth as far as is possible in this life. Bacon's inspiration in his view of philosophy is displayed as follows:

For this the unbelieving philosophers do, compelled by truth itself as far as it was granted to them: for they refer all philosophy to divine wisdom, as is clear from the books of Avicenna on *Metaphysics and Morals*, and from Al-Farabi, Seneca, Cicero, and Aristotle in the *Metaphysics* and *Ethics*. For they refer all things to God as an army to its chief, and draw conclusions regarding angels and many other things, since the principle articles of faith (Christian) are found in them.¹⁹

Bacon's appreciation of the pagan philosophers is very great indeed:

Besides, since the philosophers themselves were devoted to truths and to every good quality of life, despising riches, luxuries, honors, and aspiring to future happiness as far as human frailty could do . . . it is not strange if God, who illumined

¹⁹ *Opus maius* 3.2.70: "Nam hoc infideles philosophi faciunt ipsa veritate coacti quantum ipsis est datum. Nam totam philosophiam deducunt ad divinam, ut ex libris Avicennae in *Metaphysica* et *Moralibus*, et per Alfarabium et Senecam et Tullium, et per Aristotelem in *Metaphysica* et *Moralibus* [patet]. Nam omnia reducunt ad Deum, sicut exercitus ad principem, inferen[te]s de angelis et de aliis multis, quoniam principales articuli fidei reperiuntur in eis."

them in these lesser matters, should give them some light in regard to the greater truths that through their persuasion the world might be prepared for the faith.²⁰

But Bacon maintains, as would Avicenna, Maimonides and many other philosophers that

Philosophy knows its own imperfection, and is aware that it lacks the full knowledge of matters which it is most important that it should know, as Aristotle states frequently in the *Metaphysics* and Avicenna likewise as we mentioned above, and shall mention again in its proper place. And for this reason, philosophy advances to the discovery of a higher science, and proves that it must exist, although philosophy cannot unfold it in its special function. And this science is in its entirety the divine one, which philosophers call the perfect theology. And for this reason, philosophy raises itself to the science of divine things.²¹

Thus, philosophy serves the task of a *preambulum fidei*, that is, the provision of the credibility of the beliefs of a religious faith. The argument is one which is internal to philosophy. It is not a theological argument. While the possibility of such a philosophical theology (or call it natural theology if one will) has been denied by some philosophers and some theologians, the tradition of such study is not only traceable to the Middle Ages: it is an essential part of the earliest speculation of Greek philosophy. And if philosophy *sensu stricto* means Greek philosophy, then any attempt to legislate philosophical theology out of existence either by theological *hubris* or philosophical arrogance ought to be resisted.

In Bacon's view, the ancient philosophers "were anxious to inquire concerning the verification of a school in which the salvation of humankind was found, and they gave very clear methods of proving this, as will be shown in the *Moralis philosophia*."²² In the latter, Bacon would take up a consideration of ethics, natural theology, and language in regard to proof of an ultimate goal. Bacon, like other medieval writers searched for a universal way of freedom and salvation, and found it in Christianity. But what is one to do if one has competing candidates for the role of a universal way? What con-

²⁰ Ibid., 73: "Praeterea cum ipsi philosophi fuerint dediti veritatibus et omni vitae bonitati, contemnentes divitias et honores, aspirantes ad futuram felicitatem quantum potuit humana fragilitas, immo victores effecti humanae naturae, sicut Hieronymus scribit de Diogene in libro contra Jovinianum, non est mirum si Deus, qui in his minoribus illuminavit, daret eis aliqua lumina veritatum majorum, et si non principaliter propter eos, tamen propter nos, ut eorum persuasionibus mundus disponderetur ad fidem."

²¹ Ibid., 75: "Scit enim philosophia suam imperfectionem, et quod deficit a plena cognitione eorum quae maxime sunt cognoscenda, sicut Aristotelis dicit in *Metaphysica* pluries, et Avicenna similiter, ut tactum est superius, et iterum suo loco tangetur. Et propter hoc devenit philosophia ad inveniendum scientiam altiolem, et probat quod debet esse, licet non in speciali valeat eam explicare, et haec scientia est tota divina, quam theologiam perfectam vocant philosophi, et ideo philosophia elevat se ad scientiam divinam."

²² Ibid.: "Item solliciti fuerunt philosophi super omnia inquirere de certificatione sectae in qua esset salus hominis, et dant modos probandi hoc praeclaros, sicut ex moralibus manifestum est." The latter reference is to *Moralis philosophia*, part four.

fronted Bacon in his situation was the competing ways of Judaism and Islam. What was one to do in such a situation? How could any rationality function if three competing belief systems confronted each other? Well, one method of approach was the Crusade, internal and external. Bacon opposed that approach as being divisive and ultimately destructive of religion and human life. Another is that of appeal to miraculous events. Bacon excludes this way. The only path open is that of philosophy. Philosophy alone provides "the rules of disputation" in a case where appeal to alternative Scriptures would create division and distrust. Philosophy, then, as an embodiment of *reason* and *wisdom*, has an immense role to play. Without it, world-communication becomes the appeal to authority. And appeals to authority without reason, while being legion in the modern world, are ultimately destructive of human endeavors. Within Christian faith, philosophy must provide "the methods of proof." The articles of faith are principles within theology. Thus, "philosophy must enter into the proof of the principles of theology, although less deeply than into the principles of the other sciences."²³

So, Bacon himself sets limits as to the role of philosophy in theology and of theology in philosophy. Philosophy, in a bona fide manner can address issues concerning religion and set out proofs of the credibility of religion. The proper name for that discipline is philosophical theology, natural theology, and for some theologians, fundamental theology.

Bacon, following long tradition, makes moral philosophy the penultimate science. The study of languages, the examination of mathematics, physics and optics, the study of experimental science are all subordinated to the supreme end, the building of human community in peace and friendship. Thus, the principles of the sciences and of metaphysics are taken up and used in moral philosophy. Moral philosophy is the ultimate philosophical science, because it is concerned with human destiny and with the discovery of a universal way of hope and salvation for mankind. Bacon offers much advice to the Christian philosopher in the final chapters of *Opus maius* II. And much of this is a foretaste of what he intended to do in the *Moralis philosophia*. What then does a religion such as Christianity add to what is already there in pagan philosophy? He says:

But with Christian students of philosophy, moral science apart from other sciences and perfected is theology, and it adds to the greater philosophy of the pagans the faith of Christ and the truths which are in their nature divine. And this has its own speculative part preceding the moral part. There is therefore the same relation between the ends in view as between the speculative parts. But the end, namely, the Christian Law, adds to the law of the pagan philosophers the formulated articles of the faith, by which means it completes the law of moral philosophy so that there can be one complete law. For the law of Christ takes and assumes the laws

²³ Ibid., 76: "Ergo philosophia habet descendere ad probationes principiorum theologiae, licet minus profunde quam ad principia aliarum scientiarum."

and morals of philosophy, as we are assured by the Sacred Writers and in the practice of theology and the Church.²⁴

Does Bacon think that this taking up of philosophy into theology so completely means that the special articles of Christian faith must be denied? No. Rather, philosophy and religious wisdom can address "the many common rational truths, which every wise person would easily accept from another, although he be ignorant of them himself, just as every person who is studious and desirous of knowledge learns many things from another and receives them by means of rational arguments, although he was formerly ignorant of them."²⁵ The concept of a Christian philosophy any more than a Jewish philosophy or an Islamic philosophy is not a square circle, provided the necessary discriminations are made. It is only a square circle when dictated to be so by the *fiat* of those to whom a tradition of universal wisdom is anathema. Such a way of salvation is much to be preferred to the idols of the marketplace. The notion of a Christian philosophy as formulated by medieval writers like Aquinas and Bacon preserves the necessary tension between temporal and sacred. In that they were true heirs of early Greek Philosophy, and harbingers of some of the greater modern philosophers such as Leibnitz, Kant, and Husserl. The notion of Christian philosophy can and has been vilified even by those proficient in philosophy and theology. And yet, without some such notion, and the related notions of Jewish and Islamic philosophy, it is very evident that discussion in the philosophy of religion would degenerate into appeals to experience (to the miraculous) or into force. And without the aid of rationality, especially philosophical rationality, religious faith would degenerate into unthinking idol worship.

In Bacon's approach, there were three means for a knowledge of things: experience, reason, and authority. Authority, taken alone and in isolation from the experience and reason has a very limited place. It is not to be despised. But as Bacon put it, paraphrasing Adelard of Bath, it could be a halter. The test of whether a Christian philosophy is truly a philosophy has to do with the depth of its experience and the strength of its arguments. Parrotting authority has little place in scientific study, least of all in philosophy. In conclusion, Bacon defends a position concerning philosophy in relation to

²⁴ Ibid., 77: "Sed apud Christianos philosophantes scientia moralis propria et perfecta est theologia, quae super majorem philosophiam infidelium addit fidem Christi et veritates quae proprie sunt divinae. Et hic finis habet suam speculationem praecedentem, sicut moralis philosophia infidelium habet suam. Quae igitur est proportio finis ad finem est proportio speculationis ad speculationem. Sed finis, ut lex Christiana, super legem philosophorum addit articulos fidei expressos per quos complet legem moralis philosophiae, ut fiat una lex completa. Nam lex Christi leges et mores philosophiae sumit et asumit, ut certum est per sanctos et in usu theologiae et ecclesiae."

²⁵ Ibid., 78: "Non tamen dico quod aliquid de specialibus articulis fidei Christianae reciperetur in probatione, sed multae sunt veritates communes rationales quas omnis sapiens de facili reciperet ab alio, quamvis secundum se ignoraret, sicut omnis homo studiosus et desiderans scientiam multa addiscit ab alio et recipit per rationales persuasiones, licet prius ignoraverit eadem."

theology which is best expressed by Eriugena: "It is certain that true religion is true philosophy, and conversely, that true philosophy is true religion."²⁶ Eriugena was but paraphrasing Augustine.

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²⁶ John Scotus Eriugena, *De praedestinatione* 1.1 (PL 122:358): "Conficitur inde, veram esse philosophiam veram religionem, conversimque veram religionem esse veram philosophiam."

Thomas Aquinas, Martin Luther, and the Origins of the Protestant Reformation

Denis R. Janz

At first glance, the picture of these two classical Christian thinkers standing side by side strikes one as extraordinarily asymmetrical. Though viewers differ on which is which, the one figure usually appears to be of gigantic stature while the other looks more like a dwarf: the two would seem to have very little, if anything, in common. Further examination, however, begins to reveal similarities. Both, for instance, had traumatic experiences with thunderstorms early in their lives.¹ Both entered religious orders against the advice of their families.² Both were reluctant to take higher degrees and to teach.³ Both saw friendship as extremely important to human happiness.⁴ Both took on as their primary and proper academic work the exposition of Scripture.⁵ Both expressed a preference for the writings of St. Paul in the New Testa-

¹ James A. Weisheipl, *Friar Thomas D'Aquino* (Washington, DC: CUA Press, 1983), pp. 9–10; Martin Brecht, *Martin Luther: His Road to Reformation, 1483–1521* (Philadelphia: Fortress Press, 1985), p. 48.

² Weisheipl, pp. 28–31; Brecht, p. 48.

³ Weisheipl, p. 96; Bernhard Lohse, *Martin Luther: An Introduction to His Life and Work* (Philadelphia: Fortress Press, 1986), p. 93.

⁴ Weisheipl, p. 259; Martin Luther, *D. Martin Luthers Werke: Tischreden* [henceforth WATR] (Weimar, 1912), nos. 3798 and 3799.

⁵ M. D. Chenu, *Toward Understanding Saint Thomas* (Chicago: Regnery, 1964), p. 233; Lohse, p. 28.

ment.⁶ Both favored the book of Psalms in the Old Testament.⁷ Both were interested in the problems of translation.⁸ Both were accused by their contemporaries of teaching unorthodox novelties.⁹ Both, in their diverse fashions, were not always inclined to a literal following of papal directives.¹⁰ Both, at the end of their lives, offered extremely negative evaluations of their own life's work.¹¹ The writings of both were censured by the University of Paris.¹² And both had the misfortune to be followed by many lesser lights who did not understand them.

Interesting as these similarities are, however, the viewer's first impression of a basic asymmetry between the two remains, and rightly so. Already on the level of personalities, vast differences are obvious. These are perhaps best illustrated by a story told of Thomas by his disciple, Bartholomew Capua. One day, in the company of friends, Thomas was taken to survey the beauty of Paris from the elevated vantage point of the Abbey of St. Denis. Actually, he told his friends, I would gladly give all the wonders of Paris for a copy of Chrysostom's commentary on Matthew.¹³ Luther, for his part, would not have paid so high a price for Chrysostom, that "blabbermouth."¹⁴ But for his wife Katie, he tells us, he would gladly trade all of France or Venice.¹⁵ The personality differences speak for themselves. But an even more dramatic clash appears on the level of theology. Here Luther's judgment is summed up in his denunciation of Thomas as "the source and foundation of all heresy, error and obliteration of the Gospel."¹⁶ One can scarcely imagine a more sweeping indictment. But what precisely does Thomas have to do with Luther and the origins of the Protestant Reformation?

The first answer to this question was given by Luther's contemporary, the great Christian humanist, Erasmus. In a 1519 letter to Albert of Brandenburg, Erasmus explained Luther's increasingly critical views as a reaction to Dominican/Thomist exaggerations of Thomas' authority.¹⁷ In Erasmus' view, during the critical beginning years of the Reformation, the weight which Thomas was given in theology and in the Church was an important factor in

⁶ Weisheipl, p. 247; Luther, *D. Martin Luthers Werke: Deutsche Bibel* [henceforth WADB] (Weimar, 1906), 7:3 (3-4).

⁷ Weisheipl, pp. 302-307; Eric Gritsch, *Martin—God's Court Jester: Luther in Retrospect* (Philadelphia: Fortress Press, 1983), p. 110.

⁸ Weisheipl, p. 169; Lohse, pp. 112-115.

⁹ Weisheipl, p. 256; Brecht, pp. 202-221.

¹⁰ Weisheipl, p. 280; Brecht, pp. 423-426.

¹¹ Weisheipl, p. 321; WATR 1317, 4462, 4393, etc.

¹² Weisheipl, pp. 335-337; Brecht, p. 337.

¹³ Chenu, p. 247, n. 23.

¹⁴ WATR 1.85.3.

¹⁵ WATR 1.17.10.

¹⁶ Luther, *D. Martin Luthers Werke: Schriften* [henceforth WA] (Weimar, 1883), 15:184 (32-33). All translations are my own unless otherwise noted.

¹⁷ Desiderius Erasmus, *The Correspondence of Erasmus*, tr. R. A. B. Mynors, annotated Peter G. Bietenholz; in *Collected Works of Erasmus*, vol. 7 (Toronto: University of Toronto Press, 1987), no. 1033.

propelling Luther out of the Roman Catholic orbit. It is this claim that I should like to examine in what follows.

Our inquiry must limit itself at this stage to ascertaining Luther's perception in this regard. Did he in fact perceive there to be, as Erasmus suggested, a gross exaggeration of Thomas' authority in the Church? I shall argue that indeed he did, without going into the important further question of the accuracy of this perception. Accurate or not, this perception was a major factor in Luther's progressive disillusionment with the Roman Catholic Church.

The issue of authority was a major one in the academic world of the late Middle Ages. Social and political developments for one thing gave new urgency to the debate over the relation between secular and ecclesiastical authority. Conciliarists and papalists debated the locus of doctrinal authority within the Church itself. The authority of Scripture was a hotly controverted issue among theologians and canonists.¹⁸ Humanism and scholasticism clashed, at least to a degree, over the question of authority.¹⁹ And within scholasticism itself, the conflict between the *via antiqua* and *via moderna*, whatever else it may have been, was a dispute over authority. Even within these *viae*, members of religious orders and representatives of theological schools vigorously debated their allegiances to different authorities. Thus it is not surprising that questions of social, ecclesiastical, and theological authority loomed large on Luther's reform program. And his opponents agreed: the issue of authority was close to the heart of the entire controversy.²⁰

The problem of the authority of Thomas Aquinas, therefore, was only part of the much larger problem. Its close relation to this broader issue can be witnessed by the fact that Luther's attempt to assess and redefine the authority of Thomas went hand-in-hand with his attempted redefinition of all authority in Church and theology. The attempt to limit the authority of Thomas carried with it the implicit enhancement of other loci of authority. The depth of Luther's concern with the topic is astonishing. When Luther speaks of Thomas Aquinas, it is the question of his authority which comes up with by far the greatest frequency. This fact alone suggests that the issue of Thomas' authority is a significant, if not the most significant one for Luther.

It goes without saying that historical circumstances had something to do with this. The majority of references to the authority of Thomas occur in Luther's writings between the years 1518 and 1521. And it was of course precisely during these years that Luther most vigorously engaged the Thomist school in controversy—a school which, as we shall see, had a very different view of the authority of Thomas in theological matters. Prierias, Cajetan,

¹⁸ Hermann Schüssler, *Der Primat der Heiligen Schrift als theologisches und kanonistisches Problem im Spätmittelalter* (Wiesbaden: Steiner Franz Verlag, 1977).

¹⁹ James Overfield, *Humanism and Scholasticism in Late Medieval Germany* (Princeton: Princeton University Press, 1984).

²⁰ Jaroslav Pelikan, *Reformation of Church and Dogma* (Chicago: University of Chicago Press, 1983), p. 262.

Hochstraten, Catharinus, and others again and again, in their assaults on the "new" teaching, raised this issue for Luther. The fact that in this case the polemical agenda was set for him clearly helps to account for the frequency with which it comes up in his writings. But even after the front of controversy had shifted away from the Thomists in the 1520s, the question still persisted in Luther's mind: up until 1538 Luther continued to raise the issue on occasion.

When we speak of Luther's critique of the authority of Thomas, it will immediately be clear that this is not a critique of Thomas himself. Obviously Thomas had no control over the way in which his work was used or abused after his death, and the same unfortunately must be said of Luther. When Luther therefore criticizes the authority of Thomas, he is in fact criticizing what he considers to be an abuse of Thomas' work. Thus the single issue on which Thomas' name comes up most frequently in Luther's writings does not involve a critique of Thomas, but rather of his late medieval followers—the Thomist school.

The context therefore, indispensable for understanding Luther's view of the authority of Thomas, is the late medieval "Wegestreit" (the conflict between the *viae*). Recent scholarship has made it increasingly clear that late medieval theology was deeply divided not only into a *via antiqua* and *via moderna*, but also into more narrowly defined "schools" such as the *via Thomae*, *via Alberti*, *via Scoti*, *via Gregorii*, and so forth.²¹ This pluralism in late medieval theology has not yet been fully investigated, but it can safely be said that it involved much more than the old debate between the *realistae* and *terministae* or *nominales*, as they were sometimes called. It also involved, for one thing, the question of the relative authority of these different masters (Thomas, Albert, Scotus, and so forth). To be appointed to a late medieval university to lecture "*in via Sancti Thomae*," for instance, meant that the professor was expected to resolve all questions along the lines laid down by Thomas. What was at stake, therefore, in the debate between the various *viae* was the relative authority of Thomas or Albert or Scotus, and so forth.

Such debates in the late fifteenth and early sixteenth century universities were frequent and impassioned. In fact they often reached acrimonious if not absurd levels. Thus students in the *via moderna* at Heidelberg in 1503 defended the thesis, "A Thomist is more stupid than any man," and even defended their *via* with violence.²² Though perhaps more sober, professors too commonly attacked the reigning authorities in rival *viae*. Thus it is not unusual to find in the late medieval "Wegestreit" challenges to the authority of Thomas Aquinas.

²¹ An older work which is still of fundamental importance is Gerhard Ritter, *Via Aniqua und Via Moderna auf den deutschen Universitäten des XV. Jahrhunderts* (Heidelberg: C. Wunter, 1922). More recently Heiko Oberman has paid close attention to these divisions in his *Werden und Wertung der Reformation: Vom Wegestreit zum Glaubenskampf* (Tübingen: J. C. B. Mohr, 1977). See also Overfield, pp. 49–60.

²² Overfield, p. 59.

This is the immediate context for understanding Luther's critique of the authority of Thomas. As a scholastic theologian in the early sixteenth century Luther was part of this "Wegestreit." Trained at Erfurt in the *via moderna*, Luther began his theological career as an Occamist. At the fledgling University of Wittenberg, only the *via Thomae* and the *via Scoti* were taught until 1507 when one of Luther's teachers, Jodocus Trutvetter, was hired to represent the *via moderna* there. In 1510 Trutvetter returned to Erfurt and in the following year Luther was appointed to represent the *via moderna* in Wittenberg. He was thus the second appointment in the *via moderna* to a faculty heavily dominated by the *via antiqua*. An attack on the master of a rival *via* was to a degree expected from such a new appointee. And such an attack *in itself* would not have set Luther apart from his scholastic milieu.

Nevertheless, by the time Luther's attack on the authority of Thomas began in 1518, he had already, in theory at least, distanced himself from the scholastic "Wegestreit." He had broken definitively with the *via moderna* in 1517 in his "Disputatio contra scholasticam theologiam."²³ But rather than allying himself with another of the scholastic *viae*, Luther had in this disputation been critical of all of them. In this sense Luther ceased, in principle, to be a scholastic theologian. Yet, as we shall see, he rightly continued to understand himself as a Roman Catholic theologian. It was only in the following years that he gradually abandoned this latter self-definition, and in this process of re-defining himself, certain developments in his understanding of the authority of Thomas played a crucial role. These developments will be summarized in what follows.

Luther's critique of the authority of Thomas began in 1518, and not unexpectedly in controversy with a Thomist. Silvester Prierias had attacked Luther's ninety-five theses "On the Power and Efficacy of Indulgences" in June of that year in his hastily compiled treatise *De potestate papae dialogus*. In his reply (August 1518), *Ad dialogum Silvestri Prieratis de potestate papae responsio*,²⁴ Luther begins by laying down his foundational principles and thus his general understanding of authority in Church and theology at this stage of his career. The first principle is St. Paul's admonition to the Thessalonians to "test all things, and hold to that which is good." (1 Thes 5:21). The second is Augustine's statement that only the canonical writings are to be regarded as free of error. The third is canon law's stipulation that indulgence preachers are not permitted to preach anything but what is in their letter of authorization.²⁵ Here, in these foundational principles, according to Luther, Prierias' argument is already destroyed. For in support of his argument he adduces only the opinions of Thomas Aquinas, "without Scripture, the

²³ WA 1.221-228. For the relevant literature, see my *Luther and Late Medieval Thomism: A Study in Theological Anthropology* (Waterloo, Ontario: Wilfrid Laurier University Press, 1983), pp. 24-27.

²⁴ WA 1.647-686.

²⁵ *Ibid.*, 647.19-28.

Fathers, canons or reason."²⁶ This then is the heart of Luther's treatise: his authorities (Scripture, the Fathers, canon law and reason) are marshalled against Prierias' authority (Thomas Aquinas). And thus this work, which is ostensibly about the power of the pope, is to a large degree about the authority of Thomas. It could well have been published under the title, "Test all things—even Thomas." The elaboration of this theme occupies Luther throughout the remainder of his treatise.

It is perhaps Prierias' mode of theological argumentation which Luther finds most frustrating. Again and again Prierias tries to prove his point simply by citing Thomas. But, according to Luther, the bare opinion of Thomas proves nothing. Without substantiation from Scripture, the Fathers, canon law, and reason the opinion of Thomas is unconvincing.²⁷ Luther thinks that this is characteristic of Thomists: by citing only Thomas they offer no evidence and therefore prove nothing.²⁸ In fact, Luther says, when one adduces only the opinion of Thomas without also adducing evidence from Scripture, the Fathers, the Church, and reason, one ceases to speak as a theologian.²⁹ Thus, where Prierias cites only the teaching of Thomas in support of a certain argument, Luther responds by citing a text from Scripture, one from canon law, the teaching of Gerson, and others.³⁰ The authorities he cites, he is convinced, outweigh the authority cited by Prierias. In the future, he says, Prierias should bring Thomas onto the battlefield in better armor, that is, not "in the nude" but protected by the greater authority of Scripture, the Fathers, canons, and reason.³¹

Without the support of these greater authorities Thomas' teaching is in fact merely a theological opinion, in Luther's view. Its truth is as "probable" as other opinions.³² And as a "probable" opinion, it is in fact a "doubtful" one which does not require the assent of faith.³³ The problem with the followers of Thomas is that they take these mere opinions and make them into articles of faith:

You Thomists are to be strongly censured for daring to impose on us the opinions and frequently false ruminations of this holy man as though they were articles of faith. . . . you think nothing except Thomas is worth reading and you want to see nothing false in him. . . .³⁴

²⁶ *Ibid.*, 647.29–31.

²⁷ *Ibid.*, 648.18 & 32.

²⁸ *Ibid.*, 656.20–25.

²⁹ *Ibid.*, 664.39–665.2.

³⁰ *Ibid.*, 655.37–656.12.

³¹ *Ibid.*, 686.28–30.

³² *Ibid.*, 656.4–12.

³³ *Ibid.*, 664.38–39.

³⁴ *Ibid.*, 658.1–3: "Vos Thomistae graviter estis reprehendendi, qui sancti huius viri opinionones et saepius falsas meditationes pro articulis fidei audetis statuere, et id unice curatis, ut, sicut nihil praeter Thomam dignamini vestra lectione, ita nihil vultis in eo falsum videre. . . ."

Yet, Luther asserts, Thomas presented his views as opinions—not articles of faith: he disputed everything. Even in dealing with articles of faith Thomas began with an “*utrum*.” Why then do the Thomists not allow Luther to dispute doubtful matters that have not yet been determined? “Am I the Church,” Luther says, “that my disputations will be taken for definitions?” But because the Thomists dogmatize all that Thomas said, they brand as heretical everyone who does not follow Thomas’ opinions.³⁵ For his part, Luther wishes to continue to dispute these things on which there has been no official decision by the Church: he rejects Prierias’ accusation of heresy and, as he frequently says in this treatise, awaits the decision of a council of the Church. Until then, the right of Christian freedom prevails in these matters.³⁶

Thus in the final analysis, for the Thomists, “heretics” are those who do not follow the opinions of Thomas.³⁷ Luther of course disagrees: there are many subjects on which Thomas has given his opinion but on which the Church has not yet officially spoken. Once the Church has made such a determination, Luther will be in heresy if he disagrees.³⁸ Elsewhere in his treatise Luther puts the matter in another way. Mimicking the scholastic style, he distinguishes between two kinds of heresy: if heresy is taken to be that which is contrary to Thomist opinion, then he is indeed a “heretic”; if it is taken to be that which is contrary to the teaching of the Church, then he is Catholic.³⁹ In short Luther refuses to follow the Thomists in making a simple identification between the teaching of Thomas and the teaching of the Church.

This uncritical identification is the Thomist school’s fundamental mistake. What Thomas held forth as opinions are transformed by his followers into articles of faith. What Thomas approached in disputation is now made mandatory by the Thomists, as though it is necessary to take Thomas’ words as divine oracles.⁴⁰ The Thomist approach to the authority of Thomas is therefore a misunderstanding and a distortion, part of the “miserable fate”

³⁵ *Ibid.*, 661.29–34: “*Quisdam criminis reus mecum es et tu et S. Thomas, immo Thomas omnium maxime, qui per omnia ferme sua scripta aliud nihil facit quam disputat et, quod grande est, etiam ea quae fidei sunt in quaestiones vocat et fidem vertit in ‘utrum?’ ut nosti. Cur ergo mihi, quaeso, non permittis disputare de iis rebus, quae sunt dubiosissimae et non determinatae? Numquid ego Ecclesia sum, immo plus quam Ecclesia, ut meae disputationes pro diffinitionibus accipiantur?*”

³⁶ *Ibid.*, 647.29–33.

³⁷ *Ibid.*, 662.3–4: “*Ideo ignosco tibi, quod me haereticum vocas, sciens hunc esse morem Thomistarum, ut haereticus esse, velit nolit, cogatur (dumtaxat apud Thomistas) qui opiniones Thomae non fuerit secutus. . .*” Cf. *ibid.*, 655.7–10.

³⁸ *Ibid.*, 664.9–10: “*Haereticus autem ero, si, postquam Ecclesia determinaverit, non tenuero.*”

³⁹ *Ibid.*, 670.27–30: “*Respondeo et ego per distinctionem: Haeresis accipitur uno modo pro ut est contra opiniones nudas Thomistarum, et sic est haeretica; alio modo pro ut est contra doctrinam fidei et ecclesiae, et sic est catholica.*” Cf. *ibid.*, 671.27.

⁴⁰ *Ibid.*, 658.1–4; 661.35–37; 668.20–22.

which Thomas has suffered at the hands of his followers.⁴¹ In this way the Thomists have failed to understand Thomas correctly.⁴²

The 1518 treatise *Ad Prieratis* which has been examined here represents Luther's first major statement on the authority of Thomas. This early understanding of Luther bears within it heavy traces of the late medieval "Wege-streit." For like representatives of alternate *viae*, Luther sees Thomas as only one among many theologians and his teaching as nothing more than theological opinion. He strongly resists, as did others in the "Wege-streit," the Thomist propensity to identify Thomas' teaching with the teaching of the Church. But he also has begun to move beyond the conflict between the *viae*: he opposes the authority of Thomas not to some other scholastic master, but to the higher authority of "Scripture, the Fathers, canon law, and reason." It is against this higher authority that all things—even Thomas—must be tested.⁴³

In his writings of the following year, 1519, the issue of the authority of Thomas is less prominent. Still Luther continues to challenge the way in which the Thomists (this time Jacob Hochstraten) appeal to his authority.⁴⁴ And Luther seems to be more aware than before of Thomas' celebrated status in the Church. He now goes so far as to identify a council of the Church with Thomism: the Council of Constance is referred to as the "Council of the Thomists."⁴⁵ Moreover, rather than emphasizing as he did in 1518 the disagreements between scholastic schools, he now increasingly emphasizes their similarities. He remarks more than once on Karlstadt's rejection of both Scotism and Thomism,⁴⁶ and he himself asserts that the Thomists, Scotists, and *moderni* agree on the central issue of free will and grace.⁴⁷

These new emphases in 1519 presage a more significant development in Luther's understanding of the authority of Thomas in the following years, 1520–21. As we have seen, Luther had by 1518 already arrived at a clear position on what degree of authority Thomas ought to have in Church and theology. And on this point there is no significant development in later years. But on the question of what authority Thomas does *in fact* have in Church and theology, Luther significantly revised his earlier assessment.

Already in his *Operationes in Psalmos*, begun in 1519 and finally completed in 1521, Luther's language suggests that such a reassessment was underway. Again, few distinctions are made between Thomism and other theological schools. Thomas, the Thomists, and all scholastic doctors are

⁴¹ Ibid., 674.24–28.

⁴² Ibid., 660.5–8.

⁴³ Other writings from the year 1518 confirm the view of Thomas' authority established in *Ad Prieratis*. See for instance WA 1.384.14–16; 389.35–39; 390.29–32; 611.21–22; 568.1–2; 609.9–11; 570.6–7; 530.4–9; 555.26–27.

⁴⁴ WA 2.386.35–40.

⁴⁵ Ibid., 421.1–5.

⁴⁶ Ibid., 394.22–26.

⁴⁷ Ibid., 394.31–32: "Certum est enim Modernos (quos vocant) cum Schotistis et Thomistis in hac re (id est libero arbitrio et gratia) consentire."

lumped together.⁴⁸ Moreover, they are spoken of as being at one with priests, bishops, and religious.⁴⁹ Perhaps most significantly, the pope is now identified with the Thomists.⁵⁰

The trend continued in late June of 1520 when Luther published Prierias' latest treatise, accompanied by his own biting marginal comments. In these comments one hears again Luther's old complaints against the Thomists. For instance, Prierias makes the *via Thomae* the arbiter of heresy, the Thomists have their own "truth," and so forth.⁵¹ But one also hears in these comments something new. For the first time Luther speaks of the Church as the "Church of the Thomists." And he identifies for the first time "Thomist and Romanist theology."⁵² Later, in early October of the same year in his *De captivitate Babylonica* Luther again explicitly calls the Church "the Thomistic Church."⁵³ Clearly Luther now no longer regards Thomism as merely one voice among many in the Church.

At about the same time, Leo X's "Exsurge Domine" reached Wittenberg and Luther replied to the bull in December in his *Assertio omnium articulorum*. In this work one sees the continuation of the development in Luther's thinking on this issue. Now it is no longer only the Thomists who abuse the authority of Thomas. The pope in his bull likewise fails to cite Scripture in support of his opinion. Like the Thomists, he simply cites Clement VI's "Extravagante," which was itself based on the mere opinion of Thomas.⁵⁴ Moreover the pope, Luther mentions again, has approved Thomas' books.⁵⁵ It has now become clear to Luther that, as he mentions in passing, "Thomas Aquinas reigns."⁵⁶

After the bull of excommunication was issued on 3 January 1521, Luther again found himself in controversy with the Thomists, this time in the person of Ambrosius Catharinus. In his reply to Catharinus, which he completed on April 1 of that year, Luther again raises all the old charges in regard to Thomist misuse of Thomas' authority. The Thomists, he says, read only Thomas, devour him, and as it were "transubstantiate" him, raising him to the level of an infallible teacher.⁵⁷ The authority of Thomas and the study of Thomas reigns, and the result is that the Church has embraced false teach-

⁴⁸ Ibid., 5.664.19-20.

⁴⁹ Ibid., 263.6-10.

⁵⁰ Ibid., 645.34-36.

⁵¹ Ibid., 6.339.35-36; 340.30-34.

⁵² Ibid., 340.30-34.

⁵³ Ibid., 508.11-12.

⁵⁴ Ibid., 7.124.26-27: "Praeter haec, nullis scripturis sua probant, sed sola impia illa extravagante Cle. VI. ex opnionibus Thomae insulsissimus et meris figmentis concepta."

⁵⁵ Ibid., 149.35-38.

⁵⁶ Ibid., 96.31-33.

⁵⁷ Ibid., 706.18-19: "Et quid aliud fierent, qui non nisi unum Thomam legunt, vorant et in se (quod dicunt) transubstantiant?"

ing.⁵⁸ Thomism has become the judge of all things.⁵⁹ Over and over again, throughout this work, papal teaching and Thomist teaching are identified: Luther refers to the blasphemies of “the papists and the Thomists”; he argues that the Thomists have contributed to the papacy’s extinction of the Gospel; he speaks of the Thomists, papists, and Romanists as a single entity.⁶⁰ The Church has thus become for him the “synagogue of the papists and the Thomists,”⁶¹ or, as he puts it elsewhere, the “synagogue of Satan.”⁶² This extreme language is prompted not only by what Luther regards as erroneous teaching, but also by what he regards as the subversion of Christian freedom by a tyranny in the Church, namely, the joint tyranny of pope and Thomism. The two are identical.⁶³

The contrast between this and Luther’s earlier understanding of the authority of Thomas is unmistakable. Now, in 1520 and 1521, he no longer argued that the teaching of Thomas was only one among many opinions. He no longer argued that the Church has not approved all that Thomas taught. And he no longer argued that the Thomists were wrong in making a simple identification between the teaching of Thomas and the teaching of the Church. He was now of the opinion that Thomism was not merely one faction among the late medieval theological schools. It was rather, as he now saw it, the preeminent one, and the Church as he now saw it was in fact a “Thomist Church.” It was clear to him that the authority of Thomas reigned supreme in the Church.

At least part of the explanation for why Luther came to the conclusion he did on the authority of Thomas must lie in the massive opposition of the Thomist school in these years (1518–21). The united front presented by Wimpina, Tetzl, Prierias, Cajetan, Hochstraten, Catharinus and, Dungersheim against the early Luther eventually helped to convince him that Prierias had been right from the start: Thomas was *the* authority in the Church. The combined weight to this opposition pointed to a Thomist hegemony in the Church.

Luther’s opposition to Thomism and thus to the misuse of Thomas’ authority reached a new level of acrimony in his 1522 reply to Henry VIII’s *Assertio septem sacramentorum*. Now, in Luther’s mind at least, it was not only the pope but even secular rulers entering the lists against him under the banner of Thomism.⁶⁴ Further, in 1523 Luther says that it is not only the Thomists, but all “papists” who call everyone a heretic who does not hold to

⁵⁸ Ibid., 739.28–29: “Quia autoritate et studio Thomae elevatus regnat, resuscitans liberum arbitrium, docens virtutes Morales et philosophiam naturalem, et triceps scilicet Cerberus, immo tricornor Gerion.”

⁵⁹ Ibid., 706.7–10.

⁶⁰ Ibid., 717.18; 721.15–17; 777.23–24.

⁶¹ Ibid., 721.5.

⁶² Ibid., 710.19.

⁶³ Ibid., 719.7–10. Luther refers to this joint tyranny again in his 1521 “Responsio Extemporaria” to the proceedings at Worms. Ibid., 613.22–24.

⁶⁴ Ibid., 10.II.180–222.

Thomas' "fantasies" as the absolute truth.⁶⁵ The whole Church had now made Thomas the final arbiter of heresy.

The later Luther never abandoned this view. In his 1530 treatise, *Wideruff vom Fegefeuer*, Luther explains that we are expected to regard it as an article of faith when Thomas' stomach growled or when he broke wind.⁶⁶ Thomas, Luther complains, has been raised to the level of an infallible teacher. And in another work of that same year Luther acknowledges that the Thomists had been right all along: the authority of Thomas does in fact transcend that of all other scholastic teachers. He is, Luther says, the "teacher of all teachers."⁶⁷

When Luther returned for the last time to the subject of Thomas' authority in his 1537-38 commentary on the Gospel of John, he argues that papal infallibility and the infallibility of Thomas are related. The inerrant pope approves Thomas who then also is regarded as inerrant.⁶⁸ This shared infallibility means that in Luther's view the teaching of the Church is in fact the teaching of Thomas.

The preceding examination of Luther's view of the authority of Thomas can be summarized as follows. On the question of what authoritative status Thomas *ought* to have in the Church and in theology, Luther's view never changed. From the beginning he held that Thomas was one theologian among many and that as such his teachings were theological opinions—open, as are all theological opinions, to criticism. Thus, in principle, the authority of Thomas should be no greater than that of other theologians. On this, there is no evidence that Luther ever changed his mind.

It is important to point out that while this view of what Thomas' authority ought to be set Luther at odds with Thomism, it did not automatically estrange him from the general Catholic theological milieu from which he came. Other voices in the "Wegestreit" were also wary of according too much weight to Thomas' opinions. A number of examples illustrate this resistance.

First, Pierre d'Ailly (1350-1420), whose works Luther knew well,⁶⁹ wrote a treatise against John of Montosono, OP, in relation to the Immaculate Conception controversy.⁷⁰ And the entire third part of this treatise is a critique of

⁶⁵ *Ibid.*, 11.441.18-22.

⁶⁶ *Ibid.*, 30.II.383.20-26: "Also haben auch die prediger münch ihren Thomam von Aquino der Christenheit aufgeladen, das alle buchstaben müssen artickel sein, der doch vol irthum sticket, bis das die hohen schulen selbs nicht haben leiden können, und etliche stück an ihm verdamnen müssen, Und war schier dahin komen, das wir musten lassen artickel des glaubens sein, wenn einen vollen Münch der bauch kurret, odder einen faulen wind faren lies. Aber nu ists alles vergessen, haben nie nichts ubels gethan."

⁶⁷ *Ibid.*, 30.II.300.21-22: speaking of the scholastic teachers, Luther says, "Über diese alle gehet Thomas Aquinas, Lerer aller lerer (sagen anders die Prediger Münche recht)."

⁶⁸ *Ibid.*, 46.768.32-35.

⁶⁹ Heinrich Boehmer asserted that Luther knew d'Ailly "almost by heart"; *Luther and the Reformation in the Light of Modern Research* (London: G. Bell and Sons, 1930), p. 160.

⁷⁰ *Apologia Facultatis Theologiae Parisiensis Circa Damnationem Joannis de Montesono*, in E. du Pin, ed., *Joannis Gersonii Opera omnia* (Antwerp, 1706), 1:709-722.

excessive estimates of Thomas' authority. D'Ailly recognizes that Thomas' teaching has been "approved" by the Church, but he argues that such approval can be understood in three ways: first, in the sense that Thomas' teaching is "useful" and "probable"; second, in the sense that it ought to be believed in all its parts; and third, in the sense that it is in no part heretical or erroneous in things pertaining to the faith.⁷¹ Thomas' teaching (and that of many other doctors) has been approved by the Church only in the first sense, that is, as "useful" or "probable."⁷² Then, quoting one of Luther's favorite passages, "Test all things" (1 Thess. 5:21), d'Ailly goes on to argue that this applies even to the saints.⁷³ To illustrate, he then enumerates six examples of contradictions in Thomas and six examples of errors in Thomas.⁷⁴ Obviously, in d'Ailly's view, Thomists such as John of Montosono wildly exaggerate the authority of Thomas in Church and theology. While it is not known whether Luther ever read this treatise, it is safe to say that he would have concurred had he done so.

A second example is to be found in the person of Baptista Mantuanus, or Battista Spagnoli as he is sometimes known, a fifteenth-century Carmelite friar who was later beatified.⁷⁵ Though of humanist orientation, Mantuanus wrote an *Opus aureum in Thomistas* in which he accused the Dominicans of blindly following Thomas, and more seriously, of believing that he never erred. Mantuanus argued that the Church's approval of Thomas' teaching was not as complete as his followers claimed. And in matters of faith, "he insists . . . on the superiority of the Bible and the Fathers to Saint Thomas and the other medieval doctors."⁷⁶ Even among these medieval doctors, Mantuanus argues that Thomas is not to be regarded as superior to the rest.

So too in the humanist circles on the periphery of the "Wegestreit" there was an acute consciousness of the danger of granting too much authority to Thomas. Lorenzo Valla, invited by the Dominicans in Rome in 1457 to deliver a eulogy on St. Thomas, was remarkably candid in this regard.⁷⁷ As his famous *Encomium S. Thomae Aquinatis* shows, Valla refused to place Thomas above other doctors of the Church. And he names no fewer than eight of the Fathers whom he prefers to Thomas. It is hardly surprising then that according to reports the speech was poorly received by the Dominicans.

⁷¹ *Ibid.*, 715.

⁷² *Ibid.*, 716.

⁷³ *Ibid.*, 719.

⁷⁴ *Ibid.*, 720-721 and 716-717.

⁷⁵ For what follows I rely on Paul Kristeller's account in "Thomism and the Italian Thought of the Renaissance," in E. P. Mahoney, ed., *Medieval Aspects of Renaissance Learning* (Durham, NC: Duke University Press, 1974), pp. 29-91; especially pp. 69-71.

⁷⁶ *Ibid.*, p. 71. Luther had read the poetry of Mantuanus (WATR 1.107.31). The striking similarity between Luther's critique and the critique in Mantuanus' *Opus aureum in Thomistas* suggests that Luther may have read this work as well. The work is edited and printed in Paul O. Kristeller's *Le Thomisme et la pensée italienne de la Renaissance* (Montreal: Institut d'études médiévales, 1967), pp. 137-185.

⁷⁷ I again rely here on Kristeller's account in "Thomism and the Italian Thought of the Renaissance," pp. 63-64.

These examples from Luther's theological milieu indicate that there were others besides him who were critical of the Dominican/Thomist exaggeration of Thomas' authority. Luther's early position on how the authority of Thomas ought to be regarded, therefore, did not place him outside of this context. His view on this question differed in no fundamental way with what we may reasonably surmise to have been a legitimate view in late fifteenth- and early sixteenth-century Catholic theology.

What did help to set Luther apart from the world of Roman Catholic theology in the early sixteenth century was his developing view on the authority which Thomas *in fact* had in the Church. Whereas Luther initially saw it as a limited authority, confined primarily to one of the many scholastic schools, he eventually came to the opinion that Thomism reigned supreme in the Roman Church and its theology. The prime catalysts for this development in his understanding, as we have said, were those representatives of the Thomist school who formed a unified phalanx in opposition to him. While Luther was initially highly critical of these theologians' exaggerations of Thomas' authority, he eventually came to see that they were right: the Church had in his view now become the "Thomistic Church." Thus in Luther's opinion, the movement of Roman Catholic theology in the late fifteenth and early sixteenth centuries was from a situation of theological pluralism to the triumph of Thomism. According to him, the "Wegestreit" had now in fact been decisively resolved: the *via Thomae* had emerged supreme in the Church. The other *viae*, once vibrant and creative, now had faded into subordinate positions: they had lost their viability as theological schools. Thomism now exercised a hegemony, indeed a tyranny, in the Church.

We cannot here enter into the important question of the accuracy of Luther's view. However, there can be no question that Luther's conviction in this regard was of decisive significance for himself. In relation to Thomas, this is the issue which Luther raises with by far the greatest frequency. And as his view of the actual authority of Thomas in the Roman Church evolved, so did his progressive disillusionment with, and estrangement from, that Church.

This then is one answer to the question of what Thomas has to do with Luther and the origins of the Protestant Reformation. Erasmus' early perception was to a large extent justified: Thomist exaggerations of Thomas' authority were an important factor in Luther's alienation from the Roman Church. Here one already begins to suspect that, although he disagreed with Thomas on many things, Luther's real problem with Thomas was not Thomas but his followers. Were it not for this perceived misuse of Thomas by his followers, Thomas would not have become "the source and foundation of all heresy, error, and obliteration of the Gospel."

The Sapiential Character of the First Article of the *Summa theologiae*

Mark F. Johnson

Domine ad quem ibimus? Verba vitae aeternae habes.
(Jn 6:69)

In 1927 Father Marie-Dominique Chenu first published his *La Théologie comme science au XIIIe siècle*, the reading of which has since become *de rigueur* for students interested in the notion of sacred theology in the High Middle Ages.¹ Father Chenu's aim in that work was to show that St. Thomas Aquinas was the first fully to apply the Aristotelian notion of "science" to the contents of faith in all its rigor. This claim was widely accepted, and justly so, but, as often happens with the findings of a great pioneer, Chenu's findings would need to be refined. This became apparent when Chenu examined the implications of sacred theology considered rigorously as a science. If theology is a science, then why is Thomas doing "unscientific" things in the first question of the *Summa theologiae*, a question in which he is detailing what theology is? Put more fully, if theology is a science, which deduces new con-

¹ M.-D. Chenu, "La Théologie comme science au XIIIe siècle," *Archives d'histoire doctrinale et littéraire du moyen-âge* 2 (1927) 31-71. For the sake of convenience, all works cited will appear at first in full form, and thereafter cited in abbreviated form. All translations from Latin are my own.

clusions contained virtually in the premises, which here are principles of faith, then why does Thomas deal with the very establishment of those principles in articles one, nine, and ten of that first question? This is not what a science does. In the end, then, and for all Thomas' stated concern for order and intelligible procedure, Chenu sensed a breakdown in the first question, a *rupture du contexte* he called it, and he explained the appearance of these "unscientific" articles by saying that Thomas is here deferring to the practice of his time, and that in time the internal logic of his theory of theology as a science would eliminate their need.²

If all this is true, then we are confronted with a problem. In the prologue to the *Summa theologiae*, Thomas has told us that he intends to avoid confusion in the teaching of sacred doctrine. His goal is to present the truths of the Catholic Faith in an order befitting both the subject matter and the exigencies of sound teaching.³ It would be odd if Thomas, having just announced this intention, were to violate the order required by the very first question of his work, a work that comprises, in its unfinished state, some five hundred and twelve questions. The difficulty unearthed by Chenu clearly demanded the astute attention of Thomists.

In 1942, some fifteen years after the appearance of Chenu's *La théologie*, Father Santiago Maria Ramírez first published his *De hominis beatitudine*, the reading of which has since become *de rigueur* for students interested in Thomas' notion of the beatitude of man. Ramírez' work, in fact, is a commentary on the first five questions of the *Prima secundae*, the charter of

² *Ibid.*, pp. 68-69: "De cette ambiguïté, bien inoffensive désormais, et de cette conception périmée de la doctrine sacrée, un second cas est plus notable: c'est le fait même de la présence, dans une question traitant de la nature de la 'science' théologique, de deux longs articles sur le genre littéraire de l'Écriture (*Utrum sacra scriptura debeat uti metaphoris*, a. 9) et sur ses règles d'interprétation (*Utrum sacra scriptura sub una littera habeat plures sensus*, a. 10). Il est clair que c'est là matière se rapportant à l'établissement même de donné révélé et des articles de foi, principes de la science théologique; c'est donc matière préalable à la 'science' dont on veut ici définir la méthode, et non établir le donné. Aussi, après les articles 2 et 8 surtout, le lecteur moderne sent-il vivement la rupture du contexte, en abordant l'article 9 sur la convenance du style métaphorique de la Bible.

Là encore, l'explication nous paraît facile: puisqu'il était reçu, à l'entrée de la doctrine sacrée, de traiter des sens de l'Écriture, saint Thomas se conforme à l'usage, que pourtant, bientôt, la logique interne de sa théorie éliminera. On observa d'ailleurs que déjà cet exposé d'herméneutique sacrée n'est plus, comme dans le Commentaire des Sentences (q. 1, a. 5), bloqué en un seul article avec l'exposé de la méthode théologique. Le temps fera le reste."

³ St. Thomas Aquinas, ST 1.prol. (Leon. 4:5): "Consideravimus namque huius doctrinae novitios in his quae a diversis conscripta sunt plurimum impediri; partim quidem propter multiplicationem inutilium quaestionum, articulorum et argumentorum; partim etiam quia ea quae sunt necessaria talibus ad sciendum non traduntur secundum ordinem disciplinae, sed secundum quod requirebat librorum expositio, vel secundum se praebebat occasio disputandi; partim quidem quia eorundum frequens repetitio et fastidium et confusionem generebat in animis auditorum. Haec igitur et alia huiusmodi evitare studentes, tantabimus, cum confidentia divini auxilii, ea quae ad sacram doctrinam pertinent breviter ac dilucide prosequi, secundum quod materia patietur." All further citations from the *Summa theologiae* will be taken from the Leonine edition.

Thomas' moral theology.⁴ To the best of my knowledge, this work by Ramírez contains the first open response to Chenu's claim of a *rupture du contexte* in the first question of the *Summa theologiae*.

In the midst of the introduction to his work, Ramírez points out that it was Thomas who first applied the Aristotelian notion of science to theology, and in the footnote that follows this claim, he cites Chenu's *La théologie*. But the footnote continues, and Ramírez addresses Chenu's claim to finding a breakdown in the first question. Ramírez doesn't see it that way at all, and his reason is that Thomas has told us that sacred theology is more than just a science. It is a wisdom, and more than that, it is the highest human wisdom possible.⁵ The upshot of this is that, while sacred theology may well demonstratively deduce new conclusions from principles of faith, which is what science does, it must, as a wisdom, critically explain those principles, and defend them from those who would attack them. And this is what is going on in articles one, nine, and ten of the first question of the *Summa theologiae*. As Ramírez sees it, then, Thomas' use of any internal logic that in time would eliminate the need for these articles would itself have constituted a rupture of the context of the first question of the *Summa theologiae*, a context in which the notion of wisdom figures explicitly.⁶

Now it would be too much to claim that Ramírez' modest footnote made its way to Chenu's desk, especially since the second edition of *La théologie* was likewise published in 1942. It is true, however, that Chenu's claim of a breakdown in question 1 is not repeated there, nor is it to be found in the third edition.⁷ And while Father Weisheipl himself was never satisfied with Chenu's account of Thomas' teaching on the nature of theology,⁸ others saw a

⁴ J. M. Ramírez, *De hominis beatitudine*, 1 (Madrid: Consejo Superior de Investigaciones Científicas, 1942). I shall be citing from the republished version of this work, found in *Jacobus M. Ramírez, OP: Opera Omnia*, ed. Victorino Rodríguez, 3:1 (Madrid: Consejo Superior de Investigaciones Científicas, 1972).

⁵ See ST 1.1.6: "Dicendum quod haec doctrina maxime sapientia est inter omnes sapientias humanas, non quidem in aliquo genere tantum, sed simpliciter."

⁶ Ramírez, *De hominis beatitudine* 3.1.7, n. 1: "Simul tamen, et plus quam scientia presse sumpta, Sacra theologia est vera sapientia, immo est 'maxima sapientia inter omnes sapientias humanas, non quidem in aliquo genere tantum, sed simpliciter' (1.1.6). Quapropter, non abusive, sed ex proprio munere ei convenit, non solum conclusiones deducere ex principiis per demonstrationem, sed etiam critice exponere seu explicare propria principia eaque ab impugnatoribus et corruptoribus defendere. Hoc enim addit sapientia supra meram scientiam (1-2.57.1; 1-2.66.5; 1.1.6 and 8). Quod si ita est, articuli 9-10, et similiter articulus 1, non sunt 'ruptura contextus' (Chenu, p. 69); quin potius eos eliminare esset magnam rupturam textus et contextus perficere, quia postulatur necessario ex ipsa 'logica interna' theoriae de sapientia maxime et simpliciter dicta."

⁷ See M.-D. Chenu, *La Théologie comme science au XIII siècle* 2nd ed., (Paris: J. Vrin, 1942). See also the third edition, published as well by J. Vrin in 1957. In neither edition does one find a reference to Ramírez.

⁸ See J. A. Weisheipl, "The Evolution of Scientific Method," in *The Logic of Science*, ed. Vincent E. Smith (New York: St. John's University Press, 1964), pp. 59-86, p. 78, republished as chapter 10 in Weisheipl, *Nature and Motion in the Middle Ages*, ed. William E. Carroll, (Washington, DC: The Catholic University of America Press, 1985), pp. 239-260; "The Meaning of *Sacra Doctrina* in *Summa theologiae* I, q. 1." *The Thomist* 38 (1974) 49-80. See especially his review of Chenu's *Is Theology a Science?*, trans. A. H. N. Green-Armytage, (New York:

notable improvement in these later editions of Chenu's famous work.⁹

Whatever the facts, the foregoing serves to emphasize the importance of viewing sacred theology as a wisdom, and not just as a science. If we do view sacred theology solely as a science, then we are likely to embrace the view that seems to have governed Chenu's reasoning in 1927: the *science* of theology has no business explaining the very principles of theological reasoning.¹⁰ In such a view of theology, sometimes disparagingly called "conclusion theology,"¹¹ the theologian is not concerned with penetrating the principles of faith, and their co-ordination with one another. The theologian is rather concerned only with the conclusions that can validly be deduced from principles of faith. As a result of this, neither is the theologian concerned with Sacred Scripture, the source of such principles, and the Bible is quickly dispatched from his horizon.

But if, on the other hand, we take the view that sacred theology is a wisdom, and follow the route suggested by Ramírez, then the theologian must use all his powers to penetrate the very principles of faith, trying to see the relationship that obtains among them, and striving to obtain enough understanding of these principles of faith so that he can defend them from attack.

Hawthorn Books, 1959: English translation of *La théologie est-elle une science?* [Paris: A. Fayard, 1957]), *The New Scholasticism* 35 (1961) 241–243, where Father Weisheipl expresses concern over what he sees as Chenu's penchant for portraying the intellectual character of theology in terms of deduction.

⁹ See A. Hayen, "La théologie aux XII, XIII et XX siècles," *Nouvelle revue théologique* 79 (1957) 1009–1028; 80 (1958) 113–132; Kieran Conley, *A Theology of Wisdom: A Study in St. Thomas* (Dubuque: The Priory Press, 1963), p. 77, n. 52. Whereas in 1927 Father Chenu wrote that, for Thomas, "l'Écriture, l'article de foi est non plus la matière même, le sujet de l'exposé et de la recherche, comme dans la *sacra doctrina* du XII siècle, mais le *principe, préalablement connu, à partir duquel on travaille, et travaille selon toutes les exigences et les lois de la démonstration aristotélicienne*. Tel est le sens profond de la première question de la *Somme*" ("La théologie comme science," 1st ed., p. 33: Chenu's italics), in 1957 Chenu could decry the establishment of the object of theology as *revelatio virtualis* because it "court le risque de ne pas ménager l'intériorité effective du travail rationnel du théologien dans le donné révélé, et elle a parfois reflété un certain extrinsécisme de la théologie par rapport à la foi" (*La théologie comme science*, 3rd ed., pp. 83–84). Chenu clearly seems to have changed his mind.

¹⁰ This is, it bears pointing out, a restricted notion of what science is. While it may be true that science proceeds *from principles to conclusions, procedere ex propriis principiis* (see *In 1 Post. Anal.*, 4 [Leon. 1/2:22]), this does not mean that science has no interest whatsoever in the principles from which it proceeds. The conclusion has a causal dependence upon the principles, and so can be seen formally as a conclusion only in light of the principles. This is the doctrine of resolution and composition. See *De veritate*, 14.1 c (Leon. 22:437) "... ex ipsa enim collatione principiorum ad conclusiones [sciens] assentit conclusionibus resolvendo eas in principia et ibi figitur motus cogitantis et quietatur; in scientia enim motus rationis incipit ab intellectu principiorum et ad eundem terminatur per viam resolutionis." See also the still pertinent study by S. Edmund Dolan, "Resolution and Composition in Speculative and Practical Discourse," *Laval théologique et philosophique* 6 (1950) 9–62.

¹¹ See J. Beumer, "Konklusionstheologie?," *Zeitschrift für katholische Theologie* 63 (1939) 360–365; *Theologie als Glaubensverständnis*, (Würzburg: Echter, 1953); "Thomas von Aquin zum Wesen der Theologie," *Scholastik* 30 (1955) 195–214.

Having done all this, he can then further penetrate into the mysteries of faith by seeing the new truths that follow upon the truths that are revealed. To do all this, of course, he must become what Father Wallace calls an "integral theologian," who is, as Father Ramírez put it, "a master of reason, but a student of faith."¹²

The view of sacred theology as a wisdom has received more attention in recent years, and, continuing in this recent tradition, I would like to examine the first article of Thomas' *Summa theologiae*, because it is, it would seem, an instance of his teaching that sacred theology is a wisdom.¹³

THE WISDOM OF SACRED THEOLOGY

Throughout the entirety of his teaching career Thomas taught that *sacra doctrina* was best understood when seen under the formality of a wisdom. In his *Scriptum super Sententias*, for instance, after he has established that *sacra doctrina* is primarily speculative, Thomas recalls the three speculative intellectual virtues and classifies *sacra doctrina* among them:

And since, according to the Philosopher, there are three speculative habits, namely wisdom, science and understanding, we say that [sacred doctrine] is a wisdom, because it considers the very highest causes, and it is like the head and principal and order of all the sciences.¹⁴

Aristotle's doctrine of the three intellectual virtues, in Book 6 of the *Ethics*,¹⁵ gives Thomas more to work with, for the distinction of *sapientia* from the other two intellectual virtues does not prevent its being connected to them in some way. Rather, while *intellectus* is the habit of first principles, and *scientia* is the habit of conclusions, *sapientia* is concerned with both principles and conclusions, and is itself somehow both *intellectus* and *scientia*.

¹² See William A. Wallace, *The Role of Demonstration in Moral Theology: A Study of Methodology in St. Thomas Aquinas*, (Washington: The Thomist Press, 1962), p. 69. Ramírez describes the theologian as follows: "Theologus: . . . se habere debet ut discipulus fidei et ut magister rationis naturalis, quia revera in theologia fides se habet ut magistra, dum ratio naturalis se habet ut ministra; fides ut domina, ratio naturalis ut ancilla"; Ramírez, *De hominis beatitudine*. 1:103, no. 131.

¹³ For writers who discuss sacred theology as a wisdom, see: F. P. Muñiz, "De diversis muneribus s. theologiae secundum doctrinam D. Thomae," *Angelicum* 24 (1947) 93-123, translated into English by J. P. Reid as *The Work of Theology* (Washington: The Thomist Press, 1953); Y.-M. Congar, "Theologie," in *DTC* 15:341-502; id., *A History of Theology*, trans. H. Guthrie, (Garden City: Doubleday, 1968); id., *La foi et la théologie* (Tournai: Desclée, 1962); Wallace, *The Role of Demonstration*, pp. 15-70; Conley, *A Theology of Wisdom*, pp. 59-104.

¹⁴ *In 1 Sent.*, prol., 3.1: "Et cum habitus speculativi sunt tres, secundum Philosophum, scilicet sapientia, scientia et intellectus, dicimus quod [sacra doctrina] est sapientia, eo quod altissimas causas considerat, et est sicut caput et principalis et ordinatrix omnium scientiarum."

¹⁵ See Aristotle, *Nicomachean Ethics*, 6.7 (1141a17-18).

But wisdom, as the Philosopher says, considers conclusions and principles, and so wisdom is science and understanding, since science is about conclusions and understanding about principles.¹⁶

Sapientia, as Thomas sees it, possesses in itself the perfections of both science and understanding. And yet, while it is both science and understanding, it has tasks or functions proper to itself. One such function is that of judgment, since it is wisdom's task to judge the principles of the other sciences.¹⁷ Another task, and a very important one, is the explanation of the notions signified by the terms that compose first principles, such as the principle that every whole is bigger than any one of its parts, and, ultimately, the principle of non-contradiction.¹⁸ Finally, *sapientia* must defend its principles and those of the other sciences from attack.¹⁹ All these many tasks that involve judgment befall wisdom because of its connection to the highest causes.²⁰ And because of its connection to the highest causes, and because of its penetration into the first principles, wisdom judges and orders.²¹ *Sapientis est ordinare.*²²

¹⁶ *In 1 Sent.*, prolog., 3.1: "Sed sapientia, ut dicit Philosophus, considerat conclusiones et principia et ideo sapientia est scientia et intellectus; cum scientia sit de conclusionibus et intellectus de principiis."

¹⁷ ST 1-2.57.2.ad 1: "Dicendum quod sapientia est quaedam scientia, in quantum habet id quod est commune omnibus scientiis, ut scilicet ex principiis conclusiones demonstret. Sed . . . habet aliquid proprium supra alias scientias, in quantum scilicet de omnibus iudicat, et non solum quantum ad conclusiones, sed etiam ad prima principia."

¹⁸ ST 1-2.66.5.ad 4: "Dicendum quod veritas et cognitio principiorum indemonstrabilium dependet ex ratione terminorum; cognito enim quid est totum et quid est pars, statim cognoscitur quod omne totum est maius sua parte. Cognoscere autem rationem entis et non entis, et totius et partis, et aliorum quae consequuntur ad ens, ex quibus sicut ex terminis constituuntur principia indemonstrabilia, pertinet ad sapientiam; quia ens commune est proprius effectus causae altissimae, scilicet Dei. Et ideo sapientia non solum utitur principiis indemonstrabilibus, quorum est intellectus, concludendo ex eis, sicut etiam aliae scientiae; sed etiam iudicando de eis, et disputando contra negantes." This task is often referred to as the task of "explication." See Wallace, *The Role of Demonstration*, pp. 58-65.

¹⁹ *In 4 Ethicorum*, 5, ad 1141a17 (Leon. 47:348): ". . . quia sapientia est certissima, principia autem demonstrationum sunt certiora conclusionibus, oportet quod sapiens non solum sciat ea quae ex principiis demonstrationum concluduntur circa ea de quibus considerat, sed etiam quod verum dicat circa ipsa principia, non quidem quod demonstret ea, sed in quantum ad sapientem pertinet notificare communia, puta totum et partem, aequale et inaequale et alia huiusmodi, quibus cognitis statim principia demonstrationum innotescunt; unde et ad huiusmodi sapientem pertinet disputare contra negantes principia, ut patet in 4 Metaphysicae."

²⁰ ST 1-2.66.5: "Et quia per causam iudicatur de effectu, et per causam superiorem de causis inferioribus, inde est quod sapientia habet iudicium de omnibus aliis virtutibus intellectualibus, et eius est ordinare omnes, et ipsa est quasi architectonica respectu omnium."

²¹ *In 3 Sent.*, 34.1.2: "In alia autem via contemplationis modus humanus est ut ex simplici inspectione primorum principiorum et altissimarum causarum homo de inferioribus iudicet et ordinet; et hoc fit per sapientiam quam ponit philosophus intellectualem virtutem."

²² The *locus classicus* for this adage, of course, is Aristotle's *Metaphysics* 1.2 (982a18), but note that it does not appear there in the *ipsissimis verbis*. The *translatio media*, which is found in the Marietti edition's *textus Aristotelis* (ed. Spiazzi [Turin: Marietti, 1964], p. 12), runs thus: ". . . non enim ordinari sed sapientem ordinare oportet." See *Aristoteles Latinus* 25.2, ed. G. Vuillemin-Diem (Leiden: Brill, 1976), p. 9. The text in the *translation media* is the same as that found in the *veus (Aristoteles Latinus* 25.1-1a, ed. G. Vuillemin-Diem [Leiden: Brill, 1970], p. 92), but differs somewhat from that found in the *translatio Iacobi*, also known as the *vetustissima* (*ibid.*, p. 8): ". . . non enim oportet ordinari sapientem sed ordinare."

Thomas repeats his teaching that *sacra doctrina* is a wisdom in question 1 of the *Prima pars*, and there Thomas again emphasizes the intimate connection *sacra doctrina* has to the highest cause.

It should be said that this doctrine is, among all human wisdoms, wisdom most of all, not to be sure in some [particular] genus only, but without qualification. For since it pertains to the wise man to order and judge—and judgment about inferiors is had through a higher cause—he is called the wise man in each genus who considers the very highest causes of that genus.²³

The cause that *sacra doctrina* considers, however, is not the highest cause of a particular genus; it is rather God, the highest cause *simpliciter*, the highest cause of the whole universe. Because of this, sacred doctrine is to be called a wisdom most of all: “*sacra doctrina maxime dicitur sapientia.*”²⁴ And yet, the wisdom of *sacra doctrina* differs from the acquired wisdom of metaphysics, since the latter attains to God as he is known through creation, while the former attains to God as he is known only to himself.

Sacred doctrine most properly gives consideration to God as he is the highest cause, because [it considers him] not only with respect to that which can be known through creatures, which the philosophers knew, as it is said in Romans 1:19, “What is known of God is manifest to them,” but also with respect to that about him which is known to him alone, and communicated to others through revelation.²⁵

This knowledge in us, Thomas points out elsewhere, is more perfect because it is more like the knowledge that God possesses of himself, since, in knowing himself, he knows other things.²⁶ Through *sacra doctrina*, then, we possess the point of view of God himself, and look over his shoulder, as it were, upon all things.

Now Thomists rightly glory in this teaching of Thomas, for *sacra doctrina* is a certain stamp of God’s knowledge in us: “*sacra doctrina [est] velut quaedam impressio divinae scientiae, quae est una et simplex omnium.*”²⁷ And

²³ ST 1.1.6: “Dicendum quod haec doctrina maxime sapientia est inter omnes sapientias humanas, non quidem in aliquo genere tantum, sed simpliciter. Cum enim sapientis sit ordinare et iudicare, iudicium autem per altiore causam de inferioribus habeatur; ille sapiens dicitur in unoquoque genere, qui considerat causam altissimam illius generis.”

²⁴ Ibid.

²⁵ Ibid.: “Sacra autem doctrina propriissime determinat de Deo secundum quod est altissima causa; quia non solum quantum ad illud quod est per creaturas cognoscibile, quod philosophi cognoverunt, ut dicitur *Rom. 1* (:19): ‘Quod notum est Dei manifestum est illis’; sed etiam quantum ad id quod notum est sibi soli de seipso, et aliis per revelationem communicatum.”

²⁶ SCG 2.4 (Leon. 13:279): “In doctrina vero fidei, quae creaturas non nisi in ordine ad Deum considerat, primo est consideratio Dei et postmodum creaturarum. Et sic est perfectior: utpote Dei cognitioni similior, qui seipsum cognoscens alia intuetur.”

²⁷ ST 1.1.3.ad 2. Thomas speaks in a similar fashion in an earlier discussion of the theological virtue of faith. See *In librum Boethii de trinitate*, 3.1. ad 4, ed. B. Decker, (Leiden: Brill, 1965), p. 114: “Lumen autem fidei, quod est quasi quaedam sigillatio primae veritatis in mente, non potest fallere.”

yet, for all that, Thomas is ready with a melancholy reminder that this knowledge is received in a knower whose mode of knowing is ordered to sensible, material things,²⁸ and whose mode of coming to know is to proceed progressively, from the known to the unknown, even though the unknown is virtually contained in the known.²⁹

The *fidelis* receives the simple knowledge of God in a multiple way, and gives assent to the many articles of faith, which, while having an order of dependence among themselves, are not necessarily grasped as such.³⁰ And although *sacra doctrina* is wisdom in virtue of its very connection to God, the highest of all causes, it will not obtain the ordered unity of acquired wisdom in the mind of the believer unless its principles are examined, understood as much as possible, and ordered so that each principle is placed in its intelligible context. In this sense, *sacra doctrina* is a wisdom to the extent that it is acquired through study.³¹

From the foregoing description of wisdom, with its emphasis upon principles, and from theology's characterization as a wisdom, it is clear that Thomas' presentation of *sacra doctrina* cannot justly be described as a "conclusion-theology." Rather, since *sacra doctrina* as wisdom must penetrate its proper principles in order to understand them, order them, and defend them, and since its principles are the truths of faith,³² *sacra doctrina* is directly concerned with the content of the truths of faith. These truths of faith, then, are not just the starting-points of an investigation that leads from them to some as yet unknown truth, but are themselves the subject of investi-

²⁸ *In librum boethii de trinitate*, 6.3; p. 221: "Unde quamvis per revelationem elevemur ad aliquod cognoscendum, quod alias esset nobis ignotum, non tamen ad hoc quod alio modo cognoscamus nisi per sensibilia."

²⁹ See *In I Post. Anal.*, 1, ad 71a1 (Leon. 1/2:8).

³⁰ ST 2-2.1.7: "Dicendum quod ita se habent in doctrina fidei articuli fidei sicut principia per se nota in doctrina quae per rationem naturalem habetur. In quibusdam principiis ordo quidam invenitur, ut quaedam in aliis implicite contineatur, sicut omnia principia reducuntur ad hoc sicut ad primum: 'Impossibile est simul affirmare et negare,' ut patet per Philosophum in 4 *Metaph.* Et similiter omnes articuli implicite continentur in aliquibus primis credibilibus, scilicet ut credatur Deus esse et providentiam habere circa hominum salutem, secundum illud *Ad Hebr.* 11(:6): 'Accedentem ad Deum oportet credere quia est, et quod inquirentibus se remunerator sit.' In esse enim divino includuntur omnia quae credimus in Deo aeternaliter existere, in quibus nostra beatitudo consistit; in fide autem providentiae includuntur omnia quae temporaliter a Deo dispensantur ad hominum salutem, quae sunt via ad beatitudinem. Et per hunc etiam modum aliorum subsequentium articulorum quidam in aliis continentur, sicut fide redemptionis humanae implicite continentur et incarnatio Christi et eius passio et omnia huiusmodi."

³¹ *Ibid.*, 1.1.6.ad 3: "Secundus autem modus iudicandi [per modum cognitionis] pertinet ad hanc doctrinam, secundum quod per studium habetur, licet eius principia ex revelatione habeantur."

