The Westview Histories of Philosophy Series

ANCIENT PHILOSOPHY SERIES EDITOR: ALAN D. CODE
MEDIEVAL PHILOSOPHY SERIES EDITOR: CALVIN G. NORMORE
MODERN PHILOSOPHY SERIES EDITOR: TBA

The Philosophy of Socrates
Thomas C. Brickhouse and Nicholas D. Smith

The Philosophy of Aquinas
Robert Pasnau and Christopher Shields

FORTHCOMING

The Philosophy of Aristotle, Alan D. Code

Maimonides and Medieval Jewish Philosophy, Daniel Frank

Late Medieval Philosophy, Calvin G. Normore

The Philosophy of Late Antiquity, John Bussanich

The Philosophy of Plato, Richard Kraut

The Beginnings of Greek Philosophy
Allan J. Silverman and Mark Griffith

THE PHILOSOPHY OF AQUINAS

ROBERT PASNAU
CHRISTOPHER SHIELDS

Westview PRESS
A Member of the Perseus Books Group

All rights reserved. Printed in the United States of America. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

Copyright © 2004 by Westview Press, A Member of the Perseus Books Group

Published in the United States of America by Westview Press, A Member of the Perseus Books Group, 5500 Central Avenue, Boulder, Colorado 80301–2877, and in the United Kingdom by Westview Press, 12 Hid's Copse Road, Cumnor Hill, Oxford OX2 9JJ.

Find us on the world wide web at www.westviewpress.com

Westview Press books are available at special discounts for bulk purchases in the United States by corporations, institutions, and other organizations. For more information, please contact the Special Markets Department at the Perseus Books Group, 11 Cambridge Center, Cambridge, Massachusetts 02142, call (617) 252–5298 or (800) 255-1514, or e-mail j.mccrary@perseusbooks.com.

A Cataloging-in-Publication data record for this book is available from the Library of Congress.

ISBN 0–8133–6584–8 (HC) ISBN 0–8133–6583–X (PB)

The paper used in this publication meets the requirements of the American National Standard for Permanence of Paper for Printed Library Materials Z39.48–1984.

Typeface used in this text: Palatino

10 9 8 7 6 5 4 3 2 1

Contents

Preface

The philosophy of Thomas Aquinas has in recent decades found an audience well beyond its traditional home in Catholicism. While Aquinas has benefited from many generations of careful and often incisive discussion at the hands of scholars broadly sympathetic to his ultimate conclusions in virtue of their own Catholic theism, his works have been sorely neglected—except, sadly, where they were mentioned only to be maligned—by most of the broader philosophical public. This has seemed a pity to many of those who more recently have read his works with care, including now many not at all disposed to join him in his pervasively theistic worldview. Whatever ultimate truths it may contain, the philosophy of Thomas Aquinas is animated by a kind of creative intellectual dexterity rarely equaled in the long history of the subject. If for this reason alone, his works merit careful study—though, as we hope to make plain, the reasons for studying Aquinas alongside other towering figures in the history of philosophy, including Plato, Aristotle, Descartes, Leibniz, and Hume, far outnumber those reasonably offered on behalf of any number of others whose works have entered into the canon.

To begin, beyond the astonishing range of his interests, Aquinas displays an uncommon, almost uncanny, ability to combine high-level systematicity with an exactness of detailed argumentation. In this respect at least, his philosophy has only rarely been paralleled even by the foremost figures in the discipline. It is in part due to a growing attention to his argumentative rigor that Aquinas has come to enjoy a new, or renewed, popularity among professional philosophers. Where once his works found themselves represented primarily in the curricula of religiously oriented universities, now it is commonplace, or increasingly so, to find them studied in philosophy departments without any such affiliations.

This work seeks to address Aquinas's growing philosophical public by introducing, in a balanced way, his entire philosophical system. After a brief overview of his life and times, we offer an introduction to his overarching explanatory framework, which consists in a distinctive deployment of an approach familiar from Aristotle, a four-causal explanatory schema. Students wishing to become equipped to read Aquinas's own works for the first time will need to learn and understand this explanatory framework: it informs virtually every facet of Aquinas's philosophy,

from the most elementary to the most intricate and advanced. Fortunately, the fundamentals of the four-causal explanatory schema are readily understood; when he puts it to work, Aquinas sometimes simply relies without comment on the rudiments of his schema, while he at other times introduces nuances and developments understood only against the backdrop of his more general doctrine. In either case, no real understanding of Aquinas's philosophy will result without a solid grounding in his doctrine of the four causes.

Thereafter, we introduce Aquinas's own principal fascinations in philosophy: rational theology, metaphysics, human nature, philosophy of mind, and value theory. We have not, however, endeavored to introduce all aspects of Aquinas's thought. Instead, we have focused on his philosophical writings rather than on those works whose primary focus is biblical exegesis or revealed theology. Even within his philosophy, we have had to be selective. Our goal, then, has not been comprehensiveness. Rather, we aim to provide students and other reflective readers with a background in Aquinas's philosophy sufficient to the task of reading his works with a depth of understanding and appreciation not readily achieved without such an introduction.

To this end, we have keyed each chapter of this book to a focal text, a primary work of Aquinas's that serves as a good first approach to his views on the subject investigated. Thus, for example, we offer as a focal text for Chapter 2, which presents Aquinas's explanatory framework, an early work, *On the Principles of Nature*, which articulates a comprehensive overview of the four causes. Although we do not limit our discussions of any given topic to the material contained within the relevant focal text, we do aim to provide at least a minimal exposition of that work's main points. In any case, the focal texts provide material directly relevant to the issues pursued in the chapter. Ideally, then, after reading our chapters, or even concurrently with reading them, students will want to read the recommended primary texts. In this way, they can simultaneously come to appreciate the manner of Aquinas's philosophical investigations and reflect upon their most intriguing and controversial aspects. Our ultimate hope is that readers of this volume will develop into critically engaged readers of Aquinas's philosophical works.

The focal texts, listed at the end of each chapter, are these:

Chapter 2: *Principles of Nature*
Chapter 3: *On Being and Essence*
Chapter 4: *Summa contra gentiles* I
Chapter 5: *Summa contra gentiles* II–III
Chapter 6: *Questions on the Soul*

Chapter 7: *Summa theologiae* I
Chapter 8: *Commentary on the Nicomachean Ethics*
Chapter 9: *Treatise on Law* (*ST* 1a2ae); *Questions on the Virtues in General*

For the benefit of students and teachers who would like to have ready access to this material, we have created a webpage with links to translations of all of this material and more: http://spot.colorado.edu/~pasnau/westviewaquinas.htm.

This book owes its existence to an overture from our neighbor in Boulder, Sarah Warner of Westview Press, to whom we give thanks for shepherding our manuscript along toward completion. Thanks also, for their comments, to Calvin Normore, Jeffrey Hause, Brian Leftow, and Wes Morriston and to audiences at Cornell University, the University of Colorado at Boulder, and Saint Louis University. We also thank especially Sarah Wheeler and the other students in a spring 2002 seminar held at the University of Colorado at Boulder who graciously responded to our first presentation of many of these ideas.

The authors also warmly acknowledge a longer-term debt to Norman Kretzmann, from whose graduate seminars we individually—at different times—came away with a lasting appreciation for the philosophy of Thomas Aquinas.

I

Life and Work

By all the accounts of his contemporaries, Thomas Aquinas was a strange and driven man. One former student who came to know him well described how "he seemed to live almost in a trance. He so devoted all his energies to God's service as to be utterly detached from this world even while dwelling in it." All who knew him described his single-minded pursuit of the word of God through prayer, study, teaching, preaching, and writing. From an early age, we are told, "he shunned all frivolous conversation as far as possible" (Foster, pp. 130, 26). As an adult, when meetings with his fellow friars drifted into topics not pertaining to God, it was his custom to leave the room immediately. At the start of his first extended masterpiece, his *Summa contra gentiles*, he declared it his task "to clarify the truth that the Catholic faith professes, to the extent that I can, while eliminating conflicting errors." Then he quoted Hilary of Poitiers: "I am conscious that I owe this to God as the chief duty of my life, that my every statement and expression speak of him" (*SCG* I.2.2/9).

The fruit of this marvelous dedication and abstraction is the more than eight million words that Aquinas left us. The sheer quantity of this work is enough to display his single-mindedness. Over twenty years of work, he wrote more than eight times as much as Aristotle, himself a reasonably prolific author. At the height of his productivity, Aquinas was writing an astonishing four thousand words a day. Every page displays his constant focus and drive: there is always the sense that he is going somewhere, pushing on toward the unified theological worldview that was his life's project to articulate. As an Aristotelian, Aquinas accepted the *Nicomachean Ethics*' conception of happiness as the ultimate end of human life. As a Christian, however, he reconceived that notion in terms of a union with God, which for him consisted in an intellectual understanding of God's very nature. For human beings in this life, no such thing is possible; we see God obscurely at best. Every moment of Aquinas's adult life, and every word that he wrote, had as its aim to dispel the darkness

of his and our lives and lead us to the glory of eternal life with God. In the service of this ambition, Aquinas constructed a philosophical edifice as impressive and monumental as any before or since.

1.1 Early Years

None of this could have been foreseen from Aquinas's origins. Born in 1225 (or thereabout), Thomas was the youngest son of at least nine children born to Landolfo and Theodora. The family was wealthy, with ancestral estates in the Aquino region of southern Italy, halfway between Rome and Naples. Thomas himself was born not in the town of Aquino but in the family's castle at nearby Roccasecca, which can still be visited today. The name "Thomas Aquinas" (or "Thomas of Aquino") thus refers to his family rather than to his exact birthplace. Until the sixteenth century, when governments began to decree that every person take a surname, it was common for Europeans to have just a single name and to make further distinctions when needed on the basis of place of origin or father's name. (Single names remain very common in many parts of the world today.) Since "Aquinas" is not a surname in the modern sense, some prefer to refer to Thomas Aquinas by his given name, "Thomas." But we follow the standard practice of using the toponym "Aquinas" as if it were his surname, a practice as common in earlier times (for instance, in Shakespeare) as it is now.

Although legend has it that Theodora, while pregnant, received a prophetic announcement from a local hermit of her child's future fame as a Dominican friar, the Aquino family had very different plans for their child. As was customary for the youngest sons of aristocratic families, Thomas was destined for the Church. His parents hardly intended, however, that he would join one of the new mendicant orders, such as the Franciscans or the Dominicans, whose members took strict vows of poverty and sought to adopt the lifestyle of Christ's disciples. Instead, the six-year-old Thomas was sent, along with his nurse, to a nearby Benedictine monastery—the famous and powerful Monte Cassino. In the eyes of his parents, a position of influence at Monte Cassino would be a great achievement for both the son and the family. Yet, as the plans of parents are wont to do, this one fell apart. While studying in Naples as a teenager, Thomas fell in with the Dominican friars in that town. That newly founded organization of priests described itself as the Order of Preachers: their lives were dedicated not just to poverty and abstinence but also to the pursuit of knowledge, always with an aim to further the work of preaching, teaching, writing, and in general saving souls. This orientation coincided perfectly with Thomas's own values, and at the age of nineteen—before finishing his studies at Naples—he joined the Dominican order.

Throughout his life, Aquinas wanted nothing more than to live as a Dominican friar: poor, celibate, and scholarly. When students later asked him whether he would like to own all of Paris, he is said to have replied that he would rather own a copy of John Chrysostom's sermons on the Gospel of Matthew. (By the time he wrote his commentary on Matthew, he had a copy, which he quoted from 215 times.) To the end, he stubbornly refused titles and offices that would bring prestige and power at the expense of his scholarly calm. Still, though no life could seem less likely to yield interesting biographical material than one of poverty, celibacy, and scholarship, in fact Aquinas's life was full of strange and fascinating events. When he was a child, for example, a lightning strike killed one of his sisters (as well as horses in the stable below) while he slept nearby. The most famous and dramatic event in his life occurred just after he took his vows as a Dominican. A decade earlier the friars in Naples had had a bad experience with another young nobleman: having recruited him into the order, the friars lost him to his enraged family, who broke into the priory to take him back. Eager to avoid a similar scene with their newest recruit, the Dominicans attempted to sneak Aquinas out of Italy. His mother, having heard what her youngest son was proposing to do, went down to Naples to dissuade him. Arriving too late, she went up to Rome, but again she was too late. As a last recourse, she sent an urgent message to her older sons to intercept Thomas on the road north of Rome. They did so and brought him back home to Roccasecca, where he was forced to spend a year in the family castle—not exactly imprisoned (he was allowed visitors and could move about freely) but effectively grounded.

No doubt Aquinas made good use of this year at home, even without a teacher. Early biographers report that he studied the whole Bible thoroughly and memorized Peter Lombard's *Sentences*, the basic textbook for university studies in theology. They also report that during that year he managed to persuade his eldest sister to join a religious order herself. But it seems that not all of the family took the earnest youngest son so seriously. It is easy to imagine the glee of Thomas's older brothers when they arranged for a prostitute to visit him in his room, and their even greater glee in hearing of his reaction (see §9.2 for the whole story). In any event, it became clear after a year that Thomas was not going to be deterred, and he was allowed to rejoin the Dominicans and journey to Paris, the intellectual center of Europe.

1.2 A Young Scholar

Thanks to generations of scholarly research, we have a fairly firm idea of where Aquinas lived throughout his life and when he wrote his various works. Beyond that, however, we know very little for certain about what

he was like, how he spent his time, and what happened to him along the way. Unlike Augustine or Abelard, he never wrote about his personal life, even in passing, and left no personal correspondence. Consequently, everything we know is based on either the testimony of others or what we can deduce from his scholarly writings. From the writings—both their content and an analysis of early manuscripts—we have learned a great deal about the order in which Aquinas composed his various works and about where he was living as he wrote them. As for the testimony of others, these stories largely come from the records of his first canonization inquiry, in 1319, almost half a century after his death. Accordingly, if some of the stories we tell here seem incredible—better suited to hagiography than biography—the reader might do well to resist crediting them. We ourselves do not believe every part of the legend. Still, this is the story of Aquinas, as we have it, and it seems well worth telling.

We can be fairly confident that Aquinas's family did force him to spend a year at home after his first attempt to join the Dominican order, and that in the end they relented and allowed him to leave for Paris. It is not entirely clear how he spent the next three years, from the latter part of 1245 into 1248, but we can be sure that he would have feasted on the vast intellectual opportunities offered at the University of Paris. In his early twenties now, Aquinas seems to have spent these years completing the liberal education he had begun in Naples, perhaps studying the seven classic liberal arts (logic, grammar, rhetoric, arithmetic, astronomy, geometry, and music) and certainly studying philosophy. In the middle of the thirteenth century the study of philosophy was becoming virtually synonymous with the study of Aristotle. Although it is uncertain what Aquinas would have been exposed to during his first stay in Paris, he clearly had the good fortune of coming on to the scene just as Aristotle was assuming his prominent position as "the Philosopher"—which is in fact what Aquinas and other scholastics customarily called him. Throughout the earlier Middle Ages the main logical writings of Aristotle had been studied as one of the central pillars of a liberal arts education. But the bulk of Aristotle had been lost to the Latin West for centuries, until commentaries and Latin translations began to appear in the twelfth century.