³² *In 1 Sent.*, prolog., 3.2.ad 2: "Dicendum quod ista doctrina habet pro principiis primis articulos fidei, qui per lumen fidei infusum se noti sunt habenti fidem, sicut principia naturaliter nobis insita per lumen intellectus agentis."

gation for the theologian performing his sapiential office. As Father Conley reminds us:

Theological wisdom is above all a study and penetration of principles, the truths revealed by God. The theologian has no other goal than the greatest possible understanding of these principles, realized in the ordered simplicity of contemplation.³³

THE FIRST ARTICLE OF THE *SUMMA THEOLOGIAE*

Thomas' biographer Bernard Gui tells us that, even at the beginning of his career, Thomas became known for his unique manner of teaching, consisting, so Bernard tells us, of "new articles" and "new reasonings."³⁴ One such new article, it seems, is the very first article of Thomas' *Summa theologiae*, whose earlier counterpart is the first article of the *Scriptum super Sententias*. None of Thomas' predecessors seems to have asked the question "utrum sit necessarium praeter philosophicas disciplinas aliam doctrinam haberi," or, as it is found in the *Scriptum*, "utrum praeter physicas disciplinas alia doctrina sit homini necessaria."³⁵ It is my contention that Thomas' conviction that sacred theology is truly a wisdom led him to ask this question, and write this first article of the *Summa theologiae*.

One could perhaps immediately affirm the sapiential character of this first article by pointing out that a judgment is made regarding the sufficiency of the lower philosophical sciences. After all, when Thomas asks whether there is need for another teaching beyond the teaching afforded by philosophy, he responds that there is need, because God can be considered under a for-

³³ Conley, *A Theology of Wisdom*, p. 97.

³⁴ Bernard Gui, *Legenda S. Thomae Aquinatis*, cap. 11, in D. Prümmer, ed. *Fontes Vitae S. Thomae Aquinatis* (Toulouse: Bibliopolis, 1911-1934), p. 178: "Factus itaque bachallarius cum cepisset legendo diffundere, que tacendo collegerat habunde, tantam sibi deus in labiis suis effudit gratiam in doctrina, ut scholares in stuporem adduceret et ad studium animaret. Erat enim in legendo novos articulos adveniendi novumque modum determinandi inveniendi et novas producens determinationibus rationes, ut nemo audiens ipsum dubitaret quin ipsum deus novi luminis radiis illustrasset."

³⁵ See William of Auxerre, *Summa aurea* 1, prolog., ed. J. Ribailier (Grottaferrata [Rome]: Collegii S. Bonaventurae ad Claras Aquas, 1980), pp. 15-21; Alexander of Hales, in 1 *Sent.*, *introitus et expositio prologi*, edd. PP. Collegii S. Bonaventurae (Quaracchi: Collegii S. Bonaventurae, 1951), pp. 1-6; Hugh of St Cher, *Prologus in iv libros sententiarum*, in F. Stegmüller, ed. *Analecta upsaliensia theologiam medii aevi illustrantia*, Tomus 1: *Opera systematica* (Uppsala: A.-B. Lundequistska Bokhandeln, 1953), pp. 35-49; Richard Fishacre, in 4 *Sent.*, prolog., in R. J. Long, "The Science of Theology according to R. Fishacre." *Mediaeval Studies* 34 (1972) 71-98; *Summa fratris alexandri*, 1.1 edd. PP. Collegii S. Bonaventurae (Quaracchi: Collegii S. Bonaventurae, 1924), 1:1-13; Odo Rigaldus, *Questio de scientia theologiae*, in L. Sileo, ed., *Teoria della Scienza Teologica: Quaestio de scientia theologiae di Odo Rigaldi e altri testi inediti (1230-1250)*, (Rome: Pontificum Athenaeum Antonianum, 1984), 2:5-112; Albertus Magnus, in 1 *Sent.*, 1.A.1-5 (Borgnet 15-20); id., *Summa theologiae*, 1 (Cologne 5-23); Bonaventure, in 1 *Sent.*, proem. 1, edd. PP. Collegii S. Bonaventurae (Quaracchi: Collegii S. Bonaventurae, 1934), pp. 6-12; Richard Rufus, in *Sent.*, prolog., in Oxford Balliol College MS 62, fols. 6^{va}-12^{va}.

mality that differs from that of philosophy.³⁶ Such a judgment could not be made unless the one making it is viewing things from a higher point of view than that of philosophy, a point of view indeed more closely connected to the first cause. All the same, it seems to me that there is a deeper sapiential character to this article.

This article contains an argument that argues for the need of *sacra doctrina* because of man's ordination to God in a way that transcends his knowledge. Because of this ordination, the argument goes, and because man is an agent who needs to know the end towards which he strives, man must be made to know this end. The revelation of *sacra doctrina* is the means by which this end, and those things that are *ad salutem*, are made known to man. Now where claims are made about man's relation to things that exceed the capabilities of reason, we can expect Thomas to provide us with scriptural texts that support his claim, and we do find such texts in this first article; both the argument *sed contra* and the *responsio* contain an authoritative quotation from Sacred Scripture, the source of *sacra doctrina*.³⁷ The point of particular interest here, however, is that the first scriptural *auctoritas* encountered in the positive teaching of this article provides us not with the foundation from which Thomas will proceed by argument, but rather provides us with a scriptural answer to the question asked at the very outset of the article. In responding to the two difficulties, Thomas' argument *sed contra* cites a passage from St. Paul's second letter to Timothy to the effect that all divinely inspired scripture is for the purpose of teaching, reproof, correction and training unto justice. Now this divinely inspired scripture does not pertain to the various philosophical disciplines, and so, since there is a divinely inspired scripture, it is thought to have utility.³⁸ The truth of Sacred Scripture bears witness, then, to the need for a teaching beyond that of philosophy, and we have an answer to the question before any argumentation is undertaken.

The other scriptural quotation is found in the *responsio* of this article, and Thomas is here using a text from Isaiah as the support of his claim that man is ordered to God in a way that exceeds the comprehension of reason: "Eye has not seen without you, O God, those things that you have prepared for those who love you" (Is 64:4). For Thomas, this scriptural passage serves as

³⁶ See ST 1.1.1.ad 2.

³⁷ See ST 1.1.8.ad 2: "Auctoritatibus autem canonicae Scripturae utitur [sacra doctrina] proprie, ex necessitate argumentando." See as well *Super evangelium Iohannis* 22, lect. 6, ed. R. Cai (Turin: Marietti, 1952), p. 488, no. 2656: ". . . sola canonica scriptura est regula fidei." It is well known that Thomas regularly uses *sacra doctrina* and *sacra scriptura* interchangeably. See the following texts: In 1 *Sent.*, prol., 3.2.arg 1 and *sed contra*; In *Boethii de trinitate*, 2.3.c.ad 5 and ad 8; *ibid.* 5.4.c, and ad 3; ST 1.1.2.arg. 2, and ad 2; a. 4.arg. 2; *ibid.* 1.1.7.arg. 2 and ad 2; 1.1.9.ad 1.

³⁸ ST 1.1.1: "Sed contra est quod dicitur 2 *ad Tim.* 3:16: 'Omnis scriptura divinitus inspirata utilis est ad docendum, ad arguendum, ad corripiendum, ad erudiendum ad iustitiam.' Scriptura autem divinitus inspirata non pertinet ad philosophicas disciplinas, quae sunt secundum rationem humanam inventae. Utile igitur est praeter philosophicas disciplinas esse aliam scientiam divinitus inspiratam."

the first premise in an abbreviated argument that shows that *sacra doctrina* is necessary. Since man is ordered to God in a way that exceeds the comprehension of reason, and since man is an agent who acts knowingly for an end, it is necessary that he be made to know things that pertain to this end, and in such things this teaching beyond that of philosophy consists.³⁹ We have here, as Father Weisheipl pointed out, a demonstration *propter quid* through final causality, or, perhaps more precisely, a demonstration *propter quid ex suppositione finis*.⁴⁰ Since the end is the cause of causes (*finis est causa causarum*), and since the remaining causes are so ordered that one is somehow the cause of the next,⁴¹ *sacra doctrina* is seen to result from the fact that man is an agent who orders his actions to ends, and who therefore possesses through knowledge the ends and the means to those ends. *Sacra doctrina* is an effect in the order of material causality that follows *per se* upon man as ordered by God to an end that exceeds his human comprehension.⁴²

The demonstration Thomas gives here, it bears stressing, is not one in which a truth previously unknown is demonstrated from a principle of faith and a principle of reason—or from two principles of faith, for that matter—for in this instance both the first premise and the conclusion are known to be

³⁹ ST 1.1.1: “Dicendum quod necessarium fuit ad humanam salutem esse doctrinam quam secundum revelationem divinam praeter philosophicas disciplinas, quae ratione humana investigantur. Primo quidem quia homo ordinatur ad Deum sicut ad quandam finem qui comprehensionem rationis excedit, secundum illud *Isaiae* 64:4: ‘Oculus non vidit Deus absque te, quae praeparasti diligentibus te.’ Finem autem oportet esse praecognitum hominibus, qui suas intentiones et actiones debent ordinare in finem. Unde necessarium fuit homini ad salutem quod ei nota fierent quaedam per revelationem divinam, quae rationem humanam excedunt.”

⁴⁰ Weisheipl, “The Meaning of *Sacra Doctrina*,” p. 69. The hierarchical ordering of the four causes, such that the *ratio* of one follows from the *ratio* of another, can present problems in demonstration, for some efficient causes can be hindered from producing their effects, and thus the formal and material causes do not necessarily follow upon such efficient cause. This difficulty can be allayed by the demonstrative technique *ex suppositione finis*, in which the end is posited as to be attained, and the subsequent causes are seen as necessary if the end is to be obtained. See *In 2 Post. Anal.*, 7, ad93a3 (Leon. 1/2:198): “Ex suppositione autem finis sequitur quod sit id quod est ad finem, ut probatur in *II Physicorum*.” See also *In II Physicorum*, lect. 15, nos. 270–276, ed. P. Maggiolo, (Turin: Marietti, 1965), pp. 133–135.

⁴¹ *In 2 Post. Anal.*, 8, ad93b24 (Leon. 1/2:202): “Manifestum est enim in rebus habentibus quattuor causas, quod una causa est quodammodo causa alterius. Quia enim materia est propter formam et non e converso, ut probatur in *2 Physicorum*, definitio quae sumitur ex causa formali est causa definitionis, quae sumitur ex causa materiali eiusdem rei. Et quia generatum consequitur formam per actionem generantis, consequens est quod agens sit quodammodo causa formae et definitio definitionis. Ulterius autem omne agens agit propter finem; unde et definitio quae a fine sumitur, est quodammodo causa definitionis quae sumitur a causa agente. Ulterius autem non est procedere in generibus causarum: unde dicitur quod finis est causa causarum.” See also *In 1 Post. Anal.*, 16, ad75b39 (Leon. 1/2:61).

⁴² See *In De trin.* 5.1: “Cum ergo oporteat materiam fini esse proportionatam, oportet practicarum scientiarum materiam esse res illas quae a nostro opere fieri possunt, ut sic earum cognitio in operatione quasi in finem ordinari possit.” A demonstrative counterpart in natural philosophy is Aristotle’s demonstration in *De anima* 3.13 (435a11–22), that animals must be composed of many elements in order for them to be able to sense. See Thomas’ commentary *ad locum*, *In 3 De anima*, 12 (Leon. 45.1:258–259). Another instance is the demonstration in book 1 of the *Posterior Analytics* that the premises of a demonstration *propter quid* must be necessary, *per se* and proper in order that perfect knowledge may be had. See Aristotle, *Posterior Analytics* 1.6–12 (74b5–78a21). See also *In 1 Post. Anal.*, 13–17 (Leon. 1/2:49065).

true by faith from the very outset; the authoritative texts from Scripture tell us that man is indeed ordered to God in a way that surpasses his understanding (Isaiah 64:4), and that there is a divinely inspired teaching (2 Timothy 3:16). What the demonstration rather does, is take these two truths of faith, order them in a way befitting the human intellect, and show, by the instrumentality of truths intelligible to unaided reason, that one of these revealed truths derives its intelligible necessity from the other. This is the kind of ordering of principles proper to wisdom, and we observe here the unification of vision that occurs in all demonstrations; the conclusion is seen to be virtually contained in the premises. In the present instance, an earlier, two-fold vision is now made one, for when we know man as ordered to God in this special, supernatural way, we know of the necessary existence of *sacra doctrina*.

Now this seems to be a curious claim. Surely *sacra doctrina* does not demonstrate its own existence, for no science demonstrates its own existence or that of its subject. Isn't this the upshot of the discussion of the *praecognita* at the beginning of Book 1 of the *Posteriora*?⁴³ Yet, when we examine what Thomas does here, and what he does in question 2 of the *Prima pars*, one wonders whether he thinks the dictum does not apply here. To begin with, Thomas does view question 2, article 3 of the *Prima pars* as containing five proofs for the existence of God, and friend and foe alike of the *quinque viae* will admit at least that. But God is the subject of *sacra doctrina*, as Thomas says in question 1.⁴⁴ It seems, then, that Thomas is demonstrating, in some fashion, the existence of the subject of this particular science.

There are other indications that suggest that Thomas is demonstrating the existence of *sacra doctrina* here. The second half of the *responsio* in this article contains an argument that claims that even truths that man could know without revelation are fittingly handed on in this divine teaching. This particular argument has all the trappings of an argument *ad bene esse*: "Ut igitur salus hominibus et convenientius et certius proveniat. . ."⁴⁵ But an argument *ad bene esse* finds its place next to an argument *ad esse*, and this is what seems to be occurring here, for by arguing for *sacra doctrina* both because of absolute need and relative need, Thomas attains to *sacra doctrina* as pertaining to the *esse* and *bene esse* of man's eternal beatitude. Again, *ex suppositione finis*, Thomas seems to have demonstrated the existence of *sacra doctrina*.

Also, there are other contexts in the theological writing of Thomas in which he employs the very same mode of argumentation found here in article 1, and in which he is expressly establishing the existence of some thing. In the *Prima secundae*, question 62, for instance, Thomas is providing his general treatment of the theological virtues of faith, hope and charity, and the

⁴³ See *In 1 Post. Anal.*, 2-3 (Leon. 1/2:10-16).

⁴⁴ ST 1.1.7: "Dicendum quod Deus est subiectum huius scientiae." See also *ibid.*, ad 1.

⁴⁵ ST 1.1.1. On the relationship of final causality to *esse* and *bene esse* see *In 5 meta.*, lect. 6, nos. 832-35, p. 226.

first article of his treatment asks the question “*utrum sint aliquae virtutes theologicae.*”⁴⁶ Thomas’ answer to this question, of course, is that there are such virtues, and he establishes this fact by calling to mind that man is ordered to God in a way surpasses the proportion of nature, and so there must be principles in man that make him proportioned to God in a supernatural way. Such a proportion is accomplished by the theological virtues. Arguing *ex suppositione finis*, Thomas attains to the existence of the theological virtues, which are in the order of formal cause of eternal beatitude.⁴⁷ *Sine praeiudicio melioris sententiae*, it seems that Thomas’ use of the argument *ex suppositione finis* requires us to claim that he has demonstrated the existence of *sacra doctrina* in question 1, article 1, of the *Summa theologiae*.⁴⁸

Perhaps, in the end, this is not so much of a quandary. Nothing prevents one who knows a fact from later knowing the reasoned fact, and this is because nothing prevents the same question from being answered through different media. A particular passion, for instance, can be demonstrated by a remote cause as well as a proper cause, the former being a demonstration *quia per causam remotam*, the latter being a demonstration *propter quid*. In either case, it bears stressing, absolute certitude is had with respect to the question at hand, for in each demonstration the fact is established such that it cannot be otherwise: “*non potest aliter se habere.*” Despite this, however, a *propter quid* demonstration is preferable to a *quia* demonstration, and the reason for this is that the four scientific questions are so ordered that the answer to a subsequent question answers explicitly that particular question, and implicitly the prior question or questions. Given all this, a universal, affirmative demonstration *propter quid* answers, at one and the same time, the *propter quid sit*, the *quid sit*, the *quomodo sit* and *an sit*.⁴⁹

When all of this is applied to the present instance, the following picture emerges. Taking full advantage of the wealth of divine knowledge given to him through revelation, and ordering certain otherwise disparate truths so that one is seen to follow necessarily from the other, albeit through media intelligible to unaided reason, Thomas has provided the student of *sacra doctrina* with the most thorough-going account of its existence possible to the human mind *in via*, an account, it goes without saying, that could be employed should doubt be cast upon the very existence of *sacra doctrina*.

⁴⁶ ST 1-2.62.prol. The earlier treatment of this topic in the *Scriptum super Sententias* is In 3 *Sent.*, 23.1.4.3, and it likewise contains the argument *ex suppositione finis*. The scriptural *authoritas* of that article is from 1 Corinthians 2:9, a text in which St Paul is explicitly referring to the passage from Isaiah 64:4, the text that serves as the first premise in the argument in ST 1.1.1.

⁴⁷ See ST 1-2.62.1; 51.3; 63.3. For a text arguing *ex suppositione finis* to virtue, see In 2 *Post. Anal.*, 7, ad 93a3 (Leon. 1/2:198).

⁴⁸ For a text in which Thomas suggests that only particular sciences cannot demonstrate their own existence, as distinct from a universal science, such as metaphysics, see In 6 *Metaphysicorum*, lect. 1 (cited above, n. 22).

⁴⁹ See In 2 *Post. Anal.*, 7, ad93a3 (Leon. 1/2:198). See also Wallace, *The Role of Demonstration*, pp. 21-22.

Indeed, should the existence of a divine teaching beyond that of philosophy be called into question, or denied outright, who but the theologian, exercising the sapiential office of defense, and himself possessing the teachings of faith in an ordered unity, will be able to show that there is such a thing as *sacra doctrina*, or to show why its existence is a reasonable occurrence? It is true that the theologian cannot elicit the act of faith on behalf of one in doubt, but since he is a master of reason and a student of faith, he will be able to order the truths of faith such that one is seen to follow from the other, and that is what Thomas has done here.⁵⁰ Given that man is ordered to God in a supernatural way, a truth to which we assent because of faith,⁵¹ *sacra doctrina* follows necessarily.⁵² And while it may be because we “believe God” (*credere Deo*) that we assent to the truth that we are called to a union “that eye has not seen, nor ear heard,” this does not prevent our vocation to such a union’s being the very *ratio essendi* of belief and of the revelation of *sacra doctrina* in the first place.⁵³

In his essay on *sacra doctrina*, Father Weisheipl examined this first article, and after detailing the demonstration contained in it, he claimed that its “argumentation alone shows that *sacra doctrina* is a *scientia*.”⁵⁴ This is indeed true, for the argument contained in article 1 begins with principles taken as certain, proceeds through the appropriate middles, and concludes truthfully. But it is truer to say that the argumentation shows that *sacra doctrina* is a wisdom. Only as a wisdom could *sacra doctrina* possess a point of view of such height that it could judge all the philosophical sciences and the relative insufficiency of even sound philosophical speculation. And only as a wisdom could *sacra doctrina* see the unity of order that obtains among the different, revealed truths, and in virtue of that unity cast an argument befitting the needs of the human mind as it tries to attain to an understanding of the very *ratio essendi* of revelation. The sapiential character of *sacra doctrina* courses throughout the entirety of the *Summa theologiae*, and article 1 is the beginning.

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⁵⁰ See ST 1.1.8 and 2–2.1.5.ad 2.

⁵¹ In 1 *Sent.*, prol., 1: “Est alia Dei contemplatio, qua videtur immediate per suam essentiam; et haec perfecta est, quae erit in patria et est homini possibilis secundum fidei suppositionem.”

⁵² This supernatural end of man (and of the angels) serves as the final cause for a great number of things for which Thomas argues in the *Summa theologiae: sacra doctrina*, the theological virtues, the seven gifts of the Holy Spirit, divine law, grace, and, on the assumption of the impediment of sin, even the Incarnation. See ST 1.1.1; 1.62.2; 1–2.62.1; 1–2.68.2; 1–2.91.4; 1–2.109.5; 3.1.3 and 4.

⁵³ On the act of faith as *credere Deum*, *credere Deo*, and *credere in Deum*, see ST 2–2.2.2 and *De veritate*, 14.7.

⁵⁴ Weisheipl, “The Meaning of *Sacra Doctrina*,” p. 69.

Thomas Aquinas' Disclaimers in the Aristotelian Commentaries

Mark D. Jordan

Father Weisheipl wrote often and authoritatively on the topics of Thomas Aquinas' "Aristotelianism."¹ Yet some of his most suggestive remarks on the reception of Aristotle in the thirteenth century are to be found in an essay on Albert the Great. The essay, entitled "Albert's Disclaimers in the Aristotelian Paraphrases," gathers the numerous passages in which Albert seems to deny that any of his own thought is to be found in his expositions of Aristotle.² Father Weisheipl concludes the essay with suggestions as to the senses and effects of these disclaimers, but also with a call to take up again the study of Albert as "philosopher."

Though the call is well worth heeding, I intend here to turn Father Weisheipl's remarks on Albert back to Thomas. In his commentaries on Aristotle, Thomas makes no disclaimers in the way that Albert does. Even so, many of the questions raised by Albert's disclaimers must also be posed to Thomas' works. What position does Thomas take up as commentator? What role is to be assigned to Thomas' expository voice? How does he distance himself from the Aristotelian text? How do his commentaries fit within the corpus?

¹ So, for example, "The Commentary of St. Thomas on the *De caelo* of Aristotle," *Sapientia* 29 (1974) 11-34; "Thomas' Evaluation of Plato and Aristotle," *The New Scholasticism* 48 (1974) 100-124; and *Friar Thomas d'Aquino* (Garden City, NY: Doubleday, 1974; with *corrigenda* and *addenda*, Washington: Catholic Univ. of America, 1983), *passim*.

² *Proceedings of the PMR Conference* 5 (1980) 1-27.

In what follows, these and like questions will be pursued in four steps. The first will recover some preliminary sense of the genre of Thomas' commentaries, since conventions of genre most often establish authorial position or voice. The second step will inquire after Thomas' intention in writing commentaries within such a genre. The third will survey some ways in which Thomas seems to put distance between his views and those of the Aristotelian text. The fourth, finally, will try to situate the Aristotelian commentaries within the Thomist corpus.

I. THE GENRE OF THE ARISTOTLE COMMENTARIES

Judging from how frequently they are cited and how often they have elicited controversy, a reader new to Thomas might guess that the Aristotelian commentaries bulk large part in his corpus. They do not. Taken together, Thomas' expositions of Aristotle are just a bit over 13% of the whole corpus.³ The collection of them is significantly shorter than either the commentary on Peter Lombard's *Sentences* or what was written of the *Summa*. Thomas composed twice as much by way of commenting on Scripture,⁴ though one would never guess this from publishing history or modern scholarly attention. Within the corpus, then, the Aristotle commentaries are not particularly prominent by reason of extent. Albert's Aristotelian commentaries and paraphrases, by contrast, make up almost a third of his entire corpus—that is, almost three times the percentage in Thomas.⁵

Nor are Thomas' commentaries prominent biographically. The hagiographers lay no particular emphasis on Thomas' choice to undertake them. Ptolemy of Lucca praises them for their method, but does not remark on Thomas' having decided to write them in the first place.⁶ The chronology, moreover, suggests that their composition was subordinated to the composition of other works. The best efforts of the Leonine editors indicate that all of the commentaries, except that on the *Metaphysics*, followed the commentary on *De anima*, which was written between December, 1267, and September, 1268.⁷ In other words, at least 11 of the 12 commentaries were

³ I round off to the nearest thousand the word-counts provided by the *Index Thomisticus*. The whole corpus, including the *reportationes*, comes to some 8,681,000 words; the Aristotle commentaries, including that for the first book of *De anima*, come to some 1,165,000.

⁴ The fully finished Scripture commentaries are about 1,170,000 words; the *reportationes* contain about another 1,079,000 words, for a total of 2,249,000 or 193% of the Aristotle commentaries.

⁵ The calculation for Albert is a very rough one, based on the disposition of the Borgnet edition.

⁶ Ptolemy of Lucca, *Historia ecclesiastica nova* 22.38, as edited in Antoine Dondaine, "Les 'opuscula fratris Thomae' chez Ptoléme de Lucques," *Archivum Fratrum Praedicatorum* 31 (1961) 142–203, at p. 151, lines 24–25: "quodam singulari et novo modo tradendi."

⁷ René-A. Gauthier, Preface to the *Sentencia libri De anima* in the Leonine Edition of Thomas' *Opera omnia* (Rome, 1882–) [hereafter "Leon."], 45:283*–288*.

undertaken during the last six years of Thomas' active authorship.⁸ Even if we conjecture that Thomas relied in composing them on earlier notes or drafts,⁹ the final redaction would still fall within years dominated by other projects. Five of the commentaries were left unfinished by Thomas. Presumably he wasn't working on all five of these when his authorship was interrupted—or completed—by the mystical experience at the end of 1273. It seems much more likely that Thomas had already set aside a number of the commentaries as unfinished.¹⁰ Their incompleteness is then to be contrasted with that of the *Tertia pars* of the *Summa*, on which Thomas had been actively engaged up to the end and to which his secretary begged him to return. The series of interrupted commentaries on Aristotle suggests something else—perhaps that Thomas had some definite aim in view and he broke off when it was accomplished, or that he was looking for something and abandoned the search after a certain time with the text.

We could choose among these alternatives only by discovering Thomas' intention in the commentaries. The discovery is not easy, in large measure because Thomas draws so little attention to his own purposes. There is no explicit discussion of aim or end in the texts, nothing so suggestive as the disclaimers or prefatory notes in Albert. We may wonder whether Albert is being ironic when he insists that he is doing no more than paraphrasing Aristotle, but we get from him at least some evidence with which to pursue the question of intention. Thomas did compose a preface to the (incomplete) commentary on the *Peri hermeneias*, but it is a very brief rehearsal of commonplaces. The only thing to be culled from it is that Thomas twice calls his commentary an "expositio."¹¹ The reiterated word reminds us that there were several kinds of commentaries in medieval academic life, corresponding to different intentions. Into which genre of commentary do Thomas' *expositiones* of Aristotle fall?

The answer is plain enough. They are *expositiones ad litteram*; they are literal commentaries on the texts of Aristotle and the exegetical difficulties arising immediately in reading them.¹² Thomas is very deliberate about this.

⁸ I follow the traditional enumeration. If the commentaries on *De sensu* and *De memoria* are combined in the manner suggested by the Leonine editors, the total of commentaries drops to eleven.

⁹ See Simon Tugwell's "Introduction" to the texts from Thomas in *Albert and Thomas: Selected Writings* (New York: Paulist Press, 1988), pp. 245, 257.

¹⁰ Indeed, Thomas' preface to the commentary on the *Peri hermeneias*, of which more in a moment, refers to the body of the text in the past tense ("adhuc curavi"). This suggests, as Fr. Weisheipl concludes, that the commentary was sent along to Louvain incomplete.

¹¹ *Sent. Peri herm.* epist. nuncup. (Spiazzi p. 3 [no paragraph number]; Leon. 1*/1:5-8, 10-11). For simplicity of citation, I will add to the medieval text divisions the standard paragraph numbers of the editions published by Marietti, identified in each case by the name of the editor. For extended quotations, and where there are textual variants, I also cite the critical Leon. versions, where these are available, by volume and page.

¹² There is nothing whatever new in this claim; it has been made by a long line of modern scholars. For some of the precedents, see Charles Jourdain, *La philosophie de saint Thomas d'Aquin* (Paris: Hachette, 1858; rptd. Dubuque, IA: W. C. Brown, n.d.), at pp. 84-85, which extends the views of his father, Amable Jourdain, *Recherches critiques sur l'âge et l'origine des*

While Thomas hardly invented the literal exegesis of Aristotle, there is certainly some connection between his attention to the letter in scriptural commentary or patristic exegesis and his readings of Aristotle. Thomas applied to Aristotle much that he had learned from theological reading. Yet the literal character of the Aristotle commentaries need not be imagined biographically. It can be confirmed quite explicitly in three ways: by Thomas' procedure in the commentaries, by comparing them with those of his contemporaries, and by looking to the history of their reception.

First, procedure. Although there are variations in application from commentary to commentary, Thomas' exegetical habit is constant. Indeed, his procedure is so steady that slight variations of phrasing are both noticeable and significant.¹³ Thomas proceeds in the commentary just in the manner of a medieval exegete of the letter. The procedure is to divide and sub-divide the text until the smallest units of argument are reached. The divisions can begin with large structures, such as the relation of preface to body or of Book to Book, but they operate most often at the level of the Aristotelian Chapter or that part of it answering to a *lectio*. The typical *lectio* begins with a linking paragraph that connects the topic of the present passage to that of the previous one. The first division of the text is then announced, and the process of analysis continues by dividing the first member of each nested schema until Thomas reaches the smallest appropriate argumentative unit. The units are as small as they need to be in order to justify the sequence of the Aristotelian text. Thomas then proceeds to comment on each of those units, filling out the announced schemata as needed, until he has gone through the whole passage.

Thus the commentaries comprise, in descending order of frequency, explications or distinctions of terms, paraphrases of arguments, collations with other passages in Aristotle, resolutions of apparent difficulties or inconsistencies, and criticisms of prevalent or probable misreadings. The basic work is exposition, and the subject of many sentences is Aristotle. If a difficulty arises in the exposition, Thomas will fill in the intended example or cite other Aristotelian passages in which the matter is more fully explained. Only then, and only if the difficulty is both important and persistent, will Thomas step back from the text to engage other commentators. The whole effort is to let Aristotle explain himself by exhibiting the deeply rational order and the consistency of his writing. Thomas assumes that the texts are finished works

traductions latines d'Aristote . . ., rev. ed. (Paris, 1843; rptd. NY: Burt Franklin, 1960), at pp. 392–393; Matthias Schneid, *Aristoteles in der Scholastik* (Eichstadt: Krüll'sche Buchhandlung, 1875), at pp. 72–73; Mandonnet, *Siger de Brabant*, 1:42; Martin Grabmann, "Les commentaires de Saint Thomas d'Aquin sur les ouvrages d'Aristote," *Annals de l'Institut Supérieur de Philosophie* 3 (1914) 231–281, at pp. 248–254.

¹³ Gauthier, Leon. 45:288*, note 3.

of philosophical instruction that invite rigorous reading.¹⁴ His commentaries take up the invitation.

A second confirmation of the literal genre of Thomas' Aristotle commentaries can be had in comparing them to their contemporaries. Albert, for example, claims to be expounding Aristotle for the Latins, but he uses the commentary as an occasion to pursue problems in the reconciliation of Aristotelian and post-Aristotelian natural philosophy. The texts alternate passages of loose, sometimes revisionary paraphrase, with passages in the form of disputed questions constructed upon a full range of authorities. Nor is Albert unusual in adopting this format. Most of the commentaries of the latter half of the thirteenth century, as of the fourteenth, are actually sets of disputed questions ordered according to the Aristotelian text, but only intermittently attentive to its letter. Thomas stands out precisely for his unflagging attention to the letter as part of a textual whole. He also restricts himself for the most part to ancient authorities.¹⁵ On the rare occasions when Christian authors are cited, it is for their teaching in philosophy or the liberal, that is, the pagan Arts.¹⁶ There are many other references, of course, to the long line of Aristotelian commentators, ancient and modern. Their readings are most often cited in order to be rejected as inadequate or unfaithful to Aristotle's "intention" or "letter."

It was for Thomas' fidelity to the text that he was received by late medieval and Renaissance readers, which provides us a third confirmation of the literal genre. Thomas early earned the epithet "Expositor."¹⁷ There is an adage reported from the schools, "Ubi tacuit Thomas, Aristoteles mutus est."¹⁸ Material evidence for this view of Thomas can be had in the manuscript tradition of the Aristotle commentaries. As new translations of Aristotle were favored by the schools, copies of Thomas' commentaries were

¹⁴ The assumption is made clear in one of Thomas' remarks on the "processum Philosophi" (*Sent. Phys.* 8.1; Maggilo #966). Thomas writes: "Ridiculum est etiam dicere quod Aristoteles inferret suam considerationem a principio, quasi aliquid omisisset, ut Commentator fingit. Erat enim copia Aristoteli corrigendi librum suum, et supplendi in loco debito quod fuerat omissum, ut non inordinate procederet." Thomas says this even though he accepts that the *Physics* "per modum doctrinae ad audientes traditus fuit" (1.1; Maggilo #4).

¹⁵ This does not mean, of course, that he restricted himself to authorities that Aristotle would have known. Thomas cites Latin authors (e.g., in the *Sent. Eth.*, Cicero on Caesar, 4.10 [Spiazzi #778]; Vegetius, 3.16 [#567]); he narrates the history of ancient philosophy after Aristotle (though there may well be some chronological confusion here). The point is only that Thomas attempts for the most part to draw his *auctoritates* and even his illustrations from pagan works.

¹⁶ So Ps-Dionysius on the good, *Sent. Eth.* 2.7 (#320); Isidore on the definition of right, *Sent. Eth.* 5.12 (#1016); Boethius on the Pythagorean discovery of quadruple proportion, *Sent. Anima* 1.7 (Pirota #95); cf. 2.17 (#464); Augustine on the doxography of ancient philosophy, *Sent. Anima* 1.3 (Pirota #36). A much more striking Christian allusion is to the martyrdom of St. Lawrence (*Sent. Eth.* 3.2 [Spiazzi #395]), but Thomas turns from it almost immediately to ascribe a different sense to Aristotle's remark on suffering death.

¹⁷ See F. Edward Cranz, "The Publishing History of the Aristotle Commentaries of Thomas Aquinas," *Traditio* 34 (1978) 157-192, at p. 158.

¹⁸ *Ibid.*, p. 158, note 3, but the genealogy of the remark is uncertain.

revised to reflect the wording of those new texts. Because Thomas was so useful a guide in the classroom exegesis of Aristotle, his commentaries were adapted to the version in hand. The same tendency is famously reflected in the early printed versions of the commentaries.¹⁹ The great Piana edition of Thomas' *Opera* prints two versions of the Aristotelian text for each commentary, a *vetus Latina* supposed to conform to the version Thomas used and a newer, Renaissance version supposed to be more faithful to the Greek.²⁰ Those who criticized Thomas in light of the new translations were attacking him for failure to accomplish the genre, that is, to attain to the sense of Aristotle's text. It seems clear, then, and for a third time, that Thomas' commentaries were written in the genre of the literal exposition.

One conclusion can be drawn immediately. The genre of literal exposition just by itself constitutes a kind of disclaimer. It need not suggest that the commentator disavows what is taught in the underlying text, but it does suggest that additional warrant will be required for attributing what is taught to the commentator. That is why Thomas could write literal expositions of seemingly opposed works—Aristotle's *Metaphysics*, for example, and the *Liber de causis*. The literal commentary as such does not assert that the text under explication is true. It asserts only that the text merits careful reading.

II. THOMAS' INTENTION IN THE COMMENTARIES

Given this judgment on genre, the question of intention can be posed more sharply. What did Thomas intend by writing literal expositions of central works in the Aristotelian corpus?

The question may be misleading so far as it assumes that there is one intention. Thomas' commentaries on Aristotle accomplish different tasks depending both on the subject-matter of the text and on the received interpretations of it. The purview, procedure, and detail of the commentaries varies with the sources at Thomas' disposal, the history of the work's reception, and the sensitivity of its doctrines. Any remarks about the intention of all of the commentaries risks false abstraction. Still, if the question about intention is posed to the commentaries in general, three general answers for it are ready at hand. The first, which dates back in modern interpretation at least to Mandonnet, is that Thomas meant to combat false readings of Aristotle arising in university circles from the baneful influence of the "Latin Averroists" or heterodox Aristotelians.²¹ This view of intention has the merit

¹⁹ *Ibid.*, pp. 160–162, 166–167, 169–178.

²⁰ *Divi Thomae Aquinatis Doctoris Angelici Ordinis Fratrum Praedicatorum Opera omnia gratis privilegisque Pii V Pont. Max. typis excusa* (Rome, 1570), 1:a3^r. The list that Cranz gives, p. 177, should be corrected in one particular: the Renaissance version of the *De generatione* is ascribed by the Piana editors to Franciscus Vatabilis.

²¹ Pierre Mandonnet, *Siger de Brabant et l'Averroïsme latin au XIII^e siècle* (rev. ed., Louvain: Institut suprieur, 1911), 1:39; compare Weisheipl, *Friar Thomas*, pp. 280–285. The view that the commentaries of Albert and Thomas were motivated (or commanded) by the

of explaining why most of the commentaries were written during Thomas' second regency at Paris and why many of the commentaries seem to engage Averroistic readings.

Unfortunately, the view contradicts at least one chronological fact. The commentary on the *De anima* was begun and finished before Thomas returned to Paris, that is, before he would have been thrown back into the intellectual turbulence of the controversies. Moreover, Thomas' return to Paris may have had as much to do with the defense of his own teaching as with the troubles over the reading of Aristotle.²² But even if these claims should be discredited, or the inference from them denied, the engagement with heterodox "Aristotelianism" would not be a sufficient explanation for the writing of the Aristotle commentaries as we have them.

Thomas had been engaged with refuting incorrect readings of Aristotle long before he began the commentaries. His habit in those controversies is to undertake at once both exegetical and dialectical argument. Thus, in the latter part of the second book of the *Contra gentiles*, he devotes six dense chapters to refuting Averroistic and Avicennian errors about the possible and agent intellects.²³ Exegetical arguments are mixed with dialectical ones throughout, and the last chapter is a line-by-line reading of *De anima*, 3.5.²⁴ More significantly, the same mixture of dialectic and exegesis is found in the *De unitate intellectus* and the *De aeternitate mundi*, both of them works written during the second Parisian regency with the explicit intention of correcting misreadings of Aristotle.²⁵ Thomas would have engaged prevalent misreadings, then, more characteristically and more effectively by concentrating on the controverted texts. Indeed, he cites his own free-standing arguments and exegeses at particularly controversial points in the Aristotelian commentaries.²⁶ There was really no call to write a set of literal commentaries on whole Aristotelian books in order to combat particular misreadings.

A second account, proposed by Gauthier in view of the chronology, holds that Thomas wrote the Aristotle commentaries "in the margin" of the *Summa*, that is, in view of that larger work and as preparation or supplement to it.²⁷ This view has the merit of explaining the chronological coincidence of

desire to combat Averroism can be found in I. F. Bernardus de Rubeis, *Dissertationis criticae et apologeticae* (Venice, 1750), diss. 30, cap.7, as in Leon. 1:cccxiv-cccxv.

²² Tugwell, *Albert and Thomas*, pp. 226-227.

²³ SCG 2.73-78.

²⁴ SCG 2.78. The procedure is different from that of the Aristotle commentaries. Here, Thomas quotes the whole Aristotelian lemmatum, interpolating glosses or explanations (Marc ##1586, 1592a, 1593a, 1594a). He then provides a series of arguments drawn from the text to establish its meaning, often collating it with other passages or refuting probable misreadings (Marc ##1587-1591, 1592b-d, 1593b-e, 1594b).

²⁵ See Weisheipl, *Friar Thomas*, p. 385, ##55-56, with the corrections on pp. 483-484.

²⁶ For example, *Sent. Anima* 3.1; Pirota #695. Compare the self-reference on the question of survival of death, *Sent. Eth.* 1.17; Spiazzi #212.

²⁷ Gauthier, Leon. 45:288*-289*.

the undertaking of the *Summa* and of the commentaries: both were begun in Rome during the two academic years 1266–1268. Moreover, there are strong textual parallels between some parts of the Aristotle commentaries and parts of the *Summa*. The commentary on *De anima* clearly treats of questions central to the account of human nature in the *prima pars*, for example, while the commentary on the *Ethics* speaks to the account of the elements of moral life in the *prima secundae*. It is easy to imagine, then, that Thomas might have written the commentaries in order to explore issues important for the *Summa*—or even to master the Aristotelian texts useful in the *Summa*'s construction. Gauthier's account might explain why certain commentaries were broken off in the middle—that is, at a point beyond which the Aristotelian text might no longer be so useful.

What remains unexplained on Gauthier's account is, again, the detail and extent of the commentaries. It is difficult to imagine that Thomas would have had to go through the meticulous work of complete division and explication in order to garner what he needed for writing the *Summa*. Especially during years when he was immensely preoccupied by other composition—the *Summa*, disputed questions, polemical tracts, occasional works—it seems unlikely that he would waste time polishing preparatory notes. There would be no point to Thomas' detailed pedagogical forms unless pedagogy were part of his point. I conclude, then, that the commentaries may indeed have been undertaken in conjunction with the project of the *Summa*, but deny that they can be viewed solely as instrumental to the *Summa*.

There remains a third account, on which the writing of the commentaries on Aristotle was somehow required by Thomas' understanding of his teaching office. Gauthier describes the notion as that of the teacher of wisdom.²⁸ The account is promising if it can be specified. The Aristotle commentaries are to be understood not as part of a vaguely general wisdom, but as part of a pedagogical achievement chiefly expressed in Thomas' invention of the *Summa*. What is remarkable in the *Summa* taken as a whole is the structure, which answers both to specific needs in Dominican formation, as Father Boyle has shown,²⁹ and to an insistent question for the Christian tradition—the question, namely, of how to give an integral formation, speculative and practical, for “beginners.” In order to provide such a formation, the *Summa* explicitly rejects the order of commentary.³⁰ Either the pedagogical needs of beginners in theology are very different from those in philosophy, or else Thomas' decision to write commentaries on Aristotle is precisely not a decision to provide a parallel formation in philosophy. In choosing to follow the order of the Aristotelian texts, he was explicitly differing from the *Summa*,

²⁸ Gauthier, *Leon*, 45:290*–294*.

²⁹ Leonard E. Boyle, *The Setting of the Summa theologiae of Saint Thomas* (Toronto: PIMS, 1982).

³⁰ ST 1.prol.; *Leon*, 4:5, “. . . ea quae sunt necessaria talibus ad sciendum, non traduntur secundum ordinem disciplinae, sed secundum quod requirebat librorum expositio. . . .”

one prominent achievement of which is the successful rejection of the order of a commentary on the Lombard's *Sentences*. How then might commentaries fit within the larger pedagogical project given expression by the *Summa*? As preliminary exercises in the reading of authoritative texts that are propaedeutic to theology. The commentaries seem to be works both of Dominican formation and of university instruction, just as the *Summa* is a work of mixed genre, indebted at least as much to the Dominican tradition of casuistry as to the university traditions of dogmatic theology. But while the *Summa* undertakes an integral pedagogy suitable for beginners in "Christian religion," which is as much the religious life as the study of theology, the commentaries offer exemplary studies of magisterial texts from outside Christian wisdom. It is a sign of the hierarchical supremacy of theology that these texts have become more and more important in the preparation for theology, within both Dominican *studia* and the universities.

In choosing to write commentaries on Aristotle, Thomas was choosing not to write a complementary *Summa philosophiae*. Nor was he merely making public more or less polished versions of his own teaching. The manuscript evidence shows, for some cases at least, that the commentaries were dictated by him to assistants in his ordinary manner of composition.³¹ Thomas was offering, instead and in middle place, carefully constructed readings of texts that were of decisive importance in that preparation for theology which is the Christian's study of philosophy. But this does not mean that the Aristotelian texts are identical with philosophy. On the contrary, it is imperative to construe Thomas' stance in the commentaries cautiously, especially at such points where he might seem to distance himself from Aristotelian doctrine. Otherwise one risks confusing both the role of authority in philosophy and the necessarily limited place of any philosophical authority in the Christian's study.

III. THOMAS' DISCLAIMERS

There is nothing in what we can know of Thomas' intention, then, that undoes the inherent cautions of the literal commentary. The expositor of a text cannot in general be taxed with the views being expounded. Albert finds it necessary to remind his readers of this. Thomas does not. But Thomas does find a number of ways to mark his distance at certain points from the doctrine of the underlying text. In what follows, I provide only a preliminary typology of these ways, together with a few instances of each type.

Thomas distances himself from the Aristotelian doctrine most obviously when he disagrees with it. The best known instance of disagreement comes in the commentary on *Physics* 8, with its arguments on the eternity of motion. The text is complicated and the issue is one on which Thomas changed his

³¹ J. Cos, "Evidences of St. Thomas' Dictating Activity in the Naples Manuscript of his *Scriptum in Metaphysicam* (Naples, BN VIII.F.16)," *Scriptorium* 38 (1984) 231-253.

formulations.³² It can be said at least that Thomas notes clearly in his commentary the disagreement between Christian faith and Aristotle's views on the eternal production of the universe,³³ just as he notes inconsequences in Aristotle's arguments for the eternal past of motion or time.³⁴ In the commentary, at least, Thomas dismisses the face-saving suggestion that Aristotle could be offering merely probable arguments.³⁵

The eternity of motion is the famous disagreement, but there are others. In commenting on the *Ethics*, for example, Thomas rebukes an Aristotelian remark about offering sacrifices: "Loquitur hic Philosophus secundum consuetudinem Gentilium, quae nunc manifestata veritate est abrogata, unde, si aliquis nunc circa cultum daemonum aliquid expenderet, non esset magnificus, sed sacrilegus."³⁶ In the same way, Thomas constantly reminds the reader that Aristotle follows the "ancients" or "gentiles" in calling the intellectual or higher substances "gods."³⁷ Thomas also remarks on the pagan cult of "demons" and divinized heroes, which he thinks Aristotle takes metaphorically, and he offers speculations on the origin of idolatry.³⁸ In each of these passages, the distinction between the Christian present and the "gentile" or pagan past is sharp. The very term "gentile" makes the contrast a matter of the faith. Even when Thomas does not correct Gentile errors, he sometimes notes morally interesting differences between pagan and Christian practices. So he remarks that the ancients considered sterility a reason for divorce and that they buried the dead with many trappings.³⁹ Thomas also intervenes to prevent certain misconstruals to be made from Aristotle—for example, that virginity would be a vicious extreme.⁴⁰ All of these remarks fall under the broad type of dissent or correction from Aristotelian doctrine.

A second way of gaining distance from Aristotelian doctrine is not a correction so much as a supplement. The supplement is added in view of the richer or at least distinct inheritance of learning shared by Thomas and his readers. The simplest sort of supplement is linguistic, as when Thomas adds Latin etymologies or Latin technical terms.⁴¹ More interesting supplements are doctrinal additions, which are more or less explicitly marked as such.

³² John F. Wippel, "Did Thomas Aquinas Defend the Possibility of an Eternally Created World?" *Journal of the History of Philosophy* 19 (1981) 21–37, rptd. in his *Metaphysical Themes in Thomas Aquinas* (Washington: Catholic Univ. of America, 1984), 191–214.

³³ *Sent. Phys.* 8.2; Maggilo #974, 986.

³⁴ *Ibid.* 8.2; Maggilo #987–990.

³⁵ *Ibid.*, 8.2; Maggilo #986.

³⁶ *Sent. Eth.* 4.7; Spiazzi #719, Leon. 47/2:222.28–32.

³⁷ For example, *Sent. Eth.* 1.14 (Spiazzi #167); 1.18 (#218); 5.12 (#1026); 8.7 (#1634); 10.12 (#2121–2122/2125); *Sent. De An.* 1.1 (Pirota #12), and so on.

³⁸ *Sent. Eth.* 5.12 (Spiazzi #1024); 5.15 (#1077); 7.1 (#1298/1300); 9.2 (#1780); 9.10 (#1887); *Sent. De an.* 1.13 (Pirota #192).

³⁹ *Sent. Eth.* 4.5 (Spiazzi #704); 8.12 (#1724).

⁴⁰ *Ibid.*, 2.2; Spiazzi #263.

⁴¹ *Ibid.*, 3.22 (Spiazzi #643); 4.14 (#827); 6.5 (#1179); 7.7 (#1413); *Sent. De an.* 3.2 (Pirota #593).

Thomas often enough notes a lacuna in Aristotle and then proceeds to fill it.⁴² Sometimes he adds important technical developments without noting them as additions.⁴³ These are as close as Thomas comes to Albert's large insertions and revisions in view of post-Aristotelian science. With Albert, Thomas recognizes certain technical advances since the composition of the Aristotelian works, though Thomas refuses to follow Albert in making those works occasions for expounding the advances that followed them.

A third way in which Thomas marks his distance is the insistence upon the limited scope of an Aristotelian inquiry. Sometimes the insistence refers to a particular passage. So he asserts that Aristotle has no intention of discussing the operation of mind after death.⁴⁴ Sometimes the insistence affects an entire work. Thomas reiterates, for example, that the *Ethics* is concerned only with the happiness of the present life.⁴⁵ To suggest that the limitation binds Aristotle but not himself, Thomas remarks at one point that he has discussed questions about the next life "more fully" elsewhere.⁴⁶ Moreover, though Thomas concedes to Aristotle that unaided reason cannot investigate life beyond death, he himself adds arguments from nature pointing to a complete happiness in a future life.⁴⁷

A fourth way of marking distance, and the last one to be noted here, emphasizes the particular rhetorical limitations under which Aristotle labors. As Thomas sees plainly, Aristotle needed to teach a particular audience. The audience held certain beliefs that Aristotle appropriates for dialectical persuasion, even when they are erroneous. So Thomas explains that Aristotle proceeds in certain passages "disputatively," by probabilities or even falsehoods, in order to win assent from those who cling to a particular position.⁴⁸ Again, because Plato is often misread, Aristotle argues not against Plato, but against Plato literalized.⁴⁹ In one place, Thomas excuses an incomplete argument by referring to the limitations of Aristotle's "time."⁵⁰

Other ways of marking distance and many other examples for those enumerated here can be found in the commentaries. Together they show how Thomas stands as a literal expositor of Aristotle. If there are no disclaimers in Thomas after the manner of Albert's blunt reminders, there are many signs that Thomas is not to be confused with Aristotle—even with Aristotle

⁴² *Sent. Eth.* 3.6 (Spiazzi #456); *Sent. De an.* 3.6 (Pirota #667).

⁴³ *Sent. Eth.* 4.17 (Spiazzi #870), on the bodily effects of fear and shame; *Sent. De an.* 2.15 (Pirota ##434-435), on the geometry of vision at a distance.

⁴⁴ *Sent. De an.* 3.10; Pirota #745.

⁴⁵ *Sent. Eth.* 1.9 (Spiazzi #113); 1.15 (#180); 1.17 (#206); 3.18 (#590); 10.11 (#2103); 10.13 (#2136).

⁴⁶ *Ibid.*, 1.17; Spiazzi #212.

⁴⁷ Respectively, *ibid.* 1.9 (Spiazzi #113); 3.14 (#536); then 1.10 (#129); 1.16 (#202).

⁴⁸ *Sent. De an.* 1.6 (Pirota ##74/79); 1.10 (#147/165); *Sent. Phys.* 1.11 (Maggilo #88/93). Compare *Summa* 1-2.59.2 ad 1 (Leon. 6:381).

⁴⁹ *Sent. De an.* 1.8; Pirota ##107-108.

⁵⁰ *Ibid.*, 3.5; Pirota #639.

read well.⁵¹ What use, then, ought the reader of Thomas to make of the commentaries?

IV. THE COMMENTARIES IN THE CORPUS

I am far from having provided evidence to answer the question about the place of the Aristotle commentaries in Thomas' corpus. Enough has been said, however, to permit a first canvassing of possible answers.

There are two extreme candidates that can be set aside immediately. The first is the view that the commentaries on Aristotle give us the whole of Thomas' thought about philosophical topics. This is clearly false, because a number of plainly philosophical topics are treated outside the commentaries more fully and even differently than within them. Examples would range from the physiology of human reproduction to the sequence of acts in the will.

The second of the extreme views is that Thomas' commentaries contain nothing of his own thought. This is also and as clearly false, because they contain at least his original thoughts on the use of Aristotle in philosophical pedagogy.

Having excluded these extremes, I would like to distinguish two other, more serious candidates for an answer. The third view, to continue my numeration, is a modified version of the first. It holds that the commentaries contain the core of Thomas' philosophical thought, especially about logic, natural philosophy, and metaphysics. The fourth view, a modification of the second, is that the commentaries can give us only scattered indications of Thomas' philosophical doctrine, indications to be followed into other works of his corpus. I leave aside for the moment the question, how much Thomas can teach us about what Aristotle meant. Answers to that other question are often mixed in with the views I am describing, but they are really independent of them. One can take Thomas as a useful guide to the interpretation of Aristotle whether or not one finds that the commentaries give the core of Thomas' own philosophical doctrine.

I go back now to the third position, the view that the commentaries contain the core of Thomas' philosophy, in order to draw out some of its presuppositions. It supposes, for example, that it is possible to understand the core of Thomas' philosophy without any reference to theology, since all sides agree that the Aristotle commentaries, whatever else they contain, do not contain theology. The third position also tends to presuppose that Thomas thought that the core of his own philosophy was in substantial agreement

⁵¹ This should be emphasized as against the kind of view prevalent in the 19th century and echoed too often since. See, for example, Victor Cousin, *Cours de l'histoire de la philosophie . . .* (Paris: Pichon et Didier, 1829), 1:361-362, and Bartholémy Hauréau, *Histoire de la philosophie scolastique* (Paris: Durand & Pedone-Lauriel, 1872), 1:33-34.

with that of Aristotle.⁵² It would be difficult otherwise to understand why he would present that core in literal expositions of Aristotle.

The exegetical practice that tends to follow upon this third view can be abbreviated as a rule: Anything added by Thomas to the Aristotelian text is to be taken as what he thought to be true in fact, unless there is explicit contextual evidence to the contrary. In other words, where Thomas moves beyond statements about what Aristotle says in order to illustrate or amplify them, he must be taken as agreeing with what Aristotle says.

By contrast, the fourth view, which holds that the commentaries contain at best parts of Thomas' own thought, would seem to yield a negative rule: any non-paraphrastic remark in the commentaries is to be taken as true only if confirmed elsewhere in the corpus or if Thomas explicitly remarks on its truth. This exegetical practice derives from the presupposition that Thomas' philosophical teaching may break through its Aristotelian precedents at many decisive points.⁵³ It also suggests that the line between philosophy and theology in Thomas is often difficult to draw textually.

Two final remarks can be made about these opposed views—though the remarks will hardly finish with them. First, if we were to judge from Thomas' expository genre and practice, the negative rule would be the more nearly correct one. There can be no general warrant for attributing doctrines or arguments in a literal commentary to the commentator. It is precisely the task of the literal commentary to explicate the underlying text as sympathetically and persuasively as possible, with amplifications and syntheses in view of the new readership. But Thomas reminds the reader in a number of ways that a sympathetic exposition of Aristotle is not philosophical teaching *simpliciter*. The second remark to be made is that the deepest source of difference between the third and fourth views has less to do with difficulties over Thomas' commentaries than with disputes about the character and "autonomy" of philosophy. Those who assert that the commentaries contain the core of Thomas' philosophy want to be able to make a textual segregation between philosophy and theology. They want Thomas to have written a *Summa philosophiae*. Not finding such a work, they turn to the Aristotle commentaries. The turn is as old as Thomistic discipleship. Ptolemy of Lucca himself says of the Aristotelian expositions that Thomas "quasi totam philosophiam Aristotelis sive naturalem sive moralem exposuit et in scriptum

⁵² See, for strong, recent examples, Leo J. Elders, "Saint Thomas Aquinas' Commentary on the *Physics* of Aristotle," in *La philosophie de la nature de Saint Thomas d'Aquin*, ed. Elders (Vatican City: Pontificia Accademia di S. Tommaso/Libreria Editrice Vaticana, 1982), pp. 107–133; and Elders, "St. Thomas Aquinas' Commentary on the 'Metaphysics' of Aristotle," *Divus Thomas* [Piacenza] 86 (1983):307–327. Less temperate formulations can be found in the previous note.

⁵³ See, for example, Louis-B. Geiger, "S. Thomas et la métaphysique d'Aristote," and André Thiry, "Saint Thomas et la morale d'Aristote," both in *Aristote et Saint Thomas*, ed. L. de Raeymaeker (Louvain: Publs. universitaires, and Paris: Batrice-Nauwelaerts, 1957), pp. 175–220 and 229–258, respectively.

sive commentum redegit.”⁵⁴ The danger of reading the commentaries in this way is that one can too easily project onto Thomas’ expositions whatever prejudices one has about philosophy. It would be wiser, I think, to take up Father Weisheipl’s Albertine challenge for Thomas as well. We would best begin to do so by remembering that Father Weisheipl implies in it a question about what we might responsibly mean by calling either of these Dominican masters a “philosopher.”⁵⁵ Would Thomas count “Philosophus” an honorific as applied to himself? Wouldn’t it suggest, on the contrary, that he had fallen all too short of the fullness of truth?

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⁵⁴ Ptolemy of Lucca, 22.38; ed. Dondaine, p. 151, lines 22–23.

⁵⁵ Weisheipl, “Albert’s Disclaimers,” p. 19: “Perhaps it is time that medievalists began studying Albert for what he was known to be in his own time, namely a ‘philosopher’ as well as a saint.”

Reflections on Thomas Aquinas' Notion of Presence

Armand Maurer, CSB

The identity of being with presence is one of the keystones of Martin Heidegger's phenomenology. He writes in his lecture on "Time and Being": "Being is not a thing, thus nothing temporal, and yet it is determined by time as presence. . . . Being means presencing."¹ Always attentive to language and its implied message, he takes the Greek word for being (οὐσία) as synonymous with the derivative noun παρουσία (being-at, presence).² He sees Western metaphysics, originating with the Greeks, as a discourse on being as presence—a discourse that he continues in a profound and original way. In his reading of the history of Western metaphysics, almost at the start there was a serious misunderstanding of the notion of being. The Presocratics experienced being as sheer presencing (*Anwesen*) that occurs in the event of a thing's disclosure or unconcealment to a knower. These philosophers and poets enjoyed the pristine awareness of being as presence in the sense of appearing—an appearing that is not something that happens to being but is

¹ Martin Heidegger, *On Time and Being*, tr. Joan Stambaugh (New York: Harper & Row, 1972), pp. 3, 5. For Heidegger's notion of presence see William J. Richardson, *Heidegger, Through Phenomenology to Thought* (The Hague: Nijhoff, 1963), index, pp. 753–754.

² Heidegger, *Being and Time*, tr. John Macquarrie and Edward Robinson (Oxford: Blackwell, 1978), translator's note 1, p. 47. See J. L. Mehta, *Martin Heidegger. The Way and the Vision* (Honolulu: Harper & Row, 1967), p. 98.

its very essence.³ Subsequent philosophers, like Plato and Aristotle and their medieval followers, lost the sense of being as the event of presencing and hardened being into a thing that manifests itself. For Plato it became an Idea, for Aristotle substance. Thus being lost its original meaning of manifestation and took on the meaning of enduring or standing presence (*stetige Anwesenheit*).⁴

The medieval scholastics, according to Heidegger, followed the Greek tradition of identifying being with presence. Moreover, they understood it as determined by a definite mode of time, namely the present.⁵ In the words of John Caputo, "In Heidegger's view, Thomas belongs to the long history in which Being is thought as presence, a tradition which commences in the earliest beginnings of Western philosophy in the early Greeks themselves."⁶ For Heidegger, however, Thomas, like the other schoolmen, was oblivious of being as sheer presencing, as the event of unconcealment. He followed the later Greek tradition of conceiving being as enduring and permanent presence.

What are we to think of this judgment of Thomistic metaphysics? Did Thomas identify being with presence in any sense of the term? How in fact did he conceive presence, and how did he relate it to being and to knowing? An examination of some of Thomas' texts on cognitive presence will help us answer these questions.

* * *

The word *praesentia* and its cognates such as *praesens*, *praesentialiter*, and *praesentialitas* often occur in the works of Thomas Aquinas. In Roberto Busa's *Lexicon thomisticus* references to *praesentia* alone fill about eight large pages.⁷ Years before he published his mammoth lexicon, Busa used his extraordinary skill as a lexicographer and his considerable acumen as a philosopher to write a book on the Thomistic terminology of interiority with a view to interpreting Thomas' metaphysics of presence.⁸ It is not the intent of this paper to go over the ground so thoroughly explored by Busa. We

³ Heidegger, *An Introduction to Metaphysics*, tr. Ralph Manheim (Garden City, NY: Doubleday, 1961), p. 86.

⁴ *Ibid.*, pp. 50, 161. See John D. Caputo, *Heidegger and Aquinas* (New York: Fordham University Press, 1982), pp. 84–87.

⁵ In ancient and medieval ontology, Heidegger writes, "Entities are grasped in their Being as 'presence' (*Anwesenheit*); this means that they are understood with regard to a definite mode of time—the 'Present' (*Gegenwart*)."⁶ Heidegger, *Being and Time*, Intro. 2, 6, p. 47.

⁶ Caputo, p. 169.

⁷ *Index thomisticus Sancti Thomae Aquinatis operum omnium indices et concordantiae*. 49 vols.; ed. Roberto Busa (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1974–1980), vol. 17, pp. 1136–1141. For forms of *praesens*, *praesentia*, see vol. 18, pp. 8–29. For *praesentia* in *Concordantia altera*, vol. 4, pp. 735–736.

⁸ Roberto Busa, *La terminologia tomistica dell'interiorità. Saggi di metodo per un'interpretazione della metafisica della presenza* (Milan: Fratelli Bocca, 1949), especially pp. 148–149, 237–239.

would only recall with him that Thomas uses *praesens* and *praesentia* as analogous terms with many connected and associated meanings. Thomas speaks, for example, of present time, presence in space, bodily and spiritual presence, and presence in knowledge.⁹ These meanings are warranted by the etymology of *praesens* and the abstract *praesentia*, which are composed of the prefix *prae* (before, in front of) and *ens* (being), with *s* placed between for the purpose of pronunciation. In medieval Latin in general *praesens* means being there, in one's sight, existing or happening now.¹⁰ The opposite of *praesens* is *absens*, from *ab* (away) and *ens* (being). By being present a being is related to another being or beings, or to itself, in a special way, for example *with something, at it, near it, in it, united to it, in front of it*.¹¹

Thomas gives some of his clearest views on cognitional presence when commenting on the medieval dictum: "God is in everything by his essence, power, and presence, in saints through grace, and in the man Christ through [the hypostatic] union." The dictum is found in Peter Lombard's *Sentences*,¹² but it was not original with him. He based it on the twelfth-century *Glossa ordinaria* on the Song of Songs, which attributes it without reference to Gregory the Great.¹³

Thomas' first explanation of the dictum occurs in his commentary on Lombard's *Sentences* (c. 1252)¹⁴ in the context of his treatment of the divine immanence. When God is said to exist in things by essence, power, and presence, Thomas considers this to be no more than a conceptual distinction, since God is absolutely one and hence he is related to things in only one way. However, we can conceive that relation differently and think of God as existing in things by essence, power, and presence. When we conceive God as existing in creatures by essence, we do not mean that creatures have the divine essence, for it transcends all created things. What we mean is that God is united to them by acting upon them. This gives rise to the notion of the divine presence in things, for an agent must in some way be present to its works. Moreover, God may be said to exist in things by his power, because his action is not separated from the power from which it issues. God can also

⁹ For examples of present time, see *In 4 Phys.*, lect. 21; ed. Angeli-Pirota (Naples, 1953), n. 1520–21. Presence in space, ST 1.52.1; ed. Leon. 4 (Rome, 1888). Bodily presence, *ibid.*, 2–2.188.2.ad 3; *In 3 Sent.* 22.3.1.ad 5; ed. Moos (Paris, 1933), p. 681. Spiritual presence, *In 3 Sent.* 35.2.3.3, sol., p. 1204.

¹⁰ A. Forcellini, *Totius latinuatis lexicon* (Prati: Giaschetti, 1844) 3:660.

¹¹ Busa cites texts concerning these meanings of presence in his *La terminologia tomistica*.

¹² "Quod Deus in omni re est essentia, potentia, praesentia, et in sanctis per gratiam, et in homine Christo per unionem." Peter Lombard, *Sententiae* 1.37.1 (Grottaferrata [Rome], 1971) 1:263, 20–21.

¹³ "Licet Deus communi modo omnibus rebus insit praesentia, potentia, substantia, tamen familiari modo dicitur inesse per gratiam illis qui mirificentiam operum Dei acutius et fidelius considerant." *Glossa ordinaria in Cant.* 5.17; in *Glossa ordinaria* (Basel, 1506–1508) 3:364A; cited by Peter Lombard, *ibid.*, p. 264, 7–10.

¹⁴ For the date of Thomas' commentary on the *Sentences* see James Weisheipl, *Friar Thomas d'Aquino* (Washington, DC: CUA Press, 1983), p. 358.

be said to exist in things by his essence because his power is identical with the divine essence.¹⁵

In this early work Thomas has identified presence with action on a thing. He has told us that God can be conceived as present to a creature because he acts upon it, and the reason he gives is that an agent must be present in some way to what it acts upon. He adds the qualification "in some way" because in his view an agent must be either immediately or mediately present to its effect: action at a distance is impossible.¹⁶ As the creator, God immediately acts on all things, giving them their being (*esse*). Hence he exists most inwardly in everything, as a thing's own *esse* is most interior to the thing itself.¹⁷

Interpreting presence as action on a thing, Thomas feels justified in substituting action for presence in the traditional triad of essence, power, and presence. *Essentia, potentia, et praesentia* become *essentia, virtus, et operatio*.¹⁸ Thomas was not the first, however, to make this substitution. It had already been made by the influential *Summa theologica* compiled from treatises by Franciscans, including Alexander of Hales, and completed by 1250. According to the Franciscan *Summa*, to say that God exists in everything by presence (*praesentialiter*) is equivalent to saying that he acts upon them. By his activity in creatures we come to know his essence and power.¹⁹ Thomas was acquainted with the *Summa* and probably owes to it his association of the divine presence with the divine action in the world when he wrote his commentary on the *Sentences*.

Not all Franciscans, however, were happy with this notion of presence. When Bonaventure treated of Lombard's triad of essence, power, and presence, he criticized those who understand the notion of being present as action on something, for the good reason that someone can be present to a thing without acting on it. Bonaventure himself understands presence as immediacy or absence of distance (*praesentialitatis indistantia*).²⁰

¹⁵ St. Thomas, In 1 *Sent.* 37.1.2.sol.; ed. P. Mandonnet (Paris, 1929) 1:861.

¹⁶ *Ibid.*, d. 37.1.1.sol.; 1:857. ST 1.8.1.ad 3.

¹⁷ "Deus est unicuique intimus, sicut esse proprium rei est intimum ipsi rei." *Sent.*, *ibid.*, p. 858. See In 2 *Sent.* 1.1.4; ed. Mandonnet 2:25-26. ST 1.8.1.

¹⁸ In 1 *Sent.* 37.1.1.2.sol.; p. 861.

¹⁹ "... in Deo sunt tria, scilicet essentia, virtus et operatio—et dico tria secundum rationem intelligentiae—et distinguuntur illi modi ita: quod per essentiam est in rebus essentialiter, per virtutem est in rebus potentialiter, per operationem vero praesentialiter: nam per operationem innotescit rebus divina essentia et potentia." Alexander of Hales, *Summa theologica* 1.1.2.3.3.sol. (Quaracchi, 1924) 1:73. On the problem of the authenticity of the *Summa* see V. Doucet, "The History of the Problem of the Authenticity of the *Summa*," *Franciscan Studies* 7 (1947) 26-41, 274-312.

²⁰ "Aliquid enim est in aliquo secundum praesentialitatis indistantiam, ut contentum in continente, ut aqua in vase; aliquid secundum virtutis influentiam, ut motor in mobili; aliquid secundum intimitatis existentiam, ut illud quod est continens intra, ut anima in corpore. Et omne quod perfecte est in re, necesse est esse quantum ad hanc triplicem conditionem; et hoc modo est Deus. Et ideo dicitur esse potentialiter, praesentialiter et essentialiter, quia secundum praesentialitatis indistantiam, secundum virtutis influentiam, secundum intimitatis existentiam. . . . Aliqui tamen huiusmodi conditiones voluerunt distinguere penes substantiam, virtutem et operationem. Sed licet modus existendi essentialiter respondeat substantiae, et

Commenting on Lombard's *Sentences*, Albert the Great construes the term "presence" in one of its classical senses, of being within one's view or field of vision.²¹ In one exegesis of the Lombard's dictum he associates the way in which God exists in creatures with the Trinity and the special attributes of the three persons. When God is said to exist in things essentially, reference is made to the Father's attribute of power. His existence through presence relates to the Son's attribute of knowledge (*scientia*). His existence in the saints through indwelling grace relates to the Holy Spirit's attribute of goodness. His existence in the man Christ through union refers to the divine essence in the second person of the Trinity.²²

The association of presence with knowledge becomes more explicit in Albert's second, "more subtle," understanding of the dictum. In this interpretation, God is said to be present everywhere because, as we read in Hebrews 4:13, "All things are laid bare and open to his eyes" (*omnia nuda et aperta sunt oculis eius*). Presence is the consequence of a penetrating keenness that leaves nothing about a thing, either interior or exterior, undisclosed.²³

It is not difficult to detect Albert's influence on Thomas' treatment of the question "Does God exist everywhere by essence, power, and presence" in his *Summa theologiae*.²⁴ In this work Thomas no longer understands God's existence in things by presence in terms of the divine action on them but, like his teacher Albert, as the consequence of the disclosure of everything to his sight.

In the *Summa* Thomas does not deny anything he said in his *Sentences* commentary on the intimacy of God to creatures through his action on them. As in the commentary, he insists that every agent must be joined to that on which it immediately acts and be in causal contact with it. Now, since the essence of God is being (*esse*), he must be the cause of the being of all things, not only when they begin to be but throughout the whole period of their existence. Thus he is intimately joined to creatures as long as they exist, to each according to the mode of its existence.²⁵

The *Summa*, however, differs from the commentary on the *Sentences* in that it does not construe the notion of presence in terms of action but of

potentialiter virtuti, tamen praesentialiter non respondet operationi; nam praesens est aliquis alicui, etiamsi non operetur." St. Bonaventure, In 1 *Sent.* 37.1.3.2 (Quaracchi, 1882) 1:649.

²¹ *Praesentia* = "a being before, in view, or at hand." *A New Latin Dictionary*, ed. Lewis & Short (Oxford: Clarendon Press, 1879), p. 1428.

²² St. Albert the Great, In 1 *Sent.* 37A.5; ed. Borgnet (Paris, 1893) 26:235a.

²³ "Ergo praesentia est a subtilitate penetrante, ut nec intrinsecus nec extrinsecus aliquid lateat de re." *Ibid.*, p. 235b.

²⁴ ST 1.8.3. The *prima pars* was begun in 1266 according to Weisheipl, *Friar Thomas*, p. 361.

²⁵ ST 1.8.3.

knowledge. In explaining how God is in everything by presence, he uses the text of Hebrews already cited by Albert:

Thus God exists in everything by power inasmuch as everything is subject to his power, by presence inasmuch as "everything is laid bare and open to his eyes," and he is in everything by essence inasmuch as he is with (*adest*) all things as the cause of their being.²⁶

Thomas offers analogies drawn from the human world in order to clarify these three modes of the divine immanence:

Thus a king is said to be in the whole kingdom by his power, though he is not present everywhere. Again, something is said to be by its presence in everything within its field of view (*in prospectu ipsius*), just as everything in a house is said to be present to anyone, who nevertheless may not be in substance in every part of the house. Finally, a thing is said to be in substance or essence in the place where its substance is.²⁷

Thomas here associates presence with the disclosure of things to a perceiver. Because all things are open to God's sight, he may be said to be present to them and even to exist in them. This is illustrated by the general claim that "something is said to be by its presence in everything within its field of view." As a clarification of that kind of presence Thomas alleges that everything in a house can be said to be present to a person in the house, even though he is physically in only one part of the house. Thomas' point is that even if *per impossibile* God were not essentially in all things, he would nevertheless be in them by this type of presence. No explanation is given why being in them follows from his presence to them. Thomas assumes a mutual presence of perceiver to thing perceived and thing perceived to perceiver. Corresponding to this mutual presence there is a mutual interiority: the perceiver is in the thing perceived and the thing perceived is in the perceiver.