From the ninth century, Latin had been a dead language in the sense that it was no one's native language. Nevertheless, it was the lingua franca of medieval Europe, the universal language of both clerics and scholars, and translations—from Greek, Hebrew, or Arabic—were always into Latin. Very few in the West knew Greek or Hebrew, let alone Arabic, and Aquinas shows no signs of having made any effort in this direction. He always wrote and taught in Latin, although when living in Italy he preached sermons in his native Italian. As a result, Aquinas and his contemporaries were almost entirely dependent on the availability of Latin

translations of the great Greek, Islamic, and Jewish philosophers. Thanks to just a handful of industrious scholars (such as Aquinas's contemporary and fellow Dominican, William of Moerbeke), this work was gradually becoming available to the Latin West.

Of all this material, the most exciting of all was, of course, the work of Aristotle. In the early part of the thirteenth century, Aristotle and other non-Christian philosophers were regarded with a great deal of suspicion. Indeed, a Church council in 1210 prohibited any lectures, public or private, on Aristotle's works of natural philosophy. This edict was reaffirmed by the pope in 1231, but by the 1240s it seems to have lost its force (by being forgotten rather than explicitly overruled), and by 1255 a statute of the Paris Arts Faculty mandated the study of all Aristotle's major works.

The most famous figure in this Aristotelian revival was another Dominican friar, Albert the Great (c. 1200–1280), who was more famous in his lifetime than Aquinas himself. Over the course of his career, Albert worked through virtually all of Aristotle's writings, composing extensive commentaries and paraphrases on their every aspect and introducing this material into his explicitly theological work. Albert's groundbreaking efforts played a crucial role in medieval Aristotelianism, both in their own right and in their influence on Aquinas. In 1248, in his early twenties, Aquinas had the great fortune of being assigned to join Albert in Cologne, where a new Dominican center for theological study was to be established. The next four years were crucial in formulating Aquinas's mature intellectual outlook. Under Albert, he continued to study Aristotle's philosophy and began the intensive study of theology that would fill the rest of his life. His first biblical commentaries probably date from this period.

Cologne appears to be where Aquinas's brilliance was first widely recognized. Large and stout (yet impressive and handsome, according to some sources), Aquinas was a quiet student who must have kept his thoughts to himself during those first years in Paris. In an oft-told incident at Cologne, a fellow student offered Aquinas help with a difficult text. After humbly accepting the help, then watching the student begin to falter, Aquinas began to explain the text himself, leaving the other student amazed. A similar incident was said to have led Albert the Great to his oft-quoted remark that "we call him the Dumb Ox, but the bellowing of that ox will resound throughout the whole world." In 1252, Albert was asked to nominate a student to go back to Paris and begin lecturing on Lombard's *Sentences*, the last stage on the long road to becoming a master of theology. Albert chose Aquinas, and after some hesitation the Dominican authorities agreed.

It is no wonder that the authorities hesitated, and that Aquinas himself felt overwhelmed by the assignment. At the age of twenty-seven, he was two years younger than the minimum age statutorily required of a so-

called bachelor of the *Sentences*. Moreover, he was far younger than any earlier Dominican in that role, most of whom (including Albert himself) had been in their forties and had studied theology and the Bible for a much greater length of time. Nevertheless, Aquinas was said to have been a tremendous success. As an early biographer put it: "God graced his teaching so abundantly that it began to make a wonderful impression on the students. For it all seemed so novel—new arrangements of subject matter, new methods of proof, new arguments adduced for the conclusions; in short, no one who heard him could doubt that his mind was full of a new light from God" (Weisheipl, p. 70).

Aquinas's first major works date from this period. His massive commentary on Lombard's *Sentences* contains all the major theses that distinguish him as a philosopher and theologian. Though he would develop his ideas more fully and clearly in later works—and for that reason they are more often studied—he established the basic contours of his thought at a remarkably early age. It seems to be during these years that Aquinas wrote two short treatises, *On the Principles of Nature* and *On Being and Essence*, both at the request of fellow friars who were struggling to understand some basics of philosophy. (These two treatises are the focal texts of Chapters 2 and 3.)

1.3 Master of Theology

In 1256, Aquinas received the University of Paris's highest honor, the *Licentia docendi* (or doctorate), which permitted him to become a master of theology. Again, he was too young—he should have been at least thirty-five—but he was nevertheless chosen for the honor over other candidates. And also as before, Aquinas was apprehensive. We have the story that he attempted to decline the offer, only to be reminded of his vow of obedience, and then prayed, tearfully, for the knowledge and grace that would be required of him. That night, an elderly Dominican friar appeared to him in a dream, offering not just encouraging words but even a topic for his inaugural address. The address he gave—before the assembled faculty of the university—would reflect these concerns. After describing the demands of the position he was assuming, he concluded:

> Although no one is sufficient for such a ministry by himself, in his own right, still he can hope for sufficiency from God: *Not that we are sufficient to think anything by ourselves, as if by ourselves; rather, our sufficiency comes from God* (II Cor. 3.5). Still, we ought to seek it from God: *If someone needs wisdom, let him ask God* [. . . *and it will be given to him*] (James 1.5). Let us pray for Christ to grant it to us. Amen. (Torrell, p. 52)

With these words, Aquinas was hoping for more than just intellectual inspiration and guidance. He was hoping as well for the strength to cope with the ugly political situation at the University of Paris. Although Dominicans and Franciscans had held chairs of theology at Paris since the 1230s, there was still considerable hostility toward these mendicant orders, which had been granted special privileges unavailable to ordinary, unaffiliated ("secular") masters. At the time when Aquinas assumed his chair, friars were being attacked in the street by students and city residents. Royal archers had to be placed as guards in front of the Dominican priory, as well as in the front of the hall where Aquinas gave his inaugural address. (Even so, hostile crowds outside kept some would-be attendees from entering the building.) Though Aquinas could be quite sharp and forceful in his written work, he seems in person to have been mild and generous, and we can imagine that he dreaded being drawn even further into such a hostile situation.

It would be sixteen months before the theology faculty as a whole recognized Aquinas as a member. (The distinguished Franciscan theologian Bonaventure was recognized at the same time, even though he had incepted as a master *four* years earlier.) But such controversies did not keep Aquinas from carrying out the public responsibilities of a *magister regens* (reigning master), which were to read and comment on the Bible, dispute theological questions, and preach. Only a small number of Aquinas's sermons have been preserved. More of his biblical commentaries have survived, and indeed writing commentaries was regarded as the principal task of a theology master. These commentaries are of considerable interest and often contain interesting remarks, but they are not among the most important sources for Aquinas's philosophy.

It is the second kind of teaching activity, the *disputatio*, that gave rise to some of Aquinas's most important philosophical works. The subject of classroom disputations was always a specific yes-or-no question; both students and faculty were given the opportunity to air arguments on any side of the issue, to which the master would ultimately reply. Within the medieval university, disputations came in several kinds. First, there were quodlibetal questions. These public disputes, which customarily occurred during breaks in the school year around Christmas and Easter, could be on any topic that any member of the audience might propose (*quodlibet* means *whatever*). Aquinas debated five sets of such questions during these years at Paris, and another seven when he returned to Paris in 1268. The topics could run from the straightforwardly theological and philosophical to the eccentric, as when Aquinas was asked whether an angel could move from point to point without passing through any intervening points (*QQ* I.3.5). Whereas some theology masters won their reputations

through such disputes, for Aquinas this format constitutes a small and secondary part of his collected work.