Some light is thrown on this by the Aristotelian doctrine of the identity in act of the sensible object and the perceiving sense, and more generally of the known object and the knower. As Thomas explains, commenting on Aristotle, the knower in act is the object known in act (*cognoscens in actu est ipsum cognitum in actu*).²⁸ Glossing Aristotle's statement: "The activity of the sensible object and that of the perceiving sense is one and the same activity,

²⁶ "Sic ergo [Deus] est in omnibus per potentiam, in quantum omnia eius potestati subduntur. Est per praesentiam in omnibus, in quantum omnia nuda sunt et aperta oculis eius. Est in omnibus per essentiam, in quantum adest omnibus ut causa essendi, sicut dictum est." Ibid.

²⁷ "In rebus vero aliis ab ipso creatis quomodo sit, considerandum est ex his quae in rebus humanis esse dicuntur. Rex enim dicitur esse in toto regno suo per suam potentiam licet non sit ubique praesens. Per praesentiam vero suam, dicitur aliquid esse in omnibus quae in prospectu ipsius sunt; sicut omnia quae sunt in aliqua domo, dicuntur esse praesentia alicui, qui tamen non est secundum substantiam suam in qualibet parte domus. Secundum vero substantiam vel essentiam, dicitur aliquid esse in loco in quo eius substantia habetur." Ibid.

²⁸ St. Thomas, *In 2 De anima*, lect. 12, n. 377; ed. Pirota (Turin, 1936).

and yet the distinction between their being remains,"²⁹ Thomas asserts that the two acts—of sense and sensible thing—are really the same and differ only in concept.³⁰ If this is so, mutuality of presence and interiority of knower and object known become understandable. What is known is present in the knower with a new mode of "intentional" being; and the knower can be said to be in the object known inasmuch as what he knows is identical with the known object.³¹

Owing, however, to their difference in being or existence, it cannot properly be said that the knower exists in the thing known or where the known thing exists. Thomas makes this clear when taking up the question whether God is everywhere.³² Omnipresence, he argues, is a divine prerogative shared by no creature. An adversary points out a statement of Augustine that seems to assert the opposite. According to the Bishop of Hippo, "Wherever the soul sees, it perceives; and wherever it perceives, there it lives; and wherever it lives, there it exists." This implies that the soul or mind exists everywhere, for in a sense it sees almost everywhere, as little by little it perceives even the whole heavens.³³ But Thomas does not think Augustine's statement should be taken to mean that a creature can really exist everywhere. When Augustine says, "Wherever the soul sees, it perceives," and so forth, Thomas distinguishes between two uses of the adverb "wherever." First, it can modify the object seen. Then, when the soul sees the heavens, it is seeing and perceiving in the heavens, for it sees an object there. But it does not follow that the soul lives or exists in the heavens. Why not? Because seeing and perceiving are immanent acts, remaining within the knower and not passing outward to things. Second, the adverb "wherever" may modify the act of seeing as it is exercised by the perceiver. Taking "wherever" in this sense, it can rightly be said that wherever the soul sees or perceives, there it lives and exists. If it sees in a certain city, it exists and lives there. Rightly interpreted, therefore, Augustine's statement does not mean that the soul exists everywhere: the perceiver does not really exist in the object perceived.³⁴

²⁹ Aristotle, *De anima* 3.2 (425b26). See St. Thomas, *In 3 De anima*, lect. 9, n. 724.

³⁰ St. Thomas, *In 3 De anima*, lect. 2, nn. 590–592.

³¹ See Anton C. Pegis, "St. Thomas and Husserl on Intentionality," *Thomistic Papers 1*, ed. Victor B. Brezik (Houston: University of St. Thomas Press, 1984), pp. 109–134.

³² ST 1.8.4.

³³ "Ut Augustinus dicit in epistola ad Volusianum: 'anima ubi videt, ibi sentit; et ubi sentit, ibi vivit; et ubi vivit, ibi est.' Sed anima videt quasi ubique; quia successive videt etiam totum caelum. Ergo anima est ubique." ST 1.8.4.arg. 6. See Augustine, *Ep.* 137.2; PL 33:518.

³⁴ "Ad sextum dicendum quod, cum dicitur anima alicubi videre, potest intelligi dupliciter. Uno modo, secundum quod hoc adverbium 'alicubi' determinat actum videndi ex parte obiecti. Et sic verum est quod, dum caelum videt, in caelo videt: et eadem ratione in caelo sentit. Non tamen sequitur quod in caelo vivat vel sit: quia vivere et esse non important actum transeuntem in exterius obiectum. Alio modo potest intelligi secundum quod adverbium determinat actum videntis, secundum quod exit a vidente. Et sic verum est quod anima ubi sentit et videt, ibi est et vivit, secundum istum modum loquendi. Et ita non sequitur quod sit ubique." ST 1.8.4.ad 6.

Even in the case of God, Thomas qualifies the sense in which he may be said to exist in things by his cognitive presence. It is more appropriate, he claims, to say that things exist in God's knowledge and will rather than that he exists in things. This follows from the nature of knowledge and will: what is known exists in the one who knows and what is willed exists in the one who wills.³⁵ Thomas clarifies this in a later question in the *prima pars* which addresses the problem of God's knowledge of himself and other things. There Thomas argues that, because God is completely actual and self-sufficient, he knows himself through himself and not through anything else. His is the supreme case of the identity of knower and known, so that the knower is perfectly present to himself through himself and open to his gaze. Moreover, having a perfect knowledge of himself, he knows the infinite ways in which his perfection can be imitated by things other than himself. These he knows, not in themselves (which would imply a dependency on them), but in the higher mode of the divine intelligence.³⁶ This is why it is truer to say, in reference to the divine knowledge, that things exist in God rather than God in things.

Only with qualification, then, does Thomas find a place in his theology for the Lombard's dictum that God by his presence exists in everything. Following his usual practice, he shows respect for a traditional *topos* handed down to him with some authority. He uses it to enrich his doctrine, while shaping its meaning to conform to the basic tenets of that doctrine.

But we have not come to the end of Thomas' use and interpretation of the Lombard's saying. Having clarified it with examples drawn from the everyday world, he defends its necessity in order to oppose three errors regarding God's relation to the world.³⁷ The first error was that of the Manichees, who believed that the divine power extended to the spiritual world but not to visible and perishable things. In opposition to them it was necessary to declare that God exists in everything by his power. The second mistake was to hold that, although everything is subject to the divine power, divine providence does not govern creatures in the sublunar world. Thomas does not identify the philosophers who taught this error, but elsewhere he names Aristotle, Averroes, and with a qualification Moses Maimonides.³⁸ In order to counter their opinion it was necessary to assert that God exists by his presence in everything. The third error was to maintain that God by himself created only the primary beings (that is, the Intelligences or angels), and the rest only through them. Later in the *Summa* Thomas identifies Avicenna as one

³⁵ ST 1.8.3.ad 3. What is known exists in the knower through its likeness. What is willed exists in the will as an inclination toward the thing willed. See ST 1.27.4.

³⁶ ST 1.14.2 & 5.

³⁷ ST 1.8.3.

³⁸ In 1 *Sent.* 39.2.2.sol.; ed. Mandonnet 1:930-931; ST 1.22.2.

who made this mistake.³⁹ In order to contradict this error it was necessary to declare that God by his essence exists in everything.

Our interest in this passage is the new note Thomas adds to the concept of presence. Before, God was said to exist in all things by his presence because they are uncovered and disclosed to his sight. Now "sight" is understood as "foresight" (*providentia*). The divine view of the world is not that of a detached and unconcerned spectator. God is present to the world through his providential care, and in this sense he can be said to exist in it.⁴⁰ He is the Lord of all, disposing and arranging all events in their smallest details. There is no question here of a temporal priority of God's view of events to their actual happening. His "present sight" (*praesens intuitus*) reaches alike events past, present, and future.⁴¹ Here is an added justification for saying that God by presence exists in all things.

The notion of foresight may be found already in Thomas' everyday example of how someone can be said to exist in a thing by being present to it. The reason given is that the thing lies in the viewer's *prospectus*—a word that in its classical use means sight, but in medieval Latin especially foresight.⁴² Thomas may be suggesting that a householder can be said to exist by presence everywhere in his house because he provides and cares for everything in it.

This understanding of the Lombard's dictum is confirmed by Thomas' *Compendium theologiae*, which postdates the *prima pars* of the *Summa*. After describing three ways in which God directly influences everything, Thomas writes:

Corresponding to these three modes of direct influence, God is said to be in everything by essence, power, and presence. He is in everything by his essence inasmuch as the being (*esse*) of each thing is a certain participation in the divine being; and so the divine essence is there with every existing thing insofar as it has being, as a cause is there with its proper effect. God is in all things by his power inasmuch as all things operate in virtue of him. And God is in all things by his presence inasmuch as he immediately regulates and disposes all things.⁴³

³⁹ ST 1.45.5. See Avicenna, *Metaph.* 9.4; ed. S. Van Riet (Leiden, 1980) 2:481–484. Peter Lombard thought God could give the power of creation to creatures, who would then create as instruments of God. See Lombard, *Sent.* 4.5.3; ed. Quaracchi 2:575. At first Thomas granted that in a sense God could give the power of creation to a creature. See In 2 *Sent.* 1.1.3; ed. Mandonnet 2:22. Later he denied this in ST 1.45.5.

⁴⁰ "Fuerunt ergo aliqui, qui licet crederent omnia esse subiecta divinae potentiae, tamen providentiam divinam usque ad haec inferiora corpora non extendebant: ex quorum persona dicitur Job 22:14: 'Circa cardines caeli perambulat, nec nostra considerat.' Et contra hos oportuit dicere quod Deus sit in omnibus per suam praesentiam." ST 1.8.3.

⁴¹ "Quia, cum intelligere Dei, quod est eius esse, aeternitate mensuretur, quae sine successione existens totum tempus comprehendit, praesens intuitus Dei fertur in totum tempus, et in omnia quae sunt in quocumque tempore, sicut in subiecta sibi praesentialiter." ST 1.14.9.

⁴² ST 1.8.3. For *prospectus* see *Revised Medieval Latin Word-List*, ed. R. E. Latham (London: Oxford University Press, 1965), p. 378.

⁴³ "Habet etiam se immediate ad omnes effectus, in quantum ipse est per se causa essendi et omnia ab ipso servantur in esse. Et secundum hos tres immediationis modos dicitur Deus in omnibus esse per essentiam, potentiam et praesentiam. Per essentiam quidem, in quantum

If Thomas did not interpret presence in the Lombard's dictum cognitionally in his *Sentences* commentary, it was not because he did not yet possess a cognitional notion of presence. As early as the first book of his commentary he describes understanding (*intelligere*) as "nothing else than the simple insight (*intuitum*) of the intellect into something intelligible present to it." Again, "understanding means nothing else than insight, which is nothing else than something intelligible being present in some way to the intellect."⁴⁴ A little later in the same first book of the commentary he finds this, broadly speaking, a satisfactory description of knowledge. But in the strict sense, he adds, in order for the mind to know something, it is not enough that it be present to the mind in just any way whatsoever, but only as an object (*sed in ratione objecti*).⁴⁵

How does this come about? A first condition is that the mind attend to what is present to it, for we do not actually know anything without giving our attention to it. It is a matter of experience that for lack of attention a sensible or intelligible datum can be present to our cognitive powers without actually becoming their objects.⁴⁶ A likeness of the thing is also needed in order to make it present to our senses or intellect. For the former a *species sensibilis* is necessary, for the latter a *species intelligibilis*.⁴⁷ Thomas lists the following requirements for a thing to be an actual, and not just a possible object of knowledge: the presence of the agent intellect and images (*phantasmata*), the good disposition of the sense powers, and practice in this sort of activity.⁴⁸ The illuminating power of the mind and the intermediary likenesses of the intelligible data function together in order to bring the data into our presence and turn them into actual objects of the mind.

The mere presence of the mind to itself, or the presence of its moral and intellectual virtues (*habitus*) does not suffice for an actual knowledge of

esse cuiuslibet est quaedam participatio divini esse, et sic essentia divina cuiuslibet existenti adest in quantum habet esse, sicut causa proprio effectui; per potentiam vero, in quantum anima in virtute ipsius agunt; per praesentiam vero, in quantum ipse immediate omnia ordinat et disponit." *Compendium theologiae* 1.135; ed. Leon. 42:133.

Presence, in the sense of providential care, can be a cause. Thus: "... idem est causa contrariorum quandoque; sicut per suam praesentiam gubernator est causa salutis navis, per absentiam autem suam causa est submersionis eius." *In 4 Phys.*, lect. 5; ed. Angeli-Pirota (Naples, 1953), n. 373.

⁴⁴ "Intelligere autem dicit nihil aliud quam simplicem intuitum intellectus in id quod sibi est praesens intelligibile. . . . intelligere nihil aliud dicit quam intuitum, qui nihil aliud est quam praesentia intelligibilis ad intellectum quocumque modo." *In 1 Sent.* 3.4.5.sol.; ed. Mandonnet 1:122.

⁴⁵ *Ibid.*, 17.1.4.ad 4; p. 404.

⁴⁶ SCG 1.55, n. 4; ed. Leon. 13:157. *De veritate* 13.3; ed. Leon. 22:424-425.

⁴⁷ ST 1.14.2; 1.85.2.

⁴⁸ "Nunc autem non se habet ut obiectum, sed ut faciens obiecta in actu: ad quod requiritur, praeter praesentiam intellectus agentis, praesentiam phantasmatum, et bona dispositio virium sensitivarum, et exercitium in huiusmodi opere." ST 1.79.4.ad 3.

them. Thomas grants that in a sense the mind knows itself simply by being present to itself, but this is only an habitual knowledge, lying just below the surface of consciousness and ready to become actual as soon as the mind begins to act and reflect on itself as the source of its activity. Similarly we know our mental habits through their presence to our mind, but only because their presence makes us act in accord with them, leading to an immediate knowledge of these dispositions.⁴⁹ Over and above knowledge by simple presence, Thomas specifies that another and deeper knowledge of the mind and its habits is possible through "a careful and subtle inquiry," in other words by a scientific study.⁵⁰

Sometimes an object is presented to the mind not in itself but by words which do not adequately express it, or by other things like it which fail to represent it perfectly. This is the case with matters of faith which, as Paul says (1 Cor 13:12), are known "in darkness and in a mirror." These objects, Thomas explains, are not *seen*, properly speaking, but *believed*. And yet, in their own way they are known, however imperfectly, for they fulfill the conditions of knowledge by being present in some way to the knower. Augustine seems to deny this, for he says that faith concerns what is absent, whereas sight concerns what is present. Thomas replies:

That is properly said to be present whose essence is presented to the intellect or sense. Consequently, since this gives rise to sight (*visionem*), Augustine asserts that "what is present is seen but what is absent is believed." For this reason faith is also likened to hearing, because it has to do with what is absent, as by hearing we know things which, being absent, are told to us.⁵¹

Thus, for Thomas, knowledge by presence extends not only to objects present in themselves but also—though less perfectly—to objects presenting themselves through language, images, metaphors, or similes. Only objects that disclose themselves to a knower in themselves are seen either by the senses or the intellect. Thomas' language expressing such knowledge by presence is significant. He speaks of *visio*, *intellectus*, *intuitus*, *conspiculus*—words that signify an immediate seeing of an object and not, for example, an inference from premises.

As we have seen, Peter Lombard, following the *Glossa ordinaria*, distinguishes between the ordinary way God exists in everything by essence, power, and presence, and the more intimate way he exists in saints by the gift of grace and in Christ through the union of the Son with human nature. Thomas recalls these two modes of divine immanence when he treats of the

⁴⁹ ST 1.87.1; *De veritate* 10.8 (22:321–322); In 1 *Sent.* 17.1.4.ad 4 (1:404).

⁵⁰ ST 1.87.1.

⁵¹ "Dicendum quod illud proprie dicitur praesens cuius essentia intellectui vel sensui praesentatur. Et ideo quia hoc facit visionem, ideo dicit Augustinus quod 'videntur praesentia sed creduntur absentia.' Et propter hoc etiam fides similatur auditui, quia de absentibus est, sicut auditu cognoscimus quae, cum sint absentia, nobis recitantur." In 3 *Sent.* 24.2.sol. 3.ad 4; ed. Mandonnet 3:771. See Augustine, *Ep. 147 ad Paulinam* c. 2; PL 33:599.

sending (*missio*) of the Holy Spirit and the Son. In the ordinary way, Thomas explains, God is related as a cause to his effects, which participate in his perfection. In a higher way God exists in those who contemplate and love him through the sending of the Holy Spirit.⁵² It is beyond the scope of these brief reflections to deal adequately with Thomas' doctrine of the sending of the Holy Spirit and the Son to the human family. These sendings, however, are vital to our subject, for they are new and superior modes of the divine presence in the world. God "presences" himself to all things in the common way by his knowledge and providential care, but in a special way he makes himself present and manifests himself to saintly persons and mystics through the gift of the Holy Spirit. The most excellent way he gives himself to humankind is through the union of the Son with the humanity of Christ. These presencings occur in time and history; they are high points so to speak in the history of salvation. It has been said that Thomas lacked an historical consciousness, that history meant nothing to him.⁵³ To dispel this illusion one has only to study his doctrine of salvation history, in which the sendings of the Holy Spirit and Son play an essential role.⁵⁴

The sending of the Holy Spirit is temporal, Thomas explains, for it brings about a new mode of existing in the recipient of the Spirit, who now, so to speak, touches (*atingit*) God himself. That person is blessed with a sort of experiential knowledge of God through love. The Son as well as the Holy Spirit is sent on missions, but not the Father, for he is the head and source of the Trinity. Not being *ab alio*, like the Holy Spirit and Son, he cannot be sent. Nevertheless the whole Trinity dwells in the person who receives a "sending."⁵⁵

The sending of the divine person is accompanied by the gift of sanctifying grace (*gratia gratum faciens*), rendering the person pleasing to God. This grace is manifested in many ways through actual graces (*gratiae gratum datae*), such as the working of miracles and the uttering of prophecies. Paul calls this kind of grace "the manifestation of the Spirit" (1 Cor 12:7). The divine persons impart gifts appropriate to them: "The Holy Spirit invisibly enters into the mind by the gift of love, as the Son enters by the gift of wisdom."⁵⁶

⁵² ST 1.43.3.

⁵³ Alois Dempf, *Sacrum imperium. Geschichts- und Staatsphilosophie des Mittelalters und der politischen Renaissance* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1954), pp. 367, 381, 397; *Christliche Philosophie* (Bonn: Bonner Buchgemeinde, 1952), p. 134.

⁵⁴ See Max Seckler, *Das Heil in der Geschichte. Geschichts-theologisches Denken bei Thomas von Aquin* (Munich: Kösel-Verlag, 1964); trans. *Le salut et l'histoire. La pensée de saint Thomas d'Aquin sur la théologie de l'histoire* (Paris: Editions du Cerf, 1967).

⁵⁵ For the sending of the divine persons see ST 1.43.1-5; In 1 *Sent.* 14.1-3 (pp. 316-329); 15.1-4 (pp. 349-355).

⁵⁶ "Unde sicut Spiritus sanctus invisibiliter procedit in mentem per donum amoris, ita Filius per donum sapientiae; in quo est manifestatio ipsius Patris, qui est ultimum ad quod recurrimus." In 1 *Sent.* 15.4.1.sol.; 1:350.

Prior to these supernatural gifts of the Spirit and presupposed by them, are the natural gifts sent to us by God as the condition of our very existence. The first and most excellent of these divine "emissions" is being (*esse*), by which we subsist in the world of nature.⁵⁷ Sometimes what is sent is not a being but an event that is meant to test us and help us along the way to salvation. An example of such a testing is the subject of Thomas' commentary on the book of Job. Whether Job was a real person or only a character in a story Thomas does not claim to know for sure, though he inclines to the former opinion. To him, the question is irrelevant, for in either case the sacred book serves its purpose, which is "to show how human affairs are ruled by divine providence."⁵⁸

Job's comforters argue that his sufferings must be due to his sins. Does not God reward the good and punish the wicked even in this life? Following the strict law of cause and effect, it seems certain that Job's fall from prosperity was the result of a moral lapse. But Job, sure of his innocence, concludes after long deliberation that earthly suffering and prosperity have a different purpose in the divine plan. The providence of God remains hidden to us; we have no way of demonstrating with certainty what the divine judgments are. But God gives us a glimpse of his hidden rule of judgment, which applies to every human deed, by sending events that show the truth to the world. As gold is tested in the fire, so that its truth may be clear to all, so Job's virtue is manifested by his trial and response to it.⁵⁹

In his study of the book of Job, Thomas brings to light another historical dimension of his notion of presence. The lesson he teaches us is that God is present in the events of every human life, which are sent to us as a trial and a manifestation of divine providence.

⁵⁷ See St. Thomas, In 1 *Sent.* 14.2.2.sol.; ed. Mandonnet 1:325-326; In 1 *De divinis nominibus* 5, lect. 1; ed. C. Pera (Turin/Rome: Marietti, 1950), p. 235, n. 633.

The medieval notions of sending (*missio*) and giving (*datio*) were originally theological. For their distinction see St. Thomas, In 1 *Sent.* 15.1.1; ed. Mandonnet 1:337-338; ST 1.43.2. The notions were taken up and transformed in Heidegger's philosophy. For him, the presencing of being is a sending (*Geschick*) of being, but without a sender. Being sends itself (*sich schickt*) to us. We also receive the gift of being (*Schenkung*), but without a giver. For Heidegger's notions of sending and giving see Richardson, pp. 20, 413, 435.

⁵⁸ ". . . intentio huius libri tota ordinatur ad ostendendum qualiter res humanae providentia divina regantur." *Expositio super Job ad litteram* 1; ed. Leon. 26:5.2-4.

I am grateful to Mary Catherine Sommers for drawing my attention to the importance of Thomas' commentary on Job for his notion of presence and for providing me with a copy of her paper, "Manifestatio: the Historical Presencing of Being in Aquinas' *Expositio super Job*," delivered at the meeting of the American Catholic Philosophical Association in April, 1988; see *Proceedings of the American Catholic Philosophical Association* 62 (1988) 147-156.

⁵⁹ ". . . et sicut aurum non fit verum aurum ex igne sed eius veritas hominibus manifestatur, ita Job per adversitatem probatus est non ut eius virtus appareret coram Deo, sed ut hominibus manifestaretur." *Expositio super Job* 23; p. 135.166-170.

CONCLUSION

If the above account of Thomas' concept of presence is correct, that concept does not come under Heidegger's criticism of the scholastic notion of being. The Thomistic notion of presence is not equivalent to permanence in being; much less is it "thoroughly subjected to the categories of causality and making."⁶⁰ Thomas was well aware of presence as a field of knowledge, interiority, and manifestation. Particularly significant in this regard is his move from equating *praesentia* with *operatio* to explaining it in terms of seeing and foreseeing. In light of this we may question the claim that Thomas' doctrine has no place for the experience of simple presencing which Heidegger found in early Greek philosophy.

This does not mean that being must be reduced to presence. Thomas regards presence as intimately connected with being but not as being itself; rather, it is one of its many facets or modes.⁶¹ In Thomas' metaphysics being (*ens*), not presence, is the first principle of human knowledge. His Latin language would have suggested this to him. Before a being is present (*praesens*) it must be a being (*ens*).⁶² Being has its character as being not from presence but from the act of being (*actus essendi*) or "to be" (*esse*), which is the actuality or perfection at the heart of a being.⁶³ There are many modes or ways in which a thing may exist. Presence is one of them; but being is not equivalent to presence or to any of the other modes of being. It contains all of them while being more than any one, or all taken together.

In Thomism it is always a being that presents and manifests itself to a knower, but it need not be an enduring or permanent substance or entity. It may be a temporal, historical event that happens in the present and then recedes into the past. Thomas was well aware of the temporal dimension of the manifestation of being, but he did not reduce being to the mode of the temporal present. For him, to be in time is only one way of being, and to be in the present is only one mode of temporal existence. Being in its fullness

⁶⁰ Caputo, *Heidegger and Aquinas*, p. 170.

⁶¹ Though Thomas does not say that presence is a mode of being that accompanies every being, or being qua being, he seems to imply it. In virtue of its being, everything is present in some way to another being. Primarily everything is present to God, for all things (including himself) are open to his sight. In turn, he is present to everything, from the greatest to the least, through his knowledge and providential care. Some things, however, are absent from us, either because they are distant in time or place, or because they are not disclosed to our view. On this subject see Robert Sokolowski, *Presence and Absence. A Philosophical Investigation of Language and Being* (Bloomington, IN: Indiana University Press, 1978), p. 170: "Presence/absence, or presentability, belongs to being as being." Thomas does not include presence among the general modes of being in *De veritate* 1.1.

⁶² "[W]hen we say 'to be present' we have already said 'to be' just as when we think the true we have already thought being." Bernadette O'Connor, "Overcoming the Heideggerian Critique of Metaphysical *ὄντα*," *Proceedings of the American Catholic Philosophical Association* 61 (1987) 158.

⁶³ ST 1.8.1; *De potentia Dei* 7.2.ad 9. See E. Gilson, *Le thomisme. Introduction à la philosophie de saint Thomas d'Aquin*, 6th ed. (Paris: J. Vrin, 1965), pp. 32–35.

and perfection in God transcends time in all its dimensions. The divine mode of being is not time but eternity, and this excludes the "now" of time.⁶⁴ It is not Thomism but Heideggerian phenomenology that grasps being in the light of presence and time.

The realism of Thomas' doctrine of knowledge is at stake in the priority of being over presence. If being were identical with presence, being would be conceived as essentially relative to knowledge. To be would mean the same as to be present to consciousness. This is the case with Heidegger's phenomenology, in which to be means to be present and to appear to a knower. He tells us that being means appearance, in the sense of "self-manifestation, self-representation, standing-there, presence. . . . The stars shine: glittering, they are present. Here appearance (*Schein*) means exactly the same as being."⁶⁵ Beings appear to human There-being (*Dasein*) and their appearance is their being. Consequently being is being only inasmuch as it is present to human consciousness. But this is to conceive being not in itself and for itself but in its relation to knowledge. Heidegger wanted to avoid a "subjective" view of knowledge and to maintain the reality of beings other than *Dasein* (human There-being). But with idealism he agreed that being can only be explained by consciousness.⁶⁶ Thus he attempted to transcend the dichotomy between realism and idealism, but it is problematic if this is possible as long as being is viewed as presence.

Gilson makes the perceptive observation that "*all the failures of metaphysics should be traced to the fact that the first principle of human knowledge has been either overlooked or misused by the metaphysicians.*"⁶⁷ Drawing a lesson from the history of philosophy, he points out that divergent metaphysics have arisen as a consequence of philosophers choosing different modes of being as the first principle. Aristotle, for example, conceived being primarily as Thought, Plato as the Good, Plotinus as the One.⁶⁸ We may well ask whether Heidegger does not join the company of Western metaphysicians who viewed being not in itself but through one of its primary modes, namely presence. In Thomas' view none of these modes can be the first principle of knowledge because it is only a determination of being and not being itself. Only being, as inclusive of all its modes and as their foundation, qualifies as the first principle of knowledge and metaphysics.

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⁶⁴ ST 1.10.1.ad 5.

⁶⁵ Heidegger, *Introduction to Metaphysics*, p. 85. For him, "appearing pertains to the very essence of Being." Richardson, *Heidegger*, p. 263.

⁶⁶ See Richardson, pp. 101-103.

⁶⁷ Gilson, *The Unity of Philosophical Experience* (New York: Charles Scribner's Sons, 1937), p. 316. (Gilson's emphasis).

⁶⁸ *Ibid.*, "De la connaissance du principe," *Revue de métaphysique et morale* 4 (1961) 385-386.

Nature and Natural Law in Albert

Ernest J. McCullough

Si quis omissis rectissimis atque honestissimis studiis rationis et officii consumit omnem operam in exercitatione dicendi, is inutilis sibi, perniciosus patriae civis alitur.

Cicero, *De inventione* 1.1

Cicero notes that the civic life of the orator and politician is useless, even harmful, without the study of philosophy and moral conduct. For Cicero and the great ethicists of antiquity, there is no more important area in the study of the moral life and the life of the citizen than that of the relationship between nature and convention or law, of φύσις and of νόμος. A most puzzling phenomenon of recent years, however, has been in the renewal of interest in justice in general, and in natural law in particular. There have been widely varying interpretations of natural law, many of them in direct conflict with each other. They have followed at least six general lines:

1) A notion developed from a theological context in which eternal and natural law are closely related or identified. This might be identified as a theological notion of natural law.¹

2) A notion rooted in physics and involving accordance with what animals in general do as in the definition from the Roman jurist Ulpian. This might

¹ Kai Nielsen, "The Myth of Natural Law," in *Law and Philosophy*, ed. Sidney Hook (New York: NYU Press, 1964), p. 130.

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be called a naturalistic or biological notion of natural law.²

3) An idea of natural law, rooted in stoicism, which puts an emphasis on logical necessity and the axiomatic. In popular terms this might be designated a legalistic notion of natural law.³

4) A conception of natural law derived from the natural application of reason to particular situations in which rational warrant is given for actions and practices. This might be designated situationist, relativist or casuist approaches to natural law.⁴

5) A notion rooted in the understanding of an integral notion of physical and ethical principles in concert with operations and practices. This might be called a doctrine of natural virtue which includes natural law.⁵

6) An interpretation grounded in a creative revision and reconstitution of natural law theory which draws, to varying degrees, on traditional concepts but attempts to avoid the criticisms associated with the traditional theories and to meet contemporary needs. Most theorists in this tradition are concerned to avoid fallacies of naturalism, legalism, and relativism in moral reasoning.⁶

Critics in the contemporary tradition usually take Thomas Aquinas as the central figure in the Greek and medieval formulation of the doctrine, while noting the distortions of his doctrine by Renaissance thinkers such as Francis Suarez and Gabriel Vasquez.⁷ An adequate understanding of Thomas' doctrine demands some historical background, especially an assessment of his teacher Albert the Great and of Albert's notions of nature and of law.

² M. B. Crowe, *Irish Theological Quarterly* 44 (1977) 6-7. See also idem, "Saint Thomas and Ulpian's Natural Law," in *Thomas Aquinas, 1274-1974, Commemorative Studies*, ed. Armand A. Maurer (Toronto: PIMS, 1974), pp. 261-282. Crowe puts Thomas and Bonaventure together in holding this definition while Albert argues against it as does Suarez; pp. 270-271.

³ B. F. Brown, *The Natural Law Reader* (New York: Oceana, 1960), p. 3: "After the eighteenth century, natural law thinking declined because the Stoic-Thomistic doctrine of a duty-imposing objective natural law was superseded in many quarters by erroneous notions of natural law." See also p. 47.

⁴ J. Fuchs, *Christian Ethics in a Secular Arena* (Washington: Georgetown University Press, 1984), p. 126: "The natural law, on the one hand, will find its full effectiveness only in the positively stated law and in positively protected rights in societies, while on the other hand, the natural law is the deepest value of the positively established order and this is so precisely because the natural law exists in the positive law."

⁵ This is a notion attributable to both Albert and Thomas.

⁶ A view espoused by a variety of authors from those in the Thomist tradition such as J. Finnis and G. Grisez and those outside it such as L. Fuller and H. L. A. Hart.

⁷ Three prominent contemporary philosophers, otherwise sympathetic to Thomas, see the natural law doctrine in Thomas in a negative light. The Canadian philosopher George Grant sees Thomas as a source of modernity and one who turned the Church towards the secular world; G. Grant, *Technology and Justice* (Notre Dame: University of Notre Dame Press, 1986), p. 58. Alasdair MacIntyre, in *After Virtue* (Notre Dame: University of Notre Dame Press, 1981), p. 167, describes the view of Thomas as one in which there is a deductive order derived from certain first principles in an uneasy synthesis of theology and ethics. MacIntyre revises this assessment of Thomas in later works (see below). John Finnis in *Natural Law and Natural Rights* (Oxford: Clarendon, 1980), pp. 46-47, argues that Thomas' work is highly elliptical and seriously underdeveloped.

That Albert the Great is a key historical figure in the development of Thomas' doctrine, and particularly in influencing the writing of his *Commentary on the Nicomachean Ethics* is not an original claim. Both Pelzer⁸ and Gauthier⁹ have noted this relation. Gauthier claims that Thomas uses Albert as a source for his own commentary,¹⁰ and maintains that Albert's is the best medieval commentary on the *Nicomachean Ethics*.¹¹ Vernon Bourke regards Gauthier's judgment as perhaps too sweeping and suggests that judgment be withheld until the complete text of Albert's *Commentary* is available for scholarly study.

It is the purpose of this paper to appraise Albert's natural law doctrine as part of his contribution to the developing doctrine and as part of the historical work in tracing sources for Saint Thomas. Strangely, the work of such scholars as Lottin, Gauthier, Eschmann, Crowe, and Bourke on sources for Thomas and on Albert have been given little attention in the mainstream of contemporary debate, although there has been some recent scholarly work pointing to the significance of Albert.¹² In spite of the neglect of Albert in much contemporary speculation on natural law, can we find in him a source of similar stature to that of Saint Thomas? Albert's development of notions of nature, his confidence in bringing the natural order into ethics, and his already significant role in the interpretation of Aristotle assure him of stature. Our question is, does his doctrine of natural law deserve the same sort of commendation?

Part I of this paper deals with the ethical notion of nature which Albert provides; part II treats the notions of right, of law, and of justice as they are developed in Albert's *De bono*. Part III considers the two serious difficulties with a doctrine of natural law in Albert: first, the problem of seeming exceptions drawn from Scripture, such as the despoiling of the Egyptians, the proposed sacrifice of Isaac by Abraham, and the sanction of fornication in the

⁸ A. Pelzer, "Le cours inédit d'Albert le Grand sur la Morale à Nicomaque recueilli et rédigé par S. Thomas d'Aquin," *RNSP* 24 (1922) 333-361, 479-520; reprinted in *Études d'histoire littéraire sur la scolastique médiévale* (Louvain: Publications Universitaires, 1964), pp. 272-335.

⁹ Thomas Aquinas, *Sententia libri ethicorum* (ed. Leon.), 47:123-124.

¹⁰ V. Bourke, "The Nicomachean Ethics and Thomas Aquinas," in *Aquinas Commemorative Studies*, pp. 239-259. See especially p. 246.

¹¹ Gauthier, "Introduction," *L'Éthique a Nicomaque*, 2nd ed. (Louvain-Paris: Béatrice-Nauwelaerts, 1970), pp. 123-126.

¹² Alasdair MacIntyre's recent work, *Whose Justice? Which Rationality* (Notre Dame: University of Notre Dame, 1988), points to three major contributions of Albert to Thomas: 1) his work in Augustinian theology; 2) his insistence on the autonomy of the natural sciences; and 3) his work in explaining and in clarifying Aristotle's views (p. 168). Other recent writings have pointed to the role of Albert's ethical thought: P. Payer, "Prudence and the Principles of Natural Law: a Medieval development," *Speculum* 54 (1979) 55-70; S. Cunningham's studies: "Albertus Magnus and the problem of the Moral Virtue," *Vivarium* 7 (1969) 81-119; and "Albertus Magnus on Natural Law," *Journal of the History of Ideas* 28 (1967) 479-502. Earlier foundational works by O. Lottin, *Psychologie et morale aux XII^e et XIII^e siècles*, (Gembloux, Belgium: J. Duculot, 1948-1960 [henceforth *PEM*]); J. M. Ramírez, *Opera omnia* (Madrid: Vives, 1972), deals with key issues in Albert such as the role of the human act, the nature of analogy, and the nature of *habitus* in Albert and Thomas.

case of Hosea; second, the problems, arising from the *Nicomachean Ethics*, of an outside cause of agency, of the changeableness of natural law, and of the problem of knowing incontinency in moral reasoning. Albert's response to these objections, arising out of Scripture and out of the Aristotelian tradition, bring us to an assessment of both his originality and his interpretative ability.

Albert's ability to integrate nature and operations, to present a doctrine of an intrinsic principle of natural law, and successfully to combine intellect and will in his doctrine should provide an indication of his significance as an ethical thinker. It may also indicate whether Albert's thought can be harmonized with contemporary moral philosophy in spite of his "naturalism"—or, in contemporary terms, his "biologism" (in modern thought, the mixing of the non-moral and the moral). A second problem for contemporary ethicists is the legalism which they read into natural law. Naturalism and legalism are the Scylla and Charybdis of contemporary ethics.¹³ A final problem for Albert, as for all ethicists, is the siren call of relativism and casuistry.

I

Cum enim superiores, e quibus planissime
Palemo, secundum naturam vivere summum
bonum esse dixissent. . . .

Cicero, *De finibus* 4.6

Albert was quite familiar with the problem of relating the order of natural causation and the moral order, the order of φύσις and of νόμος. For the Stoics there are three orders of nature: the order of natural causation, the order of moral obligation or duty, and a third order in which one enjoys the goods of nature through the life of virtue and the possession of natural goods.¹⁴ It

¹³ Concern of contemporary moral theorists sympathetic to the medieval scholastic tradition lie in determining how the logical problem of factual claims leading to moral claims might be met in the doctrines of natural law. Germain Grisez, for example, argues that "scholastic natural law theory must be rejected. It moves by a logically illicit step—from human nature as a given reality to what ought and ought not be chosen." G. Grisez, *Christian Moral Principles* (Chicago: Franciscan Herald Press, 1983), p. 105.

¹⁴ "Palemo had explained the chief good as being 'to live in accordance with nature.' This formula receives from the Stoics three interpretations. The first runs thus, 'to live in the light of the natural sequence of causation'. . . . Their second interpretation is that it means the same as 'to live in the performance of all or most of one's intermediate duties.' That is 'right action' (as you rendered *Katorthoma*) and can be achieved only by the Wise Man, but this belongs to duty merely inchoate, so to speak, and not perfect, which may sometimes be attained by the foolish. Again, the third interpretation of the formula is 'to live in the enjoyment of all, or of the greatest, of those things which are in accordance with nature.' This does not depend solely on our own conduct, for it involves two factors, first a mode of life involving virtue, secondly a supply of things which are in accordance with nature but are within our control. But the chief good, being inseparably coupled with virtue, lies within the reach of the Wise Man." Cicero, *De finibus* 4.6; trans. H. Racham (London: Heinemann, 1967), p. 317.

Cicero's account of the Stoic approach to natural law brings together three notions of nature: a physical notion dependent on the causal laws of nature (φύσις), a moral sense of nature involving duty, and an ethical sense of nature which involves virtue which lies within our

was one of Albert's concerns to bring some understanding of how the word "nature" may be used in both a physical and a moral sense, and how these senses are related.

Albert uses the word "nature" both in a broad, general sense, and in a sense related to specific areas. In its broadest sense it crosses categories of logic, physics, ethics, and metaphysics. It has the meaning provided by Aristotle in his *Physics* as the principle of motion and rest in that to which it belongs primarily. It is a principle of motion and rest in mobile things, but it is said in many ways (*natura multipliciter dicta*).¹⁵ For Albert, this phrase signals an ambiguity in the word or some analogical usage.¹⁶ He depends on Boethius for his initial account of its uses,¹⁷ although Albert adds a logical notion. Albert thus provides four instead of the three Boethian notions. First, there is the metaphysical sense in which things are grasped through a common nature through which the intellect understands substances and accidents. A second sense of nature designates operations of making or of suffering. In this order, the soul is an active principle, but it suffers as well. Pure agency, however, is limited to God. It is this agent sense which applies to the ethical order. A third sense of nature is as the principle of motion and rest in that to which it belongs primarily. This is the physical sense. Fourth,

control or perhaps a conventional source of the natural (*νόμος*). The *De officiis* presents the doctrine of duty in more detail and leaves open the interpretation as to whether the moral sense is that of the second type or the third type. The problem is even more acute when the first type of natural relation is discussed. There is a long tradition concerning the relationship between the moral sense of natural and the physical sense of natural. The Greek concern with the relations between φύσις and νόμος catches something of the problem. Recent debates on natural law and the naturalist fallacy illustrate something of the same difficulty.

¹⁵ Albert, *Physics* 2.1.1; ed. Colon. [henceforth all references will be to the Cologne edition unless otherwise noted], 5/1:77 (lines 67–68).

¹⁶ Suarez points to the difficulty in use of the word in the tractate *De legibus*; see *Opera omnia* (Paris: Vives, 1856) 5:101, nn. 5–6.

¹⁷ Boethius, *Contra Eutychem et Nestorium*, trans. H. F. Stewart and E. K. Rand, in *The Theological Tractates, The Consolation of Philosophy* (London: Heinemann, 1962), pp. 76–80: "Natura igitur aut de solis corporibus dici potest aut de solis substantiis, id est corporeis atque incorporeis, aut de omnibus rebus quae quocumque modo esse dicuntur. Cum igitur tribus modis natura dici possit, tribus modis sine dubio definienda est. Nam si de omnibus rebus naturam dici placet, talis definitio dabitur quae res omnes quae sunt possit includere. Erit ergo huiusmodi: 'natura est earum rerum quae, cum sint quoquo modo intellectu capi possunt'. . . . Et si de omnibus quidem rebus naturam dici placet, haec sit naturae definitio quam superius proposuimus.

Sin vero de solis substantiis natura dicitur, quoniam substantiae omnes aut corporeae sunt aut incorporeae, dabimus definitionem naturae substantias significanti huiusmodi: 'natura est vel quod facere vel quod pati possit.' 'Pati' quidem ac 'facere,' ut omnia corporea atque corporeorum anima; haec enim in corpore et a corpore et facit et patitur. . . . Est autem eius definitio hoc modo: 'natura est motus principium per se non per accidens'. . . . Est etiam alia significatio naturae per quam dicimus diversam esse naturam auri atque argenti in hoc proprietatem rerum monstrare . . . naturae definietur hoc modo: 'natura est unam quamque rem informans specifica differentia.'"

and finally, the word "nature" sets out the specific difference which is realized in the definition. This last is the logical sense.¹⁸

There are natural things which change not by nature in the third sense but rather by an intrinsic natural power which proceeds from the sensible, intelligent nature of the mover. This is using nature in Boethius' second sense. These changes derive from freedom of the will, through reason, or through a non-intellectual movement derived secondarily from an agent, as in impetus, or from instinct.¹⁹ In proceeding to discuss the four uses in more detail and in making additional distinctions, Albert moves past the four simple divisions provided by Boethius. He deals first with the contrast between the natural and the artificial.

There are natural objects in the world which have an intrinsic principle of motion and rest in them.²⁰ There are also artificial things, such as beds and garments, which do not have an intrinsic source of change in them, to the extent that they are beds and garments. The causal source is extrinsic and from the artificer. The contrast in the moral life is not between the artificial and the natural but between two kinds of natural agency involving intrinsic and extrinsic causes. The natural-artificial distinction is less important in this analysis than the distinction made between changes arising out of nature in the physical sense and nature in the operational or self-actualizing sense. The vital difference is between nature in the non-operational and the operational or self-actualizing sense.²¹ In ethics the operational (or practice which empowers) sense of nature is the key sense.

In his *Physics* Albert takes the Boethian analysis and provides a more precise understanding of the ethical sense of nature as applied to animals, to man, and to the intelligences. The ethical sense of nature does not apply to animals in the strictest meaning. This precision becomes important in

¹⁸ Albert, *Physics* 2.1.1; 4/1:77 (38-73). "Hoc solum autem hic dicimus, quod cum Boethius dicat naturam quatuor modis dici, nos non intendimus nisi de natura, quae uno istorum dicitur quatuor modorum; sicut enim Boethius dicit, communissime natura dicitur, secundum quod 'est earum rerum, quae cum sint, quoquo modo intellectu capi possunt'. . . 'natura est, vel quod facere vel quod pati possit; . . . 'natura' conveniens corporius, quae est in eis 'principium' et causa 'motus per se et non secundum accidens'. . . Quarto etiam modo dicitur 'natura differentia specifica,' quae unam rem naturae dicimus differre ab 'alia'. . ."

¹⁹ *Ibid.*, 2.1.2; 4/1: 78 (29-49): "Sunt item quaedam naturalium habentia motum non a principio, quod est natura, et ille motus est duobus modis, aut est uniformis aut non uniformis. Et siquidem est non uniformis et a principio intrinseco, ipse erit vel ab anima sensibili movente aut a voluntate rationalis et intellectualis substantiae, sicut sunt motus processivi multifformes in animalibus et ad multa loca ante vel retro et sursum et deorsum et a dextris et a sinistris.

Sunt autem tales etiam motus alterationis in desiderii et tristitiis et gaudiis et delectationibus animalibus aliquando. Istud autem principium diversi motus in animalibus in genere duplex est: aut enim est liberum aut a natura quasi exactum et actum. Liberum quidem est, quod in se sui causa est in agendo et non-agendo, sicut sunt motus liberi arbitrii et voluntatis rationabilis. Exactum autem a natura est, quod in se non habet aliquid luminis intelligentiae, quod ipsum frenet, quo minus omnes naturae impetus expleat, sicut sunt desideria et motus brutorum: non enim avertuntur a motibus suis nisi coacta timore verberum."

²⁰ *Ibid.*, 2.1.2; 4/1:78 (12-28).

²¹ *Ibid.*, lines 24-35.

Albert's later rejection of the view that brutes share in a natural ethical order.²² Thus far the concern has been with the use of the term "nature" in a variety of orders. As Albert applies the term in ethical contexts the meaning becomes even clearer.

There are several works of Albert which provide an understanding of his concept of nature in an ethical sense. Those which best suit the purpose of this paper are the early work, *De natura boni*,²³ the work written in the mid-1240s, the *De bono* and the *Commentary on the Nicomachean Ethics*, written between 1248 and 1252 while Albert was at Cologne, with Thomas as his student. The *De natura boni* is an early devotional work. Here nature is discussed in the context of theology and from the perspective of a good created order. Albert cites Boethius who points to nature as the fitting disposition of parts ordained by the creator.²⁴ There is a goodness of nature in all created things, and in creation a vestige of the Trinity. In man, the natural goodness is recognized in the diffusion of God's creative powers. Insofar as creation glorifies God, it represents the good; evil enters the world through sin. It is through grace that sin is overcome and the natural good restored. The emphasis is on nature as representing the good of creation, and the purpose is entirely theological.

In the *De bono*, probably written between 1240 and 1246,²⁵ the Aristotelian notion of nature is presented. It was written prior to the *Commentary on the Sentences*. This work, which Albert refers to as one on the virtues, discusses the common meaning and species of the good. The doctrines of the *Physics* are treated with references from Book I, with notions of matter and form, to Book VII, in which there are references to appetites for good and evil. References to the *Ethics* are restricted to the *Ethica vetus*, the first three books of the *Nicomachean Ethics*. From the beginning it is clear that natural philosophy plays a central role in the work, with discussion of the four causes preceding the discussion of the virtues themselves.

Albert's discussion of the virtues in general in the *De bono* puts the material cause in the passions, whether pleasurable or not;²⁶ formal determination lies in the qualitative state of character;²⁷ and the efficient cause lies

²² Albert, *De bono* 5.1.1; 28:267 (9-12): "Et meo iudicio debet accipi natura in specie et communis communitate speciei et non communitate generis, scilicet natura humana et non natura animalis. Et hoc dico propter dicentes de quodam iure naturalia, quod nobis cum bestiis sit commune."

²³ It is conjectured by P. Simon that Albert wrote this work between 1236 and 1243; *De natura boni*, prolegomena; 25:v.73-vi.3.

²⁴ *Ibid.*, 1.1.2; 25:1 (42-52).

²⁵ Albert, *De bono*, prolegomena; 28:xi-xiii.

²⁶ *Ibid.*, 1.4; 28:45 (2-19).

²⁷ *Ibid.*, 1.5; 28:71 (73-76): ". . . bonum, quod ponitur in diffinitione virtutis, non est bonum naturae vel in genere tantum, sed est bonum formale, quod est honestum et est substantiale virtuti"; and *ibid.* 72 (3-6): "Est enim non directe ut passio de subiecto nec ut actus de potentia omnino, sed tamen propter rationem formae dicit quale, cum genus dicat quid."

in right reason.²⁸ The final cause lies in the good as a final form, and ultimately in assimilation to the divine being.²⁹

In the *Commentary on the Nicomachean Ethics* Albert clearly distances himself from the view that nature is used in the purely biological sense. Natural right is said of man inasmuch as he is man governed by reason and not in the broader sense of the animate form alone.³⁰ The focus is on human operations. When the Ulpian definition of natural right as that which nature teaches to all animals is presented, Albert maintains that natural right must be restricted to the order of rational beings exercising reason. Nature is, thus, realized in the moral order through the efficient causal force exercised in operations. These operations arise out of reasoned choices and from the will.

To the objection that virtue in the natural order refers to the intrinsic principle of motion and rest as defined in the *Physics*, Albert responds that there is a similitude between nature in the physical and the moral senses, since nature moves to a final form in the physical order and virtue moves to a determinate middle which is influenced by circumstances.³¹ The depth of the analysis which Albert applies to the nature of the human act and the human operations is without precedent in medieval thought.³² In this analysis he provides four specific aspects of the moral action, drawing this distinction from Pseudo-Dionysius: the circumstances, the intention, the action, and the end of the action.³³ Central to Albert's analysis is his use of the physical

²⁸ *Ibid.*, 1.4; 28:49 (8-17): "Unde philosophus dicit, quod ethicum 'oportet scrutari ea quae circa operationes, quomodo faciendum eas. Operationes enim dominae sunt, ut quales fiant habitudines. Secundum rectam enim rationem operari commune principium est virtutum.' Et vocatur 'recta ratio' recta inspectio medii in passionibus, in quibus est opus virtutis. Et ex hoc patet, quod natura ad virtutem non est tantum in potentiam materiam, sed etiam in potentia efficientis per aliquem modum." Cunningham gives a slightly different account here in "Albertus Magnus on Natural Law," p. 485: "Early moralists, reacting against Abelard's theory of intentions, had spoken of various objective elements of moral goodness. Albert adopting these distinctions, converts them into an integral causal structure of goodness within the human act. Thus the natural proportion between an act (say feeding) and its object (a hungry man)—traditionally called *bonum in genere*—becomes the material cause of virtue [1.2.4; pp. 28-30; circumstances (*bonum ex circumstantia*) serve as formal causes of virtue [1.3.1; pp. 37-38]; operating always determined by right choice (*eligentia recta*) is the efficient cause of virtue [1.4.2; pp. 46-50]; final cause analogously designates both the immediate object intended and man's ultimate end [1.4.7, ad 13m; 1.4.1, sol.; pp. 44-45]."

²⁹ *Ibid.*, 1.4; p. 44 (76-80) and p. 45 (1-6): "Est autem duplex finis in naturis et etiam in moribus. Est finis naturae, quem intendit in actu uno, et ille est forma. Est finis, quem intendit in omnibus, et ille est perpetuitas naturae, ut per hoc assimiletur esse divino."

³⁰ Albert, *Super Ethica* 5.11; 14/1:357 (3-65).

³¹ *Ibid.*, 1.5; 28:73 (70-76).

³² Lottin, *PEM*, 1/2:403-404, 411-414; see also 1/1:119-126. S. Cunningham in "Albertus Magnus and the Problem of Moral Virtue," pp. 86-91, discusses the predecessors of Albert such as Philip the Chancellor who provide an analysis of moral elements including the human act. In Albert, Cunningham notes, there is a dependence on the work of Pseudo-Dionysius and a recognition of four crucial elements in the moral act: circumstances, intention, the act, and the end; p. 87.

³³ Albert, *De bono*, 1.1; 28:10 (1-12).

notion of nature in contrast to the ethical and moral sense of nature. How then are these two senses related?

The word "nature" is not used equivocally in application to the physical and the moral spheres, since there are real similitudes; the word is used analogically. Analogy has a technical meaning for Albert, as it does for Aristotle.³⁴ As Albert describes it in the *De bono*, there are three types of analogy: 1) according to agreement to a substance or being; 2) according to an action such as that of healing; and 3) in comparison to an end such as health, said of animals, medicine, potions, or urine.³⁵ Albert provided a more distinctly causal account of analogy related to form, act, and end, but he adds to the rather formal description of proportions seen in Boethius. Boethius provides ground for the common scholastic distinction between proportion and proportionality. The former refers to the non-mathematical relation of causality in being and perfection, the latter to the four term aspects of being and perfection.³⁶ Albert's doctrine is set out more fully in his *Liber de praedicamentis*.³⁷

The problem of equivocation engaged Albert in his work on categories or predicaments. Equivocation can be considered logically³⁸ and according to reality, in which case it refers to the mode of participation in reality.³⁹ In the analogous mode of *pros hen* equivocation, the community is drawn from the unity of formal and efficient causes. Both nature in the physical sense and nature in the operative sense have this relation to the efficient cause of reason operative in the world. In other words, the analogy is attributive.

Thus far we have seen three crucial features of Albert's doctrine: first, a notion of nature which is both physical and revealed in operations; second,

³⁴ Aristotle, *Meta.* 4.1 (1003a32-b18).

³⁵ Albert, *De bono*, 1.5.1; 28:74 (19-25): ". . . et beatus Dionysius consentit in IV capitulo De divinis nominibus dicens quod 'bonum constat ex tota sola causa, malum autem omnifarium,' intelligens per hoc, quod ad existentiam virtutis exiguntur omnes circumstantiae cum fine convenientes ad actum super debitam materiam, ad malum autem et ad vitium sufficit corruptio uniuscuiusque per se. . . . Nec virtus dicitur medium, quod sit inter talia extrema, sed quod in actu mediat inter ea." Cunningham cites as well the text from the *Commentary on the Sentences*, in which an even clearer elucidation of the moral elements is provided in *Commentary on the Sentences* 2.41.2, sol.

³⁶ *Ibid.*, 1.1; 28:5 (5-17).

³⁷ As Paul Ricoeur sees it, Albert's doctrine of analogy is much more formal than that of Thomas. P. Ricoeur, *The Rule of Metaphor* (Toronto: University of Toronto Press, 1977), p. 274. J. Ramirez in *De analogia* (Madrid: Instituto de Filosofia Luis Vives, 1971), 2:1267-1396, points to the causal notion of analogy present in Albert; see pp. 1333-37.

³⁸ Albert, *Liber de praedicamentis*, 1.2; ed. Borgnet (Paris: Vives, 1890), 1:151.

³⁹ *Ibid.*: ". . . in esse autem quod dicitur per nomen, non est communitas secundum aequam participationem: quam vis enim aequivocum actuali multiplicata multa dicat, tamen nihil omnium illorum aequa participatione participatur ab his quae in nomine significantur: propter quod aequivoca dicuntur, quia aequalites nomen habentia, esse nominis non aequa suscipiunt participatione." There are equivocals according to reality but participating unequally; p. 152: "Ex quo patet quod aequivocorum multi sive species. Sunt enim aequivoca idem quidem secundum rem, sed non aequae participantia . . . sicut ens dicitur aequivocede omnibus entibus per se et in alio existentibus, eo quod per se ens solum naturae est ens, alii autem quaedam modi sunt illius entis et non entia vera et principalia."

we have seen how nature as physical and nature as operational are both contrasted and related; the human act is seen best in this contrast; and third, we have seen that nature is analogically used in relation to both the physical world and the moral universe. The charge of biologism, or of unacceptable naturalism, is not supportable against Albert. But understanding the relationship between biology and ethics is essential to understanding Albert's notion of natural right and natural law.

II

Naturae ius est quod non opinio genuit, sed quaedam natura vis inest. . . . Lege ius est, quod in eo scripto, quod populo expositum est, ut observet, continetur.

Cicero, *De inventione* 2.54.160–162

Having avoided the Scylla of naturalism and of biologism, can Albert avoid the Charybdis of legalism? Again, his use of terms is crucial in determining the nature and meaning of terms such as *ius*, *lex*, and *iustitia*. In the section on natural right or natural law in the *De bono* following on the detailed analysis of the virtues of fortitude, temperance, and prudence, Albert deals with each of these terms in separate questions. In response to an objection that the terms *ius* and *lex* have precisely the same meaning, he argues that right (*ius*) pertains more to reason operating in nature through judgment, whereas law (*lex*) refers to obligations, imperatives, and commands.⁴⁰ This doctrine, S. Cunningham says, gives us Albert's conception of natural law as briefly as possible.⁴¹ It reveals Albert's difference in orientation in relation to the canonists who put law and obligation at the beginning of treatments of the virtues.

Justice (*iustitia*) has an equally complex and venerable lineage. Plato defines it as the power to order oneself.⁴² Cicero describes it as a habit of soul giving to each his own worth,⁴³ Anselm defines justice as a rectitude of will. After an examination of a number of such definitions, Albert defines it as what is due in proper proportion of a power of the soul to its actions.⁴⁴ Justice, as a virtue, results from the proper exercise of power in ordering

⁴⁰ Albert, *De bono* 5.2.2; 28:285 (27–34): "Ad aliud dicendum quod lex magis respicit obligationem ex mandato naturae et ius magis cogitationes operabilium per naturam, et ita patet differentia legis naturalis et iuris naturalis. Unde ius naturale asciscit honestum et prohibet contrarium per modum iudicantis, lex autem naturalis facit haec duo per modum obligationis et imperii sive praecepti, et ideo patet differentia."

⁴¹ Cunningham, "Albertus Magnus on Natural Law," *Journal of the History of Ideas* 28 (1967) 501.

⁴² Plato, *Rep.* 443D.

⁴³ Cicero, *De inventione* 2.53,160–161: "Iustitia est habitus animi communit utilitate conservata suam cuique tribuens dignitatem."

⁴⁴ Albert, *De bono*, 5.3.1; 28:292 (15–19 & 34–36): ". . . rectitudo animae, quae est iustitia generalis, consistit in debito ordine virium omnem ad actum. . . ."

both ourselves and society. Natural right and natural law provide the ground for the realization of such a virtue.

The *De bono* itself is organized with respect to a general understanding of the good, the circumstances, the social virtues, and the cardinal virtues, concluding with the question of natural right and law, law in general, and justice. Albert begins his account of natural law by calling on Cicero once again. Virtue, Cicero had said, is a "habit of soul in harmony with reason and the order of nature."⁴⁵ Following on this, natural right "is not born of opinion but springs from an inborn force."⁴⁶ Cicero's threefold division of natural law, customary law, and written law forms the basis for Albert's concern with right, law, and justice. Natural right derives from nature in the operative sense but, through custom, rules are established and laws framed. It had been customary in twelfth- and thirteenth-century speculations to begin ethical works with justice and law as the primary consideration.⁴⁷ Albert shifts the order, first considering prudence and right reason, and then justice and law.⁴⁸ The virtues of fortitude and temperance, which precede prudence and justice, could be seen as the effects which precede the cause, which is reason. The first mode of perfection of reason is prudence—in Bernard's words the "charioteer virtue"—and the second is justice directed according to proper proportion and order.⁴⁹ The principal act of reason is in discerning good and evil in the operations and passions, and in the ordering of operations and passions.⁵⁰ Albert's order is slightly different from Aristotle's who, in Albert's view, placed the order through orders of difficulty beginning with fortitude and following with temperance, justice, and prudence.

The four questions raised in the section of the *De bono* on natural law deal with the definitions of natural law, the modes of usage of the phrase, and the species of natural law, followed by a problem with possible exceptions. First, how would Albert define natural right? He was familiar with the Ulpian definition, in which the Roman jurist called it that which nature teaches every animal. He did not think this definition was specific enough for the description of natural right in the ethical sense applied to man. Neither

⁴⁵ Cicero, *De inventione* 2.53.159: "Nam virtus est animi habitus naturae modo atque rationi consentaneus."

⁴⁶ *Ibid.*, 2.154.161: "Naturae ius est quod opinio genuit, sed quaedam in natura vis inest."

...

⁴⁷ Cunningham, "Albertus Magnus on Natural Law," pp. 480–486.

⁴⁸ Albert, *De bono*, 1.6.3; 28:81 (28–32): "Videtur enim prudentia esse prima. Electio enim operabilium eat ante operari. Prudentia vero docet eligere operabilia, ut dicit Augustinus; in aliis autem est operari tantum; ergo prudentia est prima."

⁴⁹ *Ibid.*, 1.6.1; 28:80 (34–36): "Et primo modo perfectio rationis est prudentia ostendens medium. Secundo modo perfectio ipsius est iustitia dirigens ad alterum secundum debitum. Ordinatae autem vires sunt concupiscibilis et irascibilis in passionibus difficillimis. Et illae sunt innatae quae sunt concupiscibilis, et perfectio eius est temperantia, vel illatae, quae sunt irascibilis, et perfectio eius fortitudo."

⁵⁰ *Ibid.*, 1.6.2; 28:80 (65–69): "Rationis enim principalis actus est in discernendo bonum a malo in operationibus et passionibus et in ordinando operationes et passiones ad alterum secundum debitum, et sic in ipsa sunt prudentia et iustitia."

was he entirely satisfied with Cicero's definition of natural law as an innate power or instinct. He sought to provide a more precise definition. Natural law, in Albert's words, is a *habitus* through which justice is recognized through the form of justice impressed on us; through this form we act justly.⁵¹ This form directs us in our operations. There can be neither error nor doubt if the natural light of reason is followed with respect to what is or is not to be done.⁵² Just as the child learning to write is in potency (or a state of unrealized possibility) to knowing how to write, the first potency in the practical intellect is to the universal right. The principles are known through nature simply, and the knowledge of the terms in application to particular issues are acquired accidentally.⁵³ The principle is applied through synderesis or by the process of reasoning from the first principle.

Synderesis, the principle that good is to be done and evil to be avoided, is the first principle of the practical intellect. It is not a conclusion of practical reason as might be inferred from the definition of Cicero. Rather, it is a product of the agent intellect in its practical use. The principle is then proportionate to the conclusions in the practical order and in the councils of wise men.⁵⁴ In the application of the principle, there always remains a tension between the universal judgment and the particular circumstances.⁵⁵

The second article deals with the varied use of the phrase "natural right" ranging from the wide applications which apply to almost everything in the natural order, through the theological and canonist's traditions, to a more precise and careful use. In all the proper uses, natural right is right reason applied in a natural ordering. The focus, however, can be on nature alone, on reason alone, or on the relation between nature and right reason. The article begins with five possible notions of nature drawn from Johannes Teutonicus and the *Glossa ordinaria*:⁵⁶ as an innate form in things; as a certain stimulus or instinct to appetites, to procreation or to education; as a rational instinct; as a natural precept, such as "Do not steal"; and the notion of nature

⁵¹ Ibid., 5.1.1; 28:263 (76–83): "Sensus auctoritas est, quod iustitia in aliquo cognoscitur per formam iustitiae impressam in nobis, cui si inhaeremus vita et moribus, et nos iusti efficimur. Similiter dicit Boethius, quod scientia boni naturaliter omnibus impressa est, et hoc etiam dicit Damascenus in principio sui libri. Patet ergo ex his, quod ius naturale est habitus."

⁵² Ibid., lines 23–28: "Et vocantur universalis iuris illa dirigentia nos in opere, in quibus non est error neque dubium, in quibus naturale iudicium rationis vel synderesis informatum accipit, quid faciendum sit vel non faciendum. Unde quanto regulae iuris humani communis sunt magis universales, tanto sunt magis substantialiter iuris naturalis. . . ."

⁵³ Ibid., 5.1.1; 28:263 (41–61).

⁵⁴ Ibid., p. 266 (4–72).

⁵⁵ Ibid., p. 268 (1–11).

⁵⁶ Cunningham, "Albertus Magnus on Natural Law," p. 492. See also Lottin, *PEM*, 1/1: 21–24.

as derived from the divine order. The broad and narrow senses of nature are limited by the recognition that nature in this ethical sense is reason.⁵⁷

Finally, in the third article, Albert deals with two questions: first, what are the kinds of natural rights? and second, what modes of reason are applied in natural rights? To the first, Albert answers that, whereas in Cicero natural right includes religion, piety, gratitude, vindication, reverence, and truth, the species of natural right are determined in fact by the diverse matters and various operations as well as by place and time. There is not one principle of the speculative intellect nor is there only one of the practical intellect. In answer to the second question, Albert notes that there are three ways of considering natural right or natural justice: essentially, suppositively, or particularly. "Essentially" applies to the most general and common principles; "suppositively" is the commonly held views, such as those of Cicero, drawn from natural reason; and "particularly" are the common views derived from the consultations with the wise.⁵⁸

In summary, Albert has provided a logical approach to the use of the terms *ius*, *lex*, and *iustitia*; he has provided a clearer definition of natural right as a *habitus*; he has defined natural right in terms of reason, and has set out various uses of the phrase involving relationships between nature and reason; and finally, he has maintained that the species of natural right are determined by the various types of operations which can be considered in essence, or from suppositions, or from practical applications in counsel. In this Albert shows a non-legalistic and non-juridical approach both to natural right and to natural law. He does, however, claim a freedom from error and doubt with respect to the application of natural right. He thus faces some interesting cases which test the doctrine, and some problems in the relation of his teaching to certain puzzling texts in Aristotle.

⁵⁷ Albert, *De bono*, 5.1.2; 28:270 (23–25): "Est enim ius naturale nihil aliud quam ius rationis sive debitum, secundum quod natura est ratio."

⁵⁸ *Ibid.*, 5.1.3; 28:274 (27–44): "Dicimus secundum praedicta, quod ius naturale non est nisi in principiis ultimis iuris humani et est ipsa principia, sicut habitum est. Sicut autem non est unum principium speculativa intellectus, quo scit scibilia omnia, ita non est unum principium practici intellectus, quod scit omnia operabilia; sed sicut variantur illa per materias diversas, ita etiam ipsa per opera diversa et status operantium et locum et tempus. Et ideo dicendum, quod tribus modis aliqua sunt de iure vel iustitia naturali, scilicet essentialiter et suppositive et particulariter. Essentialiter sunt illa principia communia de quibus dictum est. Suppositive autem sunt supposita communia illorum principiorum quae non trahunt originem nisi a ratione naturali, sicut illa quae enumerat Tullius, et sicut ea quae enumerat Isidorus. Particulariter autem sunt, quae a plebiscitis et senatus consultis et responsis sapientum determinantur."

III

Quodsi nihil est tam contra naturam quam turpitudine (recta enim et convenientia et constantia natura desiderat aspernaturque contraria) nihilque tam secundum naturam quam utilitas, certe in eadem re utilitas et turpitudine esse non potest.

Cicero, *De officiis* 3.35

Just prior to the test of Odysseus and his shipmates in the passage by Scylla and Charybdis, they faced the temptation of the Sirens who live on a nearby island.⁵⁹ This test was one of the spirit, before they entered the physical danger afforded by Scylla and Charybdis. Albert too faced the siren call of relativism, situationism, and casuistry in dealing with puzzling hard cases both practical and theoretical. Three puzzling cases from Scripture arise which led him to ask whether there are exceptions to the general principles of natural right. The problems involved theft, killing of the innocent, and fornication. The Israelites despoiling the Egyptians, the possible sacrifice of Isaac by Abraham, and the counselling of the prophet Hosea to marriage with a whore all appeared to be cases in which natural right was breached. After considering the commentaries of Jerome, Bernard, and others, Albert turned to his own solution.

He maintains that the relaxation of the law in these scriptural instances would constitute a contradiction, if indeed there was a relaxation.⁶⁰ In the case of the despoilation of the Egyptians, it is not theft to claim the fruits of one's labors. In the case of Abraham, the concern is to manifest obedience in a figurative account of the sacrifice of Christ. Finally, the act of Hosea is one of covenant with the Jewish people signified through the relation of Hosea to Gomer who was perhaps a temple prostitute. The answer in each case is to remove the seemingly contrary actions from the species of theft, murder, and fornication, to those of legitimate claims, obedience, and covenant. Albert considers each case in terms of the four elements of a moral action.

In each case, the features of the moral act—circumstances, the action itself, the intention, and the end—are not defective; they cannot be defective in a proper moral action. The four criteria can be applied to any case in which there is uncertainty. These cases are puzzling and the solution not entirely satisfying, but there are more difficulties ahead with Aristotle's inter-

⁵⁹ Homer, *The Odyssey* 12.

⁶⁰ Albert, *De bono*, 5.1.4; 28: 278 (22-26): ". . . si Deus dispensaret, ut aliquid fieret non bona intentione nec propter bonum et propter se, ipse dispensaret contra seipsum et esset suum opus contrarium alii suo operi, quod esse non potest."

pretation of nature, natural right, and reason as the *Nicomachean Ethics* became available to Albert in the late 1240's.

Three issues force themselves on Albert's attention as he comments on the *Ethics*. First, how are the physical and the ethical notions of nature to be related more precisely? Second, how are the differences between Cicero and Aristotle on the certainty of the natural principles to be reconciled? (Even the references in Aristotle's *Rhetoric*⁶¹ and *Nicomachean Ethics*⁶² seem at odds even with one another on the issue of the unchangeableness of the natural law.) Third, how is the approach to the moral syllogism and to *akrasia* (knowing incontinence), reconcilable with Albert's view, since weakness of will and faulty appetite are essential features of the account which he would give? The comparative notions of reason need to be examined, since the final view of Aristotle puts him closer to Socrates in identifying knowledge and virtue.

The first problem—of the conflict between nature and operations—arises out of the critical implications of the notion of a primary cause or mover. Averroes, in his work on the substance of the heavens (*De substantia orbis*), points to a primary agent as the source of all change and motion. Is not all justice, then, reduced to the primary form of justice? Is there any dispositional account of justice which does not engulf the individual agent?⁶³ Albert's response is that the powers of the soul are naturally operative in the soul. The primary cause, or first agent, works in an entirely just manner. The secondary agents are in a state of imperfection with respect to justice.⁶⁴ Further, there are two ways of proceeding from potency to act: one involves form and matter at the physical level; the other involves the work of an agent. The work of an agent involves right operation. The habits formed by correct operations can be empowered and strengthened.⁶⁵ Virtue is considered in two ways: with reference to the act in which there is not infinite addition in human empowerment, and with reference to the good (here there is addition through closeness to the first good). In nature there is direction to the end through the first mover. In the agent knowing and willing are conjoined, and this is the source of the nobility of the agent.⁶⁶ In rejecting the Averroistic notion that the first agent is both the active knower and the active agent, Albert provides the agent with power to both know and to act in the full sense. The second difficulty arises from the uncertainty as to the precise nature of natural right or natural law in Aristotle in comparison to Cicero.

In Cicero, natural right is not born of opinion. It does not change. We have seen that this is the case for Albert as well. Aristotle, in contrast, seems

⁶¹ Aristotle, *Rhetoric* 1.13 (1373b1–18).

⁶² Aristotle, *Nicomachean Ethics* 5.7 (1134b18–1135a7).

⁶³ Averroes, *De substantia orbis* 2; *Opera omnia* (Venice, 1562), 9:5^v–8^v.

⁶⁴ Albert, *Super Ethica* 2.1.4; 14/1 fasc.1:105–106 (83–89).

⁶⁵ *Ibid.*, p. 108 (10–45).

⁶⁶ *Ibid.*, p. 110 (26–37).

to hold a view that the natural law is changing,⁶⁷ in spite of his references to *Antigone* and to some more permanent notion of natural law in the *Rhetoric*. The problem does not appear in the first three books which were known to Albert when he wrote the *De bono*.

Albert responds to the difficulty raised by the doctrine of Aristotle by noting that there is a difference between the political and the ethical notions of justice. In Aristotle, political justice does have the quality of changeableness but in the end it derives its legitimacy from natural justice. When reference is made to natural law as changeable, the notion is seen in its political sense, not in the sense of the operations rooted in man as a rational agent.⁶⁸ Natural right does not admit of change or of exceptions. With respect to the secondary principles, however, there can be both change and uncertainty.⁶⁹ The difficulties with the imprecision of Aristotle's account lie in the inadequate separation of the political from the natural sense of law. The final difficulty for Albert lies in relating his doctrine of synderesis to the fully expressed doctrine of the practical syllogism in Aristotle.