The other sort of disputed questions were the "ordinary" disputations that theology masters were expected to hold throughout the school year. Unlike the disputations based on quodlibetal questions, "ordinary" disputations were based on topics selected by the master, a procedure that Aquinas evidently favored, judging from the quantity and importance of his published writings in this format. An "ordinary" disputation would begin with the participating students and faculty raising arguments on all sides of the question. A more advanced student—in effect, a graduate teaching assistant—would then make a preliminary determination of the question, answering those arguments that needed to be answered. (This would have been Aquinas's task, on behalf of another master, when he served as bachelor of the *Sentences*.) Finally, the master would issue his final determination of the question, making his own replies to arguments when necessary. Sessions would run for three hours in the afternoon, completing a day of teaching that had begun at six in the morning with a lecture on whatever book of the Bible the master had chosen to study that term.

It is unclear how many disputations a master would hold over the course of a term, but we know that Aquinas's first set of disputed questions, entitled *De veritate* (On Truth), was the product of his first three years at Paris. These and other disputed questions were the occasion for some of Aquinas's most detailed and complex philosophical discussions. Often a scribe would record these lectures and debates, and that scribal report would then be extensively edited by Aquinas or one of his assistants. Consequently, the works of Aquinas that we possess provide only a distant glimpse of what actually happened in the classroom. The form remains, however, so that each article begins with a question (for example, *What is truth?* [*QDV* 1.1]), followed by a series of arguments on each side, followed by the resolution of the question (the *corpus* [body] of the article), followed by replies when necessary to the initial arguments (ad 1, ad 2, and so on).

1.4 Back to Italy

If Aquinas had been a secular master of theology, unaffiliated with one of the mendicant orders, he might have spent his entire professional life teaching at the University of Paris. But it was the practice of the Dominicans and Franciscans to rotate a series of scholars through their theology chairs at Paris, thereby giving the orders a large number of certified masters who could play leading teaching roles throughout Europe. Accordingly, Aquinas completed his teaching term at Paris in the spring of 1259 and returned to Italy. The next several years were relatively free of official

duties. Seemingly in anticipation of this free time, Aquinas began the first of his great summas, the *Summa contra gentiles* (A Survey [of Theology] Directed Against Unbelievers), not long before he left Paris. We are fortunate to possess Aquinas's original handwritten draft of much of this work, though it is written in a notorious scrawl that is virtually illegible even to experts. Nearly every chapter of this autograph manuscript shows signs of having been revised two or three times. Although the *Summa contra gentiles* is less than one-quarter the length of the earlier *Sentences* commentary, Aquinas nevertheless took nearly five years to finish it. One can feel, in reading it, a sense of intellectual struggle and excitement as he takes his earlier, programmatic ideas to their full maturity.

For most of the 1260s Aquinas lived in Italy, first as a teacher at a Dominican priory in Orvieto, north of Rome (1261–1265), and then as the founding master of a school for friars in Rome (1265–1268). During these years he engaged in the same activities as he had at Paris: preaching, lecturing on the Bible, and holding disputed questions. In addition, not long after taking up residence in Rome, having completed the *Summa contra gentiles*, Aquinas began the masterpiece that would consume the rest of his life, the *Summa theologiae* (A Survey of Theology). An opening preface to the work explains his motivation. Describing himself as having a duty to instruct "not only those who are advanced, but also those who are just beginning," Aquinas explains that existing works of theology have been badly suited for novices because they are too long, badly organized, and repetitive. "We will strive, therefore, to avoid these faults and others of this sort, and we will attempt, trusting in divine aid, to pursue those issues that concern sacred doctrine in a manner concise and lucid—inasmuch as the material allows."

Despite the fact that Aquinas would die before completing its last part, the *Summa theologiae* became his largest work, running to over one and a half million words. It is long only because of the vast range of topics discussed; true to his aim, it is the most accessible of his works and, for any given topic, among the most concise. Whereas the *Summa contra gentiles* shows Aquinas laboring over ideas that were still in flux, the *Summa theologiae* shows him utterly in command and confident. The arguments are crisp and carefully chosen, and the organization exhibits the crystalline clarity for which Aquinas is famous.

For the remainder of his life, Aquinas structured his teaching and writing with an eye to completing the *Summa theologiae*. Apparently in preparation for writing the first part of the *Summa*, on God and creation, Aquinas delivered and then prepared for publication a series of disputed questions, *De potentia Dei* (On God's Power). Then, as he was preparing the first part's discussion of human nature (*ST* 1a 75–89), he debated and published a series of *Quaestiones de anima* (On the Soul). This pattern

would continue through his last years. At the same time, Aquinas began a massive new project, a series of commentaries on the philosophical writings of Aristotle, beginning with the *De anima* and eventually working through twelve different texts, including the *Physics*, the *Metaphysics*, and the *Nicomachean Ethics*.

Why did Aquinas invest so much time—and over one million words—on this commentary project? Given his single-minded focus on the word of God, it cannot be that he did it for purely historical reasons. In his commentary on the *De caelo* (On the Heavens), Aquinas remarks that "the study of philosophy is not about knowing what individuals thought, but about the way things are" (*InDC* I.22). At the same time, his interests also cannot have been narrowly philosophical, in the way that philosophers today often study medieval theology for its purely philosophical insights. Aquinas would have regarded that as equally a waste of time. Thus, when he was consulted for his expert opinion on various matters, he often refused to take up questions that he regarded as purely philosophical or as having no implications for the faith, as in this remark: "As for where hell is, whether it is at the center of the earth or on the outside, I think this has nothing to do with the doctrine of faith, and it is superfluous to worry about such questions by either asserting or disproving them" (*De 43 art.* 32). The point is not that this is an absurd question—for Aquinas and his contemporaries there was nothing absurd about it—but that nothing important (nothing concerning the faith) rests on answering it.

The unavoidable conclusion is that Aquinas studied Aristotle for the sake of Christian theology. This provides the clearest possible indication that his theology is fundamentally philosophical. He labored over Aristotle's central philosophical works, line by line, because he supposed that Christian theology—which was what he really cared about—needed the best available philosophical foundation and he took that to be Aristotle. In part, he undertook this study for himself, as a way of preparing to write the *Summa theologiae*, a work that is itself full of philosophical material. But he was obviously writing for others as well, on the assumption that teaching philosophy went hand in hand with teaching theology. The importance these works would come to have for his contemporaries is evident in a letter written soon after his death by the Faculty of Arts at Paris. Please let us bury his body here in Paris, where it belongs, they urged the Dominican authorities. Or, if you will not give us that, then at least let us have a copy of the philosophical works he was writing during his last years of life. (The University of Paris never would get Aquinas's body, which became the object of a prolonged and sometimes bizarre struggle and is now buried in Toulouse, France.)

By this time, the late 1260s, Aquinas's prodigious talents were obvious to everyone. No doubt he saw it as his religious duty to employ this intellectual gift to the very best of his abilities. In a passage from the *Summa theologiae* written at around this time, Aquinas argues that every action chosen by a human being on a particular occasion must be either good or bad: good if aimed at the proper goal, bad otherwise.[1] This is to say that there is no such thing as a morally neutral human act. Idle words and actions are not just a missed opportunity to do more; they are, for Aquinas, positively immoral. He does make an explicit exception for actions that are not the product of a deliberate choice, such as scratching oneself. And he would presumably allow that mindless fun can have a legitimate purpose in refreshing one's spirits. Still, his rigorous attitude is reflected in a description of the routine he followed in Italy at the end of his life:

> Every day, Friar Thomas celebrated Mass early in the morning in the chapel of St. Nicholas. Another priest immediately followed him, who celebrated Mass in turn. After having heard it, Thomas took off his vestments and immediately gave his course. That done, he began writing and dictating to several secretaries until the time for dinner. After dinner, he returned to his room where he attended to spiritual things until rest time. After rest, he began again to write. Thus the whole of his life was directed toward God. It was the common view . . . that he had wasted scarcely a moment of his time. (Foster, p. 107)

Others confirm what this passage implies—that he ate only once a day, and even then it is said that he would often be unaware of food placed on the table in front of him. In defense of his strict line on idle speech and actions, he quotes Matthew 12.36: *But I say unto you, That every idle word that men shall speak, they shall give account thereof in the day of judgment.*