In Book VII of the *Nicomachean Ethics* an account of the practical syllogism is provided which seems at odds with the doctrine espoused by Albert. Aristotle resists the Socratic identification of knowledge and virtue, but in the end he comes close to such an identification.⁷⁰ Albert first tries to remove the ambiguities in usage and distinguishes clearly between the speculative and the practical intellects. In knowing incontinence, reason is obscured since the pleasurable interferes with the course of reasoning to the concrete action. The key response is that the causal analysis in the natural sciences is not the same as in the moral sciences.⁷¹ Second, the notion of science or of knowledge in the ethical order deals with the operable and the appetible, not with the biological.

In dealing with the problems raised by the *Ethics* in the areas enumerated, Albert draws on physical, ethical, and metaphysical principles. He points to a different notion of certainty in ethics, and applies this notion in a concrete way to the practical syllogism in which appetite and will play an essential role. In this enterprise he does more than make more precise the thought of the *De bono*; he begins to face some of the fundamental criticisms which can be brought against his own view, and he answers these difficulties with insight.

⁶⁷ Aristotle, *Nicomachean Ethics* 5.7 (1134b29): "... within us there is something which is just even by nature, yet all of it is changeable."

⁶⁸ Albert, *Super Ethica* 5.11; 14/1/2:357 (3-75).

⁶⁹ *Ibid.*, p. 360 (60).

⁷⁰ Aristotle, *Nicomachean Ethics* 7.4 (1147b15).

⁷¹ Albert, *Super Ethica* 7.3; 14:532 (37-40).

CONCLUSION

Does Albert, like Circe who guided Odysseus beyond Scylla, Charybdis, and the Sirens, take us past naturalism, legalism, and relativism? We have followed his thought through changes as he became acquainted with the Aristotelian corpus, first in part and then in its entirety. The major objections to his view—biologism or naturalism, legalism, and what might be considered as a kind of relativism inspired by cases—are all met with responses which show him to be an unusually perceptive ethical theorist. He deals with the charge of naturalism by developing his own kind of operationalism (or empowering practices) in which there is not reasoning from natural fact to value but rather from moral operations to actions. From the nature of actions and practices which are specifically human there is a natural proportion between act and object of the act. His notions of the relationship of nature and operation is one in which nature is both a physical or a metaphysical consideration and an ethical consideration through operations.

Albert meets the problem of legalism through his non-obligationist notion of natural right as a *habitus*, contrasted with the obligationist focus in law. The primary principles of natural law are rooted in the notions of right, not in obligations.

Finally, in spite of the siren call of casuistry and hard cases, Albert does not allow himself to be deflected from his conviction that there are certain moral principles either by attempts to deal with hard cases or by ambiguities in Aristotle's thought. He does not succumb either to relativism or to situationism, in spite of the fact that circumstances play a major role in his moral doctrine.

We can now place Albert more clearly in the fifth type of natural law or natural right with Thomas and some other modern interpreters. He clearly cannot be categorized as a purely theological theorist, as an uncritical naturalist, as a stoic moralist, or as a legal positivist. His stature is assured in his originality of thought and in his ability to bring a critical mind to the interpretation of the ethical traditions which faced him. There remain fundamental differences between Albert and Thomas.

For Albert, natural right is a *habitus*. For Thomas it is a function of practical reason rooted in judgment. The Thomistic analysis of the qualitative notion of habit is more sophisticated. However, Albert's integration of the natural order and a clear doctrine of physical nature is a remarkable advance over earlier ethicists. Another achievement is his clear identification and application of the four moral principles: circumstances, act, intentions, and ends.

It was Father James Weisheipl's lifelong conviction that a moral philosophy rooted in natural operations must be seen as a contrast and a complement to a philosophy of nature. In Albert there is a clear indication of the

dependence of moral life on an understanding of nature in both its ethical and physical domains.

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Creation Through Instruments in Thomas' Sentence Commentary

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St. Thomas' writings on the eternity of the world have deservedly received a great deal of study from scholars interested in the relationship between faith and reason, and this for a variety of reasons. Perhaps foremost among these is that few situations shed so penetrating a light upon this crucial relationship as do apparent conflicts between the wisdom of philosophers and the truths of the faith. The eternity of the world occasions a confrontation between Aristotle, the Philosopher, and the defined teaching of the Church that the world was created "in the beginning." In addition to the great authority of the supposed combatants in this struggle, the contested issue, the creation of the world, also attracts the attention of scholars, for when philosophy is working at its most exalted level, investigating the first cause of all things, its relation to theology is brought into clearest relief.

But if St. Thomas and his contemporaries had not disagreed as to the possibility of an eternal but created universe, it seems less likely that his writings on the eternity of the world would have become such an undisputed *locus classicus* in the study of the relationship of faith and reason. The disagreement, however, was a marked and dramatic one, helping to bring into sharp focus a peculiarly Thomistic attitude towards apparent conflicts between revealed truth and philosophical thought, an attitude which is well-developed even at the beginning of Thomas' academic career when he wrote his *Scrip-*

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tum super Sententias. On many counts, Thomas' analysis of the eternity of the world clearly merits the attention it has gained.

But the article on the eternity of the world is not an isolated or unique instance of this attitude in the *Scriptum*. Just two articles before that famous passage in Book 2, distinction 1, question 1, article 5, where St. Thomas argues that an eternal, created universe is philosophically possible, but heretical, he addresses another conflict between the teaching of one of the most influential philosophical schools and defined Church doctrine, also concerning creation, and upon which he once again parts ways philosophically with his contemporaries: creation through created intermediaries.

This article, however, has not received the attention it deserves. Its relative obscurity should be credited, at least in part, to St. Thomas' characteristic tact. He disagrees with his contemporaries so gracefully, that many reading the passage fail to see the fundamental difference of opinion which is indeed present, but rather assume that Thomas agrees with the common opinion he cites here and elsewhere. But the distinction between St. Thomas' thought and that of his contemporaries, discreet or not, is there to be seen. A partial explanation of this oversight is the tendency of many students of St. Thomas to read his early works in the light of his more mature, and more familiar, *Summa theologiae*. And since creation through created intermediaries is one of those surprisingly rare issues on which St. Thomas' opinions actually developed and even changed in the course of his career, the position in the *Scriptum* is often interpreted in such a way as to bring it into line with the doctrine found in the *Summa*.

The purpose of this paper is to show that St. Thomas, at the time he was writing the *Scriptum*, really did disagree with his contemporaries concerning the philosophical possibility of creation through intermediaries. Despite the common opinion of the Parisian masters that ministerial creation is an impossibility, the young St. Thomas argues that the arguments presented against it are, in his mind, not demonstrative. Although the philosophers' position is heretical, it has much to commend it philosophically.

Around 1250, when St. Bonaventure was commenting upon Book 2 of Peter Lombard's *Sentences*, he compiled a list of eight propositions included in Lombard's work which the masters of theology at the University of Paris, despite their great respect for the Master, commonly rejected.

The Parisian doctors commonly do not follow the Master in these eight positions, and I do not believe that he should be upheld in all of them, lest there be prejudice to the truth on account of love for a man.¹

¹ "In his octo positionibus communiter doctores Parisienses non sequuntur Magistrum, nec credo, in omnibus his eum esse sustinendum, ne amore hominis veritati fiat praeiudicium . . ." (St. Bonaventure, In 2 *Sent.*, 44.3; [Quaracchi, 1885] 2.1016). See also Bonaventure's *prae-locutio* to book 2 of the *Sentences* (Quaracchi, 1885) 2.2; and *Chartularium universitatis Parisiensis*, ed. H.. Denifle and E. Chatelain (Paris, 1889) 1:220-221, no. 194.

The eighth rejected proposition was that God could grant to a creature the power of baptizing, and, likewise, the power of participating in a ministerial way in the act of creating.

Lombard does not raise the issue of ministerial creation in Book 2 where he explains the nature of creation *ex nihilo*, but in Book 4 of the *Sentences*, in the midst of his discussion of the minister's role in the conferral of sanctifying grace through baptism.² Here he argues that Christ could have granted the power of dismissing sins through baptism to a creature. This position, although opposed to the commonly held theological view that a creature could work only exteriorly and dispositively in the conferral of grace, was, according to Lombard, strongly suggested by Scripture and St. Augustine.

Despite its poor reception from the theologians of the University of Paris, Lombard's description of this possible causality of ministers in conferring the sacraments is remarkably close to what St. Thomas taught later in his career as the regular role of the sacramental minister. It is also closer to what the Church later defined to be true than the explanations offered by the Parisian masters who rejected him.

From this starting point in sacramental theology, and quoting Augustine from the *Glossa ordinaria* that "it seems a greater thing to justify the impious than to create the just,"³ Lombard concludes that *a fortiori* it is possible for God to confer a ministerial creative power upon a creature. "God would thus also be able to create some things through another, not through it as author, but as minister, with which and in which he would operate. . . ."⁴ The minister, although truly contributing something causally, can never produce its ministerial effect except in union with the author. The author must be working simultaneously in and with the minister for the minister to be able to produce its effect.

Lombard certainly makes no claim, nor does he even suggest, that God does in fact create through ministers. In his mind, ministerial creation is an example of a possibility which, according to God's providence, has never and will never become a reality. But nonetheless, it is a possibility which should be defended because of its close relation to the possibility of ministerial forgiveness of sins. Lombard sees no philosophical impossibility in a creature's participating in either the act of creating or the act of forgiving sins interiorly, so long as God, in His infinite power, is working in and with the creature.

The Parisian masters rejected Lombard's suggestion of the possibility of ministerial creation (and conferral of grace, for that matter) almost unani-

² Peter Lombard, *Sententiae in IV libris distinctae* 4.5.2-3 (Grottaferrata [Rome], 1981) 2.266-267.

³ ". . . maius videtur impios iustificare quam iustos creare." Augustine, *Super Ioannem* 72.3 (CCL 36.508-509). Also see *Glossa ordinaria* on John 14:12, ed. Nicholas of Lyra, 5.228e, where this passage from Augustine is quoted.

⁴ "Ita etiam posset Deus per aliquem creare aliqua: non per eum tanquam auctorem, sed ministrum, cum quo et in quo operaretur. . . ." (Lombard, *Sent.* 4.5.3; 2.267).

mously.⁵ It was their common opinion, especially well-developed in the writings of St. Albert and St. Bonaventure, that no finite cause could take part in the production of an infinite effect. An effect must be proportionate to its cause, and no proportion can exist between an infinite effect and a finite cause. Since both the conferral of grace and the creation of things from nothing are infinite, no created minister could take part in them. The Master must be rejected.

But a close examination of the commentaries upon this text in Book 4 by those identified with the Parisian common opinion reveals that the masters do not really address the case of an efficient cause, in either creation or justification, which remains somehow dependent upon the author, the sort of ministerial power which Lombard defends as a philosophical possibility. No mention is made of a created minister working in conjunction with an infinitely powerful author. Their refutations, based upon the proportion between cause and effect, are suitably (and sometimes intentionally) directed against an independent, but created power, which allows the minister to act without the author, once the minister has been granted its power.

As will be discussed later, this is precisely the sort of independent power which is required by a consistent theory of emanation in order to avoid introducing diversity into the One. Many of the masters, in fact, explicitly identify their target as "the deceived philosophers, [who] say that [all things] do not flow immediately from God."⁶

The masters read Lombard's defense of the possibility of ministerial creation, but without assessing it on its own merits. They were more concerned, and understandably so, with the teachings of the Arab philosophers and the *Liber de causis* (then wrongly attributed to Aristotle), so much in vogue at the University then. They recognized the danger of a sophisticated, albeit heretical, philosophical system which denied the immediacy of God's action, and sought to refute it, finding in Lombard's *Sentences* a suitable locus for this refutation. Lombard's suggestion of a dependent, ministerial cause working in conjunction with an omnipotent author passes by relatively unconsidered.

As with the other masters, it was clear to St. Thomas that to argue that God had in fact created through ministers was heretical. The "Firmiter" creed of the Fourth Lateran Council in 1215 had defined that God is "the one principle of all things, creator of all visible and invisible, spiritual and corporeal," a text to which St. Thomas would devote a commentary later in his career at the request of the archdeacon of Todi.⁷ But St. Thomas, for a vari-

⁵ See Paul Pearson, "Creation through Intermediaries in Peter Lombard and the Parisian Masters prior to St. Thomas," Licentiate thesis, Pontifical Institute of Mediaeval Studies, Toronto, 1986.

⁶ "Sed philosophi decepti dicunt quod non fluit a Deo immediate." William of Auxerre, *Summa aurea* 4.5.2.2 (Quaracchi, 1980), 4.88.

⁷ ". . . unum universorum principum: creator omnium visibilium et invisibilium, spirituum et corporalium. . . ." Fourth Lateran Council, c. 1, *De fide catholica*; Denzinger-Schönmetzer, *Enchiridion Symbolorum*, 800 [428]).

St. Thomas will comment upon the text of the Fourth Lateran Council's doctrinal for-

ety of reasons, does take seriously the suggestion made in the *Sentences* that God could have created in this manner, and in the two passages in his *Scriptum* where he addresses the problem of ministerial creation, he carefully avoids rejecting philosophically Lombard's defense of the possibility of ministerial creation.

In Book 2 of the *Scriptum*, St. Thomas presents three positions concerning creation through intermediaries.⁸ The first is that of the philosophers who argue in favor of the necessity of emanation: from one can come only one. In order to explain the diversity of things and yet to maintain the absolute unity of the first cause, a chain of causes must be posited. Thomas dismisses this defense of *de facto* creation through intermediaries quickly with the comment, "this is condemned as heresy."⁹

The second and the third positions, however, he describes as follows:

Hence others have said that creation is fitting to no creature, nor is it even communicable, just as the being of an infinite power is not [communicable], which the work of creation requires.

Others have said that creation was communicated to no creature, but nevertheless could have been communicated, which the Master asserts in Book 4, distinction 5.¹⁰

The second position is clearly that of the Parisian masters, the common opinion which St. Bonaventure cites; the third is explicitly Peter Lombard's. But far from lining up behind the opinion of his fellow masters, St. Thomas asserts, in the words of the Mandonnet edition, that "each of these final two opinions seems to have something to support it."¹¹ The Parma edition offers an even more explicit reading: "each of these final two opinions seems to me to be true in some respect (*secundum aliquid*)."¹² Neither of these statements seems reconcilable with the view that ministerial creation is philosophically impossible.

Book 4, distinction 5, the offending passage in the *Sentences*, elicits a more discrete handling by St. Thomas.¹³ Here he carefully presents the com-

mulation in the 1260's in his *Expositio super primam et secundam Decretalem ad Archidiaconum Tudertinum* (Leon. 40; Marietti, *Opuscula Theologica*, 1.417-426). See also James Weisheipl, OP, *Friar Thomas d'Aquino* (Washington, DC: CUA Press, 1983), pp. 393-394.

⁸ St. Thomas, *Scriptum super libros Sent.* 2.1.1.3; ed. Mandonnet (Paris, 1929) 20-23.

⁹ "... quod pro haeresi condemnatur." *Ibid.*, p. 21.

¹⁰ "Unde alii dixerunt quod creatio nulli creaturae convenit, nec etiam communicabilis est; sicut nec esse infinitae potentiae, quam exigit creationis opus. Alii dixerunt creationem nulli creaturae communicatam esse, communicari tamen potuisse: quod Magister assertit in IV libro, dist. V." *Ibid.*, pp. 21-22.

¹¹ "Utraque autem harum ultimarum opinionum videtur habere aliquid cui innitatur." *Ibid.*, p. 22.

¹² "Videtur mihi secundum aliquid vera esse." *Ibid.*, n. 1.

¹³ *Scriptum* 4.5.1, a. 3, q1a 3; ed. Moos (Paris, 1947) 206-207, 209-211.

mon opinion concerning instrumental creation, clearly labeled as such, as his own response:

To the third question it should be said that the common opinion holds that creation cannot be communicated to any creature, for it is the work of an infinite power, on account of the infinite distance which exists between simple being and simple non-being, between which is the mutation of creation. But an infinite power cannot exist in a finite essence.¹⁴

He concludes the response with the sentence, "And therefore such a power can be communicated to no creature, according to the common opinion."¹⁵ He presents the Parisian position clearly and accurately, but distances himself from it. No words of assent are offered; he merely reports.

This hesitation to support the common opinion in an unqualified manner is made even clearer by the odd structure of the article, a stylistic novelty which ought to serve as a warning signal to any reader of St. Thomas. After responding to the arguments presented in favor of ministerial creation, St. Thomas gives what amounts to a second response, in which he explains how one can support Lombard, if one should wish. He then proceeds to reply to the *sed contras* as the master himself would have done. Since the *sed contras* contain precisely the arguments advanced against Lombard by the Parisian masters, Thomas is in fact showing that the difficulties his contemporaries had raised with Lombard's notion of creation through a created minister were not necessary arguments; the difficulties are soluble, and Lombard's suggestion remains a tenable one.

The practice of responding to *sed contras* as well as to the objections is, in my experience, more common later in St. Thomas' career in the *Summa* than in the *Scriptum*.¹⁶ In Book 2 of the *Scriptum*, for example, I have found only two instances of this method: distinction 1, question 1, article 5, on the eternity of the world; and distinction 40, question 1, article 5, on whether any human acts are morally indifferent.¹⁷ Each is an important issue; and in each case, considerable authority can be gathered for either side of the issue. But most importantly, in both of these articles Thomas is presenting what he thinks to be a problem which, at that time at least, has no definitive rational solution. Although he expresses preferences for one opinion or the other, he realizes, and states explicitly, that his is not the only philosophically accept-

¹⁴ "Ad tertiam quaestionem dicendum quod communis opinio habet, quod creatio non potest alicui creaturae communicari; quia est opus infinitae potentiae, propter distantiam infinitam quae est inter simpliciter ens et simpliciter non ens, inter quae est mutatio creationis. Potentia autem infinita non potest esse in essentia finita." *Ibid.*, p. 209.

¹⁵ "Et ideo nulli creaturae secundum communem opinionem communicari potest talis potentia." *Ibid.*

¹⁶ See, for example, in the *prima pars* of the *Summa*, 13.5; 13.10; 17.1; 48.5; 66.1; and in the *prima secundae*, 19.10; 85.6; 93.4; and 94.1.

¹⁷ See *Scriptum* 2.1.1.5, on the eternity of the world; and 2.40.1.5, on whether a human act can be morally indifferent.

able solution. That he uses this same practice when discussing ministerial creation certainly suggests that he considered it to be a parallel case: that it too does not yet admit of a definitive philosophical determination.

But it is Thomas' direct refutation of the arguments provided by the Parisian masters to support their *communis opinio* that most clearly reveals their parting of the ways. Regardless of whether St. Thomas faithfully reports of masters' common opinion, if he denies the foundation of that opinion, he can hardly be counted as an advocate of it.

The difficulties St. Thomas has with the *communis opinio* are two in number. First, he thinks that granting a ministerial or instrumental role in creation is different causally from the granting of the principal or authoritative power of creating, and must therefore be considered separately. This, as was mentioned above, the masters fail to do. Second, he insists upon distinguishing several senses of "infinite" before concluding whether the distance from non-being to being is an infinite one. Not every sort of infinite action precludes the participation of a finite agent.

Each time St. Thomas addresses the issue of instrumental creation he is careful to distinguish the communication of the power to create as author from the communication of a dependent creative power. The former is certainly impossible, but the latter, if properly understood, is tenable. In both Book 2 and Book 4, St. Thomas presents two senses of creation *ex nihilo* to show in what way this can be true: creation considered *ex parte creantis vel agentis*, and *ex parte creati vel facti*.

Immediately after stating in Book 2 that "either of these two final opinions [that of the masters and of Lombard] seems to have something to support it," St. Thomas offers this distinction:

For since it belongs to the definition of creation that there be nothing which pre-exists it, at least according to the order of nature, this can be taken either in reference to the one creating (*ex parte creantis*) or in reference to the thing created (*ex parte creati*).¹⁸

The same distinction occurs in Book 4, at the beginning of St. Thomas' second *respondeo*, after having presented the *communis opinio* and responded to the objections raised against it:

Since the Master, nevertheless, says in the Sentences that the ministry of creation can be communicated to a creature, but not the authority, if someone should wish to uphold him in this, he could say that something is properly speaking created when it comes to be from nothing pre-existent. Hence it is clear that creation, by its very definition, excludes the presupposition of anything pre-existent. Now this occurs in two ways. In one way, it excludes everything pre-existent, both as regards the agent (*ex parte agentis*) and as regards the thing made (*ex parte facti*),

¹⁸ "Cum enim de ratione creationis sit ut non praeexistat aliquid sibi, ad minus secundum naturae ordinem, hoc potest accipi vel ex parte creantis, vel ex parte creati." *Scriptum* 2.1.1.3; p. 22.

so that the word "creation" is used when the agent does not act by virtue of some prior agent, and the thing made does not come from some pre-existent matter. This is the power of authority in creating, and it is infinite. And therefore it can be communicated to no creature. In another way, it excludes [something] pre-existent as regards the thing made, but not as regards the agent, so that the word "creation" is used, although less properly, when some agent, by virtue of some prior agent, produces some effect not from presupposed matter. And this is the ministry of creation. And in this way certain philosophers posited that some creatures create. And thus the Master says that the power of creating was able to be communicated, but was not communicated to anyone.¹⁹

To have sufficient power within himself to create is, without a doubt, beyond the power of any creature. No creature could possibly be constituted as an independent creator, even if God had so wished. The creature must work "by virtue of some prior agent."

But could this phrase "by virtue of some prior agent" be understood in a manner which does not require the simultaneous causal activity of the first cause and his minister? Perhaps the minister received its power from the first cause at a given point in time, but no longer requires its assistance; it needed the first cause in order to start being a creator, but not to exercise its received creative powers. It could still be said to be a creator "by virtue" of the first cause, since it was from him that the power was received.

It is clear, however, that Thomas intends a different interpretation. In Book 2 of the *Scriptum*, where he outlines much the same argument as he presents here, he says in more explicit terms:

... it could have been communicated to a creature that some simple *esse* or matter be produced through the power of the first cause operating in [the creature] itself (*per virtutem causae primae operantis in ipsa*).²⁰

Simultaneous activity of the author and the minister is necessary if ministerial creation is to be a possibility. It is not sufficient for the first cause to estab-

¹⁹ "Quia tamen Magister in Littera dicit quod potest creaturae communicari ministerium creationis et non auctoritas, si quis vellet eum in hoc sustinere, posset dicere quod tunc proprie aliquid creatur quando fit ex nullo praeexistente. Unde patet quod creatio de sui ratione excludit praesuppositionem alicujus praeexistentis. Hoc autem contingit dupliciter. Uno modo ita quod excludat omne praeexistens et ex parte agentis et ex parte facti, ut scilicet creatio dicatur quando nec agens agit virtute alicujus agentis prioris, nec factum sit ex aliqua praeexistente materia; et haec est potentia auctoritatis in creando, et est infinita. Et ideo nulli creaturae communicari potest. Alio modo ita quod excludat praeexistens ex parte facti, sed non ex parte agentis, ut scilicet dicatur creatio, licet minus proprie, quando aliquod agens virtute alicujus prioris agentis non ex praesupposita materia aliquem effectum producit, et sic erit creationis ministerium. Et ita aliqui philosophi posuerunt aliquas creaturas creare. Et sic Magister dicit quod potuit communicari potentia creandi, non est autem alicui communicata." *Scriptum* 4.5.1.3, q1a 3; p. 210.

²⁰ "... potuit communicari creaturae, ut per virtutem causae primae operantis in ipsa." *Scriptum* 2.1.1.3; p. 22.

lish the minister and leave him to an independent exercise of his role; the author must be working in the minister. In this matter, St. Thomas is being an exceptionally good reader of Lombard, for this is precisely what the master had specified. Lombard saw the difference between ministerial creation and creation through independent intermediaries, and so did Thomas.

What is not so apparent, however, is that the sort of ministerial creation described here is what the philosophers were advocating. St. Thomas seems to think so. Immediately following the passage from Book 2 quoted above, he writes, “. . . and in this way the philosophers posited that the intelligences create, although it is heretical.”²¹ He specifies the author of the *Liber de causis* in Book 2 and Avicenna in Book 4 as the philosophers he has in mind.

But Avicenna's emanation does not seem to fit the requirement of simultaneous causal activity of the first cause and the minister. It is certainly the case that this step-by-step unfolding of the process of creation does not explicitly require the working of the first cause with the lower ones, as Lombard demands. In fact, those who hold a doctrine of emanation would even argue that it rules out the very possibility of such involvement, for if the first cause both produced the first effect and also worked in and through that effect to produce a second, there would be introduced into the first cause a causal diversity incompatible with its absolute unity. It would be the cause of the first creature, as well as the cause of all other creatures, actively but indirectly. Because of this diversity of causal roles, it would cease to be truly one.

The theory of emanation, therefore, implies a sort of causality which is received by the creature from its creator, but does not require the continued activity of the creator in order for it in turn to create. It is a received power, but a power that, once received, is (and must be) in some way independent. It does not act “through the power of the first cause operating in it.”

In addition to these passages in which Thomas insists upon this distinction between the power to create as an author and the power to create as a minister, in his replies to the objections in the article in Book 2, St. Thomas limits the force of the masters' refutation of intermediaries in the act of creating. While perhaps appearing to agree with their arguments, he restricts their target to the conferral of the power of authority in creating, as he says explicitly in the *ad secundum* and *ad quartum*:

. . . and so it is also with the authority of creating (*de auctoritate creandi*), according to those who say that creation can be communicated to a creature.²²

²¹ “. . . et hoc modo philosophi posuerunt intelligentias creare, quamvis sit haereticum.” Ibid.

²² “. . . et sic etiam est de auctoritate creandi, secundum illos qui dicunt quod creatio potest creaturae communicari.” Ibid., ad 2; pp. 22–23.

. . . and so also the influence of the first agent, which is creation, can never be communicated to one of the secondary principles.²³

Each of these clearly is addressing the possibility of independent intermediaries, who are said to have been given sufficient power to be creators in their own right, not those ministers of creation, who act by virtue of the first cause.

Because he sees that the cases for the possibility of these two sorts of intermediaries are distinct, Thomas also realizes that the refutations developed by the masters with one sort in mind need not apply to the other sort. To deny a theory of independent intermediaries is not necessarily to deny Lombard.

But Thomas does more than raise this general doubt about the validity of the masters' arguments; he offers a response to the most fundamental of them: that since creation is an infinite act, only an infinite power can do it. This reasoning was presented concisely by Thomas' teacher, Albert the Great, when commenting upon the Sentences:

Between pure being and pure non-being there is no proportion. There is, therefore, an infinite distance [between them]. Thus, to educe something from nothing belongs to an infinite power.²⁴

Being and non-being are not merely quantitatively different; they are radically opposed notions. In order for there to be proportion between them, there must be some genus to which both belong, the one more, the other less. But there is not genus broad enough to include both being and non-being, the most fundamental opposition. There is, therefore, no proportion between them, and they are, thus, infinitely distant.

An example from mathematics might help to clarify St. Albert's point. The distance from zero to four, in its most obvious sense, is a finite one, a slightly smaller finite distance than the one from zero to five. Taken in this sense, the only number infinitely distant from zero would be an actually infinite one. But in another sense, and this seems to be the sense which St. Albert intends, the distance is infinite when the radical difference between being and non-being is considered. In this sense, the "distance" from zero to four (from nothing to something) is not the same as the distance from four to eight (from something to something greater). They may appear numerically the same, but they are different kinds of distance, the former kind being qualitative, and the latter quantitative, merely a difference of degree.

²³ ". . . et sic etiam nunquam influentialia primi agentis, quae est creatio, alicui secundorum principiorum communicari potest." *Ibid.*, ad 4; p. 23.

²⁴ "Inter pure ens, et pure non ens, non est proportio: ergo distantia infinita: ergo virtutis infinitae est educere aliquid de nihilo." St. Albert, *In 4 Sent.* 2.1.7, *sed contra* 2; ed. Borgnet (Paris, 1894) 27.21.

Thomas discusses this argument at length in Book 4 of the *Scriptum*, when replying to the first *sed contra*. Here he suggests that, despite the lack of proportion between being and non-being, the act of creation need not traverse an infinite distance:

Hence creation does not have its quantity from the distance from non-being to being, but rather from the being which is created. And therefore it is not necessary that the power of the one creating be proportionate to the distance between being and non-being, but only to that which is created, which is not infinite.²⁵

Creation is not like a motion between two endpoints, which passes from the one to the other, and is thus measured by the distance between these endpoints. In creation, non-being is not, properly speaking, an endpoint:

For pure non-being is not a *per se* terminus of creation, but rather is related to it *per accidens*; for something is said to come to be from non-being, that is, after non-being.²⁶

If non-being were the source of the created thing, that out of which they were made, the distance from non-being to being would have to be traversed by any act of creating; but this is an improper understanding of creation *ex nihilo*.

Albert's qualitative sort of infinite distance, therefore, does not seem to require the action of an infinite power. The finitude or infinitude of the act of creating is determined by the *terminus ad quem* of the motion, not the *per accidens terminus a quo*. In the words of St. Thomas, again from Book 4:

Creation, however, is not concerned with this distance from the side of non-being, but rather more from the side of being, which is the terminus of creation.²⁷

It is the *terminus ad quem*, not the lack of proportion between *termini*, that determines the quantity of an action. So, at least, says St. Thomas in the *Scriptum*.

Thomas could have gone one step further in his denial of the common opinion of the masters. In addition to questioning whether creation really involves an infinite distance, he might have denied the applicability of the argument from proportion to an instrumental cause. Earlier in Book 4 of the *Scriptum*, when discussing the causality of the sacraments, he analyzes the proportion of the effect to the instrumental cause. It had been objected that

²⁵ "Unde creatio non habet quantitatem ex distantia non entis ad ens, sed ab ente quod creatur. Et ideo non oportet quod potentia creantis proportionetur distantiae quae est inter ens et non ens, sed solum ei quod creatur, quod non est infinitum." *Scriptum* 4.5.1.3, q1a 3; p. 211.

²⁶ ". . . quia non ens purum non est per se terminus creationis, sed per accidens se habet ad ipsam: dicitur enim aliquid fieri ex non ente, id est post non ens." *Ibid.*, p. 210.

²⁷ "Creatio autem non respicit hanc distantiam ex parte non entis, sed magis ex parte entis, quod est creationis terminus." *Ibid.*, p. 211.

no creature could take part in the conferral of grace, because the effect is of far greater dignity than the cause. To this he responds:

And again it is not necessary that something acting instrumentally be simply speaking more noble than the effect, for the effect is not proportionate to the instrument, but to the principal agent, who sometimes produces very noble effects through lowly instruments.²⁸

Regardless of the scale of the action, the possibility of an instrument's taking part is not impeded.

But Thomas does not make this application. Perhaps he thought it sufficient to show that the act of creation is not absolutely infinite, since it the *terminus ad quem* which determines it, not the *per accidens* end point of non-being. Since the *terminus ad quem* of the conferral of grace appears to be infinite in some sense, Thomas must use the argument concerning the proportion of the instrument to the effect there. In the case of creation through intermediaries, however, he does not think the argument necessary.

He could also, perhaps, have argued that the creative power need not actually inhere in a finite essence, which the masters declared to be impossible, since an instrumental power does not have a fixed being in the instrument. This he did argue earlier in Book 4, once again while discussing the causality of the sacraments:

Now an instrument acts as something moved by another. And thus a power proportionate to motion is fitting to it. Now motion is not a complete being (*ens completum*), but is on the way towards being, as it were part way between pure potency and pure act, as is said in Book 3 of the *Physics*. And thus the power of an instrument as such, inasmuch as it acts to [produce] an effect beyond what is fitting to it according to its nature, is not a complete being having a fixed existence (*esse fixum*) in nature, but rather an incomplete being. . . .²⁹

Even if the instrumental power at work were in some sense infinite, this would not absolutely preclude a creature from exercising such a power. An instrumental power does not inhere in the instrument as in a subject. No difficulty concerning an infinite power in a finite subject need arise. But, once again, Thomas does not present this argument in support of Lombard's (and perhaps the philosophers') suggestion of the possibility of ministerial creation.

²⁸ "Nec iterum oportet quod instrumentaliter agens sit simpliciter nobilior effectu; quia effectus non proportionatur instrumento, sed principali agenti, qui quandoque per vilia instrumenta nobiliores effectus inducit." *Scriptum* 4.1.1.4, q1a 1, ad 3; p. 33.

²⁹ "Instrumentum autem agit ut motum ab alio. Et ideo competit sibi virtus proportionata motui; motus autem non est ens completum sed est via in ens quasi medium quid inter potentiam puram et actum purum, ut dicitur in III Phys.. Et ideo virtus instrumenti in quantum huiusmodi, secundum quod agit ad effectum ultra id quod competit sibi secundum suam naturam, non est ens completum habens esse fixum in naturam, sed quoddam ens incompletum. . . ." *Ibid.*, q1a 2; p. 34.

But not all St. Thomas' analysis of the nature of an instrument in his treatment of sacramental causality offers support to the possibility of ministerial creation. One characteristic of an instrument which St. Thomas discussed in Book 4 will form the foundation of his absolute rejection of instrumental creation in the *Summa*. This attribute of an instrument is the necessary connection between the proper power of an instrument and its instrumental power. An instrument only acts as an instrument when it exercises its natural causality while being moved by a higher cause. Its natural causality is the foundation of any instrumental power it might be given:

. . . every instrument achieves the effect fitting to it as an instrument by doing the natural action which is fitting to it as a certain sort of thing.³⁰

If the instrument cannot act in the way natural to it, it cannot act in any instrumental way. But in creation *ex nihilo*, there is nothing upon which the instrument can exercise its proper causality. There is no natural causality which can be elevated and directed by the higher cause. Regardless of whether the action is infinite or finite according to the *terminus ad quem*, the *ex nihilo* nature of the act of creation makes it impossible that a created instrument take part in it. St. Thomas makes no mention here of this difficulty with ministerial creation, but it proved to be the central notion of his denial of its possibility in the *Summa* 1.45.5.³¹

In these two articles in Book 2 in which St. Thomas tries to explain the conflicting claims of the faith and the philosophers, Thomas was certainly less successful in analyzing ministerial creation than the eternity of the world. Certainly by the time of his composition of the *Summa contra gentiles*, St. Thomas would reject conclusively the possibility of creation through intermediaries.³² No longer would he claim that it was a position which "had something to support it" or "seems to me to be true in some respect." He saw then that it was, after all, a philosophical impossibility.

The realization came, at least in part, from his developing understanding of the nature of instrumentality, which was already presented with all the necessary restrictions, qualifications, and attributes in the *Scriptum*, a presentation which is, as far as I have been able to determine, largely original to him: a great accomplishment for any scholar, but especially so for one at the beginning of his career. And part of this understanding is that the very essence of instrumental activity requires something upon which the instrument can exercise its proper causality.

³⁰ ". . . omne instrumentum agendo actionem naturalem quae competit sibi in quantum est res quaedam pertingit ad effectum qui competit sibi in quantum instrumentum." *Ibid.*, q1a 1; p. 32.

³¹ "Quia causa secunda instrumentalis non participat actionem causae superioris, nisi in quantum per aliquid sibi proprium dispositive operatur ad effectum principalis agentis." ed. Ottawa, 1.228a, ll. 45-49.

³² See SCG 2.20-21.

These principles, however, are not applied to their full potential in the *Scriptum*, as can be seen in Thomas' analysis of ministerial creation. There, in his own writings, was strong evidence to support Lombard and the argument which would finally resolve the question definitively. The insight into the nature of instrumentality was present, but its consequences for ministerial creation only partially seen.

In a real way, however, the tentative nature of his discussion of ministerial creation makes it of even greater interest to one interested in the relation between faith and reason. In much the same way that the student of art can learn more from the great artists' studies and preparations for a painting than from the finished and finely-crafted masterpiece, Thomas on ministerial creation shows us the master in the process of sorting out an intellectual tangle.

Even when he is not sure whether philosophy has any just claims to his respect in conflicts with the faith (as it did when arguing for the eternity of the world), St. Thomas treats it with great care. This care is both an expression of his reverence for human reason and a safeguard for the faith. For it is crucial to know whether what the faith presents for our belief is accessible to unaided reason, lest, as St. Thomas explains in his *Summa*, "someone perhaps, presuming to demonstrate what is of the faith, should present reasons which are not necessary, which will give matter for deriding [the faith] to those who do not believe."³³ The faith has no worse enemy than bad philosophy used on its behalf.

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³³ "Et hoc utile est ut consideretur, ne forte aliquid, quod fidei est demonstrare prae-sumens, rationes non necessarias inducat, quae praebeant materiam irridendi infidelibus. . . ." ST 1.46.2; ed. Ottawa, 1.297a, ll. 34-38.

“The Truth of Human Nature” according to Thomas Aquinas: Theology and Science in Interaction

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Whenever Augustine struggled over a theological problem, medieval theologians usually continued his inquiry in lengthy discussions. This was indeed the case when Augustine wrestled with problems about original sin and about the resurrected body: his questions and answers gave rise to a long theological investigation of “the truth of human nature,” *de veritate humanae naturae*. One of Augustine’s problems was: How does original sin pass to the whole human race? His reply was that this takes place because every human person was united in Adam when he sinned. Many medieval theologians interpreted him to mean that every human being was in Adam physically when he sinned. Reading Augustine in this way, many medieval theologians went on to ask what corporeal element passes from Adam to his descendants, whether Adam lost something in the process, and, more basically, what is essential to human nature?¹

A second problem confronted Augustine when, in the last book of the *De civitate Dei*, he met arguments of those rejecting the resurrection of the body. Their objections were these: What would aborted fetuses or dead children

¹ Augustine’s text is from his *De peccatorum meritis et remissione, et de baptismo parvulorum* 1.10.11 (CSEL 60:12–13; PL 44:115–116). See below, n. 9, for the reference to Lombard’s citation of this text.

look like in this resurrection? What would be the height and size of the resurrected bodies? What of the tall and the short, the large and the small, the ugly or the deformed or mutilated? The Scriptures dear to Augustine say that all will attain to the measure or stature of the full maturity of Christ (Eph 4:13). Will all be of the same size and shape as Christ's body? Those Scriptures present Christ saying that the hairs of our head are numbered (Lk 12:7) and that not one will be lost (Lk 21:18). What of the hairs that have been cut off during our life or lost through baldness? What of fingernails that have been manicured? Again, if Scripture says that we will reach the perfection of manhood, the stature of the full maturity of Christ (Eph 4:13; Rom 8:29) and be shaped into the likeness of God's Son (Rom 8:29), will not women lose their sex and all rise as men? And then there is the case that Augustine admits is the most difficult: if one human being eats another, whose resurrected body will have the substance that was eaten? All these cases present the same problem: if all are to be of the size or shape of Christ's body, or if they are to be resurrected at thirty, the age of maturity (these are opinions that Augustine favors) would not some physical material be either added to or subtracted from the body that died? And if that were so, would the resurrection then really be the resurrection of the former body as it was?²

Although Augustine can find a spiritual interpretation for these scriptural passages, he still thinks they may apply literally to the resurrected body and its parts, and so he takes these texts and the problems raised quite seriously.³ Without going into the details of his own interesting replies (some of which will enter later discussions), we should note his statements that nothing in any body will perish that was in it naturally (*naturaliter*) and that deformities will disappear, with the integrity of the substance being preserved (*servata integritate substantiae*).⁴ Or, again, he insists that there will be no diminution of bodily substance (*substantiae corporalis*) when things incompatible with a glorious body are removed, for example, ugly wastes of the bodily substance even if (in this life) they were natural (*etsi naturalia*).⁵ And he adds that when God makes those who are too fat or too thin to be pleasing in beauty by taking away or adding an appropriate amount of matter, the integrity of their [original] matter will be preserved (*materiae servata integritate*).⁶

² For Augustine's presentation of these difficulties see *De civitate Dei* 22.12–21 (CCL 48: 831–842; PL 41:775–784).

³ Augustine deals with some of these problems in other works, especially the *Enchiridion*, 85–92 (CCL 46:95–98; PL 40:272–275). Several texts from this work are quoted by Peter Lombard, 4 *Sent.*, 44.2 & 8; eds. PP. Collegii S. Bonaventurae [= Ignatius Brady], *Magistri Petri Lombardi Sententiae in IV libris distinctae*, 3rd ed. (Grottaferrata [Rome], 1981), 2:517–519, 522. In the *Enchiridion* Augustine seems less worried about some of the details than he does in the *De civitate Dei*.

⁴ *De civ. Dei* 22.19 (CCL 48:838; PL 41:781).

⁵ *Ibid.*

⁶ *Ibid.* (CCL 48:838–39; PL 41:781).

Such expressions led later thinkers to ask what substance is truly natural, or what matter belongs to the integrity of bodily substance; what, in other words, truly belongs to human nature or, as they put it in a shorthand expression, what is the truth of human nature? The first use of this term I have found in discussions of Augustine's questions is by Odo of Lucca in his *Summa sententiarum*, written about 1141; he equates it with "the truth of human substance" and defines it as "that which was in the first parents, which alone will exist in the resurrection."⁷ The expression itself seems to derive from Anselm of Canterbury, whose text I have not found quoted, however, until the thirteenth century: then Alexander of Hales quotes the *Cur Deus homo* where Anselm says that if mortality pertained to "the truth of human nature," there could never be a human being who is immortal.⁸

Peter Lombard introduced the problem in two different sections of his influential *Sentences*. Discussing the transmission of original sin, he quotes Augustine about everyone being in Adam,⁹ and then follows the *Summa sententiarum* almost verbatim in order to present his own arguments and solution. The main objection Peter Lombard sees to Augustine's position is this: How could all the flesh which came from Adam to his descendants have existed in Adam at the same time since it would be greater in quantity than Adam's body? For the objectors this seems to mean that the substance of each person (*substantia uniuscuiusque*) could not have been in the first parent.¹⁰

Peter Lombard then gives a detailed description of how Augustine's teaching could be understood:

Everything that is in human bodies naturally was in the first man materially and causally, not formally, and it descended from the first parent by the law of propagation. It was increased and multiplied in itself without any exterior substance passing over into it, and it is this that will rise in the future. It does receive nourishment from food but food is not changed into that human substance which comes down from Adam through propagation.¹¹

Lombard then adds further details in an attempt to show how this material substance is transmitted in generation:

Adam transmitted a small bit of his substance into the bodies of his sons when he begot them, that is, some small bit of the mass of his substance was divided and

⁷ Tract. 3, c. 10 (PL 176:106B-C): ". . . sed illa superfluitas non erit in resurrectione, quia [qui ed.] non est de veritate humanae naturae. Veritas humanae substantiae dicitur quod in primis parentibus fuit; et illud solum in resurrectione erit. Sed illae partes quae de cibis fiunt, et in quas transeunt, tanquam superflua deponentur."

⁸ See Alexander, *Quaestiones "antequam frater esset"*, q. 44, no. 15; eds. PP. Collegii S. Bonaventurae (Quaracchi, Florence, 1960), 3:1289-1290. See Anselm, *Cur Deus homo* 2.11; ed. F. S. Schmitt, *Opera omnia* (Rome: Sansaini, 1940) 2:109 (PL 158:410C).

⁹ 2 *Sent.*, 30.10.2 (1971), 1:502.

¹⁰ See *ibid.*, 30.14.1; pp. 503-504. Cf. *Summa sententiarum*, tract. 3, c. 10 (PL 176:106A).

¹¹ *Ibid.*, no. 2; p. 504.

from it the body of his son was formed and was increased by a multiplication of itself without the addition of anything extrinsic. And from that small bit, increased in this way, something is separated in like manner, from which the bodies of his posterity are formed. And in this way the order of procreation progresses by the law of propagation up to the end of the human race. And so it is clear for those who carefully and clearly understand this that all were in Adam bodily through seminal reason and descended from him by the law of propagation.¹²

It is central to Lombard's argument that food, when eaten, is not changed into the substance derived from Adam. This is his way of maintaining the identity of this substance throughout one's life. He may also have feared the possible consequence of saying that food, when changed into the truth of human nature, would rise, that is, as a later author says, the flesh of brute animals eaten during life would rise.¹³ Lombard supports his position with the Gospel text saying that "whatever enters the mouth passes into the stomach and is ejected into the toilet" (Mt 15:17). He also invokes Augustine's teaching that a child who died after birth would rise in the stature he would have had if he lived to be thirty. This for Lombard shows that the substance passed on from Adam multiplies itself in the resurrection and grows in itself and not from others. Other examples are the rib of Adam that was built up into Eve and the five loaves of bread that were multiplied to feed thousands.¹⁴ In a final remark he, like Odo of Lucca in the *Summa sententiarum*, introduces the term "the truth of human nature":

However, we do not deny that food and the humors pass into flesh and blood, but they do not pass into the truth of human nature (*veritas humanae naturae*), which came down from the first parents and which alone will exist in the resurrection. But the remaining flesh, into which food passed, will be laid aside in the resurrection as superfluous. . . .¹⁵

In this discussion Lombard, following the *Summa sententiarum*, links the two topics, the transmission of original sin and the resurrection of the body, under the rubric of "the truth of human nature."¹⁶ Lombard follows Augustine in many details about the state of resurrected bodies and God's power to refashion matter in appropriate ways, for example, by completing

¹² Ibid., no. 3; p. 504.

¹³ This is an introductory argument stated by Peter of Capua; it is quoted by Richard Heinzmann, *Die Unsterblichkeit der Seele und die Auferstehung des Leibes: Eine problemgeschichtliche Untersuchung der fröhscholastischen Sentenzen- und Summenliteratur von Anselm von Laon bis Wilhelm von Auxerre*, Beiträge 40:3 (Münster Westfalen: Aschendorff, 1965), p. 202.

¹⁴ 2 *Sent.*, 30.15.1; pp. 504–505.

¹⁵ Ibid., no. 2; p. 505.

¹⁶ This term, however, does not reappear in Lombard when in Book 4 he deals directly with the state of resurrected bodies; there he does little more than quote extensively from Augustine's *De civitate Dei* and *Enchiridion*.

and perfecting formerly deficient bodies such as those of aborted fetuses or products of monstrous births.¹⁷ He repeats Augustine's teachings in his own words when he says: "Nor will anything perish of the substance of which human flesh is created, but the natural substance of the body (*naturalis substantia corporis*) will be reintegrated by the collection of all the particles that were formerly dispersed."¹⁸

Lombard's distinctions, one in Book 2 and the other in Book 4, called attention to the problems that have been seen and provided texts basic to subsequent discussions in the latter part of the twelfth century and the early years of the thirteenth.¹⁹ Although there are more detailed developments in a few authors, especially in the late twelfth and early thirteenth centuries, nearly everything revolves around the Augustinian problematic and is influenced by his discussions and solutions. In authors of these years there is hardly any reference to the natural sciences. Peter of Poitiers does quote the *physici* as teaching that food passes over (*transit*) into human flesh, and Master Martinus quotes the opinion of the *physicus* that sperm is a superfluity different from other superfluities.²⁰

In this same period the expression *veritas humanae naturae* becomes a standard term, although varying definitions of what it means are given: for example, "the complete integrity of [human] substance" (Simon of Tournai);²¹ "that which is required for true human being, that is, the soul and body without corpulence and fleshiness" (*Summa* "Breves dies hominis");²² "that without which human nature does not subsist," "human flesh as it was before the sin of Adam," "that which is derived from the parents in the conception of a child, and which afterwards grows in itself without wine and food being converted into it" (*Summa* "Ne transgrediaris");²³ "the purity of human nature" (Peter of Capua).²⁴

In the thirteenth century William of Auxerre begins to introduce more order and clarity into the previous rambling discussions. He states that there are some who argue against Lombard's position about food and who maintain that "something of nourishment (*aliquid de nutrimento*) passes into the

¹⁷ See *ibid.*, 4.1-3 (2:516-519), and 8.1-3 (2:521-522).

¹⁸ *Ibid.*, 4.3; 2:519.

¹⁹ These developments can be seen from Richard Heinzmann's study of the teaching on the resurrection of the body in theologians up to William of Auxerre, *Die Unsterblichkeit* (see above, n. 13), Part II.

²⁰ Peter's text is quoted in Heinzmann, p. 169, n. 7, and Martinus, *ibid.*, p. 180.

²¹ I.e. ". . . cum tota integritas substantiae": *Disputatio* 26, ed. J. Warichez, *Les "Disputationes" de Simon de Tournai* (Louvain, Spicilegium Sacrum Lovaniense, 1932), p. 82.

²² I.e. "illud quod exigitur ad verum esse hominis, id est anima et corpus sine corpulentia et carnalitate": quoted in Heinzmann, p. 190.

²³ I.e. "id sine quo natura hominis non subsistit"; "caro humana secundum quod fuit ante peccatum Adae"; "id quod a parentibus in filii conceptione derivatur quod in seipso postea augmentatur nec in illam vinum vel cibus convertitur." Quoted *ibid.*, pp. 209-210.

²⁴ I.e. "non est nisi puritas humanae naturae": quoted *ibid.*, p. 203.

truth of human nature."²⁵ He himself holds the opinion that a small bit of nourishment (*parum nutrimenti*) is added to the truth of human nature, and maintains that despite this change, the person remains the same as before. Since the person's soul, which is the form and perfection of a human being, remains identical, the person has the truth of human nature formally, but not materially. This opinion contradicts Lombard's teaching that everything in human bodies naturally was in the first man "materially and causally, not formally,"²⁶ and seems to anticipate the position Thomas Aquinas will take. Also, William adds, when Augustine speaks of the resurrection of the truth of human nature, he is speaking of the truth of human nature with respect to its matter, that is, the truth of human flesh.²⁷ Here we see that these discussions had already begun to focus attention on more fundamental questions of human anthropology, especially the relation of form and matter, or soul and flesh, and on the primary role of the form in establishing and maintaining identity.²⁸

If William of Auxerre stands as the culmination and orderer of previous discussions, closely tied as they were to the Augustinian formulation of the problems and twelfth-century scholastic solutions, Alexander of Hales inaugurates a new phase in the treatment of these issues both by the extent of his investigations and by his appeal, limited though it is, to ideas from other disciplines. Alexander's two questions on the topic include many sub-questions and, in the printed edition, run for thirty-four pages. The Franciscan compilation called the *Summa Fratris Alexandri* has only the section on the truth of nature regarding Adam and original sin, but even that covers thirteen folio pages of two columns each. Albert the Great's discussion, found only in Book 4, distinction 44, of his *Sentences*, covers some twenty pages and his tract on this topic in his questions *De resurrectione* amounts to about ten pages. Bonaventure's treatments in Books 2 and 4 of his *Sentences* occupy some twenty-five pages,²⁹ and Aquinas' *Sentences* continue through some forty pages.

²⁵ See *Summa aurea* 4.1.3; ed. Jean Ribailier (Grottaferrata [Rome]: Collegium S. Bonaventurae ad Claras Aquas; Paris: Centre National de la Recherche Scientifique, 1985), 4:470.

²⁶ See above, p. 163.

²⁷ See *ibid.*; 4:471-472. In summarizing Augustine's views, William uses the phrase *de veritate humane nature*, but it is not found in the text he summarizes.

²⁸ Heinzmann's study concludes that these fundamental questions were being raised in the late twelfth and early thirteenth century in relation to the immortality of the soul and the resurrection of the body.

²⁹ For a summary of the positions of Alexander, the *Summa Fratris Alexandri*, Albert, and Bonaventure and their increasing appeals to the "new" sciences see my essay, "De veritate humanae naturae: Theology in Conversation with Biology, Medicine, and Philosophy of Nature," to appear in *Knowledge and the Sciences in Medieval Philosophy: The Proceedings of the Eighth International Congress of Medieval Philosophy (S.I.E.P.M.)*, Helsinki 24-29 August 1987 (Helsinki: The Philosophical Society of Finland, 1990). Limitations of space prevented inclusion of the part of the paper concerning Aquinas; this part is given here in expanded form.

These theologians showed extraordinary interest in all these questions. Their debates about generation and nutrition were especially lengthy. Although the theological aspects intrigued them as they had their predecessors, one also senses in them (it is very clear in the pious and faithful Bonaventure) a tension between what they had received as authoritative and the problems they saw in the views of their predecessors, especially in the light of the new data they had from Aristotle, Avicenna, Alfredus Anglicus, Averroes, that is, from medicine, biology, physics, natural philosophy, and at times from human psychology and metaphysics. One senses not only this tension, but also a certain fascination with the new knowledge at their disposal.

Although the survey that follows emphasizes Thomas Aquinas' explicit references to authorities in science and medicine, it is clear from his long debates with his fellow theologians that his and their knowledge of contemporary natural philosophy, biology, and medicine went considerably beyond what is indicated by these explicit quotations or references. That is, there is much more science, medicine, and natural philosophy in their discussions than is found in their explicit references to the scientific authorities.³⁰

Turning at once to Thomas Aquinas' *Scriptum super Sententias* and its discussion of original sin, we see him, in Book 2, distinction 33, ask "about the passing on of flesh by parents, through which original sin is derived." He raises two questions about this: "first, whether food changes into the truth of human nature; second, whether semen is cut off (*decidatur*) from food."³¹ The first article, a long summary and critique of the various opinions, covers twelve pages of the printed edition. The appeal to science, especially the opinions of Aristotle and his commentators, is constant. There are seventeen explicit references to scientific texts, and Thomas' own comments often reflect his knowledge of these authors and their opinions even when he does not quote them.

The opening arguments given by Thomas quote Aristotle's *De generatione et corruptione* against any role for nutriment but also in favor of it. The second argument quotes Aristotle's influential distinction between flesh according to matter and flesh according to species to deny that food becomes part of the truth of human nature. A *sed contra* argument, quoting the same work's statement that "nothing nourishes flesh except what is flesh in

³⁰ The excellent study by Hermann J. Weber, *Die Lehre von der Auferstehung der Toten in den Haupttraktaten der scholastischen Theologie von Alexander von Hales zu Duns Scotus*, Freiburger Theologische Studien, 91 (Freiburg-Basel-Vienna: Herder, 1973), is a comprehensive treatment of the wide range of topics included in the theology of the resurrection, including the Christological aspects. The sections on the identity and integrity of the risen persons (pp. 217-263) cover some of the material I am examining very well but, having a different perspective from mine, do not emphasize the interplay of theology and the natural sciences. Also, the focus of Weber's study necessarily excludes questions about the transmission of original sin and human generation in relation to the truth of human nature.

³¹ 2nd ed., ed. Pierre Mandonnet (Paris: Lethielleux, 1929), p. 776. All references to the *Scriptum* will be to this edition.

potency," argues that therefore "food is transmuted into that flesh which pertains to the truth of nature."³² Further on, a text of Aristotle's *Physics* explains density and rarity in terms of the same quantity of matter under different dimensions. Thomas uses Aristotle's teaching to criticize Lombard's position about expansion of the bit of matter derived from Adam; it would require increase of the human body by rarefaction.³³ Concerning this Aquinas says:

It is clear that the human body's growth does not take place by rarefaction, nor again by addition of matter newly created by God since God created the matter of all things at the same time, as the saints tell us. Therefore it remains that growth of the human body takes place through the addition of matter that was under the form of another body, that body being changed into the human body according to truth (*secundum veritatem*).³⁴

One of three theories supporting the view that no nutriment enters true human nature argues from prime matter, maintaining that it can receive not only all forms but also all quantities. In the same way the smallest amount of matter passed on from Adam could receive any quantity. Aquinas rejects this idea and in a long critique quotes Aristotle's *Physics* three times and Averroes' *Commentary on the Physics* twice, stressing the role of the form and the need for an active potency corresponding to the supposed passive potency for all quantities. The core of his critique begins as follows:

Since determinate quantities and all other accidents receive matter according to the form's requirement because subject matter, together with the form, is the cause of whatever is present, as is said in the first book of the *Physics*, prime matter is necessarily in potency to no quantity except to that which belongs to the natural form, which can be in matter. But prime matter is not in potency to other forms, except to those that are in the nature of things or that can be educed through natural principles.³⁵

Thomas explains this last remark as follows:

For if there were some passive potency in matter that had no corresponding active potency in the nature of things, that passive potency would be superfluous, as the Commentator says, and therefore prime matter is not able to receive a greater quantity than the quantity of the world. That is why in the third book of the

³² *Ibid.*, a. 1, 2m & sc 1; pp. 776 and 778. For the text in 2m see *De gen. et corr.* 1, 5 (321b19–22); for the text in sc 1 see *ibid.* (322a4–6). The 2m also quotes *De gen. et corr.* 2.8 (335a14–16) on nutriment being according to the mode of matter.

³³ *Scriptum*, sol.; p. 778. See Aristotle, *Physics* 4.9 (217a26–b30).

³⁴ *Scriptum*, *ibid.*, p. 779. In ST 1.119.1.resp., Thomas cites Gregory the Great: "Omnia sunt simul creata secundum substantiam materiae, licet non secundum speciem formae." See his *Moralia in Job* 32.12 (PL 76:644).

³⁵ *Scriptum*, *ibid.*, p. 781. See *Physics* 1.9 (192a13–14).

Physics it is said that magnitude cannot be increased to infinity, speaking naturally.³⁶

Within his critique of another position Thomas quotes Aristotle's *Physics* as saying that if quantity is removed, a substance will be indivisible. He also quotes Averroes' commentary on Book 4 of the same work, saying that

the matter existing in this thing is not in potency to the entire quantity of the world but [only] to a determinate quantity achievable by rarefaction; and this [determinate quantity] does not surpass the rarity of fire because, as the Commentator says in 4 *Physics*, no rarity can be greater [than that of fire].³⁷

Thomas next summarizes but then argues against a second opinion, the middle position held by the *Summa fratris Alexandri* and especially by Bonaventure, whom Thomas seems to be discreetly quoting at this point.³⁸ This opinion held that the fixed matter, which Lombard saw as uniquely true human nature, combines with matter added secondarily to true human nature from food and nutrition. Aquinas states that its first author, according to the report of Averroes, was Alexander (of Aphrodisias). Although, Thomas says, they support their opinion with Aristotle's distinction between flesh according to species and flesh according to matter, and with the distinction made by the *medici* between the nutritional humid and the radical humid, these texts are not really in their favor; he promises to show this in his reply to the opening arguments.³⁹

Aquinas now comes to his own position, which he says is that of Averroes commenting on the first book of Aristotle's *De generatione et corruptione*. Thomas describes Averroes as saying that nothing of matter that is signed, and therefore fixed and permanent, can be accepted in a body, but everything whatsoever in a body can be considered in two ways, either with respect to the matter, and then it is not permanent, or with respect to the form and species, and then it is permanent.⁴⁰

Thomas explains this further by giving an example used by Aristotle:

³⁶ *Scriptum*, *ibid.* See Averroes, *In 1 Physics* 9 (192a16–24), vol. 81 (Venice, 1562) 4:46C–F, and Aristotle, *Physics* 3.6–8 (206b16–207b21).

³⁷ *Scriptum*, *ibid.*; p. 782. See Aristotle, *Physics* 1.2 (185b4–5), and Averroes, *In 4 Physics* 9 (217a21–b12), vol. 84 (4:172B).

³⁸ See Bonaventure, *In 2 Sent.*, 30.3.1–2; 2:748–61.

³⁹ *Scriptum*, *ibid.*; pp. 783–784. See Averroes, *In 1 De gen. et corruptione* 5 (322a4–16), vol. 39; in *Averrois Cordubensis Commentarium medium in Aristotelis De Generatione et Corruptione libros*, eds. F. H. Fobes and S. Kurland, CCAA, *vers. lat.*, 4.1 (Cambridge, MA: The Medieval Academy of America, 1956), pp. 55–56; Venice 5:359E–G.

The distinction between nutritional and radical humidity derives from Avicenna, *Liber Canonis* 1.1.4.1; Venice ed., 1507 (rpt. Hildesheim: Georg Olms, 1964), fols. 4va–6rb, and *ibid.*, 4.1.3.1; fols. 413va–414ra. See also below, n. 44.

In this text Aquinas also quotes *De anima* 2, 4.416a12–15, concerning heat as an instrument of the soul.

⁴⁰ *Scriptum*, *ibid.*; p. 784. See Averroes, *In 1 De gen. et corr.*, 5 (321b10–24), vol. 35; Fobes, pp. 46–47; Venice 5:357L–M.

For Aristotle in the first book of his *De generatione et corruptione* compares the change of food into flesh to the burning of wood. For we see that if a fire is lit and wood is continually added as other wood is burned, the form of fire will always remain in the wood, and yet any matter whatsoever is consumed, its place being taken by other matter in which the species of fire will be preserved. In this way even that which pertains to the species and form of flesh will always remain, although that which receives this form is continually consumed and restored.⁴¹

Thomas contrasts this view with the other theories:

This position differs from the first two in that it does not posit that some matter can be signed which remains permanently. Rather, any signed part [of matter] whatsoever has from the matter in itself the property of flowing out and flowing back—in such a way, however, that what there is of form in it remains permanently. But the first two opinions posited that something of matter that is signed is always permanent, and in this the truth of human nature consisted primarily and chiefly.⁴²

It differs also in that it holds that some food is converted into what is primarily and chiefly, and not only secondarily, the truth of human nature. When digestion is complete, the whole is mixed together, so that the whole uniformly takes on the truth of the [human] species without any distinction. Therefore, in the resurrection, as much of what is generated from food will rise as is needed to complete the quantity that is due. “And among all the positions,” Thomas concludes, “I consent to his without prejudice to the others.”⁴³

The replies he promised to those he thinks have misinterpreted the teachings of Aristotle and of medical authorities are quite lengthy. The one on the humid shows a remarkably detailed personal knowledge of the topic as taught by authorities in medicine (*secundum medicos*).⁴⁴ Aquinas’ reply with respect to the texts of Aristotle is important because it clarifies his position on the frequently evoked distinction of flesh according to species and flesh according to matter. According to the opinion he follows, he says,

⁴¹ *Scriptum*, *ibid.*; p. 784. See Aristotle, *De gen. et corr.* 1.5 (322a10–16).

⁴² *Scriptum*, *ibid.*

⁴³ See *ibid.*; pp. 784–785.

⁴⁴ See *ibid.*, ad 3; pp. 785–786. Thomas’ views on the radical moisture (*humidum radicale*) are summarized in an article by Mark D. Jordan that adds much to what is said here: see his “Medicine and Natural Philosophy in Aquinas,” in *Miscellanea mediaevalia* 19, ed. Albert Zimmermann (Berlin-New York: De Gruyter, 1988), pp. 233–246, especially pp. 243–245. Jordan gives as the ultimate source of Thomas’ teaching Galen, mediated through several authors, especially Avicenna in his *Canon* (references *ibid.*, p. 245, n. 90). Thomas, however, appears to have taken his information not from Avicenna but from Albertus Magnus (p. 245 and n. 91). Jordan’s general conclusion is that “there is no strong evidence that Thomas knew much medicine beyond what was mediated by Albert or taught by Aristotle and his commentators” (p. 245).

flesh that is distinct according to matter, called flesh according to matter, and flesh that is according to species are not diverse. Rather, the numerically same flesh is said to be according to species in so far as it shares in the form and the properties following upon the species, but it is said to be according to matter in so far as it consists of matter.⁴⁵

He then gives his reading of Aristotle in agreement with Averroes' interpretation:

And that this is what Aristotle means is clear from the words of the Commentator exposing [the text] in this way; and again [it is clear] from the words of the Philosopher put in the text: for he says that we are to distinguish what is according to species and what is according to matter in flesh and bones in the same way as in any other thing that has its form in matter. Now it is evident that we cannot make this kind of distinction in the case of a stone or water by saying that there is a part according to species which is drawn from the first ones generating them and the part according to matter which comes from nutrition. And so it is clear that neither in flesh or bone are we to understand this, but rather in the aforesaid way. Hence their argument proceeds from a distorted understanding of the words of the Philosopher.⁴⁶

The same frequent recourse to the scientific opinions of others occurs in the second lengthy article, covering nine pages of printed text, on whether human seed is cut off from the substance of the father's member or from what is generated out of food. The discussion is too lengthy to summarize, but the long *sed contra*, going in the direction Thomas will follow, summarizes a section of Aristotle's *De generatione animalium*, in which the philosopher, according to Thomas, gives two arguments from reason and three observable signs showing that the seed derives from a superfluity of food.⁴⁷

In the main solution Thomas summarizes three opinions on the matter, invoking texts of Aristotle's *Physics*, *De anima*, *De generatione et corruptione*, and *De generatione animalium*, as well as two texts from Averroes' commentary on the *Physics*.⁴⁸ He criticizes Lombard for linking his opinion with his desire to explain the transmission of original sin. Here a theological position influenced a decision about human biology and science! Thomas also argues the point theologically, saying that Lombard is unfaithful to August-

⁴⁵ *Scriptum*, *ibid.*, ad 2; p. 785.

⁴⁶ *Ibid.* See Averroes, *In 1 De gen. et corr.* 5; vol. 35 (Fobes, pp. 46-47; Venice 5:357K-M), and Aristotle, *De generatione et corruptione* 1.5 (321b19-22).

⁴⁷ See *Scriptum*, *ibid.*, q. 2, a. 2; pp. 787-796 for the whole article, and pp. 789-790 for this long *sed contra*. For Aristotle see *De generatione animalium* 1.18 (724b21-726a6).

⁴⁸ The texts from Aristotle are these: *Physics* 1.4 (187a26-b2); *ibid.*, 2.1 (193a9-11); *ibid.*, 3.5 (204a8-20); *ibid.*, 1.4 (187b-13-21); *De anima* 2.4 (415b15-28); *De generatione et corruptione* 1.10 (328a5-7); *De generatione animalium* 1.18 (726a26-27) (quoted twice); *ibid.*, 1.19 (726b3-4). Averroes' texts are *In 4 Physics* 8 (216b12-16), vol. 77 (4:166K-167A) and *ibid.* 8-9 (216b20-30), vol. 79 (4:167F-M); and *In 3 Physics* 5, vol. 35 (4: 100M-101D) and vol. 36 (4:101F-L).

tine, who according to Thomas did not rely on such an explanation of human seed to explain how original sin passes to Adam's posterity. Finally, after presenting Aristotle's position in some detail, Thomas concludes his *solutio* by saying:

And so this seed, ministered and prepared through the generative power, has a nature such that from it is generated everything together with the admixture of what the mother ministers, whatever that is. And I consent to this opinion, which seems more reasonable (*rationabilior*) than the others.⁴⁹

I have concentrated on Aquinas' examination of these questions in his *Scriptum* rather than on his clearer parallel presentations in *Quodlibetum* 8 and the *Summa theologiae* because the *Scriptum*, containing many more explicit references to the scientific sources Aquinas used, better illustrates the dialogue between the theologian and the natural scientist. For its part, the shorter *quodlibet*, dated between 1256 and 1259, quotes or refers to Aristotle seven times and mentions Avicenna, Averroes, and Alexander of Aphrodisias once each. It is more tightly organized than the *Scriptum* and clearer in some places. For example, it begins with this precise explanation of what *veritas humanae naturae* means:

Now the truth of anything, as Avicenna says in his *Metaphysics*, is nothing other than the property of its being (*esse*) which is stabilized in it, just as that which properly has the being of gold by attaining to the stabilized limits of the nature of gold is called truly gold (*vere aurum*).⁵⁰

Thomas next develops this principle with respect to the truth of any nature:

Now each thing properly has being in some nature through its standing under the complete form that is proper to that nature, from which [form] is derived the being and the notion of the species [*ratio speciei*] in that nature. Hence that pertains to the nature of anything which completes that thing through the form and pertains directly and *per se* to the completion of that thing.⁵¹

After giving examples of things in which the notion of a thing consists chiefly (the trunk and fruit of a tree or the iron and sharpness of a sword) and of things which are ordered to conserve and improve these basic things but do not belong to the truth of the nature (leaves of a tree or the sheath of a sword), he says of human nature:

⁴⁹ *Scriptum*, *ibid.*; p. 794.

⁵⁰ *Quodlibetum* 8.3.1 resp.; ed. Spiazzi (Turin-Rome, 1949), p. 163b. See Avicenna, *Liber de philosophia prima sive scientia divina* V-X, 8:6, traduction latine médiévale, ed. S. Van Riet, *Avicenna latinus* (Louvain: Peeters; Leiden: Brill, 1980), p. 413, lines 83-84.

⁵¹ *Quodlibetum* 8.3.1.resp.; p. 163b.

In this way we say of the truth of human nature that it is that which pertains *per se* to the perfection of human nature, completely participating in the form of the species, whereas that is not of the truth of human nature in a man which is ordained in some way to the preservation or some kind of improvement of the man.⁵²

After a detailed analysis and critique of the first two opinions already examined in the *Scriptum* about the relation of food to true human nature, Aquinas summarizes the third opinion as follows:

The third opinion holds that food is converted into that which is principally of the truth of human nature both as to species and as to the individual.⁵³ For this opinion posits that each, namely what is generated from food and what is drawn from parents, is indifferently and equally perfected by the human form, and each remains and is consumed indifferently. It remains indeed according to species, but is consumed and restored according to matter.⁵⁴

Thomas gives an interesting social example: a republic is made up of diverse persons who die and are replaced by others. The republic does not remain one republic according to its matter (the human persons), but it “remains numerically one as to species or form because of the unity of order in distinct offices. So too,” he continues,

in the human body each flesh and bone of the parts remains numerically the same as to the species and form that is considered in a determinate position and power and figure, but they do not remain the same as to matter because that matter of the flesh, in which such a form existed, was first consumed, and another [matter] took its place.⁵⁵

The first opening argument had relied on Aristotle’s distinction, already seen, between flesh according to species and flesh according to matter. When it uses this distinction to deny that food is changed into the truth of human nature,⁵⁶ Thomas rejects their interpretation of Aristotle:

The Philosopher’s distinction between flesh according to species and flesh according to matter is not to be taken as if flesh according to species, that is, flesh drawn

⁵² Ibid.

⁵³ According to his analysis of the second opinion here, it held that “food is changed into the truth of human nature primarily and principally according to species but not according to the individual unless in a secondary way. For they say that in each individual of the human species that is primarily and principally of the truth of human nature which is taken from the parents.” What is generated from food, according to this opinion, is added in order to “complete perfect quantity; and so that which is generated from food is not of the truth of human nature in this individual principally but only secondarily in so far as it is necessary to achieve the due quantity” (ibid., p. 164b). Thomas links this opinion with the doctrine of Alexander of Aphrodisias (ibid., pp. 164–165).

⁵⁴ Ibid., p. 165.

⁵⁵ Ibid. Thomas adds Aristotle’s example about fire that continues in the same form and mode when the wood consumed by fire is replaced by other wood that sustains the fire.