Aquinas similarly seems to have slept very little. According to an earlier biographer:

> At night, when our nature demands repose, he would rise, after a short sleep, and pray, lying prostrate on the ground; it was in those nights of prayer that he learned what he would write or dictate in the day time. Such was the normal tenor of his life—a minimum of time allowed to sleeping and eating, and all the rest given to prayer or reading or thinking or writing or dictating. Never an idle moment, always a holy activity. (Foster, p. 37)

A fellow friar who slept in a nearby room reported that he "frequently heard him [Aquinas] speaking with someone and often disputing, even though he was alone in his room, without companion" (*Ystoria*, p. 304). Aquinas's secretaries were accustomed to being roused in the middle of the night to take dictation. The most spectacular such episode allegedly came when he was working on his Isaiah commentary. According to the

story, Aquinas was stuck for many days on a particularly obscure passage. Late one night, his longtime secretary, Reginald of Piperno, heard him talking in the next room and heard other voices that he did not recognize. Then he heard Aquinas call for him. For the next hour Reginald took dictation "which ran so clearly that it was as if the master were reading aloud from a book under his eyes." At the end, he pleaded with Aquinas to reveal whom he had been talking to. After many refusals to answer, Aquinas eventually told Reginald that God had answered his prayers by sending the Apostles Peter and Paul to explain the difficult passage. Reginald was sworn never to repeat the story for as long as Aquinas lived.

Of all Aquinas's peculiarities, he was most renowned for his abstraction of mind. Reginald was said to have served Aquinas as a kind of nurse,

> supplying his needs as one supplies the needs of a child, because of that frequent, nay almost continuous, absence of mind and absorption in heavenly things which rendered Thomas unable to look after his own body and needing to be protected from accidents and have his food put on the plate before him, so that he should take only what he required and avoid eating absentmindedly what might have done him harm. (Foster, p. 57)

He was frequently so lost in thought, during meals or while meeting with visitors, that a colleague would have to jerk him by the cloak to get his attention. Once he was invited to dine with the king of France, an invitation he wanted to decline in order to concentrate on his own work. Ordered by his superior to accept the invitation, he found himself seated next to the king at dinner. As the story goes, Aquinas had become deeply absorbed in thought, when suddenly an insight burst upon him. "That settles the Manichees!" he cried out loud, thinking himself alone in his room. "Reginald, get up and write!" After realizing where he was, Aquinas offered an embarrassed apology to the king, who was said to be much edified by the whole event and quickly called for one of his own secretaries to write down Aquinas's thoughts.

Presumably, these stories became much exaggerated over the years, and it is difficult to say where reality ends and legend begins. We do know that Aquinas was chosen by a brother-in-law to be the executor of his estate, a task that turned out to be rather complicated and that he seems to have carried out effectively. Surely he never would have been given this responsibility had he been as detached from reality as some of the stories suggest. We also should not suppose that Aquinas's intense focus on his work made him either cold or unpleasant. All indications are that his humility and kindness earned him the love of his students and colleagues, and the esteem of his intellectual opponents. The stories of his

single-minded focus on work should be viewed in light of the following story:

> We are told that once, when staying at our [Dominican] house in Bologna, he happened to be in the cloister, walking meditatively around as he was wont to do, when a brother from another priory who did not know him approached and said: "Good brother, the prior says that you are to come with me." The prior had in fact given that brother permission to take the first man he should happen to meet as his companion on some business that he had to see to in the city. Thomas bowed his head at once and followed. Now the other was a fast walker, too fast for Thomas, who could not keep up with him and got many hard words in consequence, but each time begged the other's pardon. And this was noticed and wondered at by people in the city: for they recognized the great teacher who was hurrying after that undistinguished friar; and, thinking there must be some mistake, they at last told the latter who his companion was. And he, turning around, then apologized to Thomas, begging him to excuse his ignorance. But Thomas, seeing the people salute him respectfully and hearing them ask why he had let himself be treated in this way, gently pointed out that the way to moral perfection lies only through obedience. (Foster, p. 49)

The story is mundane enough to be more credible than most of the legends. It suggests that however intense and driven Aquinas may have been, he was at the same time a kind and gentle man.

1.5 A Second Term in Paris

In 1268, Aquinas returned to the University of Paris, exchanging the chaotic political situation in Italy at the time for the tense and fractious intellectual scene in Paris. Over the next four academic years he would engage in fierce polemics on various fronts: with theologians suspicious of Aristotle, with secular masters hostile to the mendicant orders, and with members of the arts faculty who interpreted Aristotle in ways that seemed to threaten the faith. (See, for example, the discussion in §5.1 over whether the world can be proved to have had a beginning in time.) It was highly unusual for the mendicant orders to send former masters of theology back to Paris for a second regency; the fact that they did so on this occasion suggests just how tense the situation was at the time. Moreover, the fact that they recalled Aquinas in particular is some evidence that his legendary abstraction of mind did not preclude him from being a powerful force in public.

By now, Aquinas's views had become influential, but it should not be supposed that this influence was warmly received in all quarters.

Throughout the later Middle Ages, his ideas would be extremely controversial, and though he inspired a large number of Thomists, other philosophers, such as Albert and John Duns Scotus, inspired equally important groups of followers. Indeed, until 1879, when Pope Leo XIII made Aquinas the official philosopher of the Church (a distinction withdrawn by Vatican II in the 1960s), Aquinas was merely one of many influential medieval authors. If anything, he was more controversial than most. This was already becoming clear during his second term as regent master, when his views came under attack from all sides and led him to write a series of short and contentious treatises (*opuscula*) wherein he repeatedly challenged his opponents to meet his own arguments head on, in public: "If someone exulting in this falsely named knowledge wishes to speak against what we have written, let him not speak in corners nor in the presence of boys who do not know how to judge such difficult matters, but let him reply in writing to this work, if he dares" (*DUI* 5).

These controversies only intensified after he was gone. In 1277, three years to the day after his death, the bishop of Paris prohibited—on pain of excommunication—the teaching of 219 philosophical and theological propositions, including more than a dozen that seemed to implicate Aquinas. Further condemnations followed at Oxford, and an English Franciscan, William de la Mare, published an extensive *Correctorium* of Aquinas's work. This became required reading among Franciscans, while Dominicans renamed it the *Corruptorium* and issued their own replies. Once Aquinas was made a saint, in 1323, these disputes subsided; Pope John XXII is said to have then remarked that Aquinas "did as many miracles as there are questions he determined." Still, his views never ceased to be controversial.

During his last years in Paris Aquinas wrote at a furious pace. In addition to a string of polemical writings, he carried out the usual duties of a theology master—lecturing on the Bible, disputing, and preaching—and these activities again resulted in extensive written works. But whereas these duties had sufficed to fill his time during his first teaching term at Paris a decade earlier, Aquinas was now in the midst of the two massive projects begun in Rome: his Aristotelian commentaries and the *Summa theologiae*. Aquinas would complete the bulk of these works during these years in Paris. It was at this time that he was averaging four thousand words a day—at which pace he could have written a book the size of the one you are now reading in a couple of weeks.

As we have seen, some of Aquinas's works originated in the classroom, whereas others were put directly into written form. In the former category fall all of his disputed questions and most of the biblical commentaries; the two *summae* and the Aristotelian commentaries fall into the latter category. When Aquinas composed or edited his work, he sometimes did his own writing, but more often—especially in his later years—he used a team of secretaries. We are told that he was in the habit of dictating to three or four secretaries at once, sometimes continuing—or so we are told—even after falling asleep! Although this practice has been marveled at, it is in fact not very astonishing (leaving aside the last detail, of course, which we can hope is apocryphal).[2] Just as a teacher will go from class to class, giving lectures on entirely different topics, so we can imagine Aquinas turning from secretary to secretary. Indeed, his use of multiple secretaries should tend, if anything, to reduce our sense of marvel at his accomplishment. For we should wonder why, in order to switch from one subject to another, he needed more than one secretary. Why not one secretary with three or four manuscripts in front of him? Why make three men sit by idly while dictating to a fourth? The most plausible answer would seem to be that each secretary, when not actively engaged in dictation, was busy turning Aquinas's rough suggestions into a coherent text. This is impressive in its own way, because Aquinas would have had to be able to sketch the outline of an argument and then count on his secretary to flesh it out in a satisfactory way. Still, it shows the extent to which Aquinas's writings were the product of what Jean-Pierre Torrell, in his authoritative biography, refers to as "a veritable workshop for literary production." Torrell describes one case where a whole article from the *Summa theologiae* had been taken from a quodlibetal dispute, word for word, but with several errors introduced by the scribe (Torrell, pp. 242–243).

Before the middle of the fifteenth century, the only way to produce or copy a book was to write it out by hand. As medieval universities developed, so did an elaborate system for circulating manuscripts. An exemplar would be given to the university stationery shop, which would then rent the work out to be copied. But since it might take weeks to copy a whole work, exemplars were divided into many small pieces (*peciae*), and these pieces would be rented out. A student or professor could rent an individual piece, copy it (or pay someone to copy it), then return that piece of the manuscript for the next one. Much the same process of distribution occurred concurrently in Paris, England, Italy, and elsewhere, over hundreds of years, and thus a single exemplar of a work could generate hundreds of copies, each of which might itself generate still more copies. Over the years many of these copies would have been lost or destroyed, and there are many medieval works that have been entirely lost. Nevertheless, most of Aquinas's writings have survived in numerous manuscripts. There are, for instance, 246 known manuscripts containing the first part of the *Summa theologiae*.

Obviously, this method of transmission was extremely unreliable, especially since the tedium of copying a manuscript tempted scribes to write

with reckless speed. The challenge that modern editors face is to collate the surviving manuscripts in such a way as to produce a text that comes as close as possible to the author's original work. Ideally, a modern edition offers the Latin text just as the author composed it, supplemented by the modern conveniences of punctuation, paragraphs, chapter and section titles, and standardized spelling. (All of this would have been absent from even the best medieval manuscript.)

1.6 Breakdown

As it turned out, Aquinas could not sustain this level of work for very long. In the spring of 1272 he returned to Italy and took up teaching at the Dominican priory in Naples, coming back full circle to the place where he had first entered the order. There are no indications that he had difficulty making the arduous journey from Paris over the Alps and down to Naples. (The ordinary mode of travel was by foot, though Aquinas may have sometimes traveled by boat. Friars were prohibited from going on horseback.) For a year and a half, in Naples, Aquinas continued the brutal work schedule he was accustomed to; by this time he was well into the third and last part of the *Summa theologiae*. Suddenly, in early December of 1273, Aquinas underwent a dramatic change. After saying Mass in the early morning, in his customary way, Aquinas refused to take up his usual work, and indeed he put away all his writing materials. In response to the entreaties of his astonished secretary, Aquinas replied, "Reginald, I cannot go on." Abandoning his usual routine, he took to his bed for long periods of time. Later that month he went to rest at his sister's nearby castle, arriving only with great difficulty. Once there he was in an almost perpetual daze and hardly spoke to his sister, to her considerable alarm. Reginald had to explain that, although his master was often abstracted in this way, it had never been so severe before. It was at this time, in reply to Reginald's constant urging to resume his work, that Aquinas explained why he had stopped: "All that I have written seems to me like straw compared with what has now been revealed to me." He never resumed this work, and within a few months he was dead.

Death came not at the Naples priory but in transit toward Rome, on the way across the Alps, once again to a Church council in Lyon. Just a few days outside of Naples, lost in thought as usual, Aquinas struck his head against the branch of a tree that had fallen across the road. It is unclear just how significant this injury was; in any case, Aquinas and his party continued traveling for several days, until he fell ill while staying with his niece.[3] After a few more days he was transported to the nearby monastery of Fossanova, where he lay ill for several weeks until his death on March 7, 1274, at the approximate age of forty-nine.

What are we to make of this bizarre and sudden ending? There is some temptation to say that Aquinas simply worked himself to death, but the story as we have it is rather more complicated—in part mystical experience, in part nervous breakdown, and in part physical collapse. Aquinas did write one very short tract in these last months, an explanation of why human actions are not necessitated even when foreknown by God. This letter, written at the specific request of the abbot of Monte Cassino (his boyhood monastery), shows that Aquinas was not physically incapable of continuing his work. Whatever kept him from writing was psychological rather than physical.

One might, superficially, wonder whether his famous "like straw" remark undermines his entire life's work, as if his ultimate view were that none of it was worthwhile. But this conjecture would certainly miss the point of what Aquinas was saying. Throughout his life he was keenly aware of the limits of our earthly theological understanding. As he wrote in the beautiful closing passage of his commentary on the Gospel of John:

> Infinitely many human words could not attain the one Word of God. For from the beginning of the Church, Christ has always been written about, but not adequately. Indeed, even if the world were to last for hundreds of thousands of years, books could be made about Christ, but his deeds and words would not all be completely expressed. (*InJoh* 21.6)

Inevitably, the greatest wisdom in this life will pale next to the eventual face-to-face vision received by the blessed in heaven. That does not make our pursuit of wisdom a waste of time. The good for human beings in this life consists in seeking God out as best we can (see §8.6). If, in the last months of his life, Aquinas was given a revelation that went beyond anything he had written before, that does not make his writings worthless for us, unless we too have received that revelation. The fact that Aquinas did not begin his work anew but *put away* his writing instruments suggests that the revelation he received was simply inexpressible to others. The writings Aquinas has left us should therefore be understood as the best he was capable of producing. If this is still far from adequate, it is nevertheless as good as we are likely to get.

Notes

1. "Since it belongs to reason to order, an act proceeding from deliberative reason that is not ordered to an appropriate end is on this basis contrary to reason, and has the character of something bad. . . . It is necessary, however, that an act be either ordered or not ordered to an appropriate end. Hence it is necessary that

every human act proceeding from deliberative reason and considered in particular is either good or bad" (*ST* 1a2ae 18.9c).

2. Perhaps Aquinas was speaking from personal experience when he remarked, "Those who form syllogisms while sleeping always realize when awakened that they have gone wrong in some respect" (*ST* 1a 84.8 ad 2).

3. It was here that the miracle of the herrings occurred, one of three judged to have taken place during his lifetime. (Hundreds were attested to after his death.) Lying ill, Aquinas was asked whether he could eat anything. He replied that he could eat some fresh herrings, if there were any. Just then a fishmonger arrived, and though he claimed to have only sardines, and though herrings were not available in those waters, inspection of his cart turned up a whole basket of fresh herrings. (Yes, but how were they cooked?, a skeptical inquisitor asked an eyewitness to the event. Boiled *and* fried, the witness replied, thereby reminding us of the days when God was not so parsimonious with his miracles.)

Suggested Readings

The most thorough and up-to-date account of Aquinas's life and work is:

> Jean-Pierre Torrell, *St. Thomas Aquinas*, vol. 1, *The Person and His Work*, tr. Robert Royal (Washington, D.C.: Catholic University of America Press, 1996).

For a more vivid account of Aquinas's intellectual and cultural milieu, see:

> James A. Weisheipl, *Friar Thomas d'Aquino: His Life, Thought, and Work* (Garden City, N.Y.: Doubleday, 1974).