⁵⁶ Ibid., 1m; p. 163. See Aristotle, *De gen. et corr.* 1.5 (321b19–22).

from the parents is one thing and flesh according to matter that is generated from food is another matter. Rather one and the same signed flesh (*caro signata*) can be considered both according to the species it has and according to matter.⁵⁷

Another clear statement of Thomas' doctrine occurs in response to an argument based on a text of Aristotle saying that what is generated from food does not remain. If food contributed to the truth of human nature, it is argued, the person would not be identical because of the flow and reflux of what is generated from food.⁵⁸ To this Thomas replies as follows:

To the second argument it must be said that the truth of human nature and of any other thing whatsoever is from its species. And therefore, since that which is in man remains according to species although it does not remain according to matter, nevertheless the truth of human nature is said to remain. Nor does one cease to be the same person numerically because of the change according to matter, because the entire matter is not taken from the form simultaneously [*similiter* in the text seems incorrect] so that another total matter receives the form at the same time: for this would be a generation and corruption, as if one whole fire were extinguished and another whole fire were lit. But some part of the matter is consumed and another part is substituted in its place and becomes one matter with what preexists because it is added to it so as to sustain the same form of the human body, just as, if a fire consumes one piece of wood and another is put in its place, there will still be the same numerical fire.⁵⁹

It is noteworthy that this quodlibetal question makes no reference to the transmission of original sin, the context of this discussion in Lombard and in Thomas' commentary on Lombard. Several allusions by Thomas to that which constitutes the truth of human nature in the risen body show that the discussion now focuses on the second problematic, the resurrection.

When we turn briefly to the *Summa theologiae*, we see that Thomas has given an entirely new situation to the discussion. To be sure, if Thomas had completed this work, the last part of the *tertia pars* would have included a discussion of the *veritas humanae naturae* in relation to the resurrection of the body and its various parts. What we do have is the discussion of the bodily propagation of human beings set within the framework of God's movement of creatures by divine governance and of angelic and human action and movement within this divine governance and movement. Question 119, dated between 1266 and 1268, is the very last question of the *prima pars*, and it asks, in the context of human propagation, the two questions we have seen in the *Scriptum*, whether food is converted into the truth of human nature and whether seed, the principle of human generation, comes from superfluous

⁵⁷ *Quodlibetum* 8.3.ad 1; p. 165b. Aquinas quotes the text of Aristotle to show the correctness of his interpretation.

⁵⁸ *Ibid.*, arg. 2; p. 163. Cf. Aristotle, *De gen. et corr.* 1.5 (321b24-28).

⁵⁹ *Quodlibetum* 8.3.ad 2; p. 165. See Aristotle, *De gen. et corr.* 1.5 (322a4-16).

food. The divorce of these questions from the problem of the transmission of original sin is complete.⁶⁰

In these two articles, quite lengthy by comparison with most articles in the *Summa*, Thomas makes basically the same criticisms of the positions of Lombard and Bonaventure as in his earlier works. Once again he frequently appeals to Aristotle, opts for the opinion of Averroes, and insists that both Augustine and Aristotle have been misinterpreted by those who quote certain texts of theirs. As in the *quodlibet*, Thomas achieves greater clarity and precision on a number of points, including the following analysis of the *veritas humanae naturae* with reference to a text of Aristotle's *Metaphysics*:

According to the Philosopher in Book 2 of the *Metaphysics*, "anything is related to truth in the same way that it is related to being." Therefore, that pertains to the truth of some nature which belongs to the constitution of that nature. But nature can be considered in two ways: in one way in common, according to the notion of its species; in another way, according as it is in this individual. Therefore to the truth of any nature considered in common belongs its form and matter taken commonly, but to the truth of nature considered in this particular belongs individual signed matter and the form individuated through matter of this kind. Thus a human soul and body are of the truth of human nature in common, but this soul and this body are of the truth of human nature in Peter and Martin.⁶¹

His analysis of the three opinions is also sharper and clearer, and the link between the two questions of food and semen is instructive. A full study of the shades of development in his three works would be worthwhile but is impossible within the limits of this essay.

Finally, how does Thomas answer the questions raised by Augustine and debated by Lombard and many others about details of the bodily resurrection? His fullest treatment comes in Book 4, distinction 44, of the *Scriptum super Sententias*, but, as can be seen from editorial references to parallel places in the in-authentic *Supplementum* to the *Summa theologiae*, Aquinas deals with some of these questions in many other works, especially his scriptural commentaries and in Book 4 of the *Summa contra gentiles*.

In the *Scriptum* Thomas first establishes that in the resurrection the soul takes up the same body, that the numerically same human being rises, and that the original matter fittingly returns to the same essential parts of the person but not to accidental parts such as hair or fingernails. In the course of the analysis Aristotle's *Physics* is quoted three times and his *De anima* four times, while Averroes is quoted three times and Avicenna once.⁶²

⁶⁰ In discussing the transmission of original sin, including the role of semen, Thomas makes no mention of the *veritas humanae naturae* or of the small particle of matter; see ST 1-2.81.

⁶¹ ST 1.119.1.resp. See Aristotle, *Metaph.* 1-a (993b30-31). Aquinas had already quoted this text in *Scriptum* 4.44.1.2, q1a 5; ed. Parma, 1852-53 (rpt. New York: Musurgia, 1948), 7:1078. All references will be to this distinction and to this edition and volume.

⁶² *Scriptum* 4.44.1.1, q1a 1-3; pp. 1072-1075.

The second article has five sub-questions, in the fourth of which Thomas reviews the three opinions on whether food that is consumed enters into the truth of human nature. He maintains that all the members now in the body will rise. These include genitalia, intestines, and amputated members (qla 1); hair, fingernails, and semen, which are, however, secondary and not primary perfections of the body (qla 2); only those humors that have attained the final perfection that nature intended in the individual's body since only these are of the substance of the members (qla 3).

Thomas then returns at some length to the question of the "truth of human nature" and asks whether it will all rise. He again presents and analyzes, more briefly and clearly, the three opinions he had presented in Book 2. His conclusion is that all the parts pertaining to the truth of human nature remain formally while the matter changes. Based on this, he agrees with the second opinion that all that was in the substance of semen rises because this is principally of the truth of human nature; on the other hand, of all that comes to the nature afterwards through food, only that amount will rise as is necessary to perfect the quantity of human nature in all its individuals (qla 4). The totality of matter that was in human members will not rise, he says, because although it all pertained to the truth of human nature as to specific nature, in its total materiality it would exceed the due quantity of the species, and so only that amount will rise that is ordered to the totality of the species, which includes quantity, figure, situs, and the order of the parts (qla 5).⁶³

In these long discussions there are fewer explicit quotations of the natural scientists, but their ideas lie behind many of the statements and arguments introduced. Aristotle's *De generatione et corruptione* is quoted four times, his *De anima* and (for the first time in these discussions) his *Eudemian Ethics* are quoted twice, and his *De generatione animalium* and *Metaphysics* are quoted once, as is Avicenna's *Commentary on the Metaphysics*.

The third article continues to examine questions raised by Augustine and frequently discussed. Thomas holds the following: we will all rise in the perfect youthful state that occurs when growth is finished and decline has not yet set in (qla 1); we will not all have the same stature but rather the stature each reached at the end of growth, unless nature had erred regarding stature, in which case the deficiency will be corrected (qla 2); the distinction of male and female sexes will remain because this pertains to the perfection of the species—there will be no libido arousing one to base actions, and there will be no difference in physical or mental capacities according to sex (qla 3); eating, drinking, sleeping, and generation will be absent since they are necessary only to cause or preserve the first perfection of humans but not for possessing their final end (qla 4). Explicit references to Aristotle are few. The *Ethics* is quoted three times, and there is one quotation from each of the *De genera-*

⁶³ Ibid., q. 1, a. 2, qlae 1–5; pp. 1075–1081.

tione animalium, the *De generatione et corruptione*, and the *De anima*. But, again, much of Aristotle's science lies behind Thomas' own judgments.⁶⁴

This survey of Aquinas reveals an interesting example of how he, like other theologians of his day, was stimulated by problems in theology to seek the aid of the natural sciences and medical experience. If we are not to remain purely archaic in our historical studies, we might note that contemporary theology is engaged in a similar dialogue with modern scientific and medical discoveries and technologies. Although the science and medicine of the thirteenth century may be outmoded, the openness of Aquinas and other theologians to such dialogue may still serve as a good example for theologians of our day. And, once again, historians of medieval thought may find that thirteenth-century theological debates, in this instance about the transmission of original sin or the resurrection of the body, offer surprising elements for the history of science and the philosophy of nature. James Weisheipl, the scholar we honor, would surely find in this material further confirmation of the value of the scholarly work he did to relate medieval science to both contemporary science and theology.

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⁶⁴ Ibid., q. 1, a. 3, qlae 1-4; pp. 1081-1083.

Aquinas and Weisheipl: Aristotle's *Physics* and the Existence of God

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In his first attempt to teach the *Physics* of Aristotle in 1951, James A. Weisheipl was dismayed to find that he had not grasped the meaning of Aristotle's text. Having failed to understand how the arguments of books seven and eight concluded to the existence of a First Unmoved Mover, Weisheipl realized that he had not properly understood the earlier discussions of the work, especially those concerning the concept of "nature," the hylomorphic composition of all natural substances, and the elusive reality of physical change. With the help of Aquinas' commentary, Weisheipl eventually did arrive at a completely separate and immaterial guiding principle that ruled the universe and held the whole of material creation in its power. Then he understood that in order to explain the existence of natural substances and their physical changes the natural philosopher must posit the existence of a being that is neither physical nor material, a being that is not limited and is in no way subject to change. This being, who is "over all things God blessed forever,"¹ alone can account for the reality of all physical changes and

¹ Thomas Aquinas, *In 8 Physicorum*, lect. 23, n. 9: "Et sic terminat Philosophus considerationem communem de rebus naturalibus, in primo principio totius naturae, *qui est super omnia Deus benedictus in saecula. Amen.*" Translations of passages from Aquinas' works are my own.

activities. Only if there is a completely immaterial and entirely unchangeable being, can there be material and changeable beings.

In this paper, I will examine Aristotle's argument for the First Unmoved Mover within the context of his general science of nature, as set forth in his *Physics*. Thomas Aquinas and James Weisheipl will serve as invaluable guides to finding the meaning of the text. The final reflections and distinctions, of course, will be my responsibility, but not, I hope, unfaithful to the thought of Aristotle or Aquinas. It will be my claim that a dynamic understanding of nature and motion, as discussed in Aristotle's *Physics*, leads inevitably to the conviction that there is and must be a being that is neither physical, nor material, nor subject to motion. This being—the one God of faith and reason—gives physical, material, and intelligible existence to the entire world of nature.

ARISTOTLE'S *PHYSICS* I–VI

In Book one of his *Physics*, Aristotle establishes the first principles of natural, mobile beings. He shows that all physical change and all physical reality involves an “underlying nature” (or “matter”), a “formula” (or “form”), and “privation.”² St. Thomas elaborates on this point showing that every natural substance is composed of “matter” (*prima materia*) and “form” (*ratio* or *forma*); “privation” is simply the lack or negation of form, and results from the fact that any given material reality is actually only one thing, and not others.³ For Aristotle and St. Thomas, matter is the ultimate potentiality for physical change and existence; it is by means of matter that natural substances “can be” something. And, it is by means of form that those same natural substances actually “are” something. Neither matter nor form is a “substance” (*substantia*), strictly so called, but each is a principle by which—in combination with the other—physical substances exist. According to Weisheipl,

Aquinas . . . insisted that unless this “first matter” were pure potentiality (*pura potentia*), having no actuality whatever of its own (not even *esse*), the dilemma faced by Aristotle could not be resolved. It would still be impossible for the ultimate substance and reality of anything truly to change (*feri, mutari*). For this reason, the whole of Aquinas' natural philosophy is based on the absolute unicity of substantial form in every material composite. For him the one and only *esse* a substance has comes entirely from the actualizing form (*forma dat esse*). . . .⁴

² Aristotle, *Physics* 1.7 (191a5–14). I have taken all quotations of Aristotle's *Physics* from *Aristotle's Physics*, trans. Hippocrates G. Apostle (Grinnell, IA: Peripatetic Press, 1980).

³ Aquinas, *In I Phys.*, lect. 13.

⁴ James A. Weisheipl, OP, “The Interpretation of Aristotle's *Physics* and the Science of Motion,” in *Cambridge History of Later Medieval Philosophy: From the Rediscovery of Aristotle to the Disintegration of Scholasticism, 1100–1600*, eds. Norman Kretzmann, Anthony Kenny, and Jan Pinborg (Cambridge: Cambridge University Press, 1982), p. 524. See also Weisheipl's *The Development of Physical Theory in the Middle Ages* (Ann Arbor: University of Michigan Press, 1971), pp. 37–38.

Hence, for Aristotle and St. Thomas, matter is the underlying capacity for actual physical change and existence, and form is the first and immediate principle by which a physical being actually exists. These two principles, along with privation, explain the reality of substantial change and natural substantial existence. They explain how one thing can truly be changed into and truly can be something else, something radically different—a new being, a new substance, with its own unique individual identity.⁵

In Book two, Aristotle discusses the concept of “nature,” which he defines as “a principle and a cause of being moved and of rest in the thing to which it belongs primarily and in virtue of that thing, but not accidentally.”⁶ Aquinas, commenting on this definition, insists that “nature” (*natura*) is not “something absolute” (*aliquid absolutum*), not a *vis insita rebus*, but rather a source or origin, a “principle” (*principium*) of what is manifest in experience.⁷ Weisheipl devoted one of his doctoral theses and many of his published writings to promoting the understanding of the concept of “nature,” as it was proposed by Aristotle and Aquinas.⁸ According to Weisheipl, “nature” is the name that we apply to this state of affairs: that there is a certain “internal spontaneity” within things, a certain “regularity, a determined rationality” manifested in the phenomena around us. This internal spontaneity, this characteristic activity is simply “given” in experience—there is no thing “behind” this spontaneity, only a “principle,” an ἀρχή. Moreover, besides “this spontaneity, there are also certain receptivities for external influence, receptivities which are compatible with the spontaneous characteristics of each body.”⁹ There are certain spontaneous manifestations and certain receptivities characteristic of every type of body. According to Weisheipl, it is the source or origin of these “given” phenomena that Aristotle and St. Thomas call “nature.” On the one hand, nature implies active manifestation and signifies “form,” the “active principle of spontaneous behavior,” that is, “the

⁵ It is important to note here that these principles of matter and form are required not only to explain the coming-to-be of natural substances, but also the very existence of natural substances, precisely as natural and physical; see Aquinas, *In I Phys.*, lect. 13, n. 111: “Et notandum est quod hic intendit inquirere principia non solum fiendi, sed etiam essendi: unde signanter dicit *ex quibus primis sunt et fiunt.*”

⁶ Aristotle, *Physics* 2.1 (192b21–23).

⁷ Aquinas, *In II Phys.*, lect. 1, n. 145: “Ponitur autem in definitione naturae *principium*, quasi genus, et non aliquid absolutum, quia nomen naturae importat habitudinem principii. Quia enim *nasci* dicuntur ea quae generantur coniuncta generanti, ut patet in plantis et animalibus, ideo principium generationis vel motus natura nominatur. Unde deridendi sunt qui volentes definitionem Aristotelis corrigere, naturam per aliquid absolutum definire conati sunt, dicentes quod natura es *vis insita rebus*, vel aliquid huiusmodi.”

⁸ See especially Weisheipl's *Nature and Gravitation* (River Forest, IL: Albertus Magnus Lyceum, 1955). This short publication contained the substance of his doctoral thesis in philosophy from the Angelicum in Rome. The first two chapters of this book, “The Concept of Nature” and “Natural and Compulsory Motion,” were reprinted with the same titles in Weisheipl's *Nature and Motion in the Middle Ages*, ed. William E. Carroll (Washington, DC: CUA Press, 1985), pp. 1–48.

⁹ Weisheipl, *Nature and Motion*, pp. 9–10.

fundamental spontaneity by which the body acts in its own right, acts as itself."¹⁰ On the other hand, nature indicates receptivity or passivity and refers to "matter" or potentiality, a potentiality "which *intrinsically tends* toward perfect realization, and which can be actualized by a natural agent. In other words," continues Weisheipl, "nature as a passive principle essentially implies an intrinsic *intentionality* of final realization, a receptivity which tends toward the *good* of the whole."¹¹ Weisheipl also insists that "nature" cannot be conceived of as a thing, as a being in its own right: "'nature' is not some complete entity within physical bodies," he says; "*It neither is, nor can be known as, a complete entity.*"¹² "Nature" signifies the givenness and regularity of things in our experience, as distinct from the contrivances of art or the randomness of chance. Both art and chance depend upon a prior regularity, a given state of affairs, that tends for the most part towards some definite and identifiable goal. Both Aristotle and St. Thomas call this givenness "nature," understood as a principle of motion and rest, the origin and root of all regular, spontaneous behavior and directedness. Nature, as form, is an "active" source of specific characteristics and activities; nature, as matter, is a "passive" source of specific receptivities and potentialities.

In order to understand "nature," Aristotle notes that we must understand "motion" or "change," since "nature is a principle of motion or change"—"for if we are ignorant of what a motion is, we are of necessity ignorant of what nature is."¹³ In Book three, Aristotle defines motion as "the actuality of the potentially existing qua existing potentially."¹⁴ St. Thomas explains that "motion" (*motus*) or "change" (*mutatio*) is an "imperfect act" (*actus imperfectus*), that is, an incomplete reality. Motion is an actuality, according to St. Thomas, but an imperfect or incomplete actuality which is intrinsically ordered towards more actuality.¹⁵ Motion is not pure potency nor is it complete act in itself; motion is the actuality of the potential precisely inasmuch as it is in potentiality for more actuality. According to Weisheipl, the "actuality which characterizes motion is radically different from every stable act which might be called 'form'; and the potentiality proper to motion is vastly different from the permanent capacity called 'matter.'" This "fleeting reality of motion," says Weisheipl, "exists only when and where the body is moving."¹⁶ That is to say, motion exists only when and where the body is actually "being moved" (*movetur*), only when and where the body is in some respect being reduced from potency into act. Motion is, therefore, essentially

¹⁰ Ibid., p. 16.

¹¹ Ibid., p. 14.

¹² Ibid., p. 16.

¹³ Aristotle, *Physics* 3.1 (200b13–16).

¹⁴ Ibid., (201a11).

¹⁵ Aquinas, *In 3 Phys.*, lect. 2, n. 285: "Sic igitur actus imperfectus habet rationem motus, et secundum quod comparatur ad ulteriorem actum ut potentia, et secundum quod comparatur ad aliquid imperfectius ut actus."

¹⁶ Weisheipl, *Development of Physical Theory*, p. 41.

a passive process, one which requires the presence of some active source, some agent or mover which reduces the body's potentiality into actuality. Hence, Aristotle says, "every thing in motion is necessarily being moved by some thing"; and St. Thomas says "everything which is moved is moved by another."¹⁷ The essential point to grasp here is that for Aristotle and St. Thomas motion is a radically passive activity of the being in motion; it is something that a body undergoes, something that is done to the body. The proper act of a body, a "movable being" (*ens mobile*), is "to be moved" (*moveri*), that is, to be brought from potentiality to actuality. Therefore, motion requires something in act, some actuality "to move" (*movere*) the moved body, that is, to cause its motion, to reduce its potentiality into actuality. Motion, for Aristotle and St. Thomas, is a passive process and as such requires an active cause to direct the moved body toward its completion, toward the end or goal "intended" by its own form.

Following the discussion of motion in Book three, Aristotle treats the infinite. Then in Book four, he treats place, the void, and time. Each of these topics follows readily from a consideration of motion. Motion is infinitely divisible, as are time and magnitude; place is the "container" of body; void is an impossibility, though the imagination may posit this figment as "necessary" if there is to be motion; and time is "the number of a motion with respect to the prior and the posterior." In Book five, Aristotle discusses the different species of motion, the different contrarieties present in motion, and the various requirements for the individual unity of a single motion. Then, in Book six, he considers various divisions of motion, magnitude, and time, including a resolution of Zeno's paradoxes, and he concludes with two general statements: (1) "that which has no parts cannot be in motion except accidentally, that is, by existing in a body or a magnitude which is in motion";¹⁸ in other words, only what is extended and material—a body—can be moved properly and essentially with physical motion; and, (2) "no change is infinite, for it was stated that every change, whether between contradictories or between contraries, is from something to something";¹⁹ that is to say, every motion tends towards some end or completion—the only exception being circular locomotion, which can be of infinite duration, continuing perpetually by revolving continuously upon itself.

The first six books of the *Physics* not only delineate and describe the basic principles of all natural beings and their motions, but they also prepare for the demonstrations of the final two books in which Aristotle searches for the ultimate cause and explanation of natural change and existence—the First Unmoved Mover, the eternal source and foundation of the entire cosmos.

¹⁷ See Aristotle, *Physics* 8.1 (241b25), and Aquinas, *In 8 Phys.*, lect. 1, nn. 885–886. Weisheipl discusses the meaning of this phrase in "The Principle *Omne quod movetur ab alio movetur* in Medieval Physics" in *Nature and Motion*, pp. 75–98; reprinted from *Isis* 56 (1965) 26–45.

¹⁸ Aristotle, *Physics* 6.10 (240b9–10).

¹⁹ *Ibid.*, (241a26–28).

The seemingly endless discussions of infinity, divisibility, continuity, contact, temporality, and so forth, not only serve as a foundation for further specialized studies of the natural world, but they also serve as an immediate point of contrast for reaching and discussing the First Unmoved Mover. Whereas, every moved mover is material, extended, divisible, movable, subject to time, and in physical contact with the moved body, the First Unmoved Mover is immaterial, without parts, indivisible, entirely immovable, outside of time, and completely separate from (yet intimately involved with) the physical universe. In order to prepare for arriving at such a being, Aristotle must first present and discuss the general principles necessary for understanding the world of nature. This thorough investigation of "mobile being," the principles of "nature," and the reality of "motion" is necessary for understanding the argument of books seven and eight. Only by grasping these preliminary principles can we perceive the need for an immaterial, immobile, and indivisible First Mover who "moves" the whole universe for all eternity. Only by understanding natural beings, precisely in terms of their own natural principles, can we then identify the reasons for positing a being that is neither physical nor subject to change—a being upon whom the physical world depends for its physical existence, considered precisely as physical, that is, as natural and changeable.

ARISTOTLE'S *PHYSICS* VII–VIII

Aristotle begins Book seven with the famous axiom, "Every thing in motion is necessarily being moved by some thing."²⁰ However, says Aristotle, "this does not go on to infinity but stops at some point, and there is something which is the first cause of being moved."²¹ Again, in Book eight, Aristotle says that "it is impossible that a mover which is itself moved by another proceed to infinity since in this infinity there will be no first mover."²² Furthermore, even if there be "some principles which are immovable movers" and also movers which "move themselves," says Aristotle,

nevertheless, there is something which contains and exists apart from each of them and which is the cause of the existence of some of them and the non-existence of the others and also of the continuous change; and this is a cause of these [movers], while these are the causes of the motion in other things.²³

St. Thomas simply accepts this argument without qualification in his *Exposition of the Physics*, and uses it again both in his *Summa contra gentiles* and in his *Summa theologiae*.²⁴ He even considers this argument to be "the first and

²⁰ Ibid., 7.1 (241b24).

²¹ Ibid., (242a20–21).

²² Ibid., 8.5 (256a18–19).

²³ Ibid., 6 (259a1–8).

²⁴ See SCG 1.13, and ST 1.2.3.

more evident way” of demonstrating the existence of God.²⁵ It is the natural philosopher’s argument “from motion” (*ex parte motus*), showing that there must be a “prime mover,” a First Mover, that “is indivisible and without parts and has no magnitude at all,”²⁶ “who is over all things God blessed forever!”²⁷

The basic structure of this argument, for both Aristotle and St. Thomas, proceeds in this way:

- (1) Whatever is moved is moved by another;
- (2) there can be no infinite regress in the order of moved movers;
- (3) therefore, there must be a First Mover, entirely unmoved, upon which every other mover depends for its own motion and for its own power to move—its own power to cause motion.

There have been numerous historical and philosophical analyses of this argument, yielding a variety of opinions and interpretations regarding the cogency, validity, and precise meaning of Aristotle’s claims. While ignoring this wealth of scholarship, some suggestions may be ventured regarding the meaning of this argument, with special attention to the axiom “whatever is moved is moved by another.”

First, it seems that by the axiom “whatever is moved, is moved by another,” Aristotle means that nothing can move itself *primo* and *per se*; that is to say, nothing can move itself precisely as itself, that is, as a whole, for this would be tantamount to bringing itself into existence.²⁸ Some things can move themselves by means of parts, so that one part moves while another is moved, but nothing can be the primary mover of its own essential motion—because to be moved it must have parts, and if it has parts, then its motion depends upon each of those parts and not on the whole as such. St. Thomas makes this clear in his commentary:

And so, Aristotle shows the reason why no mobile thing moves itself: because there cannot be a first mobile thing whose motion does not depend on parts; it is just as if I were to show that no divisible thing can be the first being, because the being of any divisible thing depends on parts; and so, this conditional is true: “if a

²⁵ Aristotle, *Physics* 8.10 (267b26–27).

²⁶ Aquinas, *Summa theologiae* 1.2.3: “Prima autem et manifestior via est, quae sumitur ex parte motus.”

²⁷ See note 1 above.

²⁸ See Weisheipl, “The Principle *Omne quod movetur ab alio movetur* in Medieval Physics,” in *Nature and Motion*, p. 77: “Finally, in *Physics* VII, 1, Aristotle shows that if anything is assumed to move itself, as Plato assumes, then it is really moving itself not *primo* and *per se* . . . but only by reason of parts, which is not self-movement *primo* and *per se* because ‘to move’ is not the same as ‘to be moved.’ As soon as it is shown that ‘to move’ and ‘to be moved’ are distinct actions requiring distinct parts, then it is clear that the mover does not move itself. Rather, the part that is moved is moved by a part distinct from itself, that is to say, by another.”

part is not moved, the whole is not moved," just as this conditional is true: "if a part is not, the whole is not."²⁹

Hence, precisely because the First Mover cannot itself be moved, so it cannot be material. There must be an immaterial being over and above all material beings that is the source of motion—the source, in fact, of existence for those beings.

For Aristotle and St. Thomas, "to move" or to cause motion, is not primarily a mechanical function, such that the First Mover, as it were, pushes the material universe around in a circle. Rather, the immaterial mover is the source of material "nature," the cause of the mobile objects own principles of motion—matter and form. The Aristotelian-Thomistic world of nature is not a static universe of material bodies pushed here and there by immaterial souls or intelligences—it is a dynamic universe, filled with natural, physical beings that spontaneously and regularly exhibit specific, characteristic behavior. This spontaneous and characteristic activity springs from "nature," from matter and form, that is, from the constituents of natural, physical substances—mobile beings.

This view is supported by an analysis of the way in which Aristotle and St. Thomas search for the cause of the natural motions of heavy and light bodies. On the one hand, such bodies do not move themselves up or down, "for this [that is, to be moved by itself] is an attribute of living things and is proper to them."³⁰ On the other hand, there seems to be no external mover causing their motions. The question remains, then, "Why are light and heavy things moved to their respective places? The *reason* is this," says Aristotle: "It is the nature of each to be at a certain place, and to be light or to be heavy is to be just this, specifically, to be up in the case of the light or to be down in the case of the heavy."³¹ Hence, St. Thomas says, "to ask why a heavy body is moved downward, is nothing other than to ask why it is heavy. And so, the same thing that makes it heavy, makes it to be moved downward."³² That is to say, that which makes the body to be heavy, thereby makes it "to be moved down" (*moveri*), for to be heavy is to have an aptitude for being down, and so, to move down when unimpeded. "Therefore," says St. Thomas, "the generator (*generans*) is the *per se* mover of heavy and light things," for the "generator" gives to the body the "form" upon which its inclination follows—

²⁹ Aquinas, *In 8 Phys.*, lect. 1, n. 889: "Sic ergo ostendit Aristoteles causam quare nullum mobile movet seipsum; quia non potest esse primum mobile, cuius motus non dependeat a partibus: sicut si ostenderem quod nullum divisible potest esse primum ens, quia esse cuiuslibet divisibilis dependet a partibus: ut sic haec conditionalis sit vera: *si pars non movetur, totum non movetur*, sicut haec conditionalis est vera: *si pars non est, totum non est.*"

³⁰ Aristotle, *Physics* 8.4 (255a7).

³¹ *Ibid.*, (255b14–17).

³² Aquinas, *In 8 Phys.*, lect. 8, n. 1034: "Unde nihil est aliud quaerere quare grave movetur deorsum, quam quaerere quare est grave. Et sic illud idem quod facit ipsum grave, facit ipsum moveri deorsum."

the generator gives the body its "nature."³³ In other words, whatever causes the body to be heavy is the same thing that causes it to move down, for it moves down spontaneously, "naturally," because it has an aptitude for being down, it belongs down, it was made to be down—it is its "nature" to be down. And so, earlier in his commentary on the *Physics*, St. Thomas makes the following remarks:

In heavy and light bodies there is a formal principle of their motion, because just as other accidents follow upon the substantial form, so also does place, and consequently to be moved (*moveri*) to place; however, not in such a way that the natural form is the mover (*motor*), rather, the generator (*generans*) is the mover, because it gives such a form upon which such motion follows.³⁴

Hence, for Aristotle and St. Thomas, that which makes a body to be heavy or light is that which "moves" the body up or down. The "form," the "nature," is not an "agent" or a "conjoined mover" (*motor coniunctus*) pushing the body along; it is, rather, the "principle" of the body's motion, that by means of which the generator "moves" the body towards its proper, natural place.³⁵ Throughout his writings, Weisheipl insists on this important point for understanding properly the natural philosophy of Aristotle and St. Thomas.³⁶ The "nature" of a physical substance is not the "efficient cause" of its own natural motions, activities, or characteristics. A specific "nature" is the immediate and "formal" cause of natural characteristics and activities, imposed upon the being in question by the generator—the efficient cause—whose influence is mediated by the "form" or "nature." Thus, the body's "nature" is the source or origin, the principle of those activities and characteristics which flow spontaneously and regularly once that nature is produced in the body by some external agent—those activities and characteristics are then just "given" in experience.³⁷ Hence, for Aristotle and St. Thomas, the agent responsible for

³³ Ibid., n. 1035: "Et similiter ille qui divellit columnam, non dat gravi superposito impetum vel inclinationem ad hoc quod sit deorsum: hoc enim habuit a primo generante, quod dedit ei formam quam sequitur talis inclinatio. Sic igitur generans est per se movens gravia et levia, removens autem prohibens, per accidens."

³⁴ Idem, *In 2 Phys.*, lect. 1, n. 144: "In corporibus vero gravibus et levibus est principium formale sui motus: quia sicut alia accidentia consequuntur formam substantialem, ita et locus, et per consequens moveri ad locum: non tamen ita quod forma naturalis sit motor, sed motor est generans, quod dat talem formam, ad quam talis motus consequitur."

³⁵ Idem, *In 3 De caelo et mundo*, lect. 7, n. 594: "Nam forma gravis et levis non est principium motus sicut agens motum, sed sicut quo movens movet. . . . Sic igitur motus gravium et levium non procedit a generante mediante alio principio movente. . . . id quod naturaliter movetur, habet sibi inditam virtutem, quae est principium motus: unde non oportet quod ab alio impellente moveatur."

³⁶ See especially "The Specter of *motor coniunctus* in Medieval Physics" in *Nature and Motion*, pp. 99–120; reprinted from *Studi sul XIV secolo in memoria di Anneliese Maier*, ed. A. Maieru and A. P. Bagliani (Rome: Edizioni di Storia e Letteratura, 1981), pp. 81–104.

³⁷ Weisheipl, "The Principle *Omne quod movetur*," *Nature and Motion*, p. 90: "A formal principle (*principium, arche*) is simply a spontaneous source of all that comes from it naturally, that is, all characteristic attributes and activities. Once it is brought into being, it immediately (*statim*) and spontaneously manifests characteristic behavior, unless accidentally impeded from doing what comes naturally."

the natural motions of a given body is the “generator,” that which gave the body its specific identity, that which made the body to be what it is, that which gave the body its “nature.”³⁸

Now, in the generation of all natural, physical substances, including heavy and light bodies, the natural philosopher must take into account, not only the particular univocal causes, such as this man or this fire, causes which bring about only individuals like to themselves; he must also consider the universal equivocal causes, such as the sun, causes whose power ranges over a wide variety of natural effects. Just as “both man and the sun beget man,” so also, the sun enters into the generation of all terrestrial bodies.³⁹ The sun, for Aristotle and St. Thomas, is a universal equivocal cause, whose causality extends to a vast array of natural characteristics, natural motions, and natural substances. When Aristotle claims that the mover and the thing moved—the cause and its effect—must exist simultaneously, he is not speaking only about individual univocal causes and their effects, but also about universal equivocal causes and their effects. There must be not only a particular individual cause of this rock or this man, but also a universal cause of all rocks and all men—a universal cause of rocks and men considered precisely as such. When Aristotle says that the “generator” is the *per se* cause of a heavy body’s motion downward, he is not restricting himself to the particular terrestrial “generator” of such a body, for such a generator does not have power over all the members of the species—it is itself a member of that species. Rather, he means to include also the universal “generator,” the sun as well as the more remote heavenly bodies, which continue “to move” terrestrial bodies by preserving in them their “natures,” their principles of physical change and existence. And so, in the *Physics*, Aristotle insists that “causes generically given should be stated of effects generically given, and particular causes, of particular effects.”⁴⁰ And St. Thomas refers to the heavens as universal causes of mobile beings and their changes in the *De potentia* and the *Summa theologiae*.⁴¹ The point to note here is that Aristotle and St. Thomas, thinking as natural philosophers, are concerned not only with isolating individual agents of physical change, but also with tracing universal lines of natural causality, which account for the activities and characteristics proper to entire species of natural substances. At least, this seems to be the only way to account for the

³⁸ Idem, “The Concept of Nature,” *ibid.*, p. 18: “In a very technical sense, the ‘efficient cause’ (if one raises the question) of spontaneous phenomena is the agency which brought such a being into existence. In other words, whatever agency produces a physical body must also be acknowledged as the agency responsible for all the inseparable and spontaneous characteristics of that body.”

³⁹ Aristotle, *Physics* 2.2 (194b13); see also Aquinas, *In 2 Phys.*, lect. 4, n. 175: “Sed homo generatur ex materia et ab homine, quasi ab agente proprio, et a sole tanquam ab agente universalis respectu generabilium.”

⁴⁰ *Ibid.*, 3 (195b26–27).

⁴¹ See Thomas Aquinas, *De potentia*, 3.7c and ST 1.104.2c and 105.6.ad2.

fact that mover and moved must be simultaneous and in contact, that is, in some way naturally and physically connected by being parts of a single universe. Furthermore, this preserves the spontaneous dynamism of natural substances and avoids considering physical causality as merely some version of mechanical push or pull.

These universal, celestial movers, however, are themselves "moved movers," for they are material and extended, they are moved in place, and they are directed towards some end or goal, that is, they have an intrinsic intentionality for a specific kind of physical existence. They are not, however, "generated," in the proper sense of the term, for they have always existed. Nevertheless, they do depend on another for their motion, for their intrinsic principles of natural change and existence, and for being the kind of reality that they are. That is to say, they are not self-made, or self-sufficient, for nothing can "move" itself *primo* and *per se*—nothing can give to itself its own principles of change, its own principles of directedness, its own "nature." Of course, this continuous series of moved movers cannot go on to infinity, for then there would be no motion here and now. Hence, both Aristotle and St. Thomas conclude that there must be a First Unmoved Mover, entirely separate from matter, infinitely powerful, who "moves" the entire universe for all eternity.⁴²

CONCLUSION

The axiom, then, which states that "whatever is moved is moved by another" can be appreciated only within the context of the general science of nature, the subject of the *Physics*. Only by understanding how particular and universal causes operate in a physical way, can we see that there must be a further moving cause, which is not material, not divisible, not movable, and so forth. This immaterial being is not simply some created intelligence that pushes or pulls an independently existing material world; rather, this immaterial being is the active source and origin of the material world. It "moves" that world by being the cause and foundation of all the material and formal principles of motion within that world. Even if the world were eternal, there would still necessarily be a First Unmoved Mover upon which the world would depend for its physical existence, for its dynamic principles of change and motion, for its directedness, its spontaneity, its materiality, and its mobility. As St. Thomas says in his *Exposition on the Physics*, "although Aristotle held that the world is eternal, nevertheless, he did not believe (as some have said) that

⁴² Aquinas, *In 1 De caelo*, lect. 8, n. 91: "Est autem attendendum quod Aristoteles hic ponit Deum esse factorem caelestium corporum, et non solum causam per modum finis, ut quidam dixerunt."

God is not the cause of the being for this world, but the cause only of its motion."⁴³

Weisheipl never explicitly articulated in print the argument that I have outlined above. However, he always maintained a strict identity between the Unmoved Mover of the *Physics* and the Uncaused Cause of the *Metaphysics*. And in one his latest articles, Weisheipl made the following remarks about Books seven and eight of Aristotle's *Physics*:

The whole point of Aristotle's Books VII and VIII is that all such motions have no "explanation" unless there is some First Mover, itself entirely unmoved *per se* and *per accidens*, immaterial (separated from matter), having infinite power to move the entire universe as a whole by means of the first heaven for all eternity. Albert and Thomas thought that even if the universe moved and existed from all eternity, the First Uncaused mover would still, as First Being, have "to create" (*producere*, or *movere*) the entire universe *ex nihilo*—even on Aristotle's own principles.⁴⁴

What I am suggesting is that an analysis of Aristotle's fundamental principles of natural philosophy, including a notion of universal equivocal cause, as well as a dynamic understanding of nature and motion, leads the mind to God, that is, to the First Unmoved Mover, upon which the physical universe depends for its entire natural, physical, and material existence. Of course, this discovery leads to an expanded notion of "existence," which can no longer be restricted to the natural, physical, and material. This discovery leads to a new science, "metaphysics," which then leads us to a more profound understanding of God and his intimate relationship to the whole of material and immaterial creation. However, the roots of this more profound understanding lie in the philosophy of nature, in an understanding of the natural principles at work in the physical world, and in a recognition of the explanatory limits of those principles. It is in Aristotle's "argument from motion," in St. Thomas' *prima via*, that philosophy—"natural philosophy"—first encounters (albeit in a limited and hidden way) the God of Abraham.

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⁴³ Aquinas, *In VIII Phys.*, lect. 3, n. 6: "Ex quo patet quod quamvis Aristoteles poneret mundum aeternum, non tamen creditur quod Deus non sit causa essendi ipsi mundo, sed causa motus eius tantum, ut quidam dixerunt."

⁴⁴ Weisheipl, "Interpretation," p. 529.

Albert the Great: Creation and the Eternity of the World

Steven C. Snyder

“Whether the world is eternal,” Albert says, “is a very old question.”¹ It is also a difficult question, even with Albert’s little joke starting us on our way. The question is difficult, as Albert sees the problem, because “eternal” can have two senses: either “uncreated” or “having no first moment of its existence.” Throughout his academic career Albert emphasized the first problem, whether the universe is created, as the central and important issue of the problem of the eternity of the world.

My contention in this paper is that Albert changed his philosophic positions on the demonstrability of creation and of a first day. Early in his career Albert seems to have thought that creation cannot with certainty be proved or disproved, but that, if the universe is created, a first moment of creation can be proven with certainty. Later in his career, when he had given detailed

¹ My great debt to Fr. James A. Weisheipl, OP, will be apparent to those who read “Albert’s Disclaimers in the Aristotelian Paraphrases,” *Proceedings of the PMR Conference 5* (1980) 1–27; “Albertus Magnus and Universal Hylomorphism: Avicbron,” *The Southwestern Journal of Philosophy* 10 (1980) 239–260; and “The Date and Context of Aquinas’ *De aeternitate mundi*,” in *Graceful Reason: Essays in Ancient and Medieval Philosophy Presented to Joseph Owens, CSSR*, ed. Lloyd P. Gerson (Toronto: Pontifical Institute of Mediaeval Studies, 1983), pp. 239–271. “Quod autem mundus sit aeternus, sicut quinto inducunt, antiqua valde quaestio est.” Albert, *De XV problematibus* q. 5; ed. Colon. 17/1:37.14–15.

attention to metaphysics in his paraphrases of the *Metaphysics* and the *Liber de causis*, Albert argued that creation can be proved with certainty but that a first moment can be neither proved nor disproved by natural reason. The foundation of Albert's reflections on creation was his analysis of past philosophers' views. Albert denied that any philosopher had correctly reasoned to creation by the one God, and he denied that any had demonstrated creation's impossibility. Thus, early in his career Albert went no further than he thought the philosophers had; later, using their principles, he went beyond them to give a philosophic demonstration of creation.

For Albert a doctrine of creation holds that there is one first being, God, who acts freely and without intermediaries to create the universe out of nothing (*ex nihilo*). God creates out of nothing, working on no pre-existent substrate which receives being. He is the cause of all things and all that things are, so that things are nothing apart from God's creative act. The single creative act, effective in creatures as long as they are, originates and continues them in their being.² Further, God creates immediately: the power to create cannot pass to any creature. Finally, God creates by freely choosing to do so and not from any necessity of his nature to create.

II

It was the common conviction of the Greek philosophers that nothing can come from nothing. Albert distinguished three philosophic schools founded by the Greeks;³ each had its reflections on creation shaped by its position on natural change, especially in light of the principle from nothing nothing comes.⁴ The Greek natural philosophers, for example Anaxagoras and Democritus, were materialists who denied the reality of any change whatsoever; they, of course, denied creation. Change means that something new appears that before was not, and so true change is impossible, they argued, since what is cannot come from what is not. Bound by this Parmenidean knot, the Greek materialists could only deny real change: all change is apparent only, being no more than the rearrangement of material elements which themselves are uncaused and always endure.⁵

² Albert, *Divine Names (DN)* 3.#4 ad 2 (ed. Colon. 37/1:103.26–39); cf. 4.15 (pp. 123.73–124.32).

³ Albert, *DN* 4.90 (ed. Colon. 37/1:194.55–75); In 2 *Sent.* 1C.12 (ed. Borgnet 27:33b–34a); *Metaph.* 1.3–5 (ed. Colon. 16/1:29.18–90.74); *Liber de causis et processu universitatis (CPU)* 1.1.1–4 (ed. Borgnet 10:361a–369a); Davidson, Herbert A., *Proofs for Eternity, Creation, and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: University Press, 1987), pp. 10–14; Weisheipl, "Universal Hylomorphism," p. 257. Albert, like Aristotle, focused as an historian on the true more than on the real.

⁴ Albert, *Metaph.* 1.3.15 (ed. Colon. 16/1:46.45–51); 1.5.8 (p. 79.74–84); 3.3.16 (p. 156.3–22); *Phy.* 8.1.4 (ed. Borgnet, 3:530a–532a).

⁵ Albert, In 2 *Sent.* 1C.12 (ed. Borgnet 27:33b–34a); *Phy.* 1.3.15 (ed. Colon. 4/1:68.72–69.7); *Metaph.* 11.1.5 (ed. Colon. 16/2:464.48–77).

The second school Albert identified with the teachings of Plato. Plato attempted to unravel the knot and defend true becoming and change in nature by emphasizing the preeminence of form over matter. He held that change evidently exists in some way, that change is the introduction of new form, and that the materialists were right that matter cannot be the source of new form. The source of forms must be immaterial. To explain change Plato required, according to Albert, a being separate from matter, an intelligence which is a Giver-of-Forms (*dator formarum*), which causes by its immaterial activity completely new forms to exist in every instance of change in nature.⁶ In natural changes new forms do not come from nothing but neither do they pre-exist in the material world; rather, they are infused by an always existing immaterial Giver-of-Forms into matter suited to receive those forms. Plato's doctrine of an immaterial being as the immediate source of new natural forms meant that matter must be uncaused and eternal. For, the Giver-of-Forms causes forms, and matter is not form; matter must be uncaused.⁷ Plato and the materialists were led by their explanations of natural change to deny the possibility of creation.

Aristotle's predecessors, according to Albert, had thought they had demonstrative knowledge of the impossibility of creation, based on their natural philosophies of change. Aristotle, on the other hand, in Albert's opinion, neither demonstrates creation nor anywhere offers any demonstrations against it. Aristotle with his doctrine of potency and the pure potentiality of matter cut the knot which his predecessors were unable to unravel. His natural philosophy accounted for change and served as a refutation of their arguments on the impossibility of creation. The act of the maker or efficient cause in natural change is not to introduce (*inducere*) new forms into matter but to draw out (*educere*) the potentially existing form. There is no immaterial Giver-of-Forms which acts in natural changes: the form which will exist does pre-exist in the material substrate, but potentially, not actually. It is the natural, physical efficient cause which brings the new form from potency to act.⁸

But even Aristotle's analysis of natural change seems to deny the possibility of creation. Indeed, many of Albert's predecessors and contemporaries thought Aristotle had done just that.⁹ If change is always from potency to act, every new thing which comes into being must have pre-existed potentially in some actually existing substrate. Aristotle's *Physics* VIII gives arguments that before every motion there must be motion, before every time

⁶ Cf. Weisheipl, "The Concept of Nature: Avicenna and Aquinas," in *Thomistic Papers*, ed. Victor B. Brezik (Houston, 1984), pp. 65–82.

⁷ Albert, In 2 *Sent.* 1A.5. (ed. Borgnet 27:17b,18b); *Phys.* 1.3.15 (ed. Colon. 4/1:69.12–21); *CPU* 1.1.3–4 (ed. Borgnet 10:365b–369a); *Metaph.* 1.5.8 (ed. Colon. 16/1:79.65–84).

⁸ Albert, *DN* 4.90–91 (ed. Colon. 37/1:194.72–75, 195.1–27); *Metaph.* 3.3.16 (ed. Colon. 16/1:156.3–22).

⁹ Weisheipl, "Aquinas' *De aeternitate mundi*," pp. 259–263. See, for example, the arguments of Averroes, In 8 *Phy.* comm. 15, ff. 349E–352C (Venice, 1562–1574); Albert, *Phy.* 8.1.4 (ed. Borgnet 3:531ab).

there must be time. It seems Aristotle's principles of natural change make creation impossible.

However, Albert insisted throughout his academic career, as Moses Maimonides had already asserted,¹⁰ that Aristotle's arguments prove only that the universe did not begin naturally: creation is not a physical change.¹¹ From the *Sentences* Commentary to the paraphrase of the *Liber de causis*, Albert maintained consistently and adamantly that Aristotle's arguments do not disprove creation but that they do demonstrate that creation is not a physical or natural event. Moreover, Father Weisheipl has pointed out that Albert believed Aristotle knew his arguments did not disprove creation. According to Albert's reading of Aristotle, we cannot know Aristotle's own opinion about creation: Aristotle nowhere proves it but neither does he anywhere disprove it.¹²

Avicenna, unlike the Greeks, would certainly seem to have proved creation metaphysically, but in a doctrine better called emanation than creation. He argues in his *Liber de philosophia prima* that the universe shows itself to be composed of possible beings, which of themselves have no existence but which do in fact exist. They can exist only because they are the emanated effect of the efficient causality of one necessary being, which is perfect and lacks nothing. Possible beings in the emanated universe are hierarchically arranged, ordered in a causal chain under the one necessary being, first cause of all. From necessary being in its eternal productive act there can issue only one effect, the first immaterial being or intelligence. Necessary being or God is immediately responsible only for the existence and nature of the first intelligence. The rest of the chain of being continues with each intelligence eternally causing the being and nature of each succeeding intelligence, up to the tenth intelligence, the Giver-of-Forms, from which issues immediately the material universe, matter and form.¹³

Albert denied, however, that Avicennian emanation is truly creation. In various works Albert's arguments show that emanation has such fundamental philosophical flaws that it seems rather to imply that there are many

¹⁰ Albert, In 2 *Sent.* 1B.10 (ed. Borgnet 27:29a); Moses Maimonides, *The Guide of the Perplexed* 2.13–22, trans. S. Pines (Chicago: University Press, 1963), 2:281–320.

¹¹ Albert, *De XV prob.* q. 5 (ed. Colon. 17/1:37.14–20); *Phy.* 8.1.14 (ed. Borgnet 553b–555b); *De gen.* 2.3.6 (ed. Colon. 5/2:207.19–31); *Metaph.* 11.2.1 (ed. Colon. 16/2:483.27–55).

¹² Weisheipl, "Albert's Disclaimers," pp. 11–12, where he quotes Albert, *Phy.* 8.1.14 (ed. Borg. 3:555ab). Cf. Albert, *Metaph.* 11.2.12 (ed. Colon. 16/2:500.5–17), and Moses Maimonides, *Guide* 2.15; 2:289–293. Albert cites as Aristotle's (transmitted by Cicero: cf. *De natura deorum* 2.6.#17) an argument from design, which concludes only with probability that the universe is created: *De XV prob.*, q. 6 (ed. Colon. 17/1:38.66–80).

¹³ Avicenna, *Liber de philosophia prima sive scientia divina* 8.1–4; ed. S. van Riet (Louvain: E. Peeters, 1980), 2:376.01–404.01, esp. 395.12–397.52; 9.4–5; pp. 480.12–494.30. Albert, In 2 *Sent.* 1C.12 (ed. Borgnet, 27:34a); *CPÜ* 1.1.3 (ed. Borgnet, 10:365b–367a); cf. 2.1.5–6 (pp. 442a–444a). The course of emanation is from more to less universal, down to particular forms in matter. For Avicenna, matter too emanates, from the tenth intelligence: Albert, *DN* 2.44 (ed. Colon. 37/1:72.35–73.40); Weisheipl, "Universal Hylomorphism," pp. 243–244; E. Gilson, *History of Christian Philosophy in the Middle Ages* (London: Sheed and Ward, 1955), pp. 211–216.

uncreated eternal principles than to prove one principle which creates all out of nothing. Emanation seems rather to deny than to prove creation. By Albert's arguments emanation is not creation.

First, Albert objects that the position that the material world emanates from the tenth intelligence is no explanation of matter's coming to be at all. The chain of Avicennian emanation is a chain of forms. Even if separate forms or intelligences originate as emanation continues from form to form, still matter is different from form and does not issue from form. Plato, recognizing that such a hierarchy of forms cannot account for matter, had insisted that physical reality must be uncreated and eternal. It was Plato who was consistent, Albert thought, not Avicenna. Emanation leaves material being unaccounted for. Therefore, in fact although not in intent, Avicenna had two uncreated principles, not one.¹⁴

Second, Albert rejected Avicenna's notion of emanation through intermediaries, for then there are many separate intelligences creating something out of nothing, which is impossible.¹⁵ But it especially interested Albert why Avicenna argued there must be a cascading series of creators. Albert explains that Avicenna maintained following Aristotle that the nature of efficient causality is that "from what is one can come only one effect." The first or necessary being is absolutely one, and so it can have only one effect, the first intelligence. Multiplicity cannot come directly from the One. Now, Aristotle had established "from one only one" as an empirically verified principle generally descriptive of natural change.¹⁶ For Avicenna, however, "from one only one" was a universal physical and metaphysical truth applicable to all being, including the necessary being.¹⁷ Whatever the truth of this principle in physics, Albert objects that metaphysics recognizes that a unified being with intelligence and will, which rise above physical nature, can produce many effects; it is not limited to just one effect.¹⁸ Avicenna has misapplied a physical principle to the metaphysical problem of creation.

¹⁴ See Albert, *CPU* 1.1.6 (ed. Borgnet, 10:372a), where the argument is directed against Avicenna; cf. *DN* 4.206 (ed. Colon. 37/1:285.81) and *Phy.* 1.3.13 (ed. Colon. 4/1:64.77-84, 65.59-92).

¹⁵ Albert, *DN* 4.90 (ed. Colon. 37/1:194.55-66).

¹⁶ Aristotle, *De gen. et corrup.* 2.10 (336a26-30); Albert, *De gen.* 2.3.4 (ed. Colon. 5/2:204.32-33); cf. *Metaph.* 9.2.1 (ed. Colon. 16/2:414.50-55); *CPU* 1.1.10 (ed. Borgnet, 10:382b); 2.1.6 (pp. 442b-443b); c. 18 (p. 464b); *Phy.* 8.1.13 (ed. Borgnet, 3:551b).

¹⁷ Avicenna, *De philosophia prima* 9.4; ed. van Riet, 481.50-51. Albert argues that applying "from one only one" to Necessary Being is an error which arises *ex ignorantia philosophiae*: *Metaph.* 11.2.2 (ed. Colon. 16/2:484.72-75). Weisheipl reports that for Albert the principle's strict application even to physics is questionable: "Albert's Disclaimers," p. 12.

¹⁸ Albert, *DN* 4.9 (ed. Colon. 37/1:117.71-118.31); 4.54.ad 2 (p. 74.58-65); 4.177.ad 5 (p. 262.48-56); *Metaph.* 11.2.2 (ed. Colon. 16/2:484.72-89); *CPU* 1.2.8 (ed. Borgnet, 10:398b-399a); *Phy.* 8.1.13 (ed. Borgnet, 3:552a); Weisheipl, "Universal Hylomorphism," pp. 242-244, 259. It is wisdom's proper office to order diverse things: Albert, *CPU* 2.4.14 (ed. Borgnet, 10:587b-588a); *DN* 4.206 (ed. Colon. 37/1:285.69-79); 4.24 (p. 131.17-56); *Metaph.* 11.2.6 (ed. Colon. 16/2:489.65-490.21).

However, Avicenna denies that the first, necessary being acts by will, and herein lies Albert's third objection to Avicennian emanation. Avicenna holds that the intelligent God emanates by the necessity of His nature, for Avicenna fears to introduce change or caprice into necessary being.¹⁹ But Albert contradicts Avicenna. On the one hand, beings without intelligence can be necessitated to one act by their natures. On the other hand, beings with intelligence, which is open to realizing the good in an unbounded number of ways, choose freely and can only be necessitated by an external coercing agent.²⁰ Aristotle makes this point in his distinctions of voluntary, non-voluntary, and involuntary in *Nicomachean Ethics* III. The element of necessity in emanation theory, then, in fact if not in intent, requires that there exists an external agent coercing God to emanate, for an intelligent agent can be bound or necessitated only by an external cause. In yet this third way emanation theory leads philosophy to the erroneous conclusion that there is no single being who creates the universe.

III

Albert's own view of the demonstrability of creation changed: early in his career he thought demonstrating creation was impossible; later in his career he gave rational demonstrations of creation.

In the *Sentences* Commentary, the *Summa de creaturis*, the *Physics* paraphrase, and the paraphrase on the *Divine Names*, all completed before 1252, Albert does state that God creates, but he does not demonstrate that God creates. What seems to make creation unprovable in the *Sentences* Commentary is that creation is caused by God's unfathomable free choice; God's will cannot be penetrated by human demonstration.²¹

In the *Physics* paraphrase Albert approaches a demonstration of creation. Since composed things must have as their cause simple things, he says, the universe of matter and form must be caused by what is one and uncomposed. Moreover, Simple Being's production of composed beings must be out of nothing, for if it worked on pre-existent composed beings, one could still ask the cause of the composed beings upon which it works. "Therefore, it is proved thus . . . that the universe is created. . . ."²² This proof is like the metaphysical ones he will later accept as demonstrative, since it argues that composed beings require a first, simple cause. But it is still a physical proof which is not demonstrative, as Albert himself makes clear immediately after

¹⁹ Avicenna, *De philosophia prima* 9.1; ed. van Riet: 439.00–446.49; c. 2, pp. 454.86 ff.

²⁰ Albert, *CPU* 1.3.1–2 (ed. Borgnet, 10:400a–403b); *Metaph.* 11.2.2 (ed. Colon., 16/2:484.98–485.3); cf. *Phy.* 8.1.13 (ed. Borgnet, 3:550ab).

²¹ Albert, *In 2 Sent.* 1A.8 (ed. Borgnet, 27:22a); Weisheipl, "Albert's Disclaimers," pp. 11, 16–18.

²² Albert, *Phy.* 8.1.13 (ed. Borg. 3:551a–553a). "Sic igitur probatur et mundus esse creatus, et Deum duratione aeternitatis praecedere mundum," p. 552b.

presenting it. In the *Physics* Albert maintained that there are no demonstrations for or against creation.²³

Later in his career, after he had given more detailed attention to metaphysics, Albert did philosophically demonstrate creation. Albert found the foundation of his demonstrations in Aristotle's *Metaphysics* II. There Aristotle maintains that within particular genera multiplicity must be reduced causally to unity. Albert, applying the principle to being itself, extends it, so that any multiplicity in being must be led back causally to a being which is in every way one.²⁴ Based on Aristotle's *Metaphysics* II, Albert gives a proof of creation.²⁵ He argues that the multiplicity of beings must be caused by an absolutely simple being.

Take, for example, Albert's proof in his paraphrase of *Metaphysics* V, in a digression in which Albert says he goes beyond what Aristotle had to say about the four causes.²⁶ In *Physics* VIII Aristotle had proved that the many motions of the physical world depend for their existence on a single immaterial cause of motion. But in his extant writings Aristotle had stopped at demonstrating a first cause of motion. However, none of the wise would doubt, Albert argues, that logically prior to a mover's motion is its very being.²⁷ Since being as the very existence of things is predicated variously and analogously of many movers and existing things, this multiplicity of things' substantial being as movers or movables must also have a single cause, according to the reasoning of *Metaphysics* II. Being is multiplied among things, and so it too must be reduced to a first cause, a first cause of being.

Furthermore, it follows from this argument, according to Albert, that the first cause of being necessarily makes its effect out of nothing, *ex nihilo*. For there is nothing more fundamental than a thing's being, and so a cause which makes a thing's being makes all that it is. The first cause of being does not need and indeed cannot have any substrate to work on, for it gives being. All not given by the Giver of Being is non-being.²⁸ Thus Albert believed that by focusing on the being of things philosophy can prove that the universe is created out of nothing.

In the *Liber de causis et processu universitatis* (henceforth *CPU*), nominally a paraphrase of the *Liber de causis* but actually an extended philosophic

²³ Albert, *Phy.* 8.1.13 (ed. Borgnet, 3:552b–553a); Weisheipl, "Albert's Disclaimers," pp. 10–13.

²⁴ Aristotle, *Metaph.* 2.1–2 (993a30–994b31); Albert, *Metaph.* 2.1.1–10 (ed. Colon. 16/1:91.1–102.30). Cf. *CPU*: "Ad probandum autem unum primum principium in omni genere causarum, licet multae sunt viae, tamen una est potissima, scilicet quod in omni genere causarum et rerum in quibus invenitur medium compositum ex extremis, necesse est invenire extrema simplicia." That is, the argument of *Metaph.* II, as Borgnet notes: Albert, *CPU* 1.1.7 (ed. Borgnet, 10:374b).

²⁵ That is, that creation occurs, and not a penetration to why, except to say it was God's wisdom and will that it be as it is: Albert, In 1 *Sent.* 44B.2 (ed. Borgnet, 26:392b); *DN* 1.57 (ed. Colon. 37/1:35.45–70).

²⁶ Albert, *Metaph.* 5.1.3 (ed. Colon. 16/1:212.82–216.25).

²⁷ *Ibid.* (p. 213.64–66); cf. *DN* 2.45 (ed. Colon. 37/1:73.41–74.11); 4.31 (137.65–70).

²⁸ *Ibid.* (p. 213.63–80). Cf. In 2 *Sent.* 1A.5 (ed. Borgnet. 27:18b).

defense of God's free and immediate creation of the universe out of nothing,²⁹ Albert gives a similar argument. Efficient causality in nature shows, as Boethius observed, that each thing is composed of distinct principles, called by Albert in the *CPU* "quod est" and "esse."³⁰ Accounting for what a thing is (*quod est*) does not account for the actuality of what-it-is, that is, its being (*esse*). The multiple instances of being (*esse*) must be accounted for, and they must be derived from a first principle of being:

For, as we have said, being, which is the actuality of what-it-is (*quod est*), is led back to something from which it flows, something different from what-it-is (*quod est*). And it can be led back to nothing other than that principle in which being (*esse*) and what-it-is (*quod est*) are the same.³¹

The universe is caused by God:

What has being in act, does not have it of itself, but rather has being from the first being, from which every being which is in act flows.³²

In subsequent chapters of the *CPU* Albert establishes by rational demonstration that God, in whom *quod est* and *esse* are identical, is subject to no diversity, otherness, or change; God is absolutely necessary, with no potency in any way.³³

Albert emphasizes in the *CPU* that God's causing of the universe is *ex nihilo* and without intermediaries. He emphasizes as he did in the *Metaphysics* paraphrase that the argument for a first cause of being requires that the first's causality be a creative act out of nothing. No other principle or being exists to contribute anything to the first's production of its effects. For, no-being, nothing, exists prior to the causality of the first efficient cause of being.³⁴

In the *CPU* Albert makes the case repeatedly that God does not create with or through intermediaries. Albert is convinced reason calls for a hier-

²⁹ See Weisheipl, "Universal Hylomorphism," p. 257.

³⁰ Or "quod est" and "quo est," as in Albert, In 2 *Sent.* 1A.4 (ed. Borgnet, 27:14b) and *DN* 4.14 (ed. Colon, 37/1:123.36–39). See Weisheipl, "Universal Hylomorphism," p. 256; E. Gilson, *History*, pp. 104–105, 291; M.-D. Roland-Gosselin, *Le "De ente et essentia" de s. Thomas d'Aquin* (Paris: Vrin, 1948), pp. 172–184.

³¹ "... esse enim, ut diximus, quod est actus eius quod est, in aliud reducitur quam in illud quod est a quo fluit: nec aliud est in quod reduci possit, nisi in id cui idem est esse quod est. . . ." Albert, *CPU* 1.1.8 (ed. Borgnet, 10:378a). Cf.: "Quarta proprietas aequaliter est, quod primum quod est necesse esse, idem habet esse quod ipsum est. Si enim non haberet idem, sequeretur quod esse suum penderet ad aliud a quo esset secundum causam." c. 10 (pp. 380b–381a).

³² "Omne enim quod ex alio est, aliud habet esse, et hoc quod est: quod enim animal sit animal, vel homo sit homo, quod est pro certo, non habet ex alio; hoc enim aequaliter est, hoc existente et non existente secundum actum. Quod autem esse habeat in effectu, ex se non sibi, sed potius ex primo esse, ex quo fluit omne esse quod est in effectu. Hoc ergo quod est, ab alio habet esse, et illud quod est, et sic esse hoc modo accidit ei, quia ab alio sibi est. . . ." Albert, *CPU* 1.1.8 (ed. Borgnet, 10:377ab).

³³ *Ibid.*, 9–10 (378b–383b).

³⁴ *Ibid.*, 8 (376b).

archy of immaterial causes like Avicenna's hierarchy of intelligences and Aristotle's hierarchy of moved and unmoved immaterial movers, and much of the point of the *CPU* is to defend the reasonableness of this causal chain. But throughout the *CPU*, without fail, Albert emphasizes and reemphasizes that these ordered immaterial intelligences are secondary causes: every being, whether it is cause or effect in the order of beings, is immediately created by God.³⁵ The *CPU* is Albert's extended philosophic defense of God's true creative causality and creatures' true secondary causality.

Before turning from Albert's demonstrations of creation, an important objection must be met, that Albert held that creation is in fact *not* demonstrable because the coming-to-be of matter itself cannot be accounted for rationally.³⁶ The notion underlying this objection is that Albert held matter is not purely potential but has an incipient actuality which does not come from form, an *inchoatio formae* belonging to matter of itself.³⁷ Matter, according to the objection, because of its inchoate form, has its own being which lies outside a causal chain of forms investigated by reason. Creation in Albert's philosophy is indemonstrable, according to the objection. Although a complete investigation of *inchoatio formae* in Albert is not possible here, a few points can be made to remove the objection.³⁸

Albert held that matter of itself has nothing of actuality or form; of itself only pure potency can be said of it. But Albert was sensitive to the flaw in the materialists' position, that change by their principles is really random and by chance: anything can come from any chance thing. A physics which denied any true form or formal cause forced the materialists to this conclusion which absurdly contradicts what observation of the world readily reveals. Things have natures such that not just anything becomes just anything.

However, if matter is pure potency, as Albert holds, then is not anything potentially anything else? It seems Albert must maintain that things do in fact have some determination to certain changes rather than to others; otherwise, Albert's position will be open to the objection that brought down the materialists, that anything can become any chance thing. Albert therefore argues that matter possesses an incipient form, an *inchoatio formae*. But it is crucial to recognize that matter here refers not to prime matter or matter of itself as having any sort of formal determination. Of itself it has none: it is pure potency. Only matter under substantial form possesses an inchoate form limiting its openness to certain kinds of changes. Matter's determina-

³⁵ For example, *ibid.*, 2.3.4–11 (552a–560a); 2.1.6 (444ab).

³⁶ Lawrence Dewan, "St. Albert, Creation, and the Philosophers," *Laval théologique et philosophique* 40 (1984) 295–307.

³⁷ Bruno Nardi, "La dottrina d'Alberto Magno sull'*Inchoatio formae*," *Rendiconti della classe di scienze morali, storiche e filologiche*, Accademia dei Lincei, 6.12,1–2 (1936) 3–38; repr. Nardi, *Studi di filosofia medievale* (Rome, 1960) 69–101.

³⁸ Albert, *De gen.* 1.1.21 (ed. Colon. 5/2:128.18–129.3); *Metaph.* 11.1.8 (ed. Colon. 16/2:468.47–471.64); c. 5 (464.48–465.50); c. 1 (461.68–82); *DN* 4.147 sol., ad 3 (ed. Colon. 37/1:234.47–53, 69–78); 2.23 (58.39–50).

tion comes from form. Indeed, it is the composite that has the potency to only certain forms. Pure matter, matter of itself, nowhere exists: always matter is conjoined with some form, or it is nothing.

My response to the objection, then, is that it fails by attributing to Albert an opinion not his. But even if it were correct in its attribution, the objection would still fail, because Albert's argument for creation is based on the need for a first cause of being. Matter has being, whatever *inchoatio formae* indicates, and so it too is led back to a first efficient cause of its being.³⁹

IV

The question, then, of creation *ab aeterno* in which *ab aeterno* means "without a cause" can be philosophically determined: natural reason demands creation.⁴⁰ But what of creation *ab aeterno* in which *ab aeterno* refers to a created world with no first moment of its existence? Throughout his academic career Albert saw that there is no physical argument that can settle the issue of a first moment, and generally metaphysical arguments fail to do so.⁴¹ Only one metaphysical argument which analyzed the very meaning of creation as God's making something after nothing (*esse post non-esse*) had the possibility of answering the question. Early in his academic career Albert seems to have thought that creation, because it is an origination, required a first moment of the universe; later, having rethought creation, he concluded that the argument has no force and that philosophy neither proves nor disproves a first moment of the created universe.

From the beginning of his academic career to the end Albert accepts that creation can be described as making something after nothing: *faciens aliquid post nihil*. He read this description in some of his Christian predecessors and in Avicenna's *Liber de philosophia prima*.⁴² We have seen Albert's argument that creatures of themselves are nothing and are out of nothing. The word "after" seems to emphasize that there is no potency or substrate prior to the creative act: that is, creation is not a natural change. However, in the *Sentences* Commentary Albert seems to attach not just a logical but a temporal meaning to *post* in *aliquid post nihil*. Created things must be preceded by

³⁹ Albert, *CPU* 1.1.11 (ed. Borgnet, 10:385ab).

⁴⁰ For another way of arguing to God as creator see *De XV prob.*, q. 5 (ed. Colon. 17/1:37.14–38.28, esp. 38.5–28); Weisheipl, "Aquinas' *De aeternitate mundi*," pp. 244–245.

⁴¹ Physical arguments: e.g., an eternal world in some way results in an actual infinity; metaphysical arguments: e.g., time in an eternal world would be a measure comparable to God's eternity. Albert, In 1 *Sent.* 46B.1 (ed. Borgnet, 26:390b–391b); In 2 *Sent.* 1B.10–11 (ed. Borgnet, 27:24a–31b); *Phy.* 8.1.1 (ed. Borgnet 3:522a–523b); c. 4 (530b–532a); c. 12 (547a–549b); c. 14 (553a–555b); *De XV prob.*, q. 5 (ed. Colon. 17/1:37.14–18).

⁴² Avicenna, *De philosophia prima* 6.2; ed. van Riet: 303.63–74, 305.85–94; on the Christian background see Weisheipl, "Aquinas' *De aeternitate mundi*," pp. 258–263.

nothing, they must have begun sometime (*aliquando*), they must happen anew (*noviter*).⁴³

This position in the *Sentences* Commentary is difficult. What sort of temporal measure can commonly embrace nothing and the material world? Time is a measure of material existence alone; nothing is nothing, and it cannot be measured. How can we speak of nothing as *being* before something? Albert seems in the *Sentences* Commentary to have been mistakenly thinking of the metaphysical act of creation as a physical change, in which “after”—something after nothing—has a temporal meaning.

Certainly by the time of the *Metaphysics* paraphrase (c. 1265) Albert had determined that “after” in the description of creation was to be taken logically but not temporally to mean that apart from God’s causality things are nothing. At the end of the *Metaphysics*’s argument for creation out of nothing which we discussed above, Albert asks whether a thing’s being made out of nothing means necessarily that it begins “now for the first time and not before,” or whether it means simply that it is completely caused by another. Albert’s unequivocal answer is that “even if we suppose the being never began but always was, still it follows that it is from another <that is, God>, and it is out of nothing.”⁴⁴

V

I have argued that Albert divided the question of whether the universe is eternal into two questions, whether the universe is created and whether the created universe must have had or must have been without a first moment of

⁴³ For example, Albert, In 2 *Sent.* 1A.3 ad 1 & 4 (ed. Borgnet, 27:12ab); art. 6 sol., ad 2, 4 & 5 (20ab).

⁴⁴ “Amplius, si etiam supponamus, quod hoc esse numquam incepit, sed semper fuit, nihil minus sequitur ex dictis ipsum et ab alio esse et ex nihilo esse.” Albert, *Metaph.* 5.1.3 (ed. Colon. 16/1:213.89–214.11); cf. 11.2.2 (484.98–485.31); c. 3 (486.36–53); c. 20 (507.77–508.15,62–74); *CPU* 1.1.8 (ed. Borgnet 10: 376a–378a). Perhaps Albert recognized that “after” indicates non-temporal and not temporal precedence long before the *Metaphysics* paraphrase, perhaps from his comparison of time and eternity in *Physics* 4.4.1–5 (ed. Colon. 4/1:293–300). “Non autem nos aliquis existimet ita loqui de proprietate motus, quod putemus Deo esse motum coaeternum, sed potius ita ut probare velimus nullum fore tempus in futuro, in quo non futurus sit motus, et nullum fuisse tempus in praeterito, in quo non fuerit motus. Secundum quem sensum etiam Boetius in *V Consolationis philosophiae* mundum dicit semper fuisse, nec Deum praecedere mundum tempore, sed aeternitate. Cum autem constet etiam secundum dicta Peripateticorum Deum esse ante mundum aeternitate et causa, per hoc quod dicitur Deus praecedere mundum duratione, cum aeternitas duratio quaedam sit indeficiens, et omnino immutabilis. . . . Sequitur igitur inevitabiliter, quod cum Deus aeternitatis duratione praecedat mundum, quod aeternitas ejus dicat nunc indivisibile aeternitatis quo sine principio esse praecessit mundum. Et hoc ipsum quod dicimus ipsum praecedere mundum, non dicit spatium magnum vel parvum anni vel diei alicujus temporis, sed potius ordinem aeternitatis ad tempus, et causae ad causa <tu> m.” *Phy.* 8.1.1 (ed. Borgnet 3:522ab). *Duratio* is a quasi-generic term applicable to time, eviternity, and eternity; saying that the created universe has a beginning of its duration means only that the universe is created, not that it necessarily had a first moment: *Phy.* 4.4.1–2 (ed. Colon. 4/1:293–296); *Phy.* 8.1.12 (ed. Borgnet 3:548ab); c. 13 (552b). See also Albert, *DN* 2.46.ad 4 (ed. Colon. 37/1:74.35–38); 4.9.ad 7 (118.75–119.17).

its existence. To answer these questions Albert gave great attention to the views of the preeminent philosophers, and from them he learned much, but in none did he find both questions adequately answered. On each of these difficult questions his thought developed, from the position that creation cannot be demonstrated but that the first moment of a created universe can be to the position that creation can be demonstrated by natural reason but that its first moment can be neither proved nor disproved.

Albert treated the problems of creation and the eternity of the world as properly metaphysical problems. The philosophers' errors arose from their misapplying in one way or another principles of their natural philosophies to the problem of creation. Albert's understanding of creation was clarified only by metaphysical studies late in his career; we find his own philosophical examination of creation in the paraphrases of the metaphysical works. Albert always saw Aristotle as pointing the way, even though Aristotle himself never came to a conclusion for or against demonstrating creation. Aristotle did demonstrate with certainty that the origin of the universe was not a natural event following natural laws. Creation is a metaphysical problem.⁴⁵ True philosophy, Albert argued, demonstrates the complete dependence of the universe on God's freely chosen creative act.

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⁴⁵ There is, of course, no sound metaphysics where there is not sound natural philosophy, as Father Weisheipl cogently argued throughout his career. See the article by Father Benedict Ashley, OP, in this volume.

Aquinas and the Children of Abraham

Edward A. Synan

Our focus here is on the ways in which Brother Thomas Aquinas attempted to clarify biblical references to “the children of Abraham” within the context of related Christian beliefs. Among the means he employed to this end was the best biology of human reproduction known to the thirteenth century; this was the biology of Aristotle. Since Aquinas was notably reserved on the ultimate validity of physical science (for he saw such science as no more than a progressive effort to “save the appearances”) it is of interest to know why he felt he could put his trust in this phase of Aristotelian science.

The career of James A. Weisheipl, OP, was marked by passionate devotion to the problematic of medieval scientific conceptions as well as to the theological traditions of his Church and Order, the Thomistic tradition pre-eminent in both. Hence this theme is peculiarly appropriate in a volume dedicated to the memory of this colleague and friend.

Church teaching holds that both Jews and Christians are children of Abraham, but in diverse ways.¹ Paul the Apostle is at the source of this

¹ “Modus autem originis <quo> nascuntur filii Abrahae, est duplex: quidam origine carnali, sicut Ismael de ancilla; quidam autem non carnali origine, sicut Isaac de libera . . . duplex populus . . . nam per Ismael intelligitur populus Judaeorum, qui carnali propagatione est ab Abraham derivatus; per Isaac autem populus gentium, qui per imitationem fidei ab Abraham descendit. . . .” *In epist. ad Galatas* 4.9; *Omnia opera* (Paris: Vives, 1871–1880), 21:234.

Christian insight. Abraham had a son by a slave-girl and a son by a free-born wife, the first in accord with nature, the second by a miraculously fulfilled Promise. The first was paralleled by the allegory of Sinai, mountain of the Law, figure of the earthly Jerusalem; the second, prototype of the heavenly Jerusalem (Gal 4:22-28).

As a Christian theologian, Aquinas accepted this Pauline "allegory": Ishmael was a figure of the descendants of Abraham according to the flesh;² taken "according to the letter" the children of Abraham's flesh are the Jews, yet it may be observed that for thirteenth century Christians Paul's reference to Ishmael must have evoked Islam. Aquinas held that the same passage, taken "mystically," refers (if the received text be reliable) to those "who, on account of carnal and temporal goods, come to the Faith."³ It is all but certain that some limiting phrase is missing from this puzzling sentence. Perhaps the felicitous result of "the carnal" and "the temporal" was qualified by the perceived insufficiency of goals so finite. This is not the only passage from a *reportatio*, from a hearer's report of a lecture by the Master, in which the language reported lacks the clarity Aquinas achieved in works he prepared for public circulation (see note 1 above).

An exposition of Paul's reflections on the mysterious carnal descent from the great Patriarch imposed upon Brother Thomas the task of showing that this understanding is compatible with a number of Christian dogmas. In particular these are the virgin birth of Jesus, the transmission of original sin to all humans, Jesus only excepted (for Aquinas anticipated neither the theological claim of John Duns Scotus nor the decree by Pope Pius IX that the mother of Jesus too was exempt from that otherwise universal human burden),⁴ and consequences of original sin that are visible in rites connected with Abraham. Such were "tithing in the loins" of Abraham from which, Aquinas argued, Jesus was exempt, but also the ritual of circumcision which Jesus had undergone. If bound by one, why not by both?

Beneath the reconciliation of progeny of Abraham lies his understanding of what a biological father must be.

The unique place held by Abraham in the eyes of Jews, Christians, and Moslems was among the recurrent themes of Aquinas. Both the earliest and

² This startling association was, as Paul well knew, the reverse of the standard Jewish conviction that Isaac was the son of Abraham through whom they descend. See note 3 in which Aquinas conceded that this is the "literal" interpretation whereas the allegory of Paul is a "mystical" reading.

³ "Sed nota quod filii carnis Abrahae ad litteram sunt Iudaei; mystice autem qui propter carnalia et temporalia bona ad fidem veniunt." *In epist. ad Galatas* 4.9; 21:234 ad pedem.

⁴ "... Beata Virgo fuit in originali [peccato] concepta, fuit in Abrahae sicut curatione indigens. Et ideo fuit ibi decimata, velut descendens secundum seminalem rationem. De corpore autem Christi non est sic. . ." ST 3.31.8.ad 2; Piana ed., 4:261b. For Duns see *Theologiae Marianae elementa*, ed. C. Balic, OFM (Sibenik: Kacic, 1933), pp. 17-54; for a more accessible edition, see *Opus Oxoniense* 3.3.1; *Opera omnia*, "Wadding edition" (Paris: Vives, 1891-1894), 14:159-176; for definition by Pius IX in 1854 see: Denz., ed. 36, no. 2803, p. 562.

the last of his theological syntheses took cognizance, for instance, of arguments proposed against the propriety of praying in the very canon of the Mass that this sacrifice of the New Law might be accepted as the sacrifices of Abel, of Abraham, and of Melchisedech had been accepted. How could those foreshadowings of the unique and sufficient sacrifice of Calvary, renewed in the Christian Mass, function as a norm for their own fulfillment with the implication that the shadow set a standard for the substance? We may note that the invocation with which Aquinas was familiar is still to be found in the post-Vatican II "Canon I."

Brother Thomas responded to this argument in an ultimately identical fashion both in the early *Scriptum super Sententias* and in the late *Summa theologiae*. Those rites are adduced, less because they prefigure the sacrifice of Calvary, than because of the devotion of the three Old Law figures who performed them.⁵ A single variation between the two discussions is that, in the earlier work Aquinas followed the text of Peter Lombard, Book 4, Chapters 6 and 7, by invoking the *sacramentum et res* formula to account for the multiple figures that refer to a single reality, to Jesus "who offers himself to the Father for us." The presentation in the *Summa*, although very extended, an exposition, section by section, of the total eucharistic text, no longer includes the *sacramentum et res* terminology, but still refers, as did the *Scriptum*, to the devotion of the three Old Testament figures.

Abram/Abraham's role as biological father of a multitudinous progeny (Gn 12:2, 13:14-16; 15:4,5; 22:16-18; 26:4) posed a number of exegetical enigmas which stem from the fact that one of his progeny is the sinless Jesus (Heb 4:15) whereas Abraham himself, as well as the rest of our race, descended from Adam through whom sin had entered human history (Rom 5:12-15). Furthermore, in what sense could Abraham have been at once the "father" of those who accept, and of those who reject, the mission of Jesus as Messiah? Apart from that fundamental question, the biblical chroniclers of Abraham did not shrink from recording in his regard moral ambiguities of the most disturbing sort. Chief among these was his readiness to sacrifice the life of the innocent Isaac (Gn 22:1-18). This episode was for the believing Kierkegaard the very figure of our primal anguish,⁶ whereas for the unbelieving Sartre it was no more than an epistemic conundrum, badly handled by the Patriarch: Abraham ought to have known that no true "messenger" of the

⁵ "Ad sextum dicendum quod . . . plures figurae materialiter, tamen omnes ad has reducuntur . . . illud quod est res et sacramentum. . . . Vel dicendum quod . . . patet de oblatione Melchisedech, qui panem et vinum edendum obtulit Abrahae. . . . Fit autem in canone Missae mentio de oblatione Abrahae et Abel, magis propter devotione offerentium quam propter figuram rei oblatae." *Scriptum super Sententias* 4.8.1.2.q1a, ed. M. F. Moos O.P. (Paris: Lethielleux, 1947), 4:315; ST 3.83.4.ad 8; ed. Piana, 4:3030b, uses the phrase: "ex devotione offerentium, sicut illa accepta fuerunt Deo."

⁶ See Søren Kierkegaard, *Fear and Trembling*, tr. W. Lowrie (Garden City: Doubleday Anchor Books, 1954), his extended meditation on the episode.

Holy One could have given so outrageous a command.⁷ Almost as grievous was Abraham's dissembling in Egypt on the marital status of Sarai/Sara (Gn 12:10–20) and the doublet that records the same manoeuvre in the Negev (Gn 20:1–18). On less stringent ethical ground, the wealth of Abraham might have been thought a mark of imperfection from the standpoint of a mendicant friar, vowed to poverty for the sake of the Kingdom. Could this rich man pass through the Gospel's "eye of a needle"? From the same perspective the questions raised by Abraham's multiple wives and concubines (Gn 11:19; 25:1,6), to say nothing of his harshness toward Hagar (Gn 16:6; 21:14) and of his having taken her with the connivance of Sara (Gn 16:3,4), all might conspire to disenchant a Christian who esteemed and practiced a consecrated celibacy. That all these considerations seemed to Brother Thomas worthy of examination is evident from the fact that he scrutinized them all.

As for the readiness of Abraham to sacrifice Isaac, one need not be an atheist to think that this might argue a lack of discretion in the one who did not think twice before following so improbable a command. Neither need we possess the poetic and mystical resources of Kierkegaard to feel the elemental anguish of the event. Brother Thomas took neither line. He was content to appeal to the absolute sovereignty of the Holy One, unrivaled Master of Death and Master of Life.⁸ Normally, to be sure, the killing of an innocent and especially an innocent son would be a deadly sin; ordered by the Lord, it is licit.⁹ Anyone can be killed at the command of the Lord and the same is true of other crimes as well: adultery, fornication, theft.¹⁰ We are not so much in the problematic of Plato's *Euthyphro*, in which human doings might be good or evil according as the gods do or do not love them, as in a world in which the Creator can intervene, even against what is right or wrong by deduction from prescriptions grounded in created nature.

As for the occasions when Abraham claimed that Sara was not his wife but his sister, Brother Thomas adverted to the issue in the *Summa theologiae* when he discussed whether every lie is a sin. On the same issue in the *Scrip-*

⁷ Jean-Paul Sartre, *Existentialism*, tr. B. Frechtman (New York: Philosophical Library, 1947), pp. 22–24 (also translated under the title: *What Is Existentialism?*), which makes mention of Kierkegaard's concern with Abraham; it is a curiosity that Sartre speaks of an "angel" who "has ordered Abraham to sacrifice his son. . . . But everyone might first wonder, 'Is it really an angel, and am I really Abraham? What proof do I have?'" a somewhat skewed memory of the account in Genesis.

⁸ ". . . praeceptum . . . non fuit contra iustitiam, quia Deus est auctor mortis et vitae." ST 2–2.104.4; 3:1968a.

⁹ "Quantum autem ad secunda praecepta . . . sic lex naturalis non immutatur quin ut in pluribus sit rectum quod lex naturalis habet. Potest tamen mutari et in aliquo particulari . . ."; in the response to the second preliminary argument this exception is sustained in this case: ". . . absque aliqua iniustitia, secundum mandatum Dei, potest infligi mors cuicumque homini, vel nocenti vel innocenti." ST 1–2.94.5.ad 2; 2:1229a; *Quaestio disputata de potentia* 1.6.ad 4: ". . . licet occidere filium innocentem de se sit peccatum mortale, tamen si hoc fiat ex praecepto Dei propter finem quem Deus praevidit et ordinavit, licet"; *Omnia opera* (Paris), 13:16.10.

¹⁰ ". . . ad quamcumque mulierem aliquis accedat ex mandato divino, non est adulterium nec fornicatio. Et eadem ratio est de furto." ST 1–2.94.5.ad 2; 2:1229a.

tum, although he did not adduce Abraham, he did deal with the general problem of biblical accounts of what seem "at first sight" (*primo aspectu*) to have been lies. His solution in both places was indebted to Saint Augustine. Such scriptural passages, the Bishop of Hippo had claimed, were efforts "to conceal a truth, not to speak a lie"; in a treatise on the moral evil of lying Augustine explained that such apparent lies "ought to be understood as pronounced 'figuratively' and 'prophetically.'" ¹¹ Augustine did not fail to provide some close reasoning, fully justified by the text of Genesis, on why it was not untruthful for Abraham to have called Sara "my sister": she was the daughter of his brother (Gn 11:26-31).¹²

The enormous possessions held by Abraham were treated by Aquinas in as flexible a way as he had dealt with the Patriarch's *prima facie* crimes. With an immediacy that surely stems from the lecture-hall, Brother Thomas likened the wealthy state of Abraham to that of King Louis IX of France (1214-1270) who now is venerated as a canonized saint. Neither the King nor Abraham was barred from sanctity by wealth: Rich *in actu* 'in fact,' but not *in affectu* 'in affection' for their possessions, the scriptural verse that meets their case is "Blessed are the poor in spirit" (Mt 5:3) rather than "It is easier for a camel to pass through the eye of a needle . . ." (Mt 19:24).¹³

To the accounts of Abraham and his concubine, Hagar, Aquinas added comparable attachments in the careers of the pious and moral Jacob as well as in that of the impious Judah. Abraham and Jacob he exonerated from the charge of fornication on the ground that their intention had been "not to approach the servant-girls as it were for a lying together in fornication since, as will appear below, matrimony was at stake." As for Judah, there was "no necessity to excuse" one who had sold his brother Joseph.¹⁴

Aquinas defended Abraham against all charges and repeatedly paraphrased¹⁵ the judgment of Augustine (which he had found in the *Sentences* of

¹¹ " . . . quidquid gestum est, figurate accipi potest, quamvis reuera contigerit: quidquid autem figurate fit aut dicitur, non est mendacium . . . unde . . . illos homines, qui prophetis temporibus digni auctoritate fuisse commemorantur, omnia, quae scripta sunt de illis, prophetica gessisse atque dixisse. . . ." *De mendacio* 7 (CSEL 41:421; see PL 40:492).

¹² Although Augustine here pressed the terminology of Genesis, the terms are there to be so pressed and Aquinas felt secure in following his lead; see ST 2-2.110.3.ad 3; 3:1995b, 1196a.

¹³ Commenting on Mt 5:3: "Beati pauperes spiritu" etc., Aquinas wrote: "Tamen aliquis est dives actu, sed non affectu: et hic potest esse sanctus, sicut Abraham et Ludovicus rex Franciae. Alius est dives actu et affectu: et hic non est sanctus. De hoc dicitur Mt 14:14: 'Facilius est camelum intrare' etc." *In psalmum 48; Omnia opera* (Paris), 18:527.

¹⁴ "Ad 3. Dicendum quod Abraham et Iacob ad ancillas accesserunt non quasi fornicario concubitu, ut infra (Suppl., 65, 5, ad 2) patebit cum de matrimonio agetur. Iudam autem non est necessarium a peccato excusare, qui etiam auctor fuit venditionis Ioseph." ST 2-2.154.2.ad 3; 3:2173a.

¹⁵ *Scriptum* 1.15.5.2; 4.33.3.3; *In evang. Matt.* (Paris), 19:396 and 509; to cite one instance from so many: "Sed numquid omnia opera Abrahae debemus facere? . . . omnia opera eius non sunt imitanda . . . secundum radicem eorum, et sic opera Abrahae imitanda sunt: quia quidquid fecit, ex caritate fecit. Unde dicit Augustinus, quod caelibatus Joannis [Baptista] non praefertur coniugio Abrahae, cum eadem fuerit radix utriusque." *Super evang. Ioannis*, ed. R. Cai (Turin-Rome: Marietti, 1952), no. 1225, p. 228.

Peter Lombard) to the effect that the celibacy of John is not preferred to the married state of Abraham, with the nuance that both saints "served God in accord with the state of each one's time."¹⁶ This did not mean that the New Testament is not an advance over the Old Testament from the point of view of the "state of nature at that time" for "the price of our redemption had not yet been paid" in the days of the Patriarch. Still, "personal grace for personal grace" servants of God under the Old Law were "as abundantly endowed as those of the New Testament, for many, more, for many, less."¹⁷ His own celibate state, and that of his students at Saint Jacques or at Santa Sabina did not prevent his giving full value to the married state. Nor did Brother Thomas fail to defend the state of virginity as "much higher" than the state of marriage.¹⁸ In general, however, the "doings of Abraham ought to be imitated because, whatever he did, he did out of disinterested love, *ex caritate*"; Augustine was right to have said that the "celibacy of John and the married state of Abraham had the same root."¹⁹

This rapid survey of the ways in which Brother Thomas Aquinas came to terms with exegetical difficulties in biblical accounts of Abraham has indicated both strengths and limitations in the Common Doctor as a Master of the Sacred Page.

The most important of the first was his reasoned conviction on natural as well as on credal grounds that our world is real, good, and intelligible in principle. A consequence of this is that we can hope to know at least something of the cosmos for what it is. Was this basic grasp of reality confined to logic and metaphysics and theology, or, did it include a useful, if imperfect, knowledge of nature?

As for the biblical basis of Christian belief in every age the most fundamental of all, Aquinas added to his inborn talents the advantage of an excellent education in the Latin tradition of the liberal arts, received from the Benedictines at Monte Cassino and reinforced at the University of Naples. These combined to result in a formidable capacity to extract meaning from

¹⁶ Aquinas made this point in two of the texts cited above, *Scriptum* 4.33.3.3: "... quia ex aequali promptitudine serviebat Deo secundum statum sui temporis" thus made Abraham's married state equal in merit to that of the New Testament John the Baptist; in the commentary on the Gospel according to Matthew, p. 509: "... quid est quod dicit: *Qui potest capere capiat?* Aut enim potentia naturae; et sic nullus potest: aut potentia gratiae; et sic quilibet potest ... vel conditionis temporis, ut Abraham: unde coelibatus Joannis non praefertur conjugio Abrahae. Item secundum conditionem: quia qui conjugatus est, non potest continere: unde excluduntur vel ratione temporis vel conditionis."

¹⁷ "Ad secundum . . . sancti Veteris Testamenti dupliciter possunt considerari: vel quantum ad gratiam personalem . . . aequae plenam his qui sunt in Novo Testamento, et multo plus et multis minus; vel secundum statum naturae illius temporis . . . nondum soluto pretio . . . ut non ad eos ita plena missio fieret, sicut fit in Novo Testamento." *Scriptum* 1.15.5.2.ad 2; 1:361.

¹⁸ "Ad sextum dicendum quod quamvis status conjugii consummati sit bonus, tamen status virginittatis est multo altior. . . ." *Scriptum* 4.30.2.3; ed. Paris, 11:115.

¹⁹ See above, note 15 ad pedem.

the most impenetrable Latin texts and the version of the Bible current in his circle was the Latin "Vulgate."

Still, the state of theological education in his time and place precluded his knowing any biblical language and this in spite of the priority granted the Bible over any and all nonbiblical sources. Without suggesting that thought is not more fundamental than words, his innocence of Hebrew made the Hebraic mind-set of scriptural authors alien to him, as it was to his liberal arts training. This led him on occasion to bring biblical sources under a systematization in a spirit foreign to them²⁰ and made him a victim of what Peter had noted (2 Pt 3:15,16) is the difficulty of Paul's writing, even for Jewish readers. It has already been noted that this same Paul, above all others, had provided inspired, but enigmatic, reflections on Abraham, on circumcision, on Mosaic Law and on rabbinic precepts, on faith in Jesus as Messiah, that challenge every generation of exegetes. Since our interest here will be primarily in the use Aquinas made of the biological science available to scholars of his time, it is essential that we advert to certain of his general principles for the use of such science. The subject is far from simple and it would be easy to think him inconsistent.

First, as is well known, Aquinas was more than reluctant to credit physical science, astronomy in particular, with more than temporary and tentative validity. The role of physical science was no more than "to save the appearances," that is, to take into account all relevant empirical data and to contrive consistent theoretical explanations of those data, but always recognizing that better explanations may lie in the future. Hence his much quoted aphorism on a point in astronomy: The Aristotelian explanation is valuable, but not necessarily "true": "Perhaps stellar appearances are saved according to an explanation other than this, an explanation not yet grasped by men."²¹

This disclaimer can be pressed too far. We may assume at once that it echoes the Philosopher's own reluctance to grant full scientific status to our knowledge of singulars, conjoined with his efforts to give universal and necessary causal accounts for incontrovertible, but singular, facts. The line cited from Aquinas refers to just such efforts. What is more, Thomistic discussions of the "heaven" of astronomy reveals that, like Moses ben Maimon, Brother Thomas freely adopted non-Aristotelian, Islamic theories, notably those of Avicenna, on what may lie above the sphere of the moon.²² Aquinas referred to the "eighth sphere" from Avicenna's series of ten as to an established en-

²⁰ E. A. Synan, "Some Medieval Perceptions of the Controversy on Jewish Law," in *Understanding Scripture*, ed. C. Thoma, M. Wyschogrod (New York-Mahwah: Paulist Press, Stimulus Book, 1987), pp. 102-124, esp. pp. 116, 117.

²¹ Aquinas, *In De coelo* 2.12.17.2; ed. Leon. (Rome, 1886), 3:186, 187.

²² "Everything that Aristotle has said about all that exists from beneath the sphere of the moon to the center of the earth is indubitably correct. . . . On the other hand, everything that Aristotle expounds with regard to the sphere of the moon and that which is above it is, except for certain things, something analogous to guessing and conjecturing. . . ." *The Guide of the Perplexed*, tr. S. Pines (Chicago-Toronto: University of Chicago-University of Toronto Press, 1963), 2.22; pp. 319, 320; cf. 2.24; p. 326.

tity whereas Aristotle had stipulated 47 or 55 spheres with an equal number of “principles” (*Metaphysics* 12.7 [1072b13–1073a13]). He conceded, therefore, a post-Aristotelian, not to say an anti-Aristotelian theory “to save the appearances.” If he was unwilling to grant astronomical theory the status of “science” in the strictest sense—demonstrated knowledge not only of a fact, but of the necessary cause that entails a fact (*Posterior Analytics* 1.2 [71b9–12])—this does not mean that he gave natural science no value at all.

Another perspective is visible in an even better known aphorism from the Philosopher that “a small error in the beginning” (he was speaking of an error in an astronomer’s sighting), a few degrees at the point of observation would inevitably mean an enormous missing of the mark when extrapolated to a star or planet, all of them far distant from earth, even in the limited cosmos of the Greeks and medievals. Aquinas has made this observation his own by citing it in the first line of his early metaphysical essay *On Being and Essence*.²³

A line in his *Summa contra gentiles* 3.57, might seem to be in contradiction to this, but in fact is not. Brother Thomas there claimed that “astrologers,” we should say in the twentieth century “astronomers,” legitimately consider sightings taken from various points on the surface of our globe “as if” they had been taken from the center of the earth, even when protracted to the “eighth sphere.”²⁴ Here the case is different. The error entailed by taking such a point as if that point were the center of the earth’s globe is not “an error in the beginning,” but an error at the end: the point of origin of the line that forms an angle as against the true transit from a point on the eighth sphere to the center of the earth is a point on the sphere, not on the surface of the earth. The error in the end (on the earth) is an error indeed, but not a considerable one.

What is relevant here, however, is not the compatibility of the two texts on the geometry of the cosmos, but the characteristic effort of Aquinas to explain the mysterious by analogy with the familiar. His reference to the sightings of astronomers, as if from the center of the globe, was an effort to render intelligible his theological position that the Infinite God bridges “as if it were nothing” the finite distances between various created intelligences, between the highest angel and the least gifted human. Such a “distance” is but finite; no mind is too weak to be elevated by the grace of the Holy One in order to render that mind capable of “seeing” God.²⁵

²³ Aristotle, *De coelo* 1.5 (271b8–13).

²⁴ “. . . distantia quae est inter centrum terrae et visum, est quasi nihil in comparatione ad distantiam quae est inter visum nostrum et octavam sphaeram, ad quam tota terra comparata obtinet locum puncti; et propter hoc nulla sensibilis variatio fit per hoc quod astrologi in suis demonstrationibus utuntur visu nostro quasi centro terrae. . . .” SCG 3.57; Leon. ed. (Rome, 1934), manual ed., p. 289.

²⁵ “Distantia igitur quae est inter infimum intellectum creatum et supremum, est quasi nihil in comparatione ad illam distantiam quae est inter supremum intellectum creatum et Deum. . . . Nihil ergo differt quicumque intellectus sit qui ad Dei visionem per lumen praedictum elevetur, utrum summus, vel infimus, vel medius.” *Ibid.*

A source of difficulty for moderns is that efforts by Aquinas to illumine obscure theological or philosophical insights with illustrations drawn from the natural science of his time become for a modern reader so many further puzzles to be solved. A particularly awkward instance of this is the use he made of "fire" in his famous "fourth way" to demonstrate that there is and must be what "all men call 'God.'"²⁶ To help us see that "more" and "less" entail that there must be a "most," Aquinas adduced a remark of Aristotle on fire: "What is said to be of a certain sort in any general class of things to the maximum degree '*maxime*' is the cause of all things that are in that general class, as fire, which is maximum heat, is the cause of all things that are hot" (*Metaphysics* 2.1 [993b23–31]). The argument of the "fourth way," obscure in itself, is hardly elucidated by this reference to the elemental "fire" of the classical physics; we have heard of the temperatures at the core of a star and find it hard to think of the Aristotelian-Thomistic "fire" as "maximum heat."

Against this conception of natural science and its limitations must be set the confident use Brother Thomas made of Aristotelian biology. For here we are faced by Aquinas with a portion of thirteenth century science which in substance is that of the Philosopher with a single minor variation in terminology, borrowed from Augustine directly and indirectly from Stoicism. With this biological analysis, Saint Thomas hoped to ease perplexity in the presence of the great mystery of Jesus. Brother Thomas understood that the claim of Christian tradition, namely, that the conception of Jesus was virginal, a unique instance of parthenogenesis, challenged the biological experience that a male intervenes in every instance of normal conception.

In Aristotle, however, pagan though he was and thus innocent of speaking to a Christian brief, Aquinas found a biology of human conception that can support Church teaching on the point. Indeed, the "opinion" of the Philosopher Brother Thomas did not hesitate to write, "can 'save' the Virgin's giving birth in a most appropriate way '*convenientissime*.'"²⁷

From the point of view of the matter involved in the generation of a new human, this biology ascribed everything to "the blood of the menses" and represented the function of the male seed as that of—what? Occasion? Condition? Circumstance? For Aristotle the semen is an "active principle."²⁸ In Christ, therefore, as in other humans, blood, prepared thanks to the generative power of the mother, is the matter from which the new body is formed

²⁶ ST 1.2.3c; 1: 14b; see Aristotle, *Metaphysics* 2.1 (993b24–25).

²⁷ "Et secundum hanc Philosophi opinionem convenientissime potest salvari partus Virginis, si ad conceptionem humani corporis non nisi sanguis mulieris materialiter requiritur: non enim credendum est quod materiae corporis Christi, quod sine semine viri conceptum est, aliquid defuerit quod materialiter ad formationem humani corporis requiratur . . . ideo materia ex qua corpus formatur, et in Christo et in aliis hominibus est sanguis per virtutem generativam matris praeparatus." *Scriptum* 3.3.5.1; 3:142.

²⁸ "Ad primum ergo dicendum quod secundum Philosophum in xv et xvi *De animalibus* [*De generatione animalium* α. 20.727–729; β. 1.731–]. Illud quod a viro emittitur non efficitur materia in generatione, sed tantum activum <principium>."

under an actualizing power, normally, but not in this conception, of male semen.

All the reservations of Brother Thomas on science are visible in his encomium of Aristotle's venture into the biology of human reproduction. It is an "opinion" and its success is in "saving" a mystery that had "appeared" in traditional Church teaching. Brother Thomas was choosing the best hypothesis available to him, but not giving the palm of scientific demonstration to the Philosopher's biological speculations.

Aquinas was solidly opposed to any gnostic diminution of the human and corporeal reality of Messiah. The Son of God is also an authentic Son of Man. The gnostic claim that Messiah possessed a "celestial" body²⁹ and that he had taken nothing from that daughter of Abraham, Isaac, and Jacob, who was his mother, counted in the judgment of Brother Thomas as a twofold violation of the Christian faith for it derogated from the truth of Scripture and from the truth of the humanity assumed by the Eternal Word. If Jesus were truly human, then he must have possessed a fully human body "since the body is an essential part of a human." The Jesus of gnostics would be "human" only by equivocation.³⁰ Like the painted eye and the corpse of Aristotle (*De anima* 2.1 [412b20–22]; *De interpretatione* 11 [21a22–24]) the "man" whose body is no more than "celestial" is not properly called a "man."

In his *Scriptum* on the *Sentences* Aquinas had been firm both on what it is to be human and on the fact that Jesus was fully human. A human being is not a soul, but a conjunct of soul and body; the soul of Abraham, properly speaking, was not Abraham himself.³¹ True enough, had the Word assumed an angelic nature "this would have been on account of the dignity of that nature," but this the Word had not done. Instead, the Word assumed "only the seed of Abraham, that is, human nature, not an 'ideal' one, but an individual, atomic one, and that from the seed of Abraham."³²

Simply to qualify Jesus as "Son of David, Son of Abraham" is to exclude all historic errors with respect to his humanity. To be a "son" evokes a univocal generation in accord with a coming together in one species, one special class, of all its members; whatever does not thus come together in the human species, even though generated "from a human being" (*generetur ex homine*) is not human. The earthy illustration provided by Brother Thomas is that

²⁹ "Responsio . . . duplex haeresis. Una illorum qui dixerunt corpus Christi non esse formatum ex eodem ex quo alia caro hominum formatur, sed quod Filius Dei corpus caeleste secum attulit; et hoc modo per uterum Virginis transivit, nihil ex ea sumens." *Scriptum* 3.3.4.1; 3:129, 130.

³⁰ "... homo aequivoce diceretur, cum corpus essentialis pars hominis est." *Ibid.*

³¹ "Ad secundum dicendum quod anima Abrahae non est, proprie loquendo, ipse Abraham, sed est pars ejus . . . exigitur vita totius conjuncti, scilicet animae et corporis. . . ." *Scriptum* 4.43.1.1.sol. 1; 5.11:274.

³² "... humanam naturam, non tamen idealem, sed in individuo et atomo, et ex semine Abrahae. . . ." *In epist. ad Heb. 2.4*; Paris ed. 21:598.

this is obvious in the case of "fleas and things of that sort."³³ Because Jesus is Son of David and of Abraham, he has the same nature, is of the same species, has a true and natural body; none of this would have been the case had he taken a body to himself from heaven, had he lacked a sensitive and rational soul.³⁴

This Aristotelian view of human conception was indeed a "most appropriate opinion" for "saving" the Christian tradition on all aspects of the mode in which the humanity of Adam had descended through the generations to Jesus, the exceptional intervention of his virgin mother not excepted. She had provided what a mother described by Aristotle provides: the "corporeal substance" of her child's body.³⁵ In the absence of a human father's forming seed, the active force that made matter provided by Mary to be a true human was "in the conception of Christ, nothing other than the Holy Spirit."³⁶ Because original sin descends through male intervention, despite his true humanity, Jesus was immune to that doleful inheritance. "Christ was in Adam with respect to 'original matter,' but not with respect to the 'seminal nature.'" ³⁷ This ascription of "original matter" to Adam rather than to Eve must reflect the understanding of Aquinas that Eve herself was flesh of Adam, bone of Adam (Gn 2:23). In generations after Adam and Eve Brother Thomas would assign with Aristotle the matter of a new human being to menstrual blood and assign the activating element to male semen. Thus Aquinas could understand the material of Christ's body to have taken its origin from Adam ultimately, rather than from Eve, but proximately from his mother. To the question "was Christ in Adam?" Aquinas gave a qualified answer. The matter of the body of Christ was "in" Adam as in its effective principle of the single specific class, the species which is our human race; he was not "in" Adam "according to determinate matter," that is, any bizarre

³³ ". . . in hoc quod dicitur, Filii David, filii Abraham, omnes errores qui fuerunt circa Christi humanitatem excluduntur. Filius enim non dicitur alicujus aliquis nisi per generationem univocam, quae est secundum convenientiam in specie. Quantumcumque enim aliquid generetur ex homine, nisi participet eandem specie naturam, nunquam dicitur filius; sicut patet de pediculis, et hujusmodi." *In evang. Matt.* 1; Paris ed. 19:230.

³⁴ "Si igitur Christus est filius David et Abraham, oportet eum habere eandem naturam, ratione ejusdem speciei; non autem haberet eandem naturam secundum speciem, si non haberet corpus verum et naturale; nec si illud de caelo attulisset; nec etiam si careret anima sensitiva sive rationali. . . ." *Ibid.*, pp. 230, 231.

³⁵ Here "corporeal substance" translates the Latin "<secundum> corpulentam substantiam"; see *Quaestio disputata de malo* 4, *De peccato originali* 7; Leon. ed., p. 124, l. 55.

³⁶ "In conceptione autem Christi virtus activa non fuit nisi Spiritus sanctus; materia autem est per Virginem ministrata et debito modo praeparata. Unde patet quod originaliter materia corporis Christi descendit ab Adam, non autem ratio activa in conceptione ejus ab Adam descendit originaliter. Et ideo Christus fuit in Adam secundum materiam originalem, sed non secundum rationem seminalem." *Scriptum* 3.3.4.2.resp.; 3:135.

³⁷ Here it may be remarked that Aquinas used the Augustinian-Stoic term "seminal nature" (*ratio seminalis*) very likely because his discussion of issues related to the transmission of human nature from Adam through Abraham and, in the end, through Mary to Jesus depends heavily upon the Augustinian texts on those issues; the text cited above, note 36, is an early instance of this usage for the reality seen above, note 36, as *virtus activa*, supplied in the conception of Jesus by the Holy Spirit, is not by a human father.

notion that a particular quantity of matter in Adam's body had come down through the centuries to appear in that of Jesus must be excluded.³⁸ Neither was Christ in Adam (nor in Abraham) "according to bodily substance" and for that reason Jesus had neither sinned in Adam nor "paid tithes" in Abraham, despite the fact that he was truly human, truly descended from Adam, and truly a "Son of Abraham."

This reference to "tithing in Abraham" evokes the offering of tithes by the Patriarch to the mysterious priest, Melchisedech (Gn 14:18–20), an offering seen as in some way related to sin. This issue that has for practical purposes disappeared from theological discussion in our time was a serious challenge to exegetes in the thirteenth century, for if Jesus were a Son of Abraham, must he not have been in some way involved in that paying of tithes when "in the loins of Abraham"? To pay tithes was taken to be "a cleansing for original sin,"³⁹ as indeed circumcision too was taken to be "a cleansing from original guilt."⁴⁰ Augustine had dealt with this claim by arguing that "because Christ had not sinned in Adam, neither had he paid tithes in the loins of Abraham"⁴¹ and Aquinas was glad to cite his words in a disputed question on original sin.⁴²

But Christ had in fact undergone the rite of circumcision (Lk 2:21); must not the tithing be ascribed to him *a pari*? Brother Thomas denied that there is parity between the two: *non est similis ratio de utroque*. His explanation was that circumcision entails that one actually undergo the rite whereas "to tithe" can be a matter of "prefiguring." Only those who descend from Abraham thanks to the normal "lying together" of parents can be said to have tithed in the actual tithing by the Patriarch. Nor can the argument run in the reverse direction: If Christ had not tithed in the loins of Abraham because tithing symbolized a remedy for original sin, then circumcision, which signifies the healing of the same sin, could not have been appropriate for Christ. Aquinas held that there were "other causes" to justify the circumcision of Jesus.⁴³

Furthermore, two considerations lead to the denial that Jesus had tithed in the loins of the great Patriarch.

³⁸ "Ad secundum dicendum quod materia corporis Christi, non autem ratio conceptionis ejus fuit in Adam; non tamen materia illa fuit in Adam in actu, quasi aliqua determinata pars ejus, sed virtute tantum; sicut res dicitur esse in suo principio effectivo unius speciei." *Scriptum* 3.3.4.2.ad 2; 3:135.

³⁹ "... decima figurabat medicinam originalis peccati. . ." *Scriptum* 4.1.2.2.arg. 2; 4:49, 50.

⁴⁰ "Sed similiter circumcisio, ut dictum est, significat emundationem ab originali. Ergo Christo non competeat." *Ibid.*, p. 50.

⁴¹ See Augustine, *De Genesi ad litteram* 10, 19, and 20 (CSEL 28.1:321–324; PL 34:423, 424).

⁴² Text is that cited above, note 35; the words at stake here are: "Set contra est quod Augustinus dicit X <Super> Genesim ad litteram quod Christus non peccavit in Adam nec decimatus fuit in lumbis Abrahae. . ."

⁴³ "Sed circumcisio etiam habet alias causas praeter significationem in illis qui circumciduntur. . . ." *Scriptum* 4.1.2.2: 4:49.

First, thanks to his birth without the intervention of human seed, his human nature was totally owing to material provided by his mother; second, original sin is transmitted only through the intervention of the male (had Eve sinned, but not Adam, there would have been no sinful inheritance for us), there was no point in tithing to repair an imperfection with perfection.⁴⁴

The somewhat lumbering discussion of the *Scriptum* is handled with more dispatch and elegance in the *Summa theologiae*. In the latter Aquinas wrote that others were “in” the great figures of Adam, Abraham, and the other “fathers” from every point of view that applies to Jesus, but this cannot be converted: it cannot be said that Jesus was “in” his ancestors in every way in which other men were. Since the others were in Adam and the rest, but not according to some designated matter, but only according to origin, the same is true of Jesus.⁴⁵

Still, there is significant advance in the ultimate ground of the argument. If the distinction between the significance of tithing in view of original sin and the significance of circumcision in view of the same primeval disaster seems contrived, the biologically grounded distinction between “corporeal substance” provided by a mother and the Stoic-Augustinian “seed-nature” (*ratio seminalis*) from a human father was seen as objectively instantiated in the virgin conception of Jesus. For original sin bespeaks two sorts of consequences: “guilt” from the father, “punishment” or, better, “penalty,” from the side of the mother.⁴⁶ So it was with Jesus. The consequence that is penal—weakness, suffering, and mortality—all came to him from what his mother had provided and, for those effects, the remedy of circumcision was an appropriate rite. Guilt was totally absent from the sinless Messiah, conceived without the intervention of a human father through whom that effect devolves upon all other sons and daughters of Adam. Tithing “in the loins” of

⁴⁴ Brother Thomas indulged in some mild numerology on the tithes (“tenths”) paid to Melchisedech by Abraham: “In numero enim denario est quaedam ratio perfectionis, secundum quod limes quidam est. Unde novenarius imperfectionem significat, secundum quod a denario deficit. Et ideo qui decimas dat, in hoc quod novem sibi retinet et decem alteri dat, confitetur se imperfectum esse et perfectionem ab altero expectare. . . .” *Scriptum* 3.3.4.3.sol. 1; 3:138. In ST 3.31.8c., “Quia enim ille qui decimas dat, novem sibi retinet et deciman alii tribuit, quod est perfectionis signum, in quantum est quodammodo terminus omnium numerorum, qui procedunt usque ad decem; inde est quod ille qui decimas dat, protestatur se imperfectum et perfectionem alii tribuere. . . . Solus autem Christus sic fuit in Abraham ut ab eo derivaretur non secundum rationem seminalem, sed secundum corpulentam substantiam. Et ideo non fuit in Abraham sicut curatione indigens, sed magis sicut vulneris medicina. Et ideo non fuit in lumbis Abrahae decimatus.” 4:2621b, 2622a.

⁴⁵ Still following Augustine’s classic exegesis of Genesis, Aquinas wrote: “Quocumque modo Christus fuit in Adam et Abraham et aliis patribus, alii homines etiam ibi fuerunt; sed non convertitur. Alii autem homines non fuerunt in Adam et Abraham secundum aliquam materiam signatam, sed solum secundum originem, ut in Prima Parte 119, 1, and 119, 2, ad 4 habitum est. Ergo neque Christus fuit in Adam et Abraham secundum aliquid signatum, et eadem ratione nec in aliis patribus.” ST 3.31.6 sed contra; 4:1619b.

⁴⁶ “. . . peccatum originale ut II lib. (d. 31, q. 1, a. 1), dictum est, quantum ad culpam et reatum descendit a patre in filios; quantum autem ad penalitates descendit a femina, quia pater est efficiens in generatione et mater materiam ministrat.” *Scriptum* 4.1.2.2.ad 2; 4:51.

Abraham implied in all descendants of the Patriarch an infection of the primal guilt of Adam, given a remedy proportioned to that stage of salvation-history. Free from guilt, Jesus had not tithed in Abraham.

Brother Thomas did his theological work in elucidating the term "children of Abraham" with the help of Aristotle's biological science, to be sure, but he was as reserved on this portion of natural lore as on any other. We have seen his choice of revelatory terms: the "opinion" of Aristotle has value because it "saves" not "appearances," but true propositions of a clearly different order. Those propositions express theological doctrines that bear upon the most mysterious of all the children of Abraham, Jesus of Nazareth, son of Mary, herself the last link between the sinless Messiah and the long chain that extended to Abraham and through him to Adam. Original sin, tithing, and circumcision all posed problems that, he thought, yield to analysis under the sign of Aristotelian biological science. If Aquinas was right, the "opinion" of that pagan sage provided a conceptual scheme on human reproduction that permits us to reconcile science with faith. Earthly wisdom joined hands with divine revelation so that we all might take one short step from unexamined belief to a partial understanding of what the Eternal Father has "spoken to us in the Son" (Heb 1:1,2), no longer in the "fragmentary and varied fashion" of the prophets. If the children of Abraham form two assemblies, one thanks to the flesh and one thanks to faith in the Promise, Jesus Messiah links both; he is the "chief corner-stone" that links Jew and Christian and, indeed, all sons and daughters of Adam (Ps 117[118]:22).

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Faith and Reason,
Religion and Philosophy:
Four Views from Medieval Islam
and Christianity

Richard C. Taylor

Like it or not, questions raised and responses asserted on the topic of the relationship of faith and reason or religion and philosophy are founded on historical context today just as much as they were in the medieval era. Today questions about the existence of God and whether a philosophical argument can provide a proof of it are sometimes meant fully to question whether there is a deity. In medieval Islam and Christianity such questions were raised but not to address divine existence as such. As Herbert A. Davidson has put it,

While the provability of God's existence might . . . be subject to dispute, God's existence never was, and the Middle Ages were free from atheism and agnosticism, at least public atheism and agnosticism, on the philosophic plane. . . . The existence of God, as distinct from the provability of God's existence, was not strictly an issue at all.¹

¹ Herbert A. Davidson, *Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: OUP, 1987), p. 1.

And yet, while not denying the obvious historicity of our own vantage points, philosophers still marshal arguments based on their best reasoning and understanding of issues, be they metaphysical, moral or otherwise, since the stands we take on matters of importance require of us the best we can present in an effort to secure what is right or correct in a lasting way. Similarly, albeit without the subject of historicity arising, medieval authors strove within the limits of their own contexts and their own philosophical and theological presuppositions to attain an understanding of metaphysics, psychology, and other philosophical sciences which would give them a grasp of the truth.

Each of the four thinkers considered here affirmed the existence of a deity and each asserted that religion plays a central role in the formation of society and in the formation of individuals. Moreover, each saw a place for reason and philosophy in the human effort to grasp as much as possible of the nature of the Creator and his creation. The two who come first historically, Augustine (354–430) and Ghazālī (1058–1111), each present autobiographical accounts or *confessions* which document their own intellectual and religious development and also their use of reason and philosophy in their personal search for the divine. And each, as will be seen, finds reasoning and philosophy inadequate to the task of fulfilling them in their quest for attainment of the transcendent experience of the divine that each explicitly sought out. The two later thinkers, Averroes (1126–1198) and Thomas Aquinas (1224/25–1274), provided no autobiographical accounts of their own personal motives and development but they did explicitly address the question of the relation of faith and reason, religion and philosophy, in works which reveal much of their own personal views, although less directly than would autobiographical accounts. In contrast to Augustine and Ghazālī, however, both Averroes and Aquinas appear to be more consistently and clearly positive about the value of the philosophical approaches to the divine and about the assistance that Greek philosophical notions can provide in the clarification of the distinction between the domain of the religious and the domain of the philosophical. Nevertheless, the views of these latter two are as distinctively divergent as the views of Augustine and Ghazālī are markedly convergent.²

For Augustine and Ghazālī several key questions need to be considered in the exposition of their positions. What sort of answer was each seeking from the study of philosophy? Precisely what did each find in the philosophy available to them in their day? How did their reaction influence their understanding of the relation of religion and philosophy and generally of faith and reason? To make evident the understanding each has, the central focus here will be their autobiographical accounts of their own development of the basic

² Some issues considered in this paper are also discussed in Etienne Gilson's classical contribution to the topic, *Reason and Revelation in the Middle Ages* (New York: Scribner's, 1938). Gilson does not examine the thought of Ghazālī and has little sympathy for the medieval rationalism to which he argues the thought of Averroes gives rise; see *Reason and Revelation*, pp. 37–66.

stance each takes. For Augustine it is the *Confessions*³ and for Ghazālī it is the *Deliverance from Error*⁴ which will reveal that both the character of the thinker and something of the historical context combined to contribute importantly to his own personal confrontation of philosophy in the formation of a position.

For Averroes and Aquinas the key questions are of a different sort. What sorts of sciences are the theological studies found in religion and the philosophical studies passed down from the Greeks? With what do these sciences deal and to what end? What degree of certainty can they be thought to attain? How should they be thought to be related? More fundamentally, however, what are the presuppositions which Averroes and Aquinas bring to their reflections on these issues and how do the historical circumstances of their day contribute to the formation of their positions? For Averroes and Aquinas, what follows is based primarily on the former's short work, *The Decisive Treatise Determining the Nature of the Connection Between Religion and Philosophy*⁵ and selections from the latter's *Summa contra gentiles* and *Summa theologiae*.⁶

AUGUSTINE

Though he wrote much of great importance after the completion of his *Confessions*,⁷ Augustine's own analysis of his childhood and youth bear witness to the significance of his environment in his formation. As a young boy he was indulged by his pagan father and Christian mother: "The reins were loosened; I was given free play with no kind of severity to control me. . . ."⁸ As a teenager, he tells us, he once stole pears with friends but "our real pleasure was simply in doing something that was not allowed."⁹ When his father died in 370, Augustine moved to Carthage to supplement his grammatical and literary studies with formal study of rhetoric and with him he took his vanity

³ The translation cited is that of Rex Warner in *The Confessions of St. Augustine* (New York, 1963).

⁴ In this paper I will be citing the *Munqidh* by way of the translation of Richard Joseph McCarthy, SJ, *Freedom and Fulfillment. An Annotated Translation of Al-Ghazali's al-Munqidh min al-Dālāl and Other Relevant Works of al-Ghazali* (Boston, 1980). Corresponding Arabic texts are cited by page number in the edition of Frid Jabre, *Al-Munqidh min adalal (Erreur et Deliverance)*, second edition (Beirut, 1969).

⁵ The *Decisive Treatise* will be cited in the translation of George F. Hourani in *Averroes. On the Harmony of Religion and Philosophy* (London: Luzac, 1967), with the Arabic pages cited in the edition of George F. Hourani, *Ibn Rushd (Averroes) Kitāb Faṣl al-Maqāl* (Leiden: Brill, 1959).

⁶ Translations of these works are taken from St. Thomas Aquinas, *On the Truth of the Catholic Faith. Summa Contra Gentiles*, Book One: God, tr. Anton C. Pegis (Garden City, NY: Image Books, 1955) and *Basic Writings of Saint Thomas Aquinas*, ed. Anton Pegis, vol. 1 (New York: Random House, 1945).

⁷ *On the Trinity*, *On Genesis Literally Interpreted*, and the *City of God* are just three of many important works completed after 400, the approximate date of the *Confessions*.

⁸ *Conf.* 2.3.8 (CCL 27:21); Warner, pp. 44-45.

⁹ *Ibid.* 2.4.9 (CCL 27:22); p.45.

and self-interested pride as well as his intellectual and emotional hungers. However, though his studies were of rhetoric, or as he puts it, "sharpening my tongue" (*ad acuendam linguam*),¹⁰ it was there that he read the *Hortensius* of Cicero. He tells us that

it was this book which altered my way of feeling, turned my prayers toward you, Lord, yourself, and gave me different ambitions and desires. Every vain hope suddenly became worthless to me; my spirit was filled with an extraordinary and burning desire for the immortality of wisdom. . . . what moved me was not the style, but the matter. . . . [T]hat book inflamed me with the love of wisdom. . . . [But] I was not encouraged by this work of Cicero's to join this or that sect; instead I was urged on and inflamed with a passionate zeal to love and seek and obtain and embrace and hold fast wisdom itself, whatever it might be.¹¹

Augustine, however, was far from being free of his love of rhetorical eloquence, though his search for "the matter" had begun. While his spirit was inflamed for the content of wisdom, he was still able to reject Scripture for its stylistic inferiority.¹² As for its substance, "Many actions . . . which seem disreputable to men are . . . to be approved, and many actions that are praised by men are . . . to be condemned."¹³ Seeking an account more acceptable to the people among whom he found himself and also one, as he then saw it, more rational than what he found in Scripture and Christian teaching, Augustine turned to the Manicheans whose dualistic thinking provided him with what he deemed a reasonable approach to the problem of evil and suffering in the world. After nine years of adherence to Manichean teaching, though, he felt its intellectual inadequacy to solve the sorts of problems and difficulties that he raised to the famous Manichean teacher Faustus. Gradually he withdrew from Manicheism helped in part by a move to Rome and to skepticism. Academic skepticism suited well a man who had come to see falsity in Manichean doctrines. He says,

The thought occurred to me that those philosophers who are called the Academics were wiser than the rest because they held that everything should be considered doubtful and had come to the conclusion that no truth could be comprehended by man.¹⁴

His personal hunger for answers, however, would not allow Augustine to camp long with the Academics. A Manichean sponsored move to Milan for a new position teaching rhetoric was welcomed and it was there that he encountered Ambrose and also Neoplatonic thought.¹⁵ The philosophical

¹⁰ Ibid. 3.4.7 (CCL 27:30); p. 56; Loeb ed., p. 110.

¹¹ Ibid. 3.4.8 (CCL 27:30); pp. 56-57.

¹² Ibid. 3.5.9 (CCL 27:31). Augustine was also disturbed by Old Testament anthropomorphisms as well as diverse moral stances found in the Old Testament and New Testament.

¹³ Ibid. 3.9.17 (CCL 27:36-37); p. 65.

¹⁴ Ibid. 5.10.19 (CCL 27:68); p. 104.

¹⁵ Ibid. 5.13.23 (CCL 27:70).

thought encountered in the translations of Plotinus by Victorinus¹⁶ enabled Augustine to grasp the notion of incorporeality essential to his understanding of Christianity.¹⁷ His study of the works of Paul, facilitated by his "Platonic" studies,¹⁸ and also his study with Simplicianus,¹⁹ who related to him the conversion of the learned Victorinus, left Augustine excited and eager for his own conversion,

but I was held back, and I was held back not by fetters put on me by someone else, but by the iron bondage of my own will. . . . [T]he new will which I was beginning to have and which urged me to worship you in freedom and to enjoy you, God, the only certain joy, was not yet strong enough to overpower the old will which by its oldness had grown hard in me. So my two wills, one old, one new, one carnal, one spiritual, were in conflict, and they wasted my soul by their discord.²⁰

The sickness and torture that Augustine felt at the conflict between his old will and the new one or between his ability to give intellectual assent and yet to withhold a part of himself from complete conversion so vividly related in the final chapters of Book VIII of the *Confessions* was finally brought to fruition when he heard the words, "Tolle lege, tolle lege." What he took up and read was, he tells us:

"Not in rioting and drunkenness, not in chambering and wantonness, not in strife and envy: but put ye on the Lord Jesus Christ, and make not provision for the flesh in concupiscence" (Rom 13:13-14). I had no wish to read further; there was no need to. For immediately I had reached the end of this sentence it was as though my heart was filled with a light of confidence and all the shadows of my doubt were swept away.²¹

What Augustine had been seeking was the complete fulfillment of his heart and soul, something which reason and philosophical argument and insight could not provide. While he did not draw the sharp distinction between philosophy and theology which we find in later thinkers, still it is clear that for Augustine not all philosophers as such find ultimate fruition for those who do not rise to contemplation of the divine and the immaterial lack the necessary contrite hearts which might turn their "deep and curious . . . knowledge"²² from the world to the Creator.

For they do not approach the matter in a religious spirit and ask what is the source of the intelligence which they use to admire all this, and then, finding that it is you who made them, they do not give themselves up to you for you to preserve what

¹⁶ Ibid. 8.2.3 (CCL 27:114).

¹⁷ Ibid. 7.20.26 (CCL 27:109).

¹⁸ Ibid. 7.21.27 (CCL 27:110).

¹⁹ The teacher of Ambrose; see *ibid.* 8.2.3 (CCL 27:114).

²⁰ Ibid. 8.5.10 (CCL 27:119-120); p. 168.

²¹ Ibid. 8.12.29 (CCL 27:131); p. 183.

²² Ibid. 5.3.3 (CCL 27:58); p.92.

you have made; nor do they sacrifice to you what they have made of themselves; nor do they slaughter their flighty imaginations like birds, and their inquisitiveness, by which they wander through the secret paths of the abyss, like fish of the sea, and their lusts like beasts of the field, so that you, God, the consuming fire, may burn up those dead cares of theirs and recreate the men themselves immortally.²³

Scientific knowledge and philosophy, while valuable aids to understanding creation and perhaps ultimately the Creator, as was the case for Augustine, still are not themselves "an integral part of the structure of the doctrine of piety,"²⁴ unless they are grasped in the greater context of philosophy understood as encompassing the theological. Philosophical argument and analysis used by natural philosophers are valuable tools on the road to something more transcendent and only a part of the true philosophical wisdom which leads one to the *patria*. Augustine used it in the form of Cicero's *Hortensius* to begin to focus his mind more on the content of wisdom rather than on the rhetorician's concern for stylistic eloquence. He used it in the form of Academic skepticism to clear away his attachments to Manichean beliefs. And he used it in the form of Plotinian materials translated by Victorinus to transcend materiality and to gain an understanding of the immaterial, a philosophical approach which he saw to be properly focused on the goal of human happiness in the next life. In each of these instances and in the years to follow philosophical argument always functioned as a tool to be employed on the way to a greater reality and broader philosophical approach toward the totality of wisdom which could only be attained by a religious commitment of the self to a transcendent God, a commitment made possible by divine grace. And in this we can see at work two key historical factors which played a decisive part. First and foremost is Augustine's own energetic and driving personality which sought out philosophical argumentation and then was compelled to reach beyond it. But second and equally important a factor was the nature of the philosophical works and studies available to him. Neither the *Hortensius* of Cicero nor the Academics nor the translated writings of Plotinus provided Augustine with detailed discussions of the structure and the divisions of the sciences from Aristotle and his commentators. Rather, for Augustine wisdom is one and, as Armand Maurer puts it, "true philosophy . . . is identical with true religion."²⁵ And true understanding follows only upon faith.²⁶

²³ Ibid. 5.3.4 (CCL 27:59); pp. 93–94.

²⁴ Ibid. 5.5.9 (CCL 27:61); p. 95.

²⁵ Armand Maurer, *Medieval Philosophy*, 2nd ed. (Toronto: PIMS, 1982), p. 4, citing *De vera religione* 5.8 (PL 34:126; CCL 32:193), where Augustine writes: "Non aliam esse philosophiam, id est sapientiae studium, et aliam religionem."

²⁶ "Aderit enim Deus et nos intelligere quod credimus faciet. Praescriptum enim per prophetam gradum, qui ait: Nisi credideritis, non intelligetis, tenere nos bene nobis conscii sumus." *De libero arbitrio* 1.24 (CCL 29:213). "For God will aid us and will make us understand what we believe. This is the course prescribed by the prophet who says, 'Unless you believe, you shall not understand' (*Is* 7:9, in the Septuagint version) and we are aware that we consider this course good for us." *On Free Choice of the Will*, tr. Anna S. Benjamin and L. H. Hackstaff,

GHAZĀLĪ

Perhaps Islam's greatest theologian, al-Ghazālī, was born in the city of Ṭūs in the Khorasan area of modern Iran in 1058. We know that he later went to Jurjān and later still to Naysābūr where he studied theology with al-Juwaynī until his teacher's death in 1085. Six years later he was appointed to a position as lecturer at Niẓām al-Mulk's great *madrasa*, or school, in Baghdad where he remained until in 1095 he was overcome by an illness which prevented him from lecturing. He then left Baghdad ostensibly to make the pilgrimage to Mecca, though in fact it was the occasion for a conversion to a new way of life based on Sufism or an Islamic form of mysticism. In 1106 he returned to teaching at Naysābūr where he composed his autobiographical *Deliverance from Error* shortly before his death at Ṭūs in 1111.²⁷ This listing of dates, however, conveys nothing of the vitality of personal religious and intellectual life that is clearly evidenced in the *Deliverance*.

Though much shorter than Augustine's *Confessions* and providing fewer intimate details of the author's life, the *Deliverance* provides valuable insights into Ghazālī's personality, mind, and character. Like Augustine, he was a man driven by internal forces.

The thirst for grasping the real meaning of things was indeed my habit and wont from my early years and in the prime of my life. It was an instinctive, natural disposition placed in my makeup by God Most High, not something due to my own choosing and contriving.²⁸

And also like Augustine, he experienced a period of skepticism. In the case of Ghazālī this appears to have taken place around the time of his move to Baghdad and seems to have been a highly private experience stemming from an uncertainty about authoritative matters and extending to doubt about the status of self-evident or necessary propositions and sense perception. Reason often corrects the judgment of sense, for example, in the case of stars which appear as small as a dinar but which are demonstrably larger than even the earth.²⁹ And reason itself is perhaps subject to the judgment of something higher.³⁰ And yet again like Augustine who was moved from his skepticism by Bishop Ambrose's sermons and reflections on spiritual realities and by Neoplatonism he found within the Milanese Church, Ghazālī's escape after two months of skeptical doubts "was not achieved by constructing a proof or

(Indianapolis: Bobbs-Merrill, 1964), p. 5.

²⁷ W. Montgomery Watt, "al-Ghazālī," *The Encyclopaedia of Islam, New Edition (EI²)*, ed. B. Lewis, Ch. Pellat, and J. Schacht (Leiden-London: Brill-Luzac, 1965), pp. 1038-1039.

²⁸ *Freedom and Fulfillment*, p. 63; Arabic, p. 10.

²⁹ *Ibid.*, p. 64; Arabic, p. 11.

³⁰ Cf. Augustine's argument that human reason must submit to the Truth which is either God or caused by God, in *De libero arbitrio voluntatis* 2.14.

putting together an argument. On the contrary, it was the effect of a light which God Most High cast into my breast. And that light is the key to most knowledge."³¹

His movement toward the positive doctrines of the Sufism which he ultimately embraced is explained in the *Deliverance* in the context of his examination and critique of four groups of truth seekers, (1) the Mutakallimūn or Islamic theologians of the science of *Kalām*, (2) the philosophers, (3) the Bāṭinites or exponents of Taʿlīmism, and (4) the Sufis. The Mutakallimūn and their writings he studied and wrote on. While he does allow that they "showed an earnest desire for attempting to defend orthodoxy by the study of the true natures of things,"³² he found that

most of their polemic was devoted to bringing out the inconsistencies of their adversaries and criticizing them for logically absurd consequences of what they conceded. This, however, is of little use in the case of one who admits nothing at all except primary and self-evident truths. So *kalām* was not sufficient in my case, nor was it a remedy for the malady of which I was complaining.³³

He then turned to philosophy.

Understanding that the refutation of the philosophers required a thorough comprehension of their teachings, Ghazālī read deeply of the thought of the philosophers—for the most part Avicenna and al-Fārābī—working without philosophical tutor while himself teaching over three hundred students. Dividing the philosophers into three groups, he found the ancient materialists to be fully godless, the naturalists who believe "in God and his attributes" also to be "godless men, because basic faith is belief in God and the Last Day—and these men denied the Last Day,"³⁴ and the theists (including Socrates, Plato, Aristotle, Avicenna, and al-Fārābī) to deserve some of their work to be branded as unbelief, some of it to be branded as heretical innovation, and some of it "not [to] be repudiated at all."³⁵ It is the Islamic philosophers as transmitters of authentic Aristotelian thought to which he devotes his attention.

The philosophical sciences are divided into six: mathematics, logic, natural science, metaphysics, politics, and ethics. Mathematics presents no affront to religion since the mathematical studies of "arithmetic, geometry, and astronomy . . . concern rigorously demonstrated facts which can in no wise be denied once they are known and understood."³⁶ Similarly logic poses no threat to religion and contains nothing which requires rejection. Rather, it contributes positively by clarifying methods of proofs, syllogisms, demon-

³¹ *Freedom and Fulfillment*, p. 66; Arabic, p. 13.

³² *Ibid.*, p. 69; Arabic, p. 16.

³³ *Ibid.*, pp. 68–69; Arabic, p. 16.

³⁴ *Ibid.*, p. 72; Arabic, p. 18.

³⁵ *Ibid.*

³⁶ *Ibid.*, p. 73; Arabic, p. 19.

strations, definitions, and premises for arguments. Natural science does require some caution on specific questions, but "just as religion does not require the repudiation of the science of medicine, so also it does not require the repudiation of the science of physics."³⁷ *Per se* these sciences are not problematic for religion though evils such as vain pride in the precision of mathematics can lead to displaced confidence in all the philosophers teach.³⁸ Ghazālī's chief complaints about philosophy are rather to do with metaphysics.³⁹

In his *Tahāfut al-falāsifa* or *Incoherence of the Philosophers*, which deals in detail with twenty philosophical errors, Ghazālī finds three errors of unbelief which are specifically opposed to Islamic teaching: (1) the denial of resurrection on the Last Day, (2) the denial of God's knowledge of particulars, and (3) the assertion of the eternity of the world *ex parte ante* and *ex parte post*.⁴⁰ What he finds a particularly striking condemnation of the philosophers, though, is the fact that in their metaphysical thinking "they could not carry out apodeictic demonstration according to the conditions they had postulated in logic."⁴¹ There is no necessity, for example, in the Avicennian argument for emanation which asserts the principle *al-wāḥid min ḥaiṭhu huwa wāḥid innamā yujid 'an-hu wāḥid* (الواحد من حيث هو واحد انما يجد عنه واحد), *ex uno secundum quod est unum non est nisi unum*, "from one inasmuch as it is one only one can proceed."⁴² Not only is this principle undemonstrated and far from self-evident, it also fundamentally undermines the Avicennian doctrine of the emanation of a universe of plurality from a unitary first cause. For if it were correct, the world would have to consist of a hierarchy of simple units.⁴³

After studying and rejecting the Ta'limites doctrine of the necessity of authoritative teaching and of an authoritative teacher to be designated the

³⁷ Ibid., p. 76; Arabic, p. 23.

³⁸ Ibid., pp. 73-75; Arabic, pp. 20-23. Ghazālī also mentions that evil can arise as a result of an ignorant rejection of mathematics and demonstration as opposed to Islam which might lead others to think that "Islam is built on ignorance and the denial of apodeictic demonstration"; *ibid.* p. 74; Arabic, p. 22.

³⁹ Political philosophy he finds merely derived from prophetic scriptures. Moral science the philosophers "simply took over from the sayings of the Sufis. . . . Then the philosophers . . . mixed them with their own doctrines, using the lustre afforded them to promote the circulation of their own false teaching"; *ibid.*, p. 77; Arabic, p. 24.

⁴⁰ Ibid., pp. 76-77; Arabic, pp. 23-24.

⁴¹ Ibid., p. 76; Arabic, p. 23.

⁴² See Ghazālī, *Tahāfut al-falāsifa*, ed. M. Bouyges, SJ, (Beirut, 1962), Discussion 3, pp. 97-109. (This edition is a reprint of the Arabic text originally published in Beirut in 1927 as *Algazel. Tahāfut al-Falāsifa. Texte arabe établie et accompagnée d'un sommaire latin et d'index*, volume 3 of the series, *Bibliotheca Arabica Scholasticorum*.) In the English translation by Sabih Ahmad Kamali in *Al-Ghazali's Tahāfut al-Falāsifah [Incoherence of the Philosophers]* (Lahore, Pakistan, 1963), p. 73-88. Avicenna's statement of this principle is found in *al-Shifā': al-Ilāhiyat*, vol. 2, ed. Mohammad Youssef Moussa, Solyman Dunya, and Sa'id Zayed (Cairo, 1960), p. 405.13-14; *Avicenna Latinus. Liber de philosophia prima sive scientia divina*, ed. S. Van Riet (Louvain-Leiden: E. Peeters-Brill, 1980), 2:481.50-51.

⁴³ Ghazālī, *Tahāfut al-falāsifa*, 3:98; p. 74.

infallible Imam,⁴⁴ Ghazālī took up his study of the way of the Sufis. Their way, he saw, was not one only of knowledge and theory but one of practice and *dhawq* (ذوق), tasting or fruitional experience, that is, the mystical attainment of contact with the divine. Unable to teach because of bodily illness and consumed by concern over his hopes for attaining eternal happiness in the next life, he took up the practice of Sufism leaving Baghdad and his teaching responsibilities behind on the premise that he was making the pilgrimage to Mecca. Instead he took up Sufi spiritual exercises at Damascus and Jerusalem for two years and then made the pilgrimage.⁴⁵ Though he later returned to teaching for a period, his conversion to the way of Sufism was permanent. He understood, however, that this experiential state is not one granted to everyone.

Ascertainment by apodeictic proof leads to knowledge. Intimate experience of that very state is fruitional experience. Favorable acceptance of it based on hearsay and experience of others is faith. . . . [And w]hat became clear to me of necessity from practicing their Way was the true nature and special character of prophecy.⁴⁶

Like Augustine, what Ghazālī sought was his soul's complete fulfillment, which for him could only be found in the Sufi mystical experience of *dhawq* (ذوق). From *Kalām*, Ta^limism and also philosophy he sought a truth which would cure him of his illness of skepticism, but without success. The Aristotelianism of al-Fārābī and Avicenna did provide him with certainty in matters of mathematics, logic and, to some extent, natural philosophy, but in metaphysics which deals with God and his creation nothing of the sort. Rather, after having mastered much of philosophy, he was able to undermine—often quite in accord with the criticisms we would offer today—metaphysical teachings from within by critical examination of presuppositions and doctrines thought proven by the philosophers. As a result, he came to hold philosophy to be most valuable in those areas in which apodeictic certainty is possible but to be dangerous in other areas. Philosophy and reason have places in man's effort to understand creation but a more sure guide is the prophetic guidance which all men need, something to be found though the study of the scriptures and faith in them.⁴⁷ This, when coupled with the mystical experience which God grants to some who follow the Sufi way, is the sure guide to the certain truth.⁴⁸

⁴⁴ *Freedom and Fulfillment*, pp. 81–89, esp. pp. 88–89; Arabic, pp. 28–34.

⁴⁵ *Ibid.*, p. 93; Arabic, p. 38.

⁴⁶ *Ibid.*, pp. 95–96; Arabic, p. 40.

⁴⁷ "Know that man's essence, in his original condition, is created in blank simplicity without any information about the 'worlds' of God Most High." *Freedom and Fulfillment*, p. 96; Arabic, p. 41.

⁴⁸ Ghazālī's attitude toward philosophy is also succinctly revealed in his short prefaces to his *Tahāfut al-falāsifa*; see Bouyges' Arabic, pp. 37–45; and Kamali, pp. 1–12.

AVERROES

The details and insights of the autobiographical accounts of Augustine and Ghazālī are unmatched in the accounts available to us about the life of Ibn Rushd or Averroes. Still we do have some important information about him which helps to set him in his appropriate context. Born at Cordova in 1126 to a family of Maliki jurists,⁴⁹ he studied law and its argumentation as well as the traditions of the Prophet and even Ash'arite Kalām. In addition to the Qur'anic sciences, he also devoted himself to the secular or foreign sciences of medicine and philosophy. From al-Marrakushi we know of his meeting with Abū Ya'qūb Yūsuf and Ibn Ṭufail at the former's court which led to his being commissioned to comment on the works of Aristotle, a commission which is directly responsible for the series of commentaries for which Averroes became famous in the Latin West. Thanks to this patron he was Qāḍī at Seville and then at Cordova where he was eventually appointed chief Qāḍī. But we also know that he fell into disfavor with Abū Ya'qūb Yūsuf's successor, Ya'qūb al-Manṣūr, in the later years of the latter's reign, the final years of Averroes' life. It is reported that he was sent to Lucena outside Cordova and his philosophical works were denounced and forbidden as threatening to the faith of believers and that these works were even ordered burned.⁵⁰

Sometime in the few years before 1179 Averroes completed his *Decisive Treatise, Determining the Nature of the Connection Between Religion and Philosophy*, which has as its expressed purpose "to examine, from the standpoint of the study of the Law, whether the study of philosophy and logic is allowed by the Law, or prohibited, or commanded—either by way of recommendation or as obligatory."⁵¹ The first of the work's three chapters argues that philosophical study is not merely allowed but even obliged under Islamic law, for philosophy consists in the study of things that exist as signs of their Maker and the Qur'an itself enjoins intellectual reflection on God's creation with sayings such as, "Reflect, you have vision."⁵² And this intellectual reflection is "the most perfect kind of study using the most perfect kind of reasoning; and this is the kind called 'demonstration.'" ⁵³ Religious study then must begin with the study of logic and the recognition of the differences between demonstrative reasoning and dialectic, rhetoric and sophistic fallacies. When these studies have been completed, "we ought to begin the examination of beings in the order and manner we have learned from the art of demonstra-

⁴⁹ His father and grandfather were both Qāḍīs or judges as Averroes himself was; see *EL*², 3:909–910.

⁵⁰ *Ibid.*, p. 910. Perhaps too much should not be made of this condemnation since, as Arnaldez remarks, the caliph may have "thought it advisable to gain the support of the *fukaha'*, who had long imposed on the people their religious orthodoxy" (*ibid.*).

⁵¹ *Decisive Treatise*, p. 44; Arabic, p. 5.

⁵² *Ibid.*, p. 45; Arabic, p. 6.