This book should be used with caution, however, since a great deal of new biographical information has been discovered in recent years. For a more immediate sense of how Aquinas was viewed by his near-contemporaries, see the fascinating collection of early biographical sources translated in:

> Kenelm Foster, *The Life of St. Thomas Aquinas: Biographical Documents* (Baltimore: Helicon Press, 1959).

Of our early sources, by far the most important is the biography by William of Tocco. Unfortunately, it has never been translated. But scholars should consult the important new critical edition:

> *Ystoria sancti Thome de Aquino de Guillaume de Tocco (1323)*, ed. Claire le Brun-Gouanvic (Toronto: Pontifical Institute of Mediaeval Studies, 1996).

For more details regarding the copying and circulation of manuscripts, see:

> Anthony Kenny and Jan Pinborg, "Medieval Philosophical Literature," in *The Cambridge History of Later Medieval Philosophy*, ed. Norman Kretzmann et al. (Cambridge: Cambridge University Press, 1982), pp. 11–42.

For an annotated listing of Aquinas's most important works, see the "Catalog of Works" in the back of this volume. For a complete catalog, see Torrell. For a full listing of English translations, see the bibliography maintained by Thérèse Bonin of Duquesne University at:

> www.home.duq.edu/~bonin/thomasbibliography.html

There are many anthologies that collect translated excerpts from Aquinas's work. See, most recently:

> Timothy McDermott, tr., *Selected Philosophical Writings* (Oxford: Oxford University Press, 1993),

and

> Ralph McInerny, tr., *Selected Writings* (Harmondsworth: Penguin, 1998),

and, for ethics and politics,

> Paul Sigmund, tr., *St. Thomas Aquinas on Politics and Ethics: A New Translation, Backgrounds, Interpretations* (New York: Norton, 1988).

There are even more book-length introductions to Aquinas's thought. Two of the best are:

> Norman Kretzmann and Eleonore Stump eds., *The Cambridge Companion to Aquinas* (Cambridge: Cambridge University Press, 1993),

and

> Eleonore Stump, *Aquinas (Arguments of the Philosophers)* (London: Routledge, 2003).

Other venerable and still worthwhile guides are:

> Étienne Gilson, *The Christian Philosophy of St. Thomas Aquinas*, tr. Laurence K. Shook (New York: Random House, 1956),

and

> Frederick C. Copleston, *Aquinas* (Harmondsworth: Penguin, 1955).

A set of interesting papers is collected in:

> Anthony Kenny ed., *Aquinas: A Collection of Critical Essays* (Garden City, N.Y.: Anchor Books, 1969).

For further references to the secondary literature, see the notes to the following chapters.

All of Aquinas's translated work is available on CD-ROM in a format that makes it easy to search for key terms. See:

Past Masters: Humanities Databases, Full Text, Scholarly Editions (Charlottesville, Va.: InteLex, 1992).

All of Aquinas's Latin texts are likewise available on a searchable CD-ROM. See:

Roberto Busa, ed., *Opera Omnia* (Stuttgart: Frommann-Holzboog, 1996).

For an extremely valuable Aquinas lexicon, in German and Latin, see:

Ludwig Schütz, *Thomas-Lexikon* (Paderborn: Schöningh, 1895).

A somewhat less useful English adaptation of this work is:

Roy Deferrari and M. Inviolata Barry, *A Lexicon of St. Thomas Aquinas* (Washington, D.C.: Catholic University of America Press, 1948).

2

Aquinas's Explanatory Framework: The Four Causes

2.1 Introducing the Four Causes

Thomas Aquinas poses and answers questions ranging over the deepest mysteries of human existence. He wants to know whether there is a loving God who cares about our affairs; whether the human soul is immortal; whether human beings are free and autonomous agents or are rather determined in all that they do, without free will and bearing no responsibility for their actions. He wants to resolve as well some equally deep but less immediately approachable issues in metaphysics, philosophy of mind, and ethics. He asks, for example, whether there are universals, or numbers; whether it is provable that every event has a cause; and, in a different vein, whether we are sometimes justified in knowingly taking the life of another human being. He is also deeply interested in some highly technical issues of concern to hardly anyone beyond the professional philosopher—whether, for example, two things can differ in number alone, even though they are in all qualitative respects exactly alike.

When addressing these sorts of questions, Aquinas exudes an unmistakable self-confidence: he almost always thinks that he can provide the answers he seeks. He maintains, for instance, that he can establish by rational argumentation that a loving, providential God exists, that the human soul is immortal, and that in fact no two things can differ in number only. Similarly, when he sets out to explore the nature of human beings, he thinks he can succeed, because he believes that he can offer a fully general and perfectly defensible account of the human essence. In each such case, he supposes that he can articulate and defend a point of

view whose truth can be made manifest to any reasonably reflective, unbiased adult.

In defending his various philosophical theses, Aquinas relies upon a settled framework of explanation, the terms of which provide both his favored mode of expression and his preferred standards of justification. In this respect, he is like other philosophers, and like most other human beings, in that he expects explanations to be both true and satisfying. By itself, this expectation is hardly extraordinary. If we want to know how someone has contracted botulism, we will not be satisfied with the explanation that she picked it up because she needed to be punished for an earlier malfeasance—perhaps at one time she drove her car under the influence of alcohol. Driving while drunk is a bad thing, to be sure, but it is not the sort of thing that causes botulism. Clearly, what we want in such a case is a *causal* explanation, one identifying the events and mechanisms that brought about the presence of botulism in her system, and we are not satisfied until such an explanation is fully formulated and adequately defended. When we learn that she ate tainted beef at a fast-food restaurant, we feel that we have come closer to an adequate explanation of her current illness.

In the same way, Aquinas seeks and provides explanations within a determinate framework, though his is of a highly distinctive sort; it is, reasonably enough, a framework that he takes care to articulate and defend. This sort of self-conscious reflection on method is surely appropriate for him, given the range of his own explanatory activity, and it is also appropriate in view of the fact that he regards some forms of explanations as superior to others, even to the extent of rejecting whole types of explanation as systematically inadequate. Here too, it should be stressed, there is nothing especially remarkable in his attitude. We do not think that we can know and explain what will happen in the future by paying careful attention to how tea leaves distribute themselves in the bottoms of our teapots. Instead, we regard those who pretend to offer such explanations as quacks and charlatans. Real explanations specify real causes.

Aquinas agrees and so develops his preferred explanatory framework in causal terms. It must be said, however, that in doing so he employs a conception of causation that is much more encompassing in its aims and commitments than most of its counterparts today. This much is clear even in his earliest surviving work, *On the Principles of Nature* (*De principiis naturae*), where he provides a superb exposition of a broadly Aristotelian explanatory framework, the doctrine of the four causes. Probably written in the early portions of his first stay in Paris, while he was still in his midtwenties, this work articulates Aquinas's conditions for adequacy in explanation, introducing and defining terms and positions from which he never seriously deviates throughout his long career. It seems likely that at

this stage of his development Aquinas is heavily indebted to the Arabic Aristotelian tradition, though he is already distinctive in his appropriations and extensions of Aristotle.[1] Whatever its ultimate sources, Aquinas's own doctrine of the four causes is absolutely central to all of his philosophical thought; consequently, no genuine engagement with his philosophy is possible without a firm grounding in its principal commitments.

Although reasonably straightforward in its simplest commitments, Aquinas's doctrine of the four causes proves remarkably elastic in its subsequent applications. It is best to approach it first, as Aquinas himself does, by means of an uncomplicated example. Thereafter, its refinements and extensions can be explored.