⁵³ *Ibid.*

tive syllogisms."⁵⁴ Not all people, however, are able to master demonstration because of the different natural abilities and dispositions they have, some suited to persuasion through demonstrative arguments, some to persuasion through the dialectical, and some suited to being persuaded by the rhetorical. "Thus since this divine religion of ours has summoned people by these three methods, assent to it has extended to everyone, except him who stubbornly denies it with his tongue or him for whom no method of summons from God the Exalted has been appointed in religion owing to his own neglect of such matters."⁵⁵

Philosophy, then, cannot be in actual opposition to the truth of Scripture since demonstrated conclusions and the pronouncements of Scripture are not two truths, "for truth does not oppose truth but accords with it and bears witness to it."⁵⁶ Demonstration is in accord with Scripture, or bears on matters not mentioned in Scripture, or is in conflict with Scripture. When the last occurs, the principle of allegorical interpretation must be brought to bear on the scriptural text in question. Among believers there is no disagreement about the principle itself, only over the matter of breadth of its applicability. For Averroes, when the philosophers argue to conclusions about the resurrection of the body on the Last Day or about God's knowledge of particulars or about the eternity of the world, a charge such as Ghazālī's assertion of unbelief of al-Fārābī and Avicenna is insufficiently founded on the required unanimity of opinion in the Islamic community (*ijmā'*, إجماع). Moreover, there is clearly a problem with Ghazālī's own misunderstandings about the meaning of the philosophers, as Averroes sees it.⁵⁷ And, at any rate, errors on the part of properly qualified scholars are excusable in light of the difficulty of the matters on which they must reflect. It is not right, according to Averroes, to condemn diverse interpretation of scriptural texts which are ambiguous and difficult. Of course, no one must seek to interpret allegorically texts whose apparent meaning is obvious to all three classes of people, the demonstrative, the dialectical and the rhetorical. For the texts which can only be understood through demonstration, the dialectical and rhetorical classes are obliged to be content with the apparent meaning which God has given the texts for them: "the apparent meaning consists of those images which are coined to stand for those ideas,⁵⁸ while the inner meaning is those ideas [themselves], which are clear only to the demonstrative class."⁵⁹ Consequently, those people of the demonstrative class have an obligation to keep

⁵⁴ Ibid., p. 47; Arabic, p. 9.

⁵⁵ Ibid., p. 49; Arabic, p. 13.

⁵⁶ Ibid., p. 50; Arabic, p. 13.

⁵⁷ Ibid., pp. 53–54; Arabic, p. 13.

⁵⁸ I.e. the ideas God fully means to convey by his Scripture.

⁵⁹ *Decisive Treatise*, p. 59; Arabic, p. 25.

their fine and complex understandings among themselves lest they confuse the unlearned and unqualified.⁶⁰

For Averroes then the theological studies found in Islamic religion and the philosophical studies passed down from the Greeks are equally efforts at human reflection on God's creation and on his revelation of Himself and his laws in Scripture. Their ends are one inasmuch as they seek to present the truth of God and his creation to all people in accord with their diverse abilities to understand. Their methods, however, differ insofar as the philosopher seeks the apodeictic certainty which demonstration can provide, while also being able to understand dialectical and rhetorical arguments and their value for the less intellectually able. In this way the philosopher is the one who is most able to attain the truth in its fullness while the dialectical theologians provide arguments for their positions but do not attain the apodeictic certainty of demonstration. The key notion in Averroes' entire argument in the *Decisive Treatise* is, as George Hourani notes, his "characterization of philosophy as demonstrative science."⁶¹ Premises which are certain become arguments which are necessary when arranged in the form of demonstrative syllogisms. Thus, the central presuppositions of Averroes are his confidence in demonstrative nature of philosophy and philosophy's consequent superiority to the apparent meaning of Scripture when the two are in apparent disagreement. His position does not challenge the value or truthfulness of Scripture's persuasive guidance of human lives but it does present the philosopher as the one to whom truth in its fullest literal sense is properly accessible.⁶² And in this Averroes upholds the Platonic tradition of the

⁶⁰ Iyssa A. Bello argues that Averroes distinguishes *ijmāʿ* (إجماع) into that dealing with practical affairs and that dealing with theoretical matters merely as "a legal device . . . to acquit his fellow philosophers, al-Fārābī, and Ibn Sīnā, from the charge of infidelity leveled at them by Ghazālī for their subscription to the theories of the eternity of the world and the denial of bodily resurrection," in his book, *The Medieval Controversy Between Philosophy and Orthodoxy. Ijmāʿ and Taʿwīl in the Conflict Between al-Ghazālī and Ibn Rushd* (Leiden: Brill, 1989), p. 142. According to Bello, Averroes' attempt fails because key texts of the Qurʾān "to Ghazālī are not susceptible of any allegorical interpretation" (p. 144), even though Averroes holds that they are so susceptible. The position of Averroes is more extreme than thought by Bello, however. As Muhsin Mahdi puts it, "For Averroes, belief in the divine law is not, as it was for Algazel on at least one level, a supernatural gift or a suprarational faculty"; see "Remarks on Averroes' *Decisive Treatise*," in *Islamic Theology and Philosophy, Studies in Honor of George F. Hourani*, ed. Michael E. Marmura (Albany: SUNY Press, 1984), p. 201. On Averroes' understanding of faith, see note 62.

⁶¹ *Decisive Treatise*, intro., p. 21.

⁶² "Faith involves an assent (*taṣdīq*) to a representation (*taṣawwur*). This assent is in response, according to temperament, to a demonstrative, dialectical or rhetorical argument. . . . Men understand [truth] through the ways (*turuq*) which gain their assent; the majority consent to something because of what they themselves are, rather than because of what the thing itself is. Their truth is subjective. Incapable of adopting a rational objective attitude which would govern their personal reactions, they have to have their personal sensibility affected in order to accept what is proposed to them. Consequently it is necessary that the dialectical or rhetorical approaches which they follow should lead them to a representation of the truth, either actual or figurative, which they can accept and adopt, so that their subjective attitude does not lead them into erroneous interpretations. This is realized in the Qurʾān." R. Arnaldez, *EP*, 3:911-912.

Republic, mediated by the thought of al-Fārābī and others, that the highest knowledge is that of the rational philosopher who alone sees the true reality which others see only mediately and derivatively because of their weaker natures.⁶³

THOMAS AQUINAS

Like Augustine, this thirteenth-century Dominican priest and scholar accorded first place to faith over reason, to religion over philosophy. Like Ghazālī he was well aware that errors in metaphysical argument are frequent and that it is there that philosophers often lose sight of the demonstrative certainty which is their goal. And like Averroes he is certain that the truth of Scripture and the truth of philosophy are not in conflict. However, unlike Augustine he carefully distinguishes between philosophical science and the science of sacred doctrine in a classification scheme different from anything found in Augustine. Unlike Ghazālī he finds metaphysical argument an exciting and valuable tool by which God and creation can be more fully grasped by human natural reason. And, unlike Averroes, he unabashedly asserts the superiority of religious teachings founded on Scripture, faith, and inspired tradition over what truth can be attained by unaided human intellectual effort.

The third chapter of the *Summa contra gentiles* opens with a quotation from the *Nicomachean Ethics* of Aristotle endorsed by Aquinas. He writes, "The way of making truth known is not always the same, and, as the Philosopher has very well said, 'it belongs to an educated man to seek such certitude in each thing as the nature of that thing allows.'"⁶⁴ When considering the truths which we are able to have about God, we must distinguish what unaided natural reason can reach from those "truths about God [which] exceed all the ability of the human reason." Natural reason can extend itself so far as demonstratively to prove God's existence, his unity, and some other characteristics, but other truths, such as the truth of the Trinity, lie beyond human reason. So long as we are intellectual beings in bodies in this life, we are naturally constituted to use the senses as the starting point for our knowledge. But sensible things are only effects far inferior to their cause and so are insufficient to yield insight into the Divine Essence. Nevertheless, sensible things can be used in a demonstration that there is an existing God and that he has certain other characteristics.⁶⁵

Truth about the Divine Reality, then, cannot be something reached solely by those who seek it through reason. For if that were the case, it would be possessed by very few people since few have the natural abilities necessary for its understanding, few have the opportunity because of the necessities of

⁶³ See Plato, *Republic* 7.

⁶⁴ SCG 1.3; Pegis tr., p. 63. Cf. Aristotle, *Nicomachean Ethics* 1.3 (1094b24).

⁶⁵ SCG 1.3.

everyday life which preclude the requisite leisure, and "there are some who are cut off by indolence."⁶⁶ Moreover, if it were so, the few who are able would find their time in life insufficient to the profundity of the knowledge. And last, "The investigation of the human reason for the most part has falsity present within it, and this is due partly to the weakness of our intellect in judgment, and partly to the admixture of images,"⁶⁷ which we must have in the present life if we are to get knowledge. Thus, Divine Providence has provided Scripture to make known through faith those beneficial truths which are either beyond all human intellectual proof or susceptible of proof only by the few.

The opening article of Question One of the *Summa theologiae* argues, like the *Summa contra gentiles*, that there is knowledge that transcends the philosophical sciences and that revelation is needed to communicate this "in order that the salvation of men might be brought about more fitly and more surely."⁶⁸ The relationship of faith and reason or religion and philosophy is explored in a methodically different way in the *Summa theologiae* where Aquinas, as James Weisheipl puts it,

argues that sacred doctrine is a science, but not an autonomous science such as geometry. Rather it is subalternated to knowledge in God and in the blessed, much as astronomy is subalternated to mathematics. That is, the truths that God and the blessed see directly, we accept on faith. These reasons on our part are both intrinsic and extrinsic to the faith we accept.⁶⁹

Sacred science is unified science, treating of God and of his creatures insofar as they are related to him as beginning or end.⁷⁰ Unlike the sciences found in the Aristotelian philosophical division of sciences, sacred science includes both the speculative and the practical⁷¹ and is the noblest of the sciences for its certainty and for its dignity of subject.⁷² It is the greatest wisdom as treating of God as the highest cause.

The principles of the other sciences either are evident and cannot be proved, or they are proved by natural reason in some other science. But the knowledge proper to this science comes through revelation, and not through natural reason. Therefore it is not its business to prove the principles of the other sciences, but only to judge them. For whatsoever is found in the other sciences contrary to the truth of this science must be condemned as false.⁷³

⁶⁶ SCG 1.4; Pegis tr., p. 67.

⁶⁷ SCG 1.4; Pegis tr., p. 68.

⁶⁸ ST 1.1.1c; Pegis tr., p. 6.

⁶⁹ James A. Weisheipl, OP, *Friar Thomas d'Aquino* (Washington, DC: CUA Press, 1983),

p. 224.

⁷⁰ ST 1.1.3 ad 1.

⁷¹ ST 1.1.4c.

⁷² ST 1.1.5c.

⁷³ ST 1.1.6.ad 2; Pegis tr., p. 11.

It thus transcends metaphysics or Aristotelian philosophical theology because it attains to a reality higher than natural reason can reach and it does so by using as principles the articles of faith.

For Aquinas then religion's theological studies are part of the greatest science, the sacred science, which encompasses all other sciences insofar as it is concerned with God and all his creatures as related to him. The philosophical and other sciences found discussed in Aristotle and his followers do deal with this same subject under natural theology studied as part of metaphysics, which is concerned with being and its causes. Though the ultimate end is the same, that is, knowledge of the first cause as ultimate end of man and all creation, these sciences are dependent on natural human reasoning and fall far short of comprehension of God. Moreover, the greatest certainty lies with sacred science while philosophical studies are subject to the weakness of the human intellect which must depend on sensibles as the starting points of natural knowledge. And at work in these determinations by Aquinas is his fundamental presupposition, faith in God, his revelation, and his guidance of his Church's doctors. For it is this, when combined with reflection on the Aristotelian division of the sciences, which led Aquinas to rethink the hierarchy of wisdom and to assert sacred doctrine itself to be a science.

CONCLUSION

The four thinkers discussed here each understood faith and reason, religion and philosophy, in a different way. Augustine, Ghazālī, and Aquinas all give primacy to religious faith but each sees a purposeful role for philosophy in the human quest for knowledge of the divine. Augustine used philosophy as a corrective guide and tool in his personal search for religious commitment to a transcendent God. Ghazālī endorsed philosophy only for use where it could provide the apodeictic certainty promised by demonstration and he, like Augustine, found personal fulfillment only in the attainment of something which itself transcends natural human reasoning powers. Aquinas, however, took a different approach and found the Aristotelian division of the sciences a fit model for understanding the nature of sacred doctrine and its relation to all other wisdom. Averroes, on the other hand, while expert in Aristotelian thought, used his understanding in another way. Drawing on the division of arguments into demonstrative, dialectical and rhetorical, he held that the fullness of truth is to be found not with the dialectical theologians or in the rhetorical presentations of Scripture, but rather in the demonstrative certitude found only in the way of the philosopher, who consequently is best able to understand the true meaning of Scripture.

As was said at the beginning of this paper, each of these thinkers asserted the existence of a transcendent God as the ultimate cause of all. For Augustine, Ghazālī, and Aquinas religious faith is the foundation for human fulfill-

ment in the divine. For Averroes, in contrast, the place of that religious faith appears to be occupied by a rationalist faith holding philosophy to be a demonstrative science attainable by human effort and in principle capable of enabling human beings to attain all truth. Yet had not Ghazālī already argued forcefully and convincingly that, while philosophy is to be valued for its limited ability to produce apodeictic demonstration, it is often far from demonstrative in its metaphysical speculations about God and the world which depends on him? Of the four accounts discussed here, that of Averroes is most easily criticized for this presupposition. However, the chief presupposition in the thought of Augustine, Ghazālī, and Aquinas is also one which is not open to natural reason to affirm with apodeictic certainty, namely the transcendent faith that founds their views and which they insist is an indispensable part of human fulfillment. For them that faith is a divine gift transcending human rationality, while for Averroes it seems instead to be understood as a consequence of natural human powers.⁷⁴

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⁷⁴ Detailed discussion of Averroes' thought on the nature of religion and religious language and meaning are beyond the scope of the present paper. For discussion of this see the book and article to which I refer in note 60. Also see Oliver Leaman's *Averroes and his Philosophy* (Oxford: Oxford U Press, 1988) and Barry Kogan's *Averroes and the Metaphysics of Causation* (Albany: SUNY Press, 1985).

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Why Motion Requires a Cause: The Foundation for a Prime Mover in Aristotle and Aquinas

David B. Twetten

Who does not welcome cynically the “latest” critique of a proof as commonplace as Aristotle’s on behalf of an unmoved mover: has not everything said been said by another? Yet, a critic will occasionally hit upon a fundamental difficulty which turns out to have been neglected in previous discussions of an argument. Nicholas Lobkowicz provides a case in point in a 1968 article on the first step of Aristotle’s proof, “*Quidquid movetur ab alio movetur.*”¹ Lobkowicz’ article is not altogether free from the defects which are typical of a nonhistorical reading of the arguments in question. Many of the defects were identified in the one response which Lobkowicz’ critique immediately elicited—from none other than Father Weisheipl himself.² Nonetheless, Lobkowicz’ central objection remains as perspicacious and as penetrating as any leveled at Aristotle by the likes of Avicenna and Scotus. Surprisingly, both the novelty and the seriousness of the objection have been overlooked, and consequently, the various possible solutions and their implications remain to be explored. At stake is not merely a cornerstone of Aristotle’s natural philosophy, namely, the proposition that everything moved is moved

¹ See *The New Scholasticism* 42 (1968) 401–421.

² “*Quidquid Movetur ab Alio Movetur: A Reply,*” *ibid.*, 422–431.

by another. Nothing less than the "Aristotelian" proof of God's existence depends on the resolution of Lobkowicz' objection. For, as Lobkowicz correctly sees, Thomas Aquinas does not escape the same objection in the most Aristotelian of his ways to God.

Lobkowicz' difficulty has its origin in a question of terminology.³ Whenever Aristotle's proof is recounted, the first proposition to be proved (Q) is usually worded "everything moved is moved by another" (Q¹).⁴ In the Greek original, however, what Aristotle literally proposes in each instance is that everything moved is moved by something (Q³). What, then, does Aristotle actually mean, "something" or "another"? Yet, Lobkowicz discerns a deeper dilemma than one simply in terminology. No commentator interprets Aristotle as offering a proof merely of what he literally says, that everything moved is moved by *something*. The first step of Aristotle's argument as a whole, it is generally agreed, attempts to discover in motion an efficient cause distinct from the effect itself, thereby initiating the subsequent search for a primary cause. But, points out Lobkowicz, if Aristotle fails to prove what he says, he can not hope to prove what he means. He can not prove, in other words, that everything moved is moved by another unless at the same time he offers proof that everything moved is moved by something. The difficulty is that Aristotle, attempting to prove the step demanded by his argument as a whole (Q¹), offers demonstrations which justify only a different and weaker conclusion: that everything moved *by something* is moved by another (Q²). Aristotle's reasoning, that is, entails merely that *if* a thing moved has a moving cause, the cause must be different from it. For, his first step actually demonstrates only that nothing is moved by itself (henceforth, "E" as entailing Q²). But a demonstration which denies that something is the cause of its own motion does not thereby affirm that a cause exists other than itself—unless it is first proved that every motion requires an efficient cause, that is, that

³ Lobkowicz, pp. 402-403, 418-419.

⁴ The following abbreviations will be used in this paper:

Q: Thus Lobkowicz designates the conclusion (*quidquid movetur . . .*) of the first step of Aristotle's argument for a prime mover, which conclusion could be interpreted in the following three ways.

Q¹: Everything moved is moved by another. (This entails both Q² and Q³.)

Q²: Everything moved by something is moved by another. (This is equivalent to "everything moved, if moved by something, is moved by another.")

Q³: Everything moved is moved by something. (This is equivalent to "everything moved has a mover," or "every motion has a cause"—as long as "cause" is understood in the limited sense of an efficient cause, or, better yet, a moving cause.)

E: Nothing is moved by itself. (This entails Q². For, if nothing is self-moved, then, obversely, everything is not moved by itself—including everything moved by something. Thus, everything moved by something is moved by something and is not moved by itself; i.e., everything moved by something is moved by another.)

P: Everything which comes from potency into act is caused by something which is in act.

S: Nothing is simultaneously both in potency and act.

everything moved is moved by something (Q³).⁵ According to Lobkowitz, then, Aristotle intends to prove Q¹, but actually demonstrates—though admittedly with perfect validity—only Q², all the while tacitly assuming Q³. And yet, Q³ requires demonstration, since it is not self-evident. Aristotle's entire argument, therefore, appears doomed by a flaw in its first step which has been long overlooked: it rests on an assumption nowhere proved, that every motion has an efficient cause.

What is most provocative about Lobkowitz' criticism is that it is on target for each of the three proofs which his article carefully examines. Lobkowitz, for the sake of simplicity, draws these proofs not from Aristotle himself but from Aquinas, specifically from *Contra gentiles* 1.13, where Thomas, in the course of recounting "Aristotle's proof of God's existence," summarizes three arguments from the *Physics* to show that everything moved is moved by another (Q¹). Lobkowitz is correct that two of Aquinas' proofs do not conclude to this proposition. In the proof drawn from *Physics* 7.1, Aquinas derives contradictory attributes of anything which is supposed to be self-moved: it both must and must not cease to be moved when one of its parts ceases. In the proof from *Physics* 8.5, a strict self-mover is shown to be simultaneously in act and in potency with respect to the same form: in act *qua* mover and in potency *qua* moved. But nothing is simultaneously both in potency and act. The argument of these two proofs, then, is that something strictly moved by

⁵ One may object at this point that there are only two possibilities for something moved: its motion is either self-caused or caused by another. For, imagine something (y) in motion without any mover. Its motion may have always belonged to it, or may have begun spontaneously of itself, whether "naturally" or merely by chance. One may argue, nevertheless, that y is indistinguishable from a self-mover, since y alone is responsible for, is the sole source of, its own motion. Hence, once it is demonstrated that nothing can be strictly self-moved, it follows that y is impossible, and that everything moved is moved by another.

Yet, even though y may be "self-explanatory," and, in this sense, self-caused, it is not self-caused in the sense of an efficient cause. It does not possess the attributes of an efficient cause: to act on something passive, for example, and to possess in act, in some way, that which is effected. Lobkowitz' critique, then, depends on the ancient conception of an efficient cause, so that one can distinguish, as Lobkowitz rightly does, what is self-moved from what is putatively in motion merely of itself. At the same time, the force of his critique was never felt among the ancients, who did not worry about y, lacking the modern conception of motion as a state. Instead, they naturally conceived of motion as caused, even when a distinction was made between spontaneous natural motion and self-caused motion (cf. Weisheipl, "The Concept of Nature," in *Nature and Motion in the Middle Ages*, Studies in Philosophy and the History of Philosophy 11, ed. William E. Carroll [Washington, DC: CUA, 1985], pp. 9–23). The point of this paper, however, is that even given the ancient conception of motion, it is still necessary to *demonstrate*, as in fact the ancients did, that motion requires a moving cause.

In what follows, then, it is necessary to distinguish between a principle and a moving cause (cf. Weisheipl, "The Specter of *motor conjunctus* in Medieval Physics," in *Nature and Motion*, pp. 100, 103–104). A principle is that from which something is in any way, whereas a cause is properly that upon which another depends for its being. "Cause," however, can be used less properly as interchangeable with "principle." See Aquinas, *De principiis naturae*, c. 3 (1.42–85, Leon.). For Aristotle (cf. *Meta.* 5.2 [1013a29–32]), a moving cause is "that from which is the principle of a thing's motion," i.e., that on which the principle of motion depends for its being. Thus, if something does not suffice as the sole principle of its motion, but depends for its principle on another, this other principle is also the moving cause of its motion.

itself is impossible (E). Hence, each proof can justifiably conclude only that everything moved by something is moved by another (Q²). Finally, Aquinas' third argument, from *Physics* 8.4, would prove Q¹ if it were cogent. But it fails to be, not because it is inductive, but because, as Lobkowitz indicates, in at least one instance induction alone does not suffice.⁶ In the case of natural motion, in the fall of rain, for example, no mover appears moving rain downward. Now, in the absence of any evident cause, an Aristotelian posits that the mover is whatever causes the nature itself of rain. Yet, how is this alternative mandatory unless every motion has been *proved* to require an efficient cause, unless Q³ has already been demonstrated? Furthermore, even if in the case of rain the generator is obvious as a prior cause at least in some sense, what about the case of an ungenerated body? How is it in any way evident that the natural motion of the celestial spheres is caused by another? In each of these three Aristotelian proofs, therefore, Aquinas relies on the assumption, as Lobkowitz charges, that every motion has an efficient cause.

Lobkowitz concludes that Q³ is merely an assumption endemic to peripatetics, which in itself is neither verifiable nor falsifiable.⁷ His critique thus calls for a reexamination of whether and how it is known that every motion must be caused. To meet his objection by denying the proposition Q³ would only be to jeopardize the Aristotelian project of demonstrating an unmoved mover.⁸ Suppose that motion can exist without any efficient cause, or can

⁶ Lobkowitz, pp. 410–411.

⁷ *Ibid.*, pp. 419–420.

⁸ Fr. Weisheipl denies Q³ and even Q¹ in the universal sense intended here. His understanding of "spontaneous" natural motion leads him to deny that Q taken in either way applies to such motion ("Concept of Nature," p. 14, and n. 61; "Specter," pp. 88–90). Otherwise, spontaneous motions like the fall of rain would require a *motor coniunctus*, as in the physics of Avicenna and Averroes, a physics rightly rejected by moderns but wrongly identified with that of Aristotle and Aquinas. For Weisheipl, what changes spontaneously can be said to be "in motion" or even to be "moving" (see especially "Aristotle's Concept of Nature: Avicenna and Aquinas," in *Approaches to Nature in the Middle Ages*, Papers of the Tenth Annual Conference of the Center for Medieval and Renaissance Studies, ed. Lawrence D. Roberts [Binghamton, NY, 1982], p. 146), but can not be said to be "moved." Aristotle and Aquinas never claimed that everything "in motion" is moved by another (Q¹), an interpretation of their words which is "grammatically impossible and philosophically absurd" ("The Principle *Omne quod movetur ab alio movetur* in Medieval Physics," in *Nature and Motion*, p. 78); nor did they claim that everything in motion is moved by something (Q³), which, again, is "bad grammar and bad philosophy" ("Quidquid movetur," pp. 422–423). They held only that what is "moved" is moved by another. Weisheipl even argues that once Q¹ is taken as excluding what is "in motion," it can be seen to be self-evident ("The Principle *Omne quod movetur*," p. 78). For, the passive voice "is moved" in itself presupposes something distinct which actively "moves." Accordingly, Q³ in this sense would be a tautology (cf. "Specter," pp. 99–100).

For Weisheipl, then, Lobkowitz errs not by denying that Aristotle proves Q³ and therefore Q¹, but by supposing that Aristotle ever intended to prove Q³ or Q¹ thus. If anything, Aristotle affirms Q only in the sense of Q² ("Quidquid Movetur," p. 425). Fundamentally, Lobkowitz fails to distinguish what is "in motion" from what is "moved," and thereby fails to see that Aristotle wants and needs no proof that every motion requires a mover. Now, although in his late articles Weisheipl rejects his previous claim that Q¹ is self-evident (especially in "Aristotle's Concept," p. 159, n. 33), he never rejects in print his distinction between what is "in motion" and what is "being moved." But no such distinction exists in the philosophers in question, nor any indication either that natural motion is not an instance of being moved or that it

result from a thing's nature alone. Then, even if some things in our experience are moved by another, nothing prevents any series of such things from ending with something moved which, as moved, needs no further explanation.⁹ Hence, if motion as such requires no mover, it provides no unique avenue to the first cause. For Aristotle's entire argument to work, Q³ must be affirmed either as self-evident or as demonstrable. Now, grant that "motion" refers not to a state, as in classical physics, but to the act of what is in potency. Still, how is it self-evident that even an imperfect act requires an agent? The proposition, as Lobkowicz observes, requires proof. But one looks in vain for its demonstration in Aristotle apart from the texts already considered. *Physics* 3.3, for example, merely assumes a mover for anything moved, and proves, rather, that to move and to be moved are one and the same act: of what is moved, and by what moves. *Metaphysics* 9.8 also only assumes Q³: in order to prove that act is always prior in time to potency, it posits that what is in act always comes to be from what is in potency by what is in act.¹⁰ In light of Lobkowicz' critique, therefore, one can not escape the conclusion both that Aristotle as he is usually read fails to prove that motion is caused, and that the subsequent "Aristotelian" path to God is inconclusive.

The familiar proof of God's existence through motion has frequently been represented in more metaphysical terms so as to address contemporary conceptions of motion and causality.¹¹ The resulting arguments, however cogent, inevitably lose the original's status as "the first and most manifest way." Instead, the present study confines itself to showing how arguments of the very philosophers in question already meet Lobkowicz' critique. Aquinas himself elsewhere offers his own simple and manifest proof of Q³ which helps found his way to God through motion. Surprisingly, however, Aquinas' proof is found nowhere in Aristotle. In a later commentary on Aristotle's argument, nevertheless, Aquinas goes so far as to "see" his proof behind the text of the *Physics*. But what of Aristotle himself: can his prime mover be saved only through what the Christian philosopher reveals? A novel way of reading Aristotle's text, particularly of *Physics* 7.1, indicates a different conclusion.

is an exception to Q, requiring no moving cause. Throughout this paper, accordingly, no distinction is made between what is in motion and what is being moved. "To move," however, is here always used, as it was for the ancients, in the active, transitive sense.

⁹ As Lobkowicz aptly puts it (p. 411), the expression *by nature* "could as well be taken to mean that it simply is a thing's nature to be in motion, and in this case, to look for a cause of motion makes as little sense as to ask, say, 'why do animals have a soul?'"

¹⁰ *Metaphysics* 9.8 (1049b24-25): *ὅτι γὰρ ἐκ τοῦ δυνάμει ὄντος γίνεται τὸ ἐνεργεῖν ὑπὸ ἐνεργείᾳ ὄντος*. According to Lobkowicz, p. 419, the proposition is simply a generalization of causal principles like Q³. For parallels in Aristotle, see *De anima* 2.5 (417a17-18); *De generatione animalium* 2.1 (734a30-31, 734b21-22).

¹¹ Cf. R. Garrigou-Lagrange's deduction from the principle of sufficient reason, in *God: His Existence and His Nature*, tr. Bede Rose from 5th edition (London, 1946), pp. 181-86. For a contemporary attempt to derive Q¹ from E, see G. des Lauriers, "Ce qui est mû est mû par un autre," *RSPT* 34 (1950) 9-29.

I. ARISTOTLE

At first it appears that Lobkowicz' objection can be resolved merely by clarifying Aristotle's terminology. Readers of Aristotle, ancient and modern, have always unquestioningly taken "by something" (ὕπο τινος) in the demonstration's first step to mean "by another" (ὕπο ἑτέρου, ὕπο ἄλλου). Perhaps, then, Aristotle never intended to prove Q³, but he himself always overlooked the fact that it requires proof. Perhaps he aimed from the start only to prove only Q². A reexamination of the original text indicates, however, that Aristotle never regarded Q² as sufficient to found his entire demonstration. In fact, Aristotle successfully proves Q¹—which entails Q³—and in one place he even intends to prove Q³ as such. To show this, we shall first examine the terminology of Q itself in Aristotle. The meaning of "by something" actually appears to differ in Aristotle's only two express defenses of Q, in *Physics* 7.1 and 8.4. This variation, moreover, apparently results from another variation, in the meaning of the term "by itself."

It is true that in 7.1, as the commentators hold, "by something" means "by something else"; more accurately, that "that which is moved by something" means "that which is moved by something other than itself as a whole," that is, it means "that which is moved by another, whether external or internal."¹² First, the opposite of "by something" here is never "by nothing" but always "by itself."¹³ At the same time, "what is moved by itself" clearly means what is moved by itself as a whole, and excludes what moves itself through one part's moving another; for, the latter is instead said to be moved "by something."¹⁴ Second, though less conclusively, Aristotle frequently seems to equate "by something" with "by another."¹⁵ Thus, in 7.1 "by something" is synonymous with "by another," and each is opposite to "by itself."

Already in 7.2, however, here are signs of another terminology. Here a self-mover is no longer taken to be impossible, as in the preceding chapter. Instead, "what is moved by itself" has come to refer to what is moved by one of its parts.¹⁶ Throughout Book 8, Aristotle retains this meaning of "by itself," and speaks of animals as self-moved in this sense.¹⁷ Consequently, he

¹² Cf. W. D. Ross, *Aristotle's Physics* (Oxford, 1936), p. 668, on 241b43.

¹³ See especially the preliminary argument of 241b39–44, where someone who asserts that something is moved by itself is understood as denying that the same thing is moved by something. The same opposition also results from the use of "by itself" in *textus alter* 241b33. Ross' edition of the *Physics* has been used throughout. References in 7.1–2 are to the *textus primus* unless the designation *textus alter* is added.

¹⁴ 241b39–44.

¹⁵ This equation is presupposed in 7.1's second argument against an infinite regress of moved movers (as is most evident in the version of the *textus alter*, 242a17–19; see also 242b33). But there are examples elsewhere: 241b35–36; and, in *textus alter* only, 242a2–3, 13–14.

¹⁶ In 7.2 (243a11–14), Aristotle posits two exhaustive classes of things locally moved: what is moved by itself and what is moved by another. In the former, mover and moved are distinct and together in the same thing.

¹⁷ E.g., 8.2 (253a8–21); 8.4 (254b27–32); (255a12–18); 8.5 (258a6–8); 8.6 (259b7–16).

must add a qualification to the term when he comes to prove the impossibility of a strict self-mover, that is, of what wholly (*πάντη*) moves itself.¹⁸ At the same time, there is a corresponding shift in 8.4 in the meaning of “by something” and “by another.” “By something” here appears to be opposed to “by nothing” rather than to “by itself”; “by another” now means “by something external,” and is a distinct instance of “by something,” an instance opposed by “by itself.” Thus, the argument of chapter 4 seeks to verify, in each of the classes exhaustive of all things moved, that everything is moved *by something*: whether violently, by *another*; or naturally, whether by *itself*, or not by itself but by some cause which remains to be shown.¹⁹ Accordingly, in chapter 5, once Aristotle has shown that there must be a first in any series of movers *assumed* to be moved by *another*, it does not yet follow that the first is unmoved, since it could still be moved by *something* and not by another; that is, it could still be moved by itself.²⁰

The point of this philological study is that in *Physics* 8.4 Aristotle does aim to prove Q in the sense of Q³. He can not, therefore, be said to be unaware of the role of this proposition, or uninterested in its proof. As Lobkowitz points out, however, Aristotle’s proof of 8.4 is inadequate because he does not expressly *demonstrate* Q³ in the case of heavy and light. We shall consider later how an implicit demonstration can be found within his proof.²¹ The immediate question is whether Book 7.1 also fails to prove what, as we have seen, it proposes, namely Q in the sense which entails both Q³ and Q², that is, in the sense of Q¹. For, if in proving here that everything moved is moved by another Aristotle fails to prove simultaneously that everything moved has a mover, his conclusion that a first unmoved mover exists is unfounded.

The proof in 7.1 consists of three parts, of which only the first and third concern us here: 1) the argument’s presupposition (241b34–38); 2) a preliminary argument (241b39–44); and 3) the demonstration proper, in which major and minor premises are derived (241b44–242a49). The argument opens with the presupposition that something is moved in a strict sense. According to the major premise, anything which comes to rest upon the cessation of another’s motion must be moved by another. But, according to the minor, anything such as was presupposed must come to rest upon the cessation of one of its parts. Consequently, everything moved in the strict sense is moved by another. Thanks to the very brevity of this argument, great uncertainty remains as to the meaning of its terms and the mode of its reason-

¹⁸ 8.5 (257b2).

¹⁹ 254b25–33; 255b31–256a3.

²⁰ 256a14–21; 256a33–b3; cf. 8.6 (259a30–b1). For other instances of the new use of “by something” after chapter 4, see 8.5 (256a22); but for apparent exceptions to this use: see 8.5 (256a27–28, 32). Compare Aristotle’s statement elsewhere of the conclusion of *Physics* 8.4, a statement equivalent to Q³: “It is necessary that there be some mover if there is motion” (*De generatione et corr.* 2.10 [337a17–19]). See also n. 49 below.

²¹ See below, part II.

ing. As a result, the proof has drawn sharp criticism from ancients and moderns alike. The ancient objection, raised in different ways by Galen and Avicenna, was always that Aristotle contradicts himself in his very presuppositions; whereas in the standard modern objection, the major premise is groundless and false. All of these objections, nonetheless, can be resolved through the careful expositions of the argument by Simplicius and Aquinas.

Lobkowitz' critique, however, presents a different case. According to Lobkowitz, the argument is flawed even if its reasoning is sound. For, in any case, it proves no more than that nothing is moved by itself (E), that self-motion is impossible. The basis for his critique lies precisely in the traditional exposition of the argument's two major parts. Each part has been read by the commentators as introducing the concept of self-motion. First, as to the demonstration proper, both Simplicius and Aquinas derive the major premise from the properties of a strict self-mover.²² It is self-evident, they argue, that what moves itself as a whole has itself as the sole explanation of its motion; hence, its motion is unaffected by change in anything other than itself. Anything whose motion is affected by another, therefore, is not moved by itself, but by something else.²³ The reasoning thus understood, however, assumes Q³. For, it assumes that whatever is not self-moved is nevertheless moved by some cause, and therefore, by something other than itself. Second, as to the argument's presupposition of something moved in a strict sense, Aquinas even regards this as the presupposition of a strict self-mover.²⁴ Before him, Avicenna had charged Aristotle with contradicting himself by supposing, first, that something is strictly self-moved, and then that a part of it comes to rest. Ironically, Aquinas refutes Avicenna while adopting his reading. For, argues Thomas, an impossible condition, as in this case, can still be the foundation of a valid demonstration.²⁵ Thus, the expositions of the commentators themselves provide the grounds for Lobkowitz' critique. Lobkowitz can not be answered unless the two parts of *Physics* 7.1 are understood in a new way.

The key to the argument's reinterpretation lies in the terminology of the initial presupposition. Aristotle, having at the outset stated his intended conclusion, Q¹, distinguishes here the case in which the truth of Q¹ is obvious

²² Aquinas, *In 7 Phys.* 1, l. 1, n. 3 (886 Marietti); Simplicius *In 7 Phys.* 1, p. 1040.30–1041.6. Simplicius' commentary was not translated into Latin in the Middle Ages, but there are a number of similarities in the interpretations of these two commentators. Note that Aquinas' interpretation of the major premise here is one of the few major developments beyond his exposition of 7.1's argument in SCG 1.13 (*His suppositis*).

²³ This derivation of the major premise indicates how far from understanding the reasoning are those who pose the standard modern objection. This objection attributes to Aristotle the assumption that the "other" which causes a thing to come to rest must be the same "other" which causes the thing's motion. Cf. Ross, p. 669, on 242a38–49; A. Kenny, *The Five Ways* (London, 1969), p. 19; also Lobkowitz, pp. 407–409.

²⁴ *In 7 Phys.* 1, l. 1, n. 2 (885); SCG 1.13 (*quorum primum*).

²⁵ *In 7 Phys.* 1, l. 1, n. 5–6 (888–889); SCG 1.13 (*Nec obviat*); Avicenna, *Sufficientia* 2.2, in *Opera omnia* (Venice, 1508), fol. 23^rK14–24^rM13.

from that in which the truth is not obvious. In the case of something which does not "have the principle of motion in itself," he says, it is clear that it is moved by another.²⁶ How is this principle self-evident? As Lobkowitz has rightly objected, it is not self-evident that something not moved by itself is moved by another. "What has the ἀρχή of its motion," however, can include, but need not be limited to, "what has the moving cause of its own motion." For, even if, for Aristotle, a principle is always a cause, it is not always a moving cause.²⁷ Thus, nature is a principle and a cause of motion or rest in a thing to which it belongs *per se* and primarily.²⁸ But nature need not be a moving cause; for, according to *Physics* 8.4, some things naturally moved, such as stones, do not efficiently cause their own motion, are not self-moved.²⁹ And so, by "having in itself the principle of motion," Aristotle refers to what is moved and whose source of motion is from within it, in any sense. The term is unspecified enough to include something naturally moved, something self-moved, and even, as in Lobkowitz' putative case, something simply in motion through no efficient cause.³⁰ For, in the latter case as well, the thing is the source of its own motion, whether it spontaneously "begins" its motion or motion always existed within it. According to Aristotle's principle, then, if something is moved and is not the source of its own motion, something else must be the source, something else must be "whence is the ἀρχή of motion," that is, must be the efficient or moving cause. In other words, in things moved which do not of themselves begin to be moved, it is obvious that something else begins their motion, that they are moved by another. Upon reexamination, therefore, Aristotle's opening statement neither introduces self-motion nor assumes Q³, but, in fact, it establishes a self-evident truth which will help found the subsequent major premise.

Aristotle next takes up the case that poses a difficulty for his conclusion by presupposing something having the principle of its motion in itself. He supposes, further, that the thing is moved *per se* and primarily. Motion, in other words, must belong to the thing a) precisely as mobile, and not according to an accident of it, as in a musician walking; and b) as a whole, and not

²⁶ The initial presupposition is as follows: "If something does not have the principle of motion in itself, it is clear that it is moved by another; for, the mover will be something else. But if it does have it in itself, let something be posited, for which AB stands, which is moved *per se*, but not by one of its parts being moved" (241b35–38).

²⁷ Compare the meaning of passive potency: a principle of motion by *another* or by a thing itself *qua* other (*Meta.* 5.12 [1019a21–23]); something in potency, in other words, has a principle of motion in it which, nonetheless, requires another to cause the motion. As a result, Aristotle can speak of moving principles, that is, movers, which not only do not have motion but also do not have the principle of motion in themselves (*Phys.* 2.6 [198a27–29, a35–b2]). Here in 7.1, however, "what has the principle of motion in it" refers not to something which is merely in potency but to what is in motion merely as a result of such a potency within it.

"What has a principle of motion" can, nonetheless, refer to a self-mover, as, for example, in *De caelo* 2.2 (284b32–34, 285a28–30); but cf. 1.2 (268b28–29).

²⁸ *Phys.* 2.1 (192b21–23).

²⁹ *Ibid.*, 8.4 (255a2–18).

³⁰ See above, n. 5.

according to one part, nor according to a larger whole of which the thing itself is but a part.³¹ Aristotle thereby posits something moved in the strictest sense both in order to meet the demands of scientific demonstration and because every other sense of motion is founded on the primary one. Notice that, with Aristotle's suppositions understood thus, his entire reasoning need not be considered, as it usually is, to be a *reductio ad absurdum* of what is initially presupposed as self-moved. Instead, Aristotle in effect introduces in the suppositions two divisions of things moved which, contrary to Lobkowitz,³² are exhaustive but which are not mutually exclusive: what is moved by another and what has its principle from within. The second division includes strict self-movers but is not limited to them. Through his reasoning, Aristotle will reduce this division to the first, and thereby will exclude, as well, the possibility of something strictly self-moved. Accordingly, his reasoning nowhere relies on an impossible supposition. In fact, when he later posits that a part of what he originally supposed comes to rest, no contradiction ensues. For, contrary to Avicenna, to suppose something intrinsically moved is not to suppose something strictly self-moved.

Once the terms of the suppositions are understood, the cogency of the demonstration proper can be explained in a new way. In the argument's third part, Aristotle first demonstrates the major premise. That which is moved but is not moved by something else, he says, need not cease to be moved when something else ceases its motion.³³ The principle is self-evident, but its self-evidence has not previously been brought out. It is essential to understand what Aristotle means by things "which are moved but not by something else." According to Aristotle's opening statement, as we have seen, everything not moved from within is moved by another. Conversely, then, what is not moved by another has the principle of motion within itself. Thus, Aristotle has in mind in this principle things precisely such as he has already presupposed, things strictly moved through an intrinsic principle. He now conceives of such things as, in addition, not moved by another. He conceives of something, that is, to which motion belongs of itself as a whole through no other cause; to which motion belongs either as strictly self-caused or as part of the very nature of the thing. Such a thing relies for its motion on itself alone. It is self-evident, therefore, that it need not be affected by the motion or rest of anything else. Whatever relies only on itself for its motion, in other words, by that very fact need not vary its motion because of the motion of

³¹ For these distinctions, see *Phys.* 4.2 (211a19–23); 5.1 (244a23–34); 8.4 (254b8–12).

³² Lobkowitz, p. 404.

³³ Aristotle establishes the major premise thus: "Next, it is not necessary for that which is moved but not by something [else] to cease being moved upon another thing's coming to rest; but if something comes to rest upon another's ceasing to be moved, it is necessary that it itself be moved by something [else]" (241b44–242a38). The *textus alter* reads as follows: "Furthermore, what is moved by itself will never cease being moved upon the standstill of some other thing moved. It is necessary, therefore, if something ceases being moved upon some other thing's standing still, that it be moved by another" (241b33–242a3).

anything else. The major premise, then, is simply the contrapositive: whatever does come to rest upon the cessation of another's motion must necessarily be moved by something else.

The minor premise completes the demonstration. In it, Aristotle seeks to show that the body which he had supposed to be strictly moved through an intrinsic principle must itself come to rest upon the cessation of another. Returning to what he had already supposed, he makes a further supposition. Since the thing supposed is in motion primarily and *per se*, it must be a divisible whole (AC) with distinguishable parts, as Aristotle has shown in Book 6.³⁴ Suppose, then, that one part (AB) comes to rest. As a result, the remainder of the whole (BC) must also come to rest. Otherwise, the whole would cease to be the sort of thing which it was assumed to be: something moved through an intrinsic principle to which motion belongs as a whole, that is, something which as a whole is the principle of its own motion. For, if a part continues in motion all by itself, then it has its own principle of motion, quite apart from the whole. But if so, the whole turns out to have been something moved not through the whole but through parts, each with its own principle of motion, contrary to the initial supposition. In order to avoid contradiction, therefore, one must conclude that upon the coming to rest of a part, the whole also must stop. But whatever ceases to be moved upon the cessation of another is moved by something else. And so, concludes Aristotle, everything moved, even what is moved through an intrinsic principle, is moved by another.

In essence, then, the best exposition of *Physics* 7.1, that of Simplicius and Aquinas, works equally well when both the presuppositions and the major premise are reinterpreted in terms of something intrinsically moved rather than of something self-moved. As a result, self-motion need nowhere be explicitly introduced into the argument's exposition. At the same time, Aquinas' magisterial account of the argument's *propter quid* reasoning still applies.³⁵ Motion can not belong to any physical body as a whole merely in virtue of itself. For, every whole in motion depends for its motion upon its parts, and there is no first part moved. The new interpretation, however, actually corresponds more closely than the old to Aristotle's text. Why, then, has it been overlooked? The text itself suggests an explanation. Of the two versions of 7.1-3 in the manuscript tradition, the "alternate" version was the only one known to the non-Greek commentators. But in this version, the major premise is explained not through "what is not moved by another" but through "what is moved by itself."³⁶ This reading in turn influences the way the presuppositions are read, especially when nature as an intrinsic principle is conceived as a moving cause, as in the Islamic thinkers, following Alexander and Philoponus. Now, Simplicius does not see self-motion in the

³⁴ 6.10 (240b8-241a26).

³⁵ In 7 *Phys.* 1, l. 1, n. 6 (889); cf. SCG 1.13 (*Nec obviat*).

³⁶ See above, n. 33.

suppositions. But even he, although usually preferring to comment on the primary version, adopts the alternate version in his proof of the major. The Platonic understanding of self-motion fits readily with this version, and Simplicius even appeals to the terminology of Plato's *Phaedrus*.³⁷ But as cogent as his exposition is in accounting for the ancient objections, it inevitably leaves itself open to the critique of Lobkowitz. Only in the reading of the primary version does the argument justify not only Q² but also Q¹. For, in this reading, the major premise can be derived without appealing to the nature of a self-mover. Thus, everything moved, not only what is not self-moved, can be shown to be moved by another.

Contrary to Lobkowitz, Aristotle is not oblivious to the need to demonstrate Q³, nor does he only succeed in demonstrating E, that nothing is moved by itself. A reconsideration of *Physics* 7.1 indicates that Aristotle there demonstrates Q¹ in a way that entails Q³. Aristotle's proof is founded on the very nature of motion and mobile things. Motion is not of itself a being *per se*, but belongs to material subjects as the act of some potency. As such, it never occurs all at once as a whole. Only substantial changes—which, in any event, are not strictly motions—occur without any interval of time. But they themselves, besides most obviously being caused by another, are always preceded and followed by alterations and locomotions of some duration and magnitude. Now, the continuity of motion results from the continuity of things subject to motion. Thus, because of the very divisibility of things, no thing moved is moved all at once in all of its parts. Everything moved is moved part by part. Furthermore, this divisibility into parts is inexhaustible, so that no first part moved can be found which is not itself divisible into prior parts moved. Consequently, there is no first part of anything moved to which, as such alone, motion belongs. In other words, nothing moved is as such, of itself, the sole principle of its motion. Instead, everything moved, because of its infinite divisibility, depends for its motion on its parts' being moved. It does not follow that its parts are efficient causes of its motion. The point is that neither things moved nor their motion are simple and irreducible entities, such that the former of themselves are properly the source of the latter. Nothing composite of itself explains what belongs to it as a composite. Aquinas compares the principle of motion to the principle of being.³⁸ Because nothing composed of parts can be the first being, no composite, for example, of matter and form, can as such be the sole principle of its own act of being. Similarly, because there is no first thing moved, nothing moved is the sole source of its being moved.

Whatever, then, belongs to x not through x, either does not belong to it at all, or belongs to it through something else. To say that some property y has *no* source for its belonging to x would be to say that it belongs to x through x alone, that x suffices of itself as the source of y. Hence, if x can not be the

³⁷ In 7 *Phys.* 1, pp. 1040.30–1041.1; *Phaedrus* 245C.

³⁸ See above, n. 35.

source of its own being or of its motion, then something else must be the source. This is the self-evident principle with which Aristotle's argument begins. Thus, Aristotle does not appeal to the fact that x does not cause its own properties to show that its properties must be caused. Instead, to suppose that its properties need no cause is to suppose that x alone is their principle. But a composite x can not be the source of its composite properties. And so, every motion has as the source of its being something other than its subject. Everything moved must be moved by another.

II. AQUINAS

Aristotle's proof in *Physics* 7.1, as interpreted by Aquinas, fails to justify the first step of the argument for a prime mover, that everything moved is moved by another (Q^1). However, that Q^1 has a proof for Aquinas is evident in his interpretation of another text of Aristotle, in that of *Physics* 8.4. Although we have seen that the summary of this passage in the *Contra gentiles* fails to meet Lobkowicz' objection, Aquinas' new and thorough reading of the text in his *Physics* commentary of circa 1271 leads to a different conclusion. The key to Aquinas' reading lies in his unique division of the text. At the outset of chapter 4, Aristotle shows that of several exhaustive classes of things moved, in only one is it not obvious that everything moved is moved by something. In the case of things naturally moved like the heavy and the light, although they can be shown *not* to be self-moved through one part moving another, it remains unclear by what they are moved. According to Thomas, Aristotle's subsequent discussion of their cause is divisible into two parts: first, Aristotle "shows that they are naturally moved by something; second, he inquires by what they are moved."³⁹ Above we criticized the argument of chapter 4 because Aristotle nowhere actually *proves* that things naturally moved must be moved by their generator. In fact, the only place where he proposes the generator as their mover is in a remark incidental to the concluding sentence of his entire discussion.⁴⁰ Thomas' ingenious reading allows us both to concede this criticism and to save the argument. The second part of Aristotle's inquiry admittedly justifies only a negative conclusion: it only tells us in what way spontaneous natural motions have *no* mover. In such things as the heavy and the light, the actualization of their natural potency requires no special agent, but follows immediately upon their nature, once they have been generated. The affirmation that whatever generates such things is their mover is justifiable only because in the first part Aristotle has already proved that everything naturally moved has a mover.⁴¹ But what is his elusive proof?

³⁹ *In 8 Phys.* 4, l. 8, n. 1 (1029).

⁴⁰ 255b31–256a3.

⁴¹ Simplicius also seems to interpret this first part as proving that naturally moved things have a mover, but in a different way from Aquinas. For, according to him, the argument here arrives at the generator as the cause of a thing's nature and motion, thus anticipating Aristotle's later, more explicit conclusion. *In 8 Phys.* 4, pp. 1212.25–1213.2.

Aristotle's inquiry opens thus: "But it *follows* that even these [the heavy and light] are always moved by something."⁴² In the subsequent discussion (255a18–30), Aristotle apparently offers evidence for this claim concerning things moved naturally by appealing to an analogous case: things that *move* naturally (255a18–30). From Aristotle's dense excursus, we may draw the following analogous points. Without any further cause, but through an intrinsic principle, a natural mover moves, insofar as it is in act, something else which is in potency. Accordingly, something naturally moved is moved "in the same way": without any further cause, but through an intrinsic principle, it is moved, insofar as it is in potency, by something else which is in act. Aristotle's conclusion seems more confident than his discussion warrants: "Therefore, fire and earth are moved by something: violently, on the one hand, whenever contrary to nature; naturally, on the other hand, whenever being in potency, they are [brought] into their own actualities."⁴³ Aquinas, however, sees behind the terms of this conclusion a more conclusive proof than the text expresses. Aristotle's entire discussion has highlighted the intrinsic potency found in all things naturally moved. Thomas, starting from this potency, supplies the remaining steps:

Because, therefore, what is in potency is naturally moved by something⁴⁴ which is in act; but nothing is in potency and in act with respect to the same thing; it follows that neither fire nor earth nor any other thing is moved by itself, but by another.⁴⁵

The first two propositions quoted are the premises which Aristotle must be presupposing as evident, according to Aquinas' careful reading of the discussion's introduction and conclusion. Together they provide the middle terms implicit in Aristotle's concluding reference to something's being reduced from potency into act. We may expand the resulting proof by supplying the missing premises as follows. Everything moved, including everything naturally moved, comes from potency into act. For, motion, the act of what exists in potency, is intermediate between what is in potency and is not yet in act, and what is in act and no longer in potency.⁴⁶ But everything which comes from potency into act is caused by something which is in act (P). Therefore, everything moved is caused by something which is in act. Notice that this conclusion already entails Q³. At the same time, continues the

⁴² 255a18–19.

⁴³ 255a28–30: τὸ δὴ πῦρ καὶ ἡ γῆ κινεῖσθαι ὑπὸ τινος βίᾳ μὲν ὅταν παρὰ φύσιν, φύσει δ' ὅταν εἰς τὰς αὐτῶν ἐνεργείας δυνάμει ὄντα.

⁴⁴ The Leonine text read *alio*, but the sense demands *aliquo* or *eo*. Otherwise, Thomas assumes what he set out to prove. Furthermore, that Aquinas has *Meta.* 9.8 in mind here is evident from his quotation of it in the next paragraph (see below, n. 47).

⁴⁵ "Quia igitur quod est in potentia, naturaliter movetur ab alio quod est in actu: nihil autem secundum idem est potentia et actu: sequitur quod neque ignis neque terra neque aliquid aliud moveatur a se, sed ab alio" (*In 8 Phys.* 4, l. 8, n. 1 [1029]).

⁴⁶ Cf. *Phys.* 3.1 (201a30–b15).

proof, since what is moved as such is in potency, and it is moved by something which is in act, nothing moved as such can be that by which it is moved, that is, nothing is moved by itself (E). For, nothing is simultaneously both in act and in potency in the same respect (S). Therefore, everything moved is moved by something which is not itself, that is, everything moved is moved by another (Q¹). Consequently, fire and earth even when naturally moved are moved by another. Thomas introduces here, then, two major premises, P and S, from which, taken separately, Q³ and Q² respectively can be concluded. Thus, Aquinas, in his exposition of Aristotle, has hit upon one simple proof of Q¹ which in effect meets Lobkowitz' critique, using, as it does, not only a demonstration of E, but also a demonstration whose conclusion entails Q³.

According to Aquinas' division, the first part of Aristotle's inquiry truly demonstrates that things naturally moved require a distinct mover. It remains for the second part, then, to determine what this mover is in the case of the heavy and light (255a30-256a3). Now that this part has been given a foundation through the proof of the first part, one can see how Aristotle's eventual affirmation that the generator is what moves earth downward can be justified. Aristotle proceeds here by distinguishing different kinds of potency. For, repeats Thomas, what is in potency is moved by what is in act.⁴⁷ What is potential, in other words, points to an agent, and different potencies point to different agents. In brief, Aristotle's argument is as follows. As we have seen, something heavy requires an agent insofar as it is in potency to being down. At the same time, it requires no other agent than the cause of its nature insofar as its principle for being down is a distinct kind of natural potency. For some second potencies need only what actualizes a previous first potency in order that they be actualized; just as a scientist needs only the principles which he has learned in order to exercise his scientific capacity, when the opportunity arises.⁴⁸ Hence, once all obstacles are removed, what actualizes earth's potency to be down is simply the cause of its natural qualities, its generator. Thus, given the cogency of the first part, Aristotle need only point here to the unique kind of potency found in the heavy and light in order to determine their agent.

Surprisingly, the proof which Aquinas discovers implicit in *Physics* 8.4. is nowhere expressly made by Aristotle. According to Aquinas the expositor, some such proof is required by the philosopher's words. And, in fact, both of the propositions which Aquinas introduces can be derived from Aristotle. The source of the first proposition (P) is the well-worn formula of *Metaphysics* 9.8, cited above: what is in act always comes to be from what is in potency by what is in act. The second proposition, that nothing is simultaneously both in potency and act (S), is a metaphysical axiom based on one

⁴⁷ *In 8 Phys.* 4, l. 8 n. 2 (1030).

⁴⁸ Cf. Aquinas, *In 2 De anima* 5, l. 11 (ll. 200-242 Leon.).

of Aristotle's senses of being, on being as divided by these two contraries. The axiom, though apparently not found in Aristotle, has already been seen to found the *Contra gentiles'* proof of Q based on *Physics* 8.5. Aquinas' innovation, then, lies not so much in the propositions themselves as in the demonstration of Q¹ composed of them. This demonstration itself incorporates the same proof of E based on *Physics* 8.5, but it has been given a new foundation through what in effect is a proof of Q³. The latter proof consists in applying P to things in motion in order to show that they require a mover. This application of P, like that of S, can be found nowhere in Aristotle, but seems to originate with Aquinas.⁴⁹ Thus, in this appeal to P, as in many other instances, Thomas makes very confident use of a proposition which Aristotle merely mentions and never expands upon. Have we simply arrived at yet another characteristic peripateticism which, though not self-evident, is nowhere proven?

Aquinas appears to offer a proof of P in only one place, but the passage sheds considerable light on the demonstration of Q³. In the *Contra gentiles* 1.16, only three chapters after proving God's existence, Thomas argues that in God there is no passive potency. In the second argument, he recounts why, according to *Metaphysics* 9.8, act is always in one way temporally prior to potency: "because potency does not educe itself into act, but it is necessary that it be educed into act through something which is in act."⁵⁰ Then, the sixth argument begins thus:

Also, we see that there is something in the world which passes from potency into act. It does not, however, educe itself from potency into act, because that which is in potency is not yet, and hence is it not able to act. It is therefore necessary that there be something else prior by which it is educed from potency into act.⁵¹

The point of the argument is that potency by itself does not account for its own reduction into act. Potency is not *of itself* a principle of act; it does not of itself act.⁵² On the contrary, if potency as such were to act, it would be in act rather than in potency. But potency is the opposite of act, and as such can not be the sole source of act, can not of itself become act. If the fact is not already self-evident, Thomas adds that what is in potency, as such, *is* not,

⁴⁹ Aristotle implicitly applies P to things moved in the argument of *Meta.* 12.6 that beings in motion can not begin from mere potency or from matter. Thus, he asks, "For how will [things] be moved unless there will be some cause in act?" (1071b28–29).

⁵⁰ "Quia potentia non educit se in actum, sed oportet quod educatur in actum per aliquid quod sit in actu."

⁵¹ "Item. Videmus aliquid esse in mundo quod exit de potentia in actum. Non autem educit se de potentia in actum: quia quod est potentia, nondum est; unde nec agere potest. Ergo oportet esse aliquid aliud prius, quo educatur de potentia in actum."

⁵² "To act" here is used not in the transitive sense, as in the act of an active potency, but in the sense of potency's actualizing, of being in act. For parallels to this use in Aristotle, see *Physics* 8.4 (255b10, b21–22); 3.1 (201b8). Active and passive potencies are only analogously the same. Note that for Aristotle, the reduction of active potency to act need not be a motion, otherwise there could be no unmoved mover.

at least not yet. For, what is potentially is not what it can be, is not a being in the perfect sense, which would be to be actually. But what is not can not as such act. As another axiom, whose meaning is now clear, has it: nothing acts except insofar as it is, or is in act. It follows, therefore, that what is in potency comes to be in act only because of something in act.

At first Aquinas appears again guilty in this passage of the same fallacy with which Lobkowitz has charged him, now at a metaphysical plane. To show that something does not reduce itself is not yet to show that there must be something else which reduces it. Just as we can conceive of an uncaused motion, can we not conceive of an uncaused reduction from potency to act? The entire point of Aquinas' proof, however, is to render this objection impotent. Motion, even when defined as the act of something potential as such, can be conceived as something actual, something existent, and therefore as needing no special cause. As an act, although imperfect, it can be thought of insofar as it is already perfect. But, as Thomas elsewhere insists, the concept of motion is incomplete unless it includes what reason must apprehend about motion, that it is intermediate between two termini, that it is a reduction from potency to act, from what it was to what it will be.⁵³ Thus, motion must be analyzed into two diverse and irreducible terms, and can not merely be identified with either. As a result, it can be seen to require a cause. For, if the reduction from potency to act is self-explanatory, requiring no further cause, then it is necessarily explained merely either by potency or by act; the analysis of motion excludes any third possibility. Since act, moreover, does not precede the reduction, the only explanatory principle possible is potency. But potency does not of itself account for act, as has been shown. Hence, something potential in order to be reduced into act requires the action of something actual. It therefore requires something distinct from itself, since nothing is in the same respect both in potency and in act.

The proof of Q³ found in Aquinas, then, determines why motion is not self-explanatory, why it requires a moving cause apart from itself: because the concept of motion must ultimately be resolved into two terms neither of which account for it. What is in motion can only go from potency to act because of something in act. And so, because of the very nature of motion, something moved requires a mover for the entire duration of its motion. The

⁵³ Cf. *In 3 Phys.* 3, l. 5, n. 17 (324). The text is worth quoting: "Nam ratio motus completur non solum per id quod est de motu in rerum natura, sed etiam per id quod ratio apprehendit. De motu enim in rerum natura nihil aliud est quam actus imperfectus, qui est inchoatio quaedam actus perfecti in eo quod movetur: sicut in eo quod dealbatur, iam incipit esse aliquid albedinis. Sed ad hoc quod illud imperfectum habeat rationem motus, requiritur ulterius quod intelligamus ipsum quasi medium inter duo; quorum praecedens comparatur ad ipsum sicut potentia ad actum, unde motus dicitur actus; consequens vero comparatur ad ipsum sicut perfectum ad imperfectum vel actus ad potentiam, propter quod dicitur actus existentis in potentia. . . . Sed quantum ad id quod ratio apprehendit circa motum, scilicet esse medium quoddam inter duos terminos, sic iam implicatur ratio causae et effectus: nam *reduci aliquid de potentia in actum, non est nisi ab aliqua causa agente*. Et secundum hoc motus pertinet ad praedicamentum actionis et passionis."

demonstration goes to the heart of the Aristotelian explanation of causality. A cause does not operate by giving what it has to what lacks the same; rather, form is educed from a potency already within matter, but only because of an agent acting through its own form.

III

Lobkowitz' objection questions the very foundation of the Aristotelian argument for a prime mover. The argument can only succeed if its first step (Q) can be demonstrated in the sense of Q¹, that everything moved is moved by another, so that at the same time it entails Q³, that everything moved is moved by something. As I have shown, the stronger of Aristotle's two proofs of Q, that of *Physics* 7.1, does in fact entail Q³, and, contrary to Lobkowitz, does not merely prove E, that nothing is moved by itself. As for the other proof, that of *Physics* 8.4, Aquinas finds implicit in it a novel proof of Q¹ through the propositions P and S. This proof itself presupposes the demonstration of P, which can be discovered in SCG 1.16. As a result, one can find in Aquinas himself a proof of Q whereby Q succeeds in entailing Q³. Thus, the *Contra gentiles*, though it fails to establish Q³ in its summary of Aristotle's arguments in 1.13, provides, three chapters later, the basis for a completely original demonstration of Q³.

In Aristotle and Aquinas, then, we have discovered two different demonstrations that everything moved requires a moving cause distinct from itself. Each is a *propter quid* argument from the very nature of things moved themselves. Aristotle's demonstration appeals to the fact that bodies are infinitely divisible to indicate that they, as moved, like their motion itself, are not something simple, are not simultaneous wholes. Consequently, no body of itself can be the sole source of its motion. For, every body, as such, already depends on each one of its parts to be the principle of each one's part of the whole's motion. There can be no irreducibly first part which of itself, without any prior parts, is, as a whole, the sole principle of its motion. If bodies were points and if "motion" were their indivisible activity, then perhaps a point could be the absolute principle of its own change. But no magnitude accounts for its own change, since motion belongs to it in virtue of its parts. No magnitude of itself is the sole principle of its own motion. For an object to maintain, further, that there is no principle of a body's motion amounts to maintaining that the body alone is its principle. Hence, the motion of any body must have a source which is something other than the body as a whole. Everything moved is moved by something other than itself.

At the same time, the example of a point in motion indicates why Aquinas' demonstration of P is such an important contribution to the argument for a prime mover. The shortcoming of Aristotle's proof is that it applies only to physical motion, that is, to the changes of extended, material

things.⁵⁴ The *propter quid* reasoning of Aquinas, on the other hand, reveals why absolutely no thing in motion can be the exclusive source of its motion. The essence of every change, whether of a material or of an immaterial being, whether in time or not, lies in something's going from potency into act. Yet, in demonstrating P, Aquinas shows that no potency can be the sole principle of its subsequent act. That which is not yet, can not act. It is true, then, that potency can not act in the sense of an efficient cause of its own actuality. For, only what is actual can be an agent. But also, potency can not simply come to be in act with no efficient cause. For, such an occurrence would likewise amount to potency's acting. Potency can neither reduce itself to act, nor can it be reduced of itself into act. And so, potency is a principle of act in the way that any opposite is the principle of its opposite, as dark of light, or cold of hot: it is a necessary but not a sufficient source of the *change* into act. Every potency requires something further which is in act as the source of its own act. And so, absolutely everything being moved, as in potency, requires something other than itself as the source of its act.

The advantage of Aquinas's demonstration, then, is that it establishes a foundation for Q such that the principle applies to any change whatever, physical or non-physical. As a result, Q can serve as the first step of a simple, two-step argument from motion concluding immediately to God. For, the first mover at which such an argument arrives will now be unmoved not only through any physical motion—a mover which need not be God—but also through any motion whatsoever. It will be unmoved not only through any imperfect motion but also through any perfect motion, such as can belong to a soul or to an intellect. Such an argument can omit all the extra steps required to arrive at an absolutely first cause in Aristotle's original argument, the lengthy argument recounted in SCG 1.13. As early as in the commentary on the *Sentences*, Aquinas holds that such an argument can be made.⁵⁵ But the first way of the *Summa* remains the outstanding instance of Aquinas' reworking of the arguments of Aristotle in the manner required.⁵⁶ Accordingly, Aquinas presents there a unique proof of Q which, like the proof that we have discovered in his later exposition of *Physics* 8.4, employs both P and S. It belongs to another occasion to examine the unique character of this

⁵⁴ J. Paulus, in "Le caractère métaphysique des preuves thomistes de l'existence de Dieu," *AHDL* 9 (1934) 143–53, has already accurately noted the limitations of *Physics* 7.1's argument (pp. 147–148). According to him, SCG 1.13's third argument for Q, ostensibly drawn from *Physics* 8.5, is actually metaphysical in character and is drawn from *Meta.* 9.8. But note that 1.13's version of this argument, unlike versions elsewhere in Aquinas (see below, n. 57), does not appeal to P.

⁵⁵ *In 1 Sent.* 8.3.1 sc.c.

⁵⁶ Compare the first way of SCG 1.13. The sixth argument of SCG 1.16 itself amounts to a two-step argument, which begins from potency's reduction into act, and culminates in a first "reducer" purely in act, that is, in God. Note that Aquinas, perhaps even late in his career, presents to beginners a two-step version of the Aristotelian argument which offers only an inductive proof of Q based on *Physics* 8.4 (*Compendium theologiae* 1.3).

proof.⁵⁷ The point is simply that Aquinas' first and most manifest way to God, by appealing to P, implicitly contains his original proof of Q³. That proof consists in demonstrating and applying to the problem of motion a proposition mentioned but never used thus by Aristotle, that everything which comes from potency into act is caused by something which is in act. Of course, Aquinas does not here expressly demonstrate Q³, as if he were out to refute the Lobkowicz of his day. Rather, his intention is to establish a distinct mover for everything moved in the widest possible sense. But in so doing, his proof calls upon P, thereby availing itself of the demonstrable principle from which follows Q³. Indeed, his entire argument is entitled to conclude directly to God only because at its foundation lies the demonstration, implicit in this version of Q's proof, that everything *in any way* moved is moved by something.

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⁵⁷ The proof of Q in ST 1.2.3 is fundamentally a proof of E based on *Physics* 8.5's proof. P is introduced in order to explain why every mover moves insofar as it is in act. Thus, although the proof employs both S and P, neither of which is found in Aristotle's original, the whole proof is expressly founded on S rather than on P, unlike Aquinas' proof of *In 8 Phys.* 4.

As in this proof of E in ST 1.2.3, Aquinas also appeals to P in his later exposition of *Physics* 8.5 itself (*In 8 Phys.* 5, l. 10, n. 4 [1053]). There he acknowledges that this passage from *Physics* 8.5, which SCG 1.13 had incorrectly assessed as a proof of Q, intends to show, rather, that the prime mover, by now proved, can not be a self-mover. Perhaps, then, Aquinas had previously introduced P into the proof of ST 1.2.3 in order to suit the proof for a role which it was not originally intended to play.

Aquinas and Newton on the Causality of Nature and of God: The Medieval and Modern Problematic

William A. Wallace, OP

Father Weisheipl has written so much on the concepts of nature and of motion in St. Thomas' thought that it would seem impossible to add anything significant to what he already had given us at the time of his untimely death.¹ As one of his longtime confreres and collaborators, however, I know that he himself was aware that much yet remained to be done, first by way of synthesizing in a satisfactory way St. Thomas' statements about nature and motion, and then by showing their relevance to modern science, mainly to combat the agnosticism and atheism many of our contemporaries find in it. Shortly before his death he was enthused over my discovery of the Jesuit (and generally Thomistic) provenance of Galileo's early notebooks, as then just published in *Galileo and His Sources*,² and at my hinting to him that similar, though less dramatic, materials were to be found in Newton's Trinity notebook.³ We both were convinced that the history of late medieval, Renaissance, and early modern science would vindicate St. Thomas' insights, indeed

¹ His main lines of thought on these subjects have been edited by William E. Carroll with the title, *Nature and Motion in the Middle Ages* (Washington, DC: CUA Press, 1985).

² Subtitled *The Heritage of the Collegio Romano in Galileo's Science* (Princeton: Princeton University Press, 1984).

³ This is preserved in Cambridge, University Library MS Add. 3996.

that it would show how science and religion, rather than being in an adversary relationship, actually provide complementary understandings of the workings of nature. It seems fitting, therefore, that I should contribute to his memorial volume by addressing problems that have exercised us both over many years, to see what I may now add toward their solution.

God and his relationship to nature, of perennial interest to philosophers and theologians, may be approached through yet another concept on which I have worked extensively, that of causality.⁴ For Aristotle nature is an internal cause of motion and rest in the material world, and for St. Thomas God is the first cause of all motion in the universe. How to reconcile these two types of causal action, nature's causality and God's causality, is the precise question to which I will address myself. This is an important problem for Thomists, and it has a distinctive solution. In addressing it I hope to shed light not only on the medieval but on the modern problematic as well.

The difficulty concealed here was recognized by St. Thomas himself, who raised it as an objection to all five of his proofs for the existence of God, the famous *quinque viae*. It is remarkable that he lodges only two objections against this extensive line of argument, now a classic in Western thought. The first, undoubtedly the most difficult, is the existence of evil in the world. But no less easily dismissed is the second, which, beginning with a principle of parsimony similar to Ockham's celebrated razor, reads as follows:

Whatever can be effected by a few principles does not require more. But, supposing that God does not exist, everything that goes on in the universe can be fully accounted for by alternate principles—for natural effects are explained by nature as a cause, and intended effects by human reason and will. Thus there is no need to suppose that God exists.⁵

Setting aside the second alternate principle (reason and will, which would involve us in a yet more difficult enigma, reconciling man's freedom with God's causal action), I intend to focus on the first, the alternative posed by nature. If the fall of a heavy object or the flight of a bird is caused by nature, what need is there for God's causality to explain their respective motions?

St. Thomas solves the problem in his replies to the objection, but his solution is too brief to be of much help. He simply writes: "Since nature acts for a definite goal under the direction of a higher agent, things done by nature must also be referred to God as to a first cause."⁶ That's it. That's all he says. Both nature and God are required to explain the fall of the body and the flight of the bird, but exactly how they are required and how they respectively influence those motions, he leaves us to puzzle out for ourselves.

⁴ In my *Causality and Scientific Explanation*, 2 vols. (Ann Arbor: The University of Michigan Press, 1972-1974), and "Six Studies of Causality on the Bicentennial of David Hume," *The Thomist* 40 (1976) 684-696.

⁵ ST 1.2.3.

⁶ *Ibid.*, ad 2.

Some time ago I came across a succinct solution to the problem written by a student who was to figure importantly in subsequent history. The student was Sir Isaac Newton, and I found it in the notebook referred to above, copied by him under the direction of a tutor when he was beginning his studies at Cambridge around 1662.⁷ Physics, Newton then writes, is concerned with the study of nature, and nature is the cause of motion and rest in that in which it is primarily, essentially, and not accidentally.⁸ Nature, he continues, is both an active principle and a passive principle: active, because it causes motion, and because it is form, and all action comes from form; and passive, because it confers on bodies an inclination or aptitude to receive and sustain various states of motion.⁹ Newton then uses the fall of heavy bodies to exemplify things done naturally or according to nature (*secundum naturam*), and mentions the possibility of things occurring contrary to nature (*contra naturam*), beyond nature (*praeter naturam*), and above nature (*supra naturam*).¹⁰ The last, he says, come from a principle "more divine" than nature, that is, things effected by angels or by God. Later, when discussing efficient causes, Newton divides these into two types: a universal cause, for which he lists God and influences from the heavens; and a particular cause, which he exemplifies with nature and which he says is God's instrument (*est tanquam organum Dei*).¹¹ Newton's source, Johannes Magirus, further explains that without this first efficient cause, matter is idle and inert, and that nature itself is an instrument in the sense that it does not act except through the agency of the first cause.¹² Newton incorporates this idea in his discussion of final causality, for there he again divides ends into universal and special: the universal end, that is, the end of the universe, he says is princi-

⁷ The portions of these notes written in English have been transcribed and analyzed in J. E. McGuire and Martin Tamny, *Certain Philosophical Questions: Newton's Trinity Notebook* (Cambridge: Cambridge University Press, 1983). For some excerpts from, and an analysis of, the portions written in Latin, see W. A. Wallace, "Newton's Early Writings: Beginnings of a New Direction," in G. V. Coyne et al., eds., *Newton and the New Direction in Science* (Vatican City: Vatican Observatory Publications, 1988), 23-44. In what follows I have transcribed and translated additional portions, usually paraphrasing them in English in the text and giving the Latin, with appropriate folio references, in the notes.

⁸ Fol. 16^r: "Physica . . . consistit in naturae contemplatione (quae est causa motus et quietis ejus in quo inest primo et per se et non secundum accidens)."

⁹ Ibid.: "Natura est principium tum activum (a quo efficitur motus). Estque forma quatenus est forma: (a forma enim provenit omnis actio) tum passivum (rebus naturalibus certas quasdam inclinationes seu aptitudines ad hos vel illos statutos motus recipiendos et sustinendos confert)."

¹⁰ Ibid.: "Naturalia itaque sunt . . . substantiae corporeae, et quaecunque in his per se insunt, ut descensio gravium; quaedam sunt contra naturam, ut ascensio gravium; quaedam praeter, et quaedam supra naturam."

¹¹ Fol. 17^r: "Efficiens (est principium externum a quo fit motus) est vel universalis (viz., Deus vel virtus coelestis) vel particularis (viz., natura quae est tanquam organum Dei, et est causa finita ut Deus est infinita)."

¹² See his *Physiologiae peripateticae libri sex* (Cambridge, 1642), p. 21: "Sine hac enim causa efficiente et movente materia est otiosa et iners. . . . Haec non agit nisi virtute coelestis et primae causae efficientis."

pally the glory of God and less principally man, whereas the special end is that to which each physical thing tends by the ordination of nature.¹³

Later on in these same notes Newton has a fuller discussion of causality and agency, where he invokes such Thomistic concepts as essentially subordinated series of causes, the divine *concursum*, agents that act by contact and those that act only virtually, that is, by their power, and action that comes directly from an agent and action that comes only indirectly *per emanationem et resultantiam*.¹⁴ We shall return to these later. Here it may suffice to observe that, at the age of twenty, Newton already had a clear grasp of how God can act in the world through his causality, while still leaving room for nature also being a cause under God's prevenient causality.

But this is to anticipate a good part of our story. Much work had been done in the four centuries that separate Aquinas from the young Newton, and we must now survey some of this, first so that we can understand Aquinas' proofs in the context of medieval and Newtonian science, and then so that we can readjust them in light of more recent science. I propose to do so by discussing, in order, 1) the causality of nature, 2) arguments for a first or immaterial mover above the order of nature, 3) how both nature's causality and an immaterial mover retained their validity for Newton, and 4) how they continue to do so to the present day.

THE CAUSALITY OF NATURE

The problem of the causality of nature, namely, how nature may be regarded as a cause of actions or motions that are regarded as natural, or as proceeding from within the body that originates them, took its origins from Aristotle.¹⁵ In Book Two of his *Physics* Aristotle defines nature as Newton did in his notebook—a principle and cause of motion and of rest in that in which it is primarily and essentially and not merely accidentally.¹⁶ He further explains in that book that the term cause can have at least four different meanings, elaborated by the Schoolmen as the four types of causality: formal, material, efficient, and final. Although characterizing nature as a cause, Aristotle does not say immediately which of the four types of cause he has in mind. As he expounds the definition further, he states that nature may be identified with the matter of which the thing is made and also with its

¹³ Fol. 17r: "Finis (qui est causa propter quam res naturalis fit) est vel universalis (principalis: gloria Dei; minus principalis: homo) vel naturalis et specialis dicitur (ad quem unaquaque res physica in suo genere ex praescripto naturae tendit)."

¹⁴ This fuller discussion of causality and agency is taken not from Magirus but from another textbook of the period, Daniel Stahl, *Axiomata philosophica sub titulis XX*. For specific details, see "Newton's Early Writings," note 7 supra; see also note 35 infra.

¹⁵ On this problem, see my *Prelude to Galileo: Essays on Medieval and Sixteenth-Century Sources of Galileo's Thought* (Dordrecht-Boston: D. Reidel Publishing, 1981), pp. 110-126; 286-299.

¹⁶ *Physica* 2.1 (192b22-23): "Natura est principium et causa motus et quietis in eo in quo est primo et per se et non secundum accidens."

determining form, and so we may reasonably presume that, for him, nature exercises its causality as both a formal and a material cause. Moreover, Aristotle is quite explicit in maintaining that nature acts for an end; the end of most natural processes he further identifies with the form that terminates the process, and so, in his view, the final cause can be seen to merge with the formal cause. Thus, of the four causes, we can maintain without difficulty, basing ourselves on the second book of the *Physics*, that nature exerts its causal influence as a final cause, a formal cause, and a material cause.

The problem comes with the one cause missing from that enumeration, the efficient cause. This is the type of cause normally associated with the term "cause" in English, and what we would expect Aristotle meant when he identified nature as a cause in the operation of natural things. As we search through the second book, and even all the remaining books of the *Physics*, we nowhere find Aristotle asserting that nature acts as an efficient cause. In the *De anima*, to be sure, he does identify the soul of a living thing with its form, and he further regards the soul as an efficient cause in the self-motion of the living. On this basis we can argue that for him, at least in the organic realm, nature as form can function as an efficient cause. But what about the inorganic, the realm of the non-living? This presents a special problem for Aristotle, which he takes up in the last book of the *Physics* when defending his motor causality principle, axiomatized by the Latins as *Omne quod movetur ab alio movetur*. If everything in motion is moved by another, as the axiom states, what efficient mover is involved in the natural motion of a falling body? Were there no difference between the living and the non-living, and granted that the form can be the efficient mover in the case of the living, one would say that the heavy body's form is the efficient agent of the body's fall. Aristotle, however, does not make this identification in his solution to the problem. Rather he points to two other movers that are extrinsic to the falling body, namely, its generator as the *per se* initiator of its motion, and whatever removes the restraints under it (the *removens prohibens*) as the motion's *per accidens* cause. Rather than take the simple way out, and say that the falling body is moved by its form, Aristotle apparently withdraws any proper efficiency from the form and looks elsewhere for the agents that can explain the body's fall. Thus, for him, nature's being a cause is not to be taken in the sense of an efficient cause, but only in the senses of material, formal, and final causality, as already indicated.

This state of affairs has puzzled commentators throughout history, most of whom, though trying to remain loyal to Aristotle, have sought to introduce some element of efficiency into the causality of nature. Typical of the earlier Greek commentators, John Philoponus attempted to do so by redefining nature as a kind of world-soul that acts within bodies of all types and so can be regarded as the agent cause of their various activities. So he would reformulate Aristotle's definition to read: nature is a kind of life or force that is diffused throughout bodies, that is formative of them, and that governs them;

it is the principle of motion and rest in that in which it is primarily and essentially and not merely accidentally.¹⁷ The conception behind this definition is Neoplatonist, and one wonders how it can be reconciled with the remainder of Aristotle's *Physics*. Effectively, Philoponus blurs the distinction between the living and the non-living, for in his view all beings of nature are somehow ensouled and thus have within themselves an efficient principle of their own activity. Yet his type of thinking exerted its appeal among later commentators, including the Arabs, from whom it indirectly influenced medieval thought, and then later, when Philoponus' texts became themselves available, more directly that of the Renaissance.

Averroes, apparently under the influence of Avicenna (and perhaps of Philoponus also), made a similar attempt to introduce efficiency into nature's definition, doing so in the context of the problem discussed by Aristotle in the eighth book of the *Physics*, that, namely, of the agent causes of falling motion.¹⁸ His teaching, taken up by many later thinkers, was that the form of the heavy body, meaning by this its substantial form, is the principal mover of the body as an active principle within it, and that its *gravitas* or heaviness, as an accidental form inhering in the body, is its secondary mover as an instrument of the substantial form. Averroes attempted to reconcile this teaching with Aristotle's emphasis on the generator as the *per se* agent of the body's fall by admitting, as he states, that "the generator is what gives the simple body that is generated its form and all the accidents accompanying the form, one of which is change of place."¹⁹ Whereas Aristotle concentrated on an extrinsic principle of the body's motion, Averroes placed main emphasis on a natural source of movement within the body that could account for its fall. This gave him a *motor coniunctus*, that is, a mover joined to and within the body,²⁰ but it also posed a problem for him in light of Aristotle's principle that "Whatever is moved is moved by another." If the form of the body itself is the principal mover in its falling motion, what is the "other" to which Aristotle makes reference in the motor causality principle? In one attempt to meet this difficulty Averroes employs the distinction between act and potency, maintaining that the falling stone moves itself insofar as it is actually heavy, while it in turn is moved insofar as it is potentially in a lower place. In another formulation he invokes the medium through which the body falls. The falling stone, actually heavy, moves the medium, while the medium in turn moves the stone, and so the motion is from another. Here Averroes has

¹⁷ Ioannes Philoponus, *In libros quatuor physicorum Aristotelis* (Venice, 1558) p. 67b: "Natura est quaedam vita sive vis quae per corpora diffunditur, eorum formatrix et gubernatrix, principium motus et quietis in eo cui inest per se primo et non secundum accidens."

¹⁸ For related positions on the principle *Omne quod movetur ab alio movetur*, see Weisheipl, *Nature and Motion*, pp. 75–97.

¹⁹ *In libros physicorum Aristotelis* 8.32; 4 (Venice: Apud Juntas, 1550), fol. 168^v: "Generans enim est illud quod dat corpori simplici generato formam suam, et omnia accidentia contingentia forme, quorum unum est motus in loco."

²⁰ On the concept of a *motor coniunctus*, again see Weisheipl, *Nature and Motion*, pp. 99–120.

in mind the kind of motion executed by a rower in a boat. In this case the rower moves the boat through the medium, while the rower in turn is moved with the boat through and by the surrounding medium. On this basis Averroes went on to argue that the medium plays an essential role in the natural motion of elemental bodies. Without it, he maintained, there could be no falling motion, and thus such motion in a void (were a void to exist) would be impossible.

For Averroes, therefore, the substantial form of an elemental body (clearly non-living) is the principal mover that accounts for the element's natural motion, even though an extrinsic mover such as the medium is further necessary for it to exercise its causality. And since the substantial form is also the nature of the elemental body,²¹ it would seem that for him nature meets the requirements not only of a material and formal and final cause, but of an efficient cause as well. The causality of nature is to be understood in an active, efficient sense, in addition to the other senses ascribed to it by Aristotle in the second book of the *Physics*.

St. Thomas, aware of this teaching of Averroes, discussed it in his commentary on the *Physics*. There he rejected it and along with it the doctrine that a medium is necessary for falling motion to occur. Averroes' error, Aquinas writes, was that he thought that the form of a heavy body is the active principle of its motion after the fashion of a mover. This, he says, is completely false.²² The form of a heavy object is not the principle of its motion as an agent mover, a *principium quod*, but only as a *principium quo*, as that "by which" the mover does the moving. The *principium quo* is actually the body's *gravitas*. This is a passive principle, not active, and it is truly within the body—which suffices to make the body's fall natural. But an active mover is further required, and this is not something within the body. Rather one must have recourse to an extrinsic mover to explain the fall. The falling body does not move itself, and thus its motion does not invalidate the principle that whatever is moved is moved by another.

We should note here that Aquinas offers a similar solution to the projectile problem, also discussed by Aristotle in the eighth book of the *Physics*. For Aquinas, as for Aristotle, the projectile does not move itself even though it may appear to do so. It is moved by the projector, who effects the motion by means of a power or force he impresses on the medium, which moves the projectile from without. Thus neither falling motion nor projectile motion invalidates the motor causality principle, and the latter can be used as a general principle in proofs for the existence of a First Unmoved Mover.

Before proceeding to such proofs, let us sketch a few ways in which St. Thomas' teachings in his commentary on the *Physics* have been emended by later thinkers in the Thomistic tradition. Such emendations have their source

²¹ Aristotle, *Physics* 2.1 (193b7-9); 2.2 (194a12).

²² *In libros de caelo Aristotelis* 3.7. Cf. Averroes, *De caelo* 3.28; 5 (Venice: Apud Juntas, 1550), fols. 91^v-92^v.

in St. Thomas' writings in other contexts, where he is less bound by a text he is commenting on and is freer to develop his own thought. The first of these is the assimilation of the doctrine on *impetus* to the solution of the projectile problem. St. Thomas' own teaching on *impetus* is not clear and unambiguous; in some contexts he seems to affirm the existence of a *virtus impressa*, or force impressed on an object, to explain such phenomena as the bounce of a ball; in others, for example, in the eighth book of the *Physics*, he denies that this *virtus* is in the projectile and places it in the medium instead. Later Thomists, such as Domingo de Soto, had no difficulty putting the *virtus* in the projectile rather than in the medium when explaining Aristotle's text. Thus Soto saw *impetus*, or the *virtus impressa*, as something like an "accidental gravity," a force imparted to the projectile by the projector, which became a *principium quo*, that is, a principle "by which" the projector moves the projectile after it leaves his hand. Indeed, Soto sets up an explicit analogy between *impetus* and *gravitas*: just as gravity is a natural principle whereby the generator moves the heavy body to its proper place, so *impetus* is an accidental principle, superimposed on the body's gravity, whereby the projector moves the body toward an intended goal.²³ Generally projectile motion was thought of as violent or forced, being *contra naturam*, but it is interesting to note that Galileo, in his early notes on motion, spoke of a horizontal motion on the earth's surface for short distances as being *praeter naturam*, that is, as neither according to nature nor contrary to nature. In this view, under proper conditions a body once set in motion around the center of the earth, in the absence of friction or of resistance from the medium, could continue moving forever—a concept referred to as "circular inertia" and adumbrating Newton's famous first law.²⁴

Another important emendation came in explicating Aristotle's teaching (and St. Thomas' also) that the generator not only gives the simple body its form but all the accidents accompanying the form, including change of place. St. Thomas speaks of such accidents as coming from the form *per resultationem* or *per emanationem*.²⁵ Thomistic commentators understood such

²³ Dominicus Sotus, *Quaestiones in octo libros physicorum Aristotelis* 8.3 (Venice: 1582), p. 369b: "Sicut generans grave tribuit illi naturalem qualitatem, quae est gravitas, qua illud permovet usque ad centrum, sic et proiciens impingat impetum projecto, quo ipsum eminus moveat." Weisheipl discusses Soto's teaching and that of other Thomists on this problem in *Nature and Motion*, pp. 68–69. For additional details on Soto, see *Prelude to Galileo*, pp. 91–109; also my essays, "The Early Jesuits and the Heritage of Domingo de Soto," *History and Technology* 4 (1987) 295–314, and "Science and Philosophy at the Collegio Romano in the Time of Benedetti," in *Giovanni Battista Benedetti e il suo tempo* (Venice: Istituto Veneto di Scienze, Lettere ed Arti, 1987), pp. 113–126.

²⁴ Weisheipl discusses this development in *Nature and Motion*, pp. 49–73; see also my *Prelude to Galileo*, pp. 124, 271, 284, 313, 314, and Galileo and His Sources, pp. 163, 235–245, 288–291.

²⁵ He does so in explaining how the powers of the soul, which are accidental forms, flow from the soul's essence or substantial form, ST 1.77.6.ad 3 and 1.77.7.ad 1; also 1 *Sent.* 3.4.2. For an analysis of this teaching, see Laura L. Landen, OP, "Thomas Aquinas and the Dynamism of Natural Substances," PhD diss., The Catholic University of America, 1985, pp. 158–177.

resultancy or emanation as a type of efficient causality—"improperly" efficient in that it produces an effect in the body itself, as opposed to "proper" efficiency, which produces an effect in another.²⁶ In this way of speaking, it is possible to speak of the substantial form of a falling body as the efficient cause of the body's motion, taking efficient in the improper sense of *per emanationem*. Thus, within the Thomistic school, some type of efficient causality came to be conceded even to the natures of the non-living. In the fall of an apple, for example, the fall emanates from the apple's substantial form, and in this sense is effected by the form, though in an improper sense, since no action has taken place on anything external to the apple. When the apple moves the air through which it falls, however, or hits Newton's head, the form of the apple becomes an efficient cause in the proper sense, for the apple truly and properly produces an effect in another—the movement of the air or the impact on Newton. Thus all four causes, the efficient cause as well as the material, formal, and final, are restored to nature's operation, but in such a way as to safeguard the distinction between the living and the non-living and the ways each produces its proper effects.

IMMATERIAL MOVERS IN NATURAL MOTIONS

So much for the internal principles of nature's operations. Let us turn now to the arguments St. Thomas uses for the existence of immaterial agents, and particularly that of the First Unmoved Mover, as set forth in his *quinque viae*. As is well known, these are proposed as proofs from effect to cause, that is, as *a posteriori* demonstrations. Each proof involves four steps of the following general form: 1) an observational datum exists; 2) this datum is an effect; 3) this effect demands a proper cause; and 4) therefore the proper cause exists. The datum is exemplified in five different ways, namely, as: a) movement; b) causal efficacy; c) contingency; d) degrees of perfection; and e) order—all observable in the universe. These lead respectively to the following characterizations of the proper cause that terminates each of the "ways": a) a First Unmoved Mover; b) a First Uncaused Cause; c) a Necessary Being; d) a Most Perfect Being; and e) a Supreme Intelligence or a Supreme Ordering Principle. All of these are ways of characterizing God, and thus the proofs, both individually and collectively, conclude to the existence of God.

In view of our preceding discussion of falling motion, let us focus on the *prima via*, which may be paraphrased as follows:

It is an evident fact that some things in the universe are in movement. But whatever is in movement is dependent on something extrinsic to itself, for nothing

²⁶ This teaching was developed most fully by a Jesuit professor at the Collegio Romano, Mutius Vitelleschus, building on the teachings of the Paduan Aristotelian, Jacobus Zabarella; details are given in *Prelude to Galileo*, pp. 286–299. See also note 28, infra.

that moves can be the complete and adequate explanation of its own motion, and so it must be moved by another. But if the mover that moves the thing in motion be itself moved, then it is necessary that it be moved by another, and it in turn by another, and so on. In such a chain of moved movers actually moving, however, regress to infinity is impossible. For if the chain extend to infinity, then there would not be any first mover actually moving, and since none of the intermediate movers move except insofar as they are moved by the first mover, none of the other movers could move either. Therefore it is necessary to come to some first mover who is moved by no other. This is the First Unmoved Mover, whom everyone understands to be God.²⁷

The argument, as commonly understood by Thomists, involves essentially subordinated chains of movers and moveds and concludes to the existence of a mover that itself does not undergo motion, and so is incorporeal and immaterial.

St. Thomas exemplifies the key principle in this argument, namely, whatever is moved must be moved by another, with the case of fire heating wood. Fire, which is actually hot, causes wood, which is able to be hot, to become actually hot. The same thing, he argues, cannot be actually *x* and potentially *x* at the same time, though there is nothing to prevent its being actually *x* and potentially *y*. This explains why wood cannot heat itself, but requires an external mover, and ultimately a first immaterial mover, for its heating to occur. Observe that Aquinas does not use local motion for his example: potency and act are easy enough to see in the case of heating, whereas, from the preceding discussion, we know that they are not so easy to identify in the case of falling motion.²⁸

But, to continue focusing on local motion in light of what has already been said about the causality of nature, we may call attention to an alternative justification of the principle, "Whatever is moved is moved by another," which is offered by Aristotle in the seventh book of his *Physics*. St. Thomas comments on this argument and evaluates it as a strict demonstration, indeed, as a demonstration *propter quid*. Aristotle's proof is based on the divisibility of the continuum, and runs approximately as follows:

²⁷ ST 1.2.3.

²⁸ On the matter of efficient agents, however, a parallel may be drawn between heating and falling motion that casts light on the types of causality involved. For Aquinas, fire heats wood through its *caliditas* just as an apple falls through its *gravitas*. In his view the *caliditas* flows from the substantial form of fire, and it is the proximate agent, and thus the efficient cause (in the proper sense) of the wood's heating, since the effect it produces is in the wood, a subject different from the fire. The *gravitas*, similarly, flows from the substantial form of the apple, and it is likewise an agent, but in two senses. With regard to the fall of the apple, since the motion of the apple is in the apple as a subject and does not affect another object, the *gravitas* is an efficient cause only in an improper sense, by resultancy or emanation, the way the apple's *gravitas* may be said to "flow" from its form. When the apple is considered as moving the air through which it falls or as hitting Newton's head, the case is different; then its *gravitas* is producing an effect in a subject different from the apple, and it is the proximate agent in a proper sense, that is, as a true efficient cause, of the air's motion or the bump on Newton's head.

It seems obvious that everything in motion is necessarily moved by some thing. Yet there are cases where the source of motion seems to be within the object moved, and thus the possibility arises that the object moves itself. If it can be shown, however, that the object stops because some other thing stops, this will count as evidence that the object is not moved primarily and essentially by itself, but is being moved by another thing. So, let the object moved be a body, AB, and since as a body it is divisible, let it be divided at C. Now assume that the part CB stops, and then the whole AB must stop also. If AB does not stop, then assume that it is in motion. In this case, if part CB continues at rest it is possible that part AB be in motion. Should this be so, however, AB could not be in motion primarily and essentially, although it might be moved through a part or only accidentally. Since what is of concern here, however, is an object that is in motion primarily and essentially, in this respect it must be held that the whole AB stops when something else stops, namely, its part CB. Therefore it is being moved by another.²⁹

The force of this proof is difficult to grasp at first reading. It invokes what may be called the "stopping thesis" to make its point, and this thesis has been disputed and argued by a host of commentators, including Galen, Alexander of Aphrodisias, Themistius, Simplicius, Avicenna, Averroes, Aquinas, and Agostino Nifo, down to the present day. I have discussed it elsewhere, and it has recently been the subject of a thesis at Catholic University.³⁰

In his commentary Aquinas regards this as a valid argument, indeed, as already mentioned, as a demonstration *propter quid*, "for," he says, "it contains the reason why it is impossible for a mobile object to move itself." He goes on:

To see this it must be understood that a thing's moving of itself is nothing other than its being the cause of its own motion. That which is itself the cause of something must possess that something primarily. For that which is primary in any genus is the cause of the things that come afterward. . . . However, Aristotle has shown in Book 6 that there is no primary, or first, in motion, whether this be taken on the part of time, or of magnitude, or of the mobile object itself, because of their divisibility. Therefore there cannot be discovered anything primary whose motion does not depend on something primary. For the motion of the whole depends on the motion of its parts and is divided into them, as was proved in Book 6. Therefore, Aristotle thus shows the reason why no mobile object moves itself. For there cannot be a first mobile object whose motion does not depend on its parts; just as if I were to show that a divisible thing cannot be the first being because the being of whatever is divisible depends on its parts. And thus this conditional is true, "If a part is not moved, the whole is not moved," just as this conditional is true: "If a part is not, the whole is not."³¹

²⁹ *Physica* 7.1 (241b24–242a16).

³⁰ See my essay entitled "The Cosmological Argument: A Reappraisal," *Proceedings of the American Catholic Philosophical Association* 46 (1972) 43–57; the thesis is that of Richard F. Hassing, "Averroes and Aquinas on Aristotle's Motor Causality Principle in *Physics*, VII.1," M.A. diss., The Catholic University of America, 1986.

³¹ *In octo libros physicorum Aristotelis* 7.1.

The argument, like Aristotle's, is cryptic. Note that its middle term is the quantitative divisibility of the mobile object, and it is perfectly general—applying not only to falling motion and to projectile motion, but to the growth of a plant, the flight of a bird, and the explosion of a star in the depths of space. None of these divisible objects completely and primarily initiates its own motion, and thus each must be moved, in some way, by another.

Since this particular proof makes use of divisibility it can be put in quantitative terms, and this makes it easier for one to grasp why an infinite regress of moved movers is impossible. Assuming that the falling object must be moved by another, either the mover that moves it directly is itself unmoved, and hence immaterial (which is the way I suspect Newton understood the case), or the mover is moved locally by another. The second alternative sets up the possibility of a regress to infinity. But this is impossible, for should one be able to go to infinity in movers that are moved locally, an infinite length would have to be moved in a finite time. To see this, all one need do is reflect on the facts: 1) that whatever is moved locally must be a body and hence must be divisible, and 2) that an infinite number of such bodies is equivalent to a single body of infinite length (since movers cannot move unless they are either contiguous or continuous with the things moved). But it is impossible for an infinite length to be moved in a finite time, and thus it is impossible to regress to infinity in local motions. Therefore, at some point along the line one must come to an immaterial mover, and ultimately to a First Unmoved Mover, when trying to explain any particular case of local motion.

With this we have rejoined the problem of the causality of nature and the causality of God as an immaterial mover, so perhaps we can return to Aquinas' objection and to his fuller reply—that is, one fuller than in his brief response at the end of the *quinque viae*. This comes toward the end of the First Part of the *Summa*, in question 105, article 5, where St. Thomas explains his teaching on the divine *concursus*, or how God himself is active in every agent cause (*Deus operatur in omne operante*). He first distinguishes the four kinds of cause, as we have done in discussing the causality of nature, and then goes on to explain God's action in each, the material cause alone excepted. For our purposes it may suffice to concentrate only on formal causality, for this is what is involved in nature, and gravity, and *impetus* as forms that initiate the motions we have been discussing. Of such formal causality Aquinas writes:

Consider that God moves things to operation not only by applying their forms and powers to work in the way a craftsman applies the axe to cutting, without giving the axe its form; he also gives these forms to created agents and conserves them in being. Thus he is not only the cause of actions by way of giving the form that is the principle from which the action proceeds, the way in which the generator is said to be the cause of the movements of heavy and light bodies. He is also the cause as

one who conserves these various forms and powers in being, just as the sun is the cause of colors' appearing in that it gives and maintains the light by which they are seen.³²

Having explained this, St. Thomas then goes on:

It further follows that God acts interiorly in all things, because the form of anything is within it, and the more so as the more basic and universal the form is. For all things God is properly the universal cause of *esse*, and *esse* is innermost in all things. This is the reason why in Holy Scripture the operations of nature are attributed to God as to one operating within nature itself. . . .³³

This, then, is the sense in which Newton, in his Trinity notebook, could refer to nature as functioning causally as God's instrument. Matter itself is inert and sluggish. The falling body, precisely as a body and thus divisible into quantitative parts, is radically incapable of moving itself simply in virtue of those parts. The heavy body falls not because it is a body but because it has the nature it has, and because that nature is endowed with characteristic forms and powers through which it is able to initiate activities proper to that nature.³⁴ More specifically, it falls because there is within it the form or power of gravity, because this form or power is sustained in being by Subsistent Being itself, and because it is activated by secondary causes that themselves act in virtue of the First Uncaused Cause. Nature causes the body's fall, and so there is truly a causality of nature, but God's *concursum* is there along with nature and its powers, sustaining them in being, energizing them, one might say, and enabling them to bring about the effects we attribute to them in everyday life.

NEWTON'S TRINITY NOTEBOOK

Having thus discussed immaterial movers, we are now in a position to return to Newton's notes to ascertain the extent to which he may have become acquainted with teachings of this sort while at Cambridge. The selections we have cited earlier were based on Magirus' *Physiologia peripatetica*, which served undoubtedly as Newton's textbook for natural philosophy. In addition to these he made extensive notations from Daniel Stahl's *Axiomata philosophica*, a compact volume that reproduced the essentials of a course on

³² ST 1.105.5. Aquinas makes a similar point in *De potentia* 3.7.

³³ *Ibid.*

³⁴ Aquinas elaborates on this teaching later in his commentary on the *Physics*; see his comments on lib. 8, lect. 7, n. 8, lect. 10, nn. 2-3, and lect. 11, nn. 3-6, where he is explaining Aristotle's texts at 255a12-21, 257a32-b7, and 258a20-b4 respectively. For an interpretation of the "forms and powers" with which natures are endowed—one more attuned to the findings of modern science than those of the medieval world view—see my "Nature as Animating: The Soul in the Human Sciences," *The Thomist* 49 (1985) 612-648.

metaphysics and natural theology.³⁵ We shall concentrate here on the notations from Stahl that bear on the themes already mentioned, but first would draw attention to an unexpected point of contact between them and one of Galileo's Latin manuscripts composed 75 years earlier at Pisa.

A distinctive theme of Galileo's early writings, but one that continues to appear in his later works also, is his understanding of suppositional necessity or necessity *ex suppositione*, which provides the basis for many of the demonstrations in his "new science."³⁶ Now, in reproducing Stahl's preliminary axioms on being and non-being, Newton makes the cryptic notation:

Whatever is, when it is, necessarily is, and whatever is not, when it is not, necessarily is not (this is understood of necessity of immutability *ex suppositione*).³⁷

Stahl's axiom is the part that precedes the parenthetical remark; the passage in parentheses is Newton's distillation of the reply to an objection Stahl had formulated, and then answered, against the axiom. The difficulty is that such an axiom on necessity would seem to eliminate the possibility of contingency in the universe. To answer it Stahl distinguishes between absolute necessity and necessity of immutability *ex suppositione*, the second of which, he says, applies to things of which something can be said contingently when considered in their nature, but of which, on the positing of an hypothesis, the same cannot not be said of them. The example he gives is Peter moving; his moving is simply contingent, but on the supposition that Peter is running, it is necessary that he move. Employing this distinction between absolute and suppositional necessity, Stahl says that the antecedents to both parts of the axiom can be considered in one of two ways, either *in sensu diviso* or *in sensu composito*. The first meaning would be that anything that is, necessarily is, and this is not the sense of the axiom; the second meaning would be that anything that is, to the degree that it is or on the supposition that it is, necessarily is, and this is the meaning of the axiom.³⁸ Related to this is another of New-

³⁵ See note 14 supra. McGuire and Tamny note that Newton probably used the second edition of this work, published at Cambridge in 1645 (p. 17, n. 11). I have used this edition in what follows.

³⁶ See *Galileo and His Sources*, ad indicem under "*ex suppositione*," "demonstration," and "suppositions."

³⁷ Fol. 43^r: "Omne quod est, quando est, necesse est esse, et Omne quod non est, quando non est, necesse est non esse (hoc intelligitur de necessitate immutabilitatis ex suppositione)." The axiom is found in Stahl, p. 11, as in the following note.

³⁸ Stahl's fuller text, wherein he uses the expressions *in sensu diviso* and *in sensu composito*, employed extensively by Dominicans and Jesuits in their controversies over grace and divine causality, reads as follows: "Regula III: Omne quod est, quando est, necesse est esse, et Omne quod non est, quando non est, necesse est non esse.

1. Dices: Si omne quod est, necesse est esse, et quod non est, necesse est non esse, sequitur in rebus non dari contingentiam, sive nihil esse vel non esse contingentem.

2. Resp.: Necessitas est duplex; absoluta, et immutabilitatis ex suppositione. Necessitas est absoluta, secundum Gabrielem, 3 dist. 16, q. 1 . . . Pererius, l. 9 Phys., c. 13 . . . Necessitas immutabilitatis ex suppositione dicitur, cum aliquid convenit rei contingentem, si ejus natura in se spectetur, facta tamen aliqua hypothesi, non potest ipsi non convenire, v.g., Petrum progredi, simpliciter est contingens, posito tamen quod currat, necesse est ipsum progredi. . . .

ton's notations to the effect that non-being has no predicates. In this axiom, Newton explains, non-being is to be understood of anything that does not exist actually in the order of nature, even though it is possible for it to exist. Predicates similarly are to be taken here to mean extrinsic denominations that are not purely negative, although they can be privative; they also should be said of the present time.³⁹ Stahl gives the example of the being that is involved when one says that there is a rose in winter: to attribute existence to a rose in winter would violate the axiom, though at other times and under other circumstances it would not.⁴⁰ This very example is found in Galileo's manuscript, known to be based on Jesuit sources. It, and the related explanation of suppositional necessity, casts important light on the way Galileo approached the problem of contingency in nature, particularly as related to local motion, and then went on to devise ways of circumventing such contingency to arrive at a *nuova scienza* of motion, a true *scientia*, though based on demonstrations made *ex suppositione*.

Closer to our concerns are two other axioms relating, as Stahl puts it, "to the cause and the thing caused." For the first Newton writes that the cause is prior to the thing caused. He explains this with respect to absolute existence, saying that some causes, such as God, are temporally prior to what they cause, whereas others are not temporally prior, as the sun and its light. Hence it follows that an efficient cause is prior to its effect whereas a formal cause exists simultaneously with it. He then adds that a cause in second act is not temporally prior to the thing caused, but formally understood the two are simultaneous; yet every cause is prior by nature to what it causes.⁴¹

The second axiom builds on this foundation and states that the cause of the cause is also the cause of the thing caused. This applies, Newton says, to

4. Ad argumentum respondeo: Antecedens posse bifariam intelligi; 1. In sensu diviso, qui hic est, omnem rem, quae est, necesse est esse; et omnem rem, quae non est, necesse est non esse. Et sic negatur antecedens, neque id dicit nostra regula. . . . 2. In sensu composito, qui hic est, omne quod est, quatenus est, vel posito quod sit, necesse est esse. . . . Et sic antecedens verum est, sed negatur consequentia, quia illa necessitas non est absoluta, sed hypothetica sive ex suppositione, quae contingentiam non excludit."

³⁹ Fol. 43^r: "Non entis nulla sunt praedicata. (Non ens hic intelligitur quod non existit actu in rerum natura etsi existere possit. Praedicata haec sunt accidentia denominantia intrinsece, et non pure negativa: possunt enim esse privativa accidentia, nisi quod positi termini vel habitus denominet extrinsece, ab intellectu, imaginatione, vel appetitu. Requiritur etiam ut praedicatum sit praesentis temporis)."

⁴⁰ Stahl, p. 13: "Bifariam ens accipi consuevit; primo, loco nominis, et significat essentiam vel rem ratione essentiae suae, sive actu sit in rerum natura, sive non sit, quomodo rosam in hyeme ens esse dicunt. . . ."

⁴¹ Fol. 45^r: "Causa est prior causato. 1. Secundum esse absolutum quaedam causa prior est tempore causato, (ut Deus, causa libera, materia rerum ante factarum; materia prima est prior forma quia prior est composito, at forma non antecedit compositum) quaedam non est tempore prior (ut sol lumini, forma composito.) Hinc illud: Causa efficiens est ante effectum, causa formalis simul cum eo existit. 2. Causa in actu secundo, vel formaliter sumpta non est tempore prior causato, formaliter vel in esse causati, sed simul. Omnis causa causato prior est natura. . . ."

the first efficient cause and to causes that are essentially subordinated; in the essential subordination of causes, he further notes, there is both a general *concursum* and a special *concursum*. His references to *subordinatio essentialis* and *concursum* are clearly taken from Stahl, who in turn bases his usage on Robert Bellarmine, the Jesuit theologian.⁴² The context is a discussion of the causality involved in human sin, a problem in which Newton seems to have been interested in his early life. God is not the cause of sin, he here writes, even though he is the cause of the human will, which is essentially subordinated to him in the act of sinning. The reasons he offers are two. The first is that the material element in sin is its being an action, whereas the formal element in sin consists in its deviating from the rectitude the action ought to have. The human action, Newton writes, is essentially subordinated to God's action, but the lack of rectitude is not; as lack, it does not require an efficient cause, and so God does not cause it. The second reason is based on the distinction between a general and a special *concursum*. With his general *concursum* God causes neither a good nor a bad human act, although that *concursum* is present in both; with his special *concursum*, on the other hand, he figures in the causality of the good act but not of the bad.⁴³ Without going into details, we may simply remark that this is the basic Thomistic reply to the first objection against the *quinque viae* cited earlier in this essay, showing how God's existence can be reconciled not only with the existence of evil in the world but also with the causality of the will in its production.

Four additional axioms relating to causality and agency may be pointed out in the Trinity notebook as particularly relevant to the problem of falling motion. These are, namely, that every cause acts, that action presupposes existence, that nothing acts on itself, and that every agent acquires a form through which it acts. In each there are overtones of, or resonances with, the materials dealt with in the Thomistic teachings discussed above.

⁴² Stahl, p. 91: "Sed haec paulo fusius sunt declaranda, Bellarmino nobis praeunte. Sic ergo progredior: in subordinatione essentiali, causa causae vel concursum praebet generalem vel specialem. Si praebet concursum generalem tantum, non est causa causati, nisi id aliunde fit. . . ."

⁴³ Fol. 45^v-46^r: "Causa causae est etiam causa causati, i.e., Causa efficiens primum per se et essentialiter subordinata. (Nec tamen Deus est causa peccati, quia est causa voluntatis humanae, quae ipsi essentialiter subordinatur in peccando. Nam in peccato est quid materiale, i.e., actio: et quid formale, i.e., defectus rectitudinis quae in actione esse debet, et secundum hoc, dum homo essentialiter subordinatur Deo in peccando quatenus peccatum est actio, non autem quatenus caret rectitudine in actione. Nam subordinatio essentialis importat dependentiam alicuius ab aliquo in agendo, sed peccatum ut est peccatum sive formaliter acceptum non est actio sed defectus actioni adhaerens; qua ratione non habet causam efficientem sed deficientem, non proprie est causatum.) . . . Praeterea in subordinatione essentiali causa causae vel concursum praebet generalem, vel specialem: Si praebet concursum generalem tantum, non est causa causati nisi id aliunde fit. (Et hinc Deus non est causa sive bonae sive malae actionis concursu generali, quamvis hoc modo ad utramque concurrat, sed est causa bonae et non causa malae actionis aliunde; nempe 1. Quod actiones bonae a Deo sunt intentae, quamvis pervertit nos, si libuerit, agere malas. 2. Actiones bonas Deus laudat, imperat, ad eas hortatur et invitat: malas vero vetat, improbat, et ab iis deterret)."

In connection with "every cause acts," Newton notes that this is false in the cases of material, formal, and final causality, for if these causes do act then they are efficient, since every agent cause must be efficient. As an objection to this he writes: "The form and the essence of a thing is the efficient cause of its proper accidents, not through true action but *per emanationem tantum et resultantiam*," here using the Thomistic expression already noted. His answer in this place, which he returns to later, is that proper accidents do not flow from the essence in reality but only in our way of conceiving their production, and that it is the thing's generator and not its essence that is the true cause of proper accidents.⁴⁴

The later consideration is associated with Stahl's handling of the axiom, *agere praesupponit esse*, which points up the difference between an efficient cause and a final cause. A final cause can exert its causality even though it does not actually exist in the order of nature; an efficient cause, on the other hand, cannot act unless it actually exists. But this raises a problem concerning the motion of heavy and light bodies, which are said to be moved by their generator, which may no longer exist when their motion takes place. One school solves the problem, Stahl writes, by saying that the generator does not move such bodies directly (*ratione sui et per se*) but through the gravity or levity it communicates to them as an instrument; in such an understanding it does not matter whether the generator actually exist or not at the time of the movement. This school Stahl identifies with St. Thomas, Cajetan, and Ferrara (all Dominicans), and with Toletus, the Conimbricensis, Ruvius, and Suarez (all Jesuits). Opposed to them he lists Scotus, Gregorius, Pererius, and others, who say that heavy and light bodies move themselves and so are not moved by the generator; rather they are moved by the *vis insita* of their gravity and levity. Suarez, he goes on, uses their objection to introduce a distinction into the principle that action presupposes existence. Whatever acts directly by itself (*per seipsum*) must exist by itself (*in seipso*); whatever acts through a separated instrument, on the other hand, need exist only virtually (*virtualiter*) in that instrument. This apparently solves the problem, for the heavy body can then be said to be moved both by the generator and its *gravitas*, along the lines of the *motor coniunctus* theory explained above. Stahl obviously does not know quite what to make of this reconciliation of the opposing schools, for, he writes, to say that the generator exists virtually in the *gravitas* seems to say little more than that the *gravitas* exists, and to say that the generator moves the heavy body seems the same as saying that the

⁴⁴ Fol. 46^v-47^r: "Omnis causa agit. Hoc falsum est in materiali, formali, et causa finali. Si etenim hae causae agunt sunt omnes efficientes, nam omnis causa agens est efficiens. Omnis vero et sola causa efficiens agit, hoc est causa physica (nam gubernatoris somnum, vel negligentiam, esse causam naufragii fit naturaliter.) Object. forma et essentia rei est causa efficiens priorum accidentium: non vero per veram actionem sed per emanationem tantum et resultantiam. Resp. 1. Non realiter procedunt ab essentia rei sed ratione ob conceptu intellectus nostri. 2. Ipse generans, non rei essentia, est vera causa priorum accidentium secundum illud quod datur, dans formam dat consequentia formae."

heavy body moves itself. But he himself does not feel competent to solve technical problems of this sort, merely wishing to shed light on the axiom under consideration, and so he refers his readers to the texts he has cited to decide it for themselves.⁴⁵

It is instructive to see what Newton does with this material. Actually he sidesteps it in this place, merely noting the axiom that action presupposes existence and adding that it does not apply to absolute existence but to actual existence, the way in which the final cause lacks actual existence when it does not yet exist absolutely. He then records an objection different from the one in Stahl: fire that is generated by another fire moves upward after the first fire has been extinguished; therefore it is not moved by its generator. Newton's reply is simply that the generator was still existent at the time the sec-

⁴⁵ Stahl, pp. 192-193: "Regula I. Agere praesupponit esse. 1. Hoc est discrimen inter causam finalem et efficientem, quod finalis potest causalitatem suam exercere etsi *actu non sit* in rerum natura: Nihil autem potest sustinere rationem causae efficientis, quae in agendo consistit, nisi *actu sit* in rerum natura. . . .

2. Nonnulli docent, gravia et levia moveri a generante; quam quidem sententiam ita explicant, ut dicant, generans non ratione sui et per se ipsum movere leve sursum, et grave deorsum, sed per gravitatem et levitatem corporibus communicatam, tanquam per instrumenta. Et haec sententia Thomae tum alibi tum p. 1, a. 3, q. 2 [sic] et q. 18, a. 1, ubi et Cajetanus, et 1. contra gentes c. 9, ubi et Ferrara. Toletus 8 phys, q. 2, Conimbricenses et Ruvius, *ibid.* c. 4, q. 2, et Suarez, *disp. Metaph.* 18, s. 2.

3. Sed huic sententiae alii sese opponunt, inter quos Scotus, 2 *dist.* 2. q. 19, Gregorius, *ibid.* *diss.* 9 q. 1. a. 3, Pererius, 1. 7, c. 16 et alii, asserentes gravia et levia a se moveri, nempe vi insitae suae gravitatis et levitatis, et non a generante. Argumentantur ex nostra regula, *Quicquid movetur interdum alio non existente, id ab ipso non movetur*, quoniam agere et movere praesupponit esse; sed *levia et gravia interdum moventur non existente generante*. Quis enim negaret lapidem moveri deorsum posse, extincto eo a quo genitus est? *Non ergo a generante movetur.*

4. Suarez distinguit majorem, et regulam nostram: *Agere praesupponit esse*, ita scilicet ut, *quod per seipsum agit, in seipso existat*. Quod autem per instrumentum separatum agit, sufficere, si virtualiter in eo instrumento existat. Unde jam responderi potest ad minorem, quod licet generans non semper existat in se, dum gravia et levia moventur, existere tamen *virtualiter* in ipsis corporibus gravibus et levibus a se genitis. 5. Verum regeri contra datam distinctionem potest. Interisse aliquid, et virtualiter tantum alio existere, esse, ipsum non revera existere, quod nec Suarez negat, cum dicit, aliquid virtualiter in instrumento existere nihil aliud esse quam instrumentum existere; quemadmodum id quod potentia et in suis causis tantum existit non revera existit, cum *potentia et actu sive revera* existere opponantur. Cum dicitur, Agere praesupponere esse, intelligitur de *esse absoluto et proprie dicto*: idque probavimus. S. 1. Cum igitur generans aliquando absolute et proprie non sit, cum movetur grave et leve ab ipso genitum, quomodo ipsum movere proprie et absolute dici potest; Et si generans existere virtualiter in gravi et levi, nihil aliud est quam ipsum grave et leve existere, (*sicut ait Suarez*) et generans movere grave et leve, nihil aliud erit quam grave et leve seipsum movere. Quid, quod motus deorsum et sursum est a gravitate et levitate corporibus insita, ut non excedat virtutem harum qualitatium; et posito, aliquod grave et leve existere extra suum locum naturalem, nec prohiberi ab aliquo, et si nullum aliud agens particulare, quodcumque sit, existat, aut a nobis concipiatur, si jam sursum vel deorsum movetur, et a nobis sufficienter concipi potest, nempe quod moveatur, ut quid ergo ad externum agens nempe ad generans confugimus? Sed consulantur hac de re auctores citati, et alii. Nostri instituti non est ex professo istam questionem explicare, sed eatenus tantum affere volumus quatenus ad praesentis regulae explicationem ejusque usum ostendendum facit."

ond fire received motion from the first. He says nothing more, referring his reader (presumably his tutor) to Stahl for further particulars.⁴⁶

Newton returns to the problem again in his notes, however, when discussing two other axioms in Stahl, namely, that nothing acts on itself and that every agent receives a form through which it acts. Taking the second axiom first, we may note that Newton uses it to enter into a theological difficulty. As an objection to agents acting through a form, he poses the problem that both God and form act together (that is, through a general *concursum* and an essentially subordinated series), but that they do not do so through another form. His reply is then based on several suppositions, including one stating that the axiom applies to physical agents and another stating that the agent is the principle *quod* and the form through which it acts the principle *quo* (again a Thomistic distinction, as noted above). These understood, he writes, God is not included in the axiom because he does not act physically *per contactum*, for he is not corporeal. The form, moreover, is not the *suppositum* to which the action is attributed as a *principium quod*, but only as a *principium quo*. Thus this particular axiom is not invalidated by God's causality in the world.⁴⁷

With this we come to the last axiom to be considered, that nothing acts on itself, in the explanation of which Newton returns to the motion of heavy and light bodies. As he interprets the axiom, it refers to a thing when compared to an action wherein it serves as both agent and recipient, or where the efficient principle of the action and the subject in which the action is received are numerically one and the same. He is not discussing, Newton says, the case where something acts on itself accidentally or by reason of its different parts; in this way, he observes, the doctor cures himself (presumably accidentally) insofar as he is a doctor, but he is cured by himself insofar as he is sick. And, he continues, there are cases of something acting on itself (presumably through different parts). In this way, he writes, light and heavy objects are moved up and down by themselves, for the generator does not give the motion, since they move when the generator does not exist; rather the gener-

⁴⁶ Fol. 54^v: "4. Agere praesupponit esse, i.e., non de esse absoluto dicitur tantum, sed, esse in actu (ut causa finalis) quamvis non adhuc est absolute. Objectio: ignis (etc.) genitus ab alio igne, movetur sursum, priore a quo genitus est extincto: ergo, a generante non movetur. Resp.: Ignis (vel aliud grave vel leve) quando a generante excipit motum generans adhuc est. Videas Stahlum. . . ."

⁴⁷ Fol. 58^{r-v}: "Omne agens obtinet aliquam formam, qua agit. Objectio: Deus et ipsa forma agunt, sed non aliqua forma. Resp.: Sciamus 1. Sermonem esse de substantiali forma et de accidentibus. 2. Formam productam saepe esse ejusdem, saepe diversae speciei ab ea forma per quam producitur. 3. Loquitur de agente physico. 4. In regula agens est principium quod, forma per quam agit est principium quo. His praemissis, Deus hac regula non includitur quia non agit physice, non enim est corporeus. Forma non est suppositum cui tribuatur actio tanquam principio quod, sed est principium quo. . . . Philosophus accipit movere physice latius quam hac regula accipitur, pro quolibet efficiente motus proprie dicti et physici, et opponi tum moventi metaphorice (qualis est causa finalis) tum efficienti motum improprie dictum, et hoc modo moveant incorporea et sine contactu, etc."

ator gives only a proximate potency to the motion, namely, gravity and levity.⁴⁸

At this point Newton breaks off from Stahl and inserts a parenthetical note, apparently stimulated by his concurrent reading of Galileo, from whom he had earlier also recorded a few notes. Now he writes, in a way that must have shocked his tutor:

But I think otherwise. Since the center [of gravity] attracts everything to itself as a magnet does iron, some objects (the heavier) with a greater force and other objects (the lighter) with a lesser force, this center causes heavier objects (such as stone or air) to move downward; and since a heavier object presses downward (we are speaking of air), it causes the lighter (such as fire and smoke) to cede to it and tend upward, although it would tend downward and to the center if air, which is heavier, did not impede it and force it to ascend. For example, oil put in a container tends downward and, being heavier, forces air upward out of the container; but, when water is poured in, being heavier than oil, the oil is forced upward. The ascent upward is not from the oil, but rather from the water forcing the oil upward.⁴⁹

This momentous notation is the first intimation, to my knowledge, of a theory that was to make Newton famous, that of universal gravitation, which he was to publish a quarter century later in his *Principia*. The point he is making here is that levity is not necessary to explain upward motion, since gravity, understood now in the sense of specific gravity, can serve as a sufficient principle. The *gravitas* of an object is a motive principle in relation to the *gravitas* of its surrounding medium, and it is the form by which the generator (and God, in light of the previous texts) move the object to its proper place in the universe.

The notation is obviously significant for historians of science, but from our point of view it is equally significant for the context in which the notation was made, namely, to preserve the truth of the axiom that nothing acts on itself. In light of this context, one can re-read Newton's many statements in his later life relating to immaterial movers, to the necessity for some active principle continually to sustain bodies in inertial as well as gravitational

⁴⁸ Fol. 57^{r-v}: "Nihil agit in seipsum, i.e., idem comparatum cum eadem actione esse tum agens tum patiens: vel principium efficiens, et subjectum recipiens ejusdem actionis esse eandem numero rem. De eo autem hic sermo non est, quod aliquid in ipsum agit per accidens aut ratione diversarum partium. Sic medicus curat se ut est medicus, curatur a se ut est aeger. Datur tamen alicuius actio in seipsum: sic gravia et levia a seipsis sursum et deorsum moventur; nam generans non dat motum, cum non existente generante, illa movent, sed generans dat non nisi potentiam proximam ad motum, nempe gravitatem et levitatem."

⁴⁹ Fol. 57^r: "Aliter tamen censeo [MS: senseo]: Cum scilicet centrum (tanquam magnes ferrum) omnia ad se trahit, alia (graviora) maiori vi, alia (leviora) minori, illud centrum causat graviora (ut lapidem et aera) moveri deorsum et sic quod gravius est premens deorsum (de aere loquimur) causat levius (ut ignem fumum) sibi cedere et tendere sursum, cum tamen tenderet deorsum et ad centrum, nisi aer, qui est gravior, impediret illum et cogeret ascendere. Exempli gratia. Oleum in vaso tendit deorsum cogens aera sursum ex vase, quod est gravius aere, infusa tamen aqua, quae est gravior oleo, oleum cogitur sursum. Haec autem ascensio sursum non est ab oleo sed ab aqua cogente oleum sursum."

motion, even to space and time as being God's *sensorium*, and see that he never had serious problems with the metaphysics of motor causality as analyzed in the *prima via*.⁵⁰

VALIDITY IN THE PRESENT DAY

Anthony Kenny rejected St. Thomas' "five ways" because he thought they were too embedded in medieval cosmology to have any relevance in the present day.⁵¹ With regard to the medieval world view, it is true that St. Thomas took the universe to be structured generally along the lines of Aristotle's *De caelo*, although he was aware of Ptolemy's emendations to the Aristotelian system. And if one attempts to instantiate the *prima via*, as Kenny did, by tracing lines of causality from the terrestrial or sublunar region through a long series of internesting celestial spheres to the *primum mobile* or outermost sphere, one is tempted to identify Thomas' God with Aristotle's *Primum Movens Immobile* and locate him at the periphery of the universe.

Not only Kenny, but many Thomists throughout the centuries have followed precisely this line of thought. That is why they tend to exemplify Aquinas' idea of an essentially subordinated series of movers with mechanical linkages, any one of which moves only because the previous one has moved it. This lends itself to convincing arguments, such as that behind the question: Does lengthening the handle on a paintbrush, even to infinity, make it any more capable of painting by itself? But it also raises difficult problems, such as that associated with the time lapse involved in impulses that are transmitted physically from one object (or part of an object) to another. If the *per se* subordinated series of movers and moveds is likened to the fall of dominoes, the fall of the first domino could be temporally quite distant from that of the last. Applying this to the *prima via*, one could interpret this to hold that the argument does not prove that God exists here and now, but only that he existed some time ago—perhaps a very long time ago, say, at the "Big Bang" fifteen billion years into the distant past.

Clearly this is not what St. Thomas had in mind. As he understood his own arguments, God is not situated either at the spatial or at the temporal limit of the universe, but is present everywhere within it, wherever nature or humans act to initiate any causal action whatever. That is why I prefer to formulate the *prima via* along the line taken by Aquinas in his *Summa contra Gentiles* over that in his *Summa theologiae*. In the former he explicitly sets up the regress as a series of alternatives.⁵² An object that is in local motion, say, a falling body, is moved by a mover that either is unmoved or is moved

⁵⁰ Years ago I made this point in my "Newtonian Antinomies Against the *Prima Via*," *The Thomist* 19 (1956) 151–192.

⁵¹ *The Five Ways* (London: Routledge & Kegan Paul, 1969).

⁵² SCG 1.13. In this chapter Aquinas also makes use of the argument based on the divisibility of the moving body as this occurs in the *Physics* 7.1.

by another. If unmoved, one has already reached the immaterial order; if moved, then its mover in turn either is unmoved or moved by another. If unmoved, one again has reached an immaterial mover; if moved, the two alternatives again present themselves. Note that at each point, in this way of formulating the argument, the investigator is invited to entertain the possibility of God's direct presence in the local region, and need not postpone his action either temporally or locally by removing it to the recesses of the universe. One might be tempted to such postponement if one entered immediately into the discussion of long series of moved movers, as the argument presented in the *Summa theologiae* seems to invite one to do.

From what has already been said about Newton's Trinity notebook it should be clear that Newtonian science need present no obstacle to understanding St. Thomas' *prima via* or his other proofs. But if classical mechanics is thus defused, as it were, what about more recent science as embodied in quantum theory and theories of relativity? I would say that these are even more easily reconciled with Thomistic proofs for God's existence than is Newtonian science. But here the philosophy of science that one embraces becomes critical in accepting or rejecting the reconciliation. The precise point is how to interpret such technical terms as "force," "field," "potential," "energy," and "mass," to say nothing of compound terms such as "mass-energy," "space-time," and "wave-particle." Scientists are fairly well agreed on the metrics associated with these terms and have no difficulty employing them in a mathematical way, both theoretically and experimentally. But they are far from being in universal agreement on questions relating to their epistemological and ontological import. This situation is what has given rise to the philosophy of science movement, a movement that until recent years has been dominated by logical positivists, although at present they seem to be losing their grip on the discipline.

My own position on the validity of theistic proofs in the light of recent science invokes a realist philosophy of science and culminates a series of essays I have published under the title, *From a Realist Point of View*.⁵³ There I defend the validity of the argument for motor causality based on the divisibility of the material body, as sketched earlier in this essay.⁵⁴ I do so by instantiating the material body as a block of wood moved in three different ways: either as thrown through the air; or as fitted with a spring and wheels to run as a mechanical mouse; and as dropped and allowed to fall naturally. In each case one can inquire about the causal agent that moves the block of wood. When one uses the terminology of modern science one invariably interprets this causal agency through the concepts of force, mass, energy, and the like. Without such terminology, in the way, for example, the argument is

⁵³ The subtitle is *Essays on the Philosophy of Science*, 2nd ed. (Lanham, MD: University Press of America, 1983).

⁵⁴ The relevant discussion is on pp. 317-321. This is a reprint of the article on the cosmological argument cited at note 30 *supra*.

stated in Aristotle's text or in Aquinas' commentary, one gains some appreciation for the sheer inertness and passivity of the material object as such. The introduction of force and mass-energy into this context enables one to focus attention on elements of efficiency and activity in the material substrate; this focus also provides a ground for suspecting that elements of the divine may actually be found in matter. But when one absorbs motor causality totally into these terms, and regards them as logical constructs that have no reference to the real world apart from some theoretical system of which they form a part, the proof quickly loses its persuasive power. In effect, one suppresses any intimations of transcendence that are to be found in the movement of material objects. That is why, for many of our contemporaries, physical arguments for the existence of God are terminated before they start, or at least become so insulated from philosophical inquiry as to nullify their value as valid starting points.⁵⁵

If one adopts a realist philosophy of science, on the other hand, and particularly if one restores causality to its proper ontological category (instead of relegating it to some psychological projection on reality, following Hume or Kant), one can go far in readdressing Aquinas' *quinque viae* to the modern mind. In my view, the primacy of local motion and the divisibility of the material continuum in the world of nature is still the essential starting point for this type of argumentation. Every change in the universe involves local motion, and as such has both inertial and gravitational components, in addition to involving thermal, electromagnetic, chemical, vital, and even psychic energies. When one abandons the so-called clockwork universe, it is true that there is no longer room for essentially subordinated series of movers and moveds that work in mechanical fashion. But the same type of subordination is still to be found in the action of fields, and particularly vector fields, even though these imply reference to different kinds of forces and energies than those involved in classical mechanics. By way of example, using the space-time construct of general relativity, every natural or forced motion in the universe is determined by the energies involved in its production, which require continued specification and determination throughout every instant of the motion, (or, stated otherwise, in a time-independent way, following the path of a geodesic) to attain a predetermined goal.⁵⁶

In such a context, the expression "whatever is moved is moved by another" then allows for a variety of interpretations. In the Aristotelian-medieval framework the phrase "by another" was understood to be effected through some type of contact, either mechanical or virtual, whereby the mover exerted an influence on the thing moved. In a classical or Einsteinian

⁵⁵ For a fuller development of this theme, see my "Immateriality and Its Surrogates in Modern Science," *Proceedings of the American Catholic Philosophical Association* 52 (1979) 28-38, reprinted in *From a Realist Point of View*, 2nd ed., pp. 297-307.

⁵⁶ A recent exploration of such ideas will be found in *Physics, Philosophy, and Theology: A Common Quest for Understanding*, ed. R. J. Russell et al. (Vatican City: The Vatican Observatory, 1988).

framework, the same phrase is understood in a spatio-temporal or metrical way, which may be interpreted as the action of some type of field or potential energy that is able to determine the resulting motion. In either framework, the existential character of motion ultimately requires that the moving object and its powers be sustained throughout, that is, in the object's *fieri* or "coming to be" just as in its *esse* or "being," at every moment of its existence. Here the essential dependence of any existent on *Ipsium Esse Subsistens*, be it transitory as in the case of a motion or stable as in the case of an object, cannot be dispensed with. The problem of the scientist is that of discerning the secondary causes, the "mechanisms" (taken analogically) through which this existential influence is channeled in the daily workings of nature.

To illustrate the point I would end with an example that pertains more to Aquinas' "fifth way" than to his "first." The remarkable teleology of nature, especially inanimate nature, argues strongly for the presence of an intelligence in all its activities. This intelligence is one, because the universe is one, and it is also supreme, because it overarches the domains of the megacosm, the macrocosm, and the microcosm. The marvels of star formation, the migratory travels of fishes and birds, the intricate structure of crystals, molecules, atoms and their components—all are "facts" pretty well established by modern science. They are "facts" that manifest very intelligent effects that result from the activities of quite unintelligent agents. It is not the task of the scientist to step outside his competence and question such "facts" or the primary causality that can serve to explain them, although he obviously may do so. He is at his best when he explores the secondary causality whereby the effects themselves are achieved. That is what he is trained to do, and that is what is served by the very powerful equipment, theoretical as well as experimental, he has at his command to do so.

In sum, for St. Thomas Aquinas there is an intimate link between the causality of God and the causality of nature. Aristotle's First Mover may have been located at the periphery of the ultimate sphere, but Aquinas' God certainly is not. He is everywhere by his power and his presence, no less in the remote depths of space than in the microstructure of matter.⁵⁷ Man has his artifacts, and in the technological age in which we live we all rejoice in the remarkable feats of intelligence he is able to perform through their use. In Aquinas' view, God stands in relation to nature much in the way that man stands in relation to his artifacts. Simply put, nature is God's artifact.⁵⁸ Once we understand that, it should not be too difficult to see how God serves as an

⁵⁷ ST 1.8.3.

⁵⁸ This is a concept that runs through St. Thomas' writings; for example, *De veritate* 5.1.ad 1: "[A]rs divina dicitur respectu productionis rerum. Dicuntur enim aliqua disponi secundum quod in diversis gradibus collocantur a Deo, sicut artifex diversimode collocat partes sui artificii. . . ."; *Super Evangelium Ioannis* 1.5: "Sicut in artificio manifestatur ars artificis, ita totus mundus . . . est quaedam representatio divinae sapientiae. . . ."

ultimate explanation in our expanding universe as well as, if not better than, he did in the circumscribed universe of the Middle Ages.

The Catholic University of America

In Memoriam

The Very Reverend James A. Weisheipl, OP (1923–1984)

... And never let me be parted from You.

James Athanasius Weisheipl, a priest of the Order of Friars Preachers, died on Sunday, 30 December 1984 in Saskatoon, Saskatchewan. He was sixty-one years old and had been a priest for thirty-five years. He would want us to remember that he died on the Feast of the Holy Family because the rhythms of his life were so closely tied to the liturgical life of the Church. The Dominican ideal of the intellect in the service of God was the animating principle of his life, for there was no part of his life which was not directed to his vocation as a Dominican priest. Those who attended his Masses could not help being impressed by the intensity with which he celebrated the Eucharist. I was always struck by the joyful solemnity in which, with the consecrated bread and wine before him, he prayed:

Lord Jesus Christ, Son of the living God, by the will of the Father and the work of the Holy Spirit Your death brought life to the world.

By Your holy body and blood free me from all my sins and from every evil.

Keep me faithful to Your teaching and never let me be parted from You.

The final sentence of this prayer captures the core of Fr. Weisheipl's life. His life had a center and a goal, namely, Christ, and in all he did he sought to discover and to proclaim God's truth to others so that he and they would never be parted from that Truth. He was not a priest who happened to be a scholar, but one for whom the disciplined life of the mind was an essential characteristic of his priestly vocation.

He was a superb historian, philosopher, and theologian—and each of these disciplines was for him a way to know, to love, and to serve God. He earned doctorates in philosophy from the Angelicum in Rome and in the history of science from Oxford. And in 1978 he was honored by the Dominican Order with the degree of Master of Sacred Theology. He published widely in all three fields. Whether it was in Dominican *studia* in England and the

Philosophy and the God of Abraham: Essays in Memory of James A. Weisheipl, OP, ed. R. James Long, *Papers in Mediaeval Studies* 12 (Toronto: Pontifical Institute of Mediaeval Studies, 1991), pp. 281-284. © P.I.M.S., 1991.

United States, or at the Albertus Magnus Lyceum near Chicago, or for the past twenty years as a Senior Fellow of the Pontifical Institute of Mediaeval Studies in Toronto, or in his frequent lectures at colleges and universities throughout North America, Fr. Weisheipl brought to his teaching and writing those intellectual and moral virtues which elicited the respect and love of his colleagues and students. He served as President of the American Catholic Philosophical Association and Councillor of the Medieval Academy of America. He was the founder and first director of the American section of the Leonine Commission for the critical editing of the works of Aquinas, and he was one of the contributing editors of the *New Catholic Encyclopedia*. In addition to his position at the Pontifical Institute, Fr. Weisheipl was also a member of the faculties of the Graduate Centre for Medieval Studies, the Department of Philosophy, and the Institute for the History of Philosophy of Science and Technology of the University of Toronto.

Nature and Gravitation, The Development of Physical Theory in the Middle Ages, Albert the Great and the Sciences: Commemorative Essays, and more than thirty articles in scholarly journals throughout the world offer eloquent testimony of his contributions to the history of medieval science. It is his biography of Thomas Aquinas, however, first published in 1974, which brought him the greatest acclaim. Now in four different international editions, and with a second edition recently appearing in North America, *Friar Thomas d'Aquino: His Life, Thought, and Works* is the definitive book on the life of Aquinas. Prior to his death he was compiling material for a companion volume on the life and works of Albert the Great.

With Albert the Great and Thomas Aquinas, his confreres in the Order founded by St. Dominic, he believed that there is no hostility between faith and reason. He recognized the appropriate autonomy of each of the human sciences, but he knew further that the truth is one and God is its Author. He did not fear that the disciplined search for truth could ever lead one away from God. Revelation and science, faith and reason, grace and nature are complementary, not contradictory, orders of reality. Indeed, with Aquinas he affirmed that *sacra doctrina* is a science, although different from the other sciences in that its first principles are not known by reason alone. Fr. Weisheipl's analysis of the first question of the *Summa theologiae*, especially his explanation of the distinction between *sacra doctrina* and scholastic theology, provides a key for the further study of Aquinas' major work.

Like Albert and Thomas, Fr. Weisheipl lived in the world of the university. But also, like Albert and Thomas, at the university, Fr. Weisheipl was a constant witness to a spirituality which is truly otherworldly. His commitment to prayer and to contemplation as the foundation of an active career was evident to those who knew him well. He often noted how much he depended upon the prayers of others, especially the Dominican Sisters of Lufkin, Texas. And he once remarked that were he to become a bishop, the first thing he would do would be to establish a convent of cloistered religious

dedicated to praying for the diocese. As he saw no conflict between faith and reason, so he also saw no conflict between the roles of pastor and professor. He met weekly with students to pray the rosary and meditate on its mysteries. And he brought to his pastoral role that sharp and discerning intellect which won him international acclaim for his scholarly accomplishments. His intellectual apostolate included monthly meetings of the St. Thomas Society of Toronto at which students and professors discussed selected texts of Aquinas. In his introduction to the volume of essays *Albert the Great and the Sciences*, he noted that the major reason he undertook to edit these various essays was that modern scientists needed to be aware of the greatness of their patron saint so that in the face of the dilemmas and temptations which beset the scientific world the intercession of Albert might serve as a powerful resource.

As a result of years of study and reflection, Fr. Weisheipl thought as Thomas Aquinas thought: not in some abstract ahistorical sense, nor with that historicism which leads to a sterile relativism. Rather, his was an assimilated Thomism which is a part of a living and growing understanding of nature, human nature, and God, and which finds its sources in the first principles of reason and of faith. He recognized that the best way to understand St. Thomas was to study his life and thought in historical context. The medieval university was the setting for most of Aquinas' work, and Fr. Weisheipl was an expert on the structure and curriculum of the great universities at Oxford and Paris. As a philosopher and theologian, as well as a historian, he understood the intellectual context of the debates in natural philosophy, metaphysics, and theology which occupied the attention of university masters such as Albert and Thomas. Yet history, including the history of ideas, was for Fr. Weisheipl always propaedeutic. He would heartily reaffirm Thomas' observation that the final goal of study is not to know what men have thought, but what is the truth of things. Several years ago, he remarked to me that a teacher is a window to the truth and that his own goal was to be the means by which others could discover that truth. As a result of his profound and sympathetic study of Aquinas, Fr. Weisheipl contributed significantly to our understanding of his thought. The explanation of nature and motion, the subject of the essays collected in *Nature and Motion in the Middle Ages*, is a particularly good example of how Fr. Weisheipl's insight into the life and thought of Aquinas has aided in our knowledge of the broad continuities in the history of science. What is especially important in this respect is Fr. Weisheipl's explanation of the continuing and fundamental role of a science of nature, distinct from both metaphysics and the modern mathematical natural sciences. As a realist in the tradition of Aristotle, Albert, and Thomas, he was convinced of both the possibility and the value of a knowledge of the world of motion and change in terms of true causes.

He was a great teacher who instilled in several generations of graduate students a profound appreciation for the study of Thomistic thought, in gen-

eral, and of natural philosophy, in particular. Much in the tradition of the medieval *magister*, he was the center of a thriving academic family with members in Canada, the United States, and Europe. At the Pontifical Institute of Mediaeval Studies he taught two year-long seminars on Aristotle's *Physics* and *Posterior Analytics* in the Latin Middle Ages. In these seminars he examined the development of natural philosophy in the context of the intellectual history of the Christian West from the early thirteenth to the seventeenth centuries. Nature, motion, time, the continuum, infinity, concepts of causality, the role of mathematics in understanding physics, the kinds of demonstrations in the natural sciences, and related questions constituted the substance of his courses. Such topics were, for Fr. Weisheipl, intimately a part of his Dominican vocation of the intellect in the service of God. He knew that the study of nature is a prerequisite for natural theology.

In recent years he focused his attention on the Christian doctrine of creation *ex nihilo*, examining the discussion in the twelfth and thirteenth centuries concerning creation and the eternity of the world. There is no better example of the brilliance of Aquinas' understanding of the relationship between faith and reason than his analysis of the philosophical and theological doctrines of creation. As Aquinas encountered the scientific heritage of Greece in its most sophisticated form, that is, in the thought of Aristotle, and on a subject, creation, which unites physics, metaphysics, and theology, he forged an enduring synthesis of reason and faith. In particular, Fr. Weisheipl thought that Aquinas was correct in arguing not only that creation is rationally demonstrable but also that Aristotle's god was a *causa essendi*, that is, a first efficient cause of being. And at his death, Fr. Weisheipl left unfinished a brief outline for a new book: *Philosophy and the God of Abraham*. The book was to demonstrate that one did not have to choose between Athens and Jerusalem, between reason and faith. He always rejected the view that there is an inherent conflict between science and religion. In fact, as noted above, he would be the first to maintain that reason and faith support one another. His academic career, as well as his private life, exhibit the complementarity of the intellectual habits of philosophy and theology. Every day in the celebration of the Eucharist, Fr. Weisheipl expressed liturgically this complementarity as he united all he did with Christ to Whom he prayed: "... and never let me be parted from You."

On the ring he received as a sign of his office of Master of Sacred Theology, Fr. Weisheipl had inscribed the words Thomas Aquinas addressed to Christ. When St. Thomas was asked what reward he should receive for his devotion to Christ he replied: *Non nisi te Domine*. May the request of James A. Weisheipl, OP, be granted.

William E. Carroll
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