Matter and Form

Consider a pile of bricks heaped in a disorderly mound in a brickyard. At least this much is clear about the bricks in that pile: they actually exist. Perhaps the bricks are freshly fired. Perhaps not. Perhaps instead they have been reclaimed from a razed building and returned to the yard for refurbishing. In any case, they actually exist. They may be slated to be sold to a contractor for use in a new library, or they may be destined to be pulverized and recast. Either way, it remains the case that the bricks now actually exist. At the moment, however, they are just what they are, a pile of bricks, nothing more and nothing less. Considered in its own terms, that one pile of bricks might become any number of different things: it might become a library, or a house, or an oven, or a wall between two countries. It is at present, however, none of these things. Aquinas says that the pile is *potentially* a house, or, equivalently, that a house exists potentially, but not actually, until such time as a builder uses the bricks to build a house, in which case, the house exists actually and no longer merely potentially.

In reflecting upon this sort of simple example, Aquinas introduces the first of a quartet of terms that are utterly fundamental to his entire philosophical enterprise. He calls the bricks *matter* and offers a simple definition of matter, one that he refines and extends in sometimes surprising ways as required by ever more sophisticated contexts. His simplest formulation, however, is direct and unadorned:

$$x \text{ is matter} =_{df} x \text{ exists potentially}^{2}$$

In the following chapter (§3.3), we see how Aquinas qualifies this definition to handle the case of immaterial entities, which can have potentiality without matter. For now, however, we limit ourselves to the sorts of cases

that are familiar in the world around us. To say such things exist potentially is to say that they are potentially something or other. The bricks are potentially a library or a house or a wall or an oven. They are not, however, in any obvious way, potentially a steam locomotive or a cellular telephone. Thus, the range of things existing in potentiality is relative to some facts about the bricks and their actual features.

This much already exhibits something important about Aquinas's conception of matter and potentiality, something that also serves to distinguish his notion of potentiality from the broader notion of possibility. Although it is true that it is possible to turn the bricks into a house, their being potentially a house captures more about them than this bare possibility. In some suitably relaxed sense of the term, the bricks are *possibly* a living being, the superhero Brickman, who comes to life when vicious criminals threaten, who overpowers them by squashing them with his superior girth. That this is *possible* seems at least initially supported by the fact that it is conceivable, and it seems to follow from there being no contradiction in the proposition *that the bricks are possibly alive.* This, however, is just because possibility is cheap; Aquinas's notion of potentiality is something comparatively robust. Something is potentially something else—it is the matter for something—only if it has a genuine capacity to become that thing in actuality. Generally, then, a thing is potentially something only if it itself is already actually something with actual features of a sort suited to realize the features of the object the matter is to become. As a matter of fact, bricks lack the capacity to live. They are not the stuff of life. Thus, they are not potentially any sort of living being.

If, then, we say the bricks are potentially a house but not potentially a set of high-end stereo speakers, that statement is based on some material facts about them, facts that constrain the range of things for which they can serve as matter. If, however, that range is not limited to one sort of thing but includes houses, ovens, and walls, then if they become an actual house, the bricks must have been altered in one definite way rather than in another. There must be, then, something further responsible for this fact, something beyond the bricks themselves—for instance, for their becoming a house and not an oven. For a house is not an oven; nor is an oven a house. What makes the bricks a house as opposed to an oven, says Aquinas, is the *form* that comes to be realized in the bricks. It is easy to think initially of the form of a house as, roughly, its shape. When the bricks are made to be house-shaped rather than oven-shaped, they become the matter of a house.

In one way, there is little harm in conceptualizing form this way. In another way, however, this way of thinking misses something crucial to Aquinas's conception of form: forms *make* what exists in potentiality exist in actuality. He holds, more precisely, that:

x is a form $=_{df}$ *x, by its presence, makes what exists in potentiality exist in actuality*

Form is the second member of the quartet of fundamental terms. It is crucial to this definition that form is itself *functionally characterized,* that is, that form is defined by what it does: form makes what *can* exist in actuality exist *in fact* in actuality. Form makes matter, that which exists in potentiality, exist in actuality. What makes the bricks a house and not an oven is indeed their shape, but only because things shaped as houses are suitable for dwelling. The presence of that form—or, more precisely, that function—is what makes the bricks a house.

One way of appreciating form's functional role is to notice that there is, of course, no one house shape: igloos, bungalows, ranches, and geodesic domes are all houses. More to the point, the possible house shapes seem infinite in number; what they share in common, what all these shapes do, is make some matter suitable for dwelling, as opposed, for example, to being made suitable for baking. Aquinas's definition of form brings this out: the form of a house is whatever is such that, by its presence, makes something potentially a house be a house in actuality. Hence, more generally, a form is that whose presence makes anything what it is. So, for instance, human beings have a form whose presence makes this matter, this flesh and blood, a living human being. Here too we can see that form is more than shape: some statues share a shape with human beings, but no statue has the form of a human being, since no statue is a human being. No statue breathes, eats, perceives, and thinks. These are things that human beings, as human beings, do as a matter of course. Indeed, even corpses are human-shaped, but, thinks Aquinas, a corpse is not a human being either. A human has various actual abilities that corpses simply do not have.

We see, then, that form is a relatively complex notion, even given its simple definition. In some cases, it may take hard empirical or conceptual work to uncover the form of some entity. After all, if forms make things what they are, then we can already appreciate how, for some range of forms at least, Aquinas can equate forms with essences. A human being's essence is minimally what that human being must be in order to exist, what is fundamental to it as a human being. This turns out to be the human form. Things do not, however, wear their essences on their sleeves. We cannot ascertain the human essence by casual observation. Essences are discovered by philosophy or by science, or by both, usually as the result of hard work. In this sense too, forms are deep rather than superficial.

Now, some care is required when considering the relationship between form and essence. For although it is true that all forms are such that they can make what exists in potentiality exist in actuality—all forms are, so to

speak, *actualizers*—not every form serves as the essence of something actual. A human being has an essential form, in virtue of which so much flesh and blood qualify as an actual living being. So, for example, Socrates has an essential form. Still, suppose Socrates is normally swarthy, but when ill comes to be pale. Then there must be some form, pallor, which makes him actually pale. When he is swarthy, that is, he is potentially pale; what makes him actually pale is the presence of pallor in him. So, by the definitions Aquinas provides, pallor must be a form. Still, it would clearly be wrong to think of Socrates as essentially pale. Instead, as we have just seen, he can exist without pallor, since he existed when he was swarthy and will continue to exist when he loses his current pallor and becomes swarthy once more. So, although all forms are actualizers, Aquinas distinguishes almost immediately upon his earliest introduction of form between two species or kinds of forms: *substantial forms* and *accidental forms:*

x is a substantial form $=_{df}$ *x makes what is potentially a substance exist in actuality as a substance;*

x is an accidental form $=_{df}$ *x makes what potentially has some accident have that accident in actuality.*

In Chapter 3, we discuss in detail the distinction between substances and accidents. Here, for the purpose of illustration, we can return to our pile of bricks. If a house is a substance, then, since it makes the bricks a house in actuality, its form, *being a house*, will be a substantial form. Suppose that once the house exists—once, that is, the pile of bricks is informed by the substantial form *being a house*—its owner decides that she wants to live in a white house. She is at liberty now to paint the house white. When it is brick-red, the house is potentially white; when the white paint is applied, the house becomes actually white. Since the white house is still a house—indeed, is still the same house it was before it was painted—whiteness is accidental to the house. It follows by Aquinas's definition that *whiteness* is an accidental form. By contrast, if the bricks constituting the house were once more reduced to a heap in a brickyard, the house would cease to exist altogether. So, again, *being a house* functions like a substantial form. (Strictly speaking, for Aquinas, a house is not a substance [see §3.1 and §3.4], and so *being a house* is not a substantial form. Even so, the example is useful for purposes of illustration. Living things are Aquinas's paradigmatic substances, but we postpone discussion of that case until Chapter 6.)

Corresponding to the two kinds of forms just identified are two kinds of change, as the cases of the sometimes white brick house and the sometimes pale Socrates already suggest. Some things already exist in actuality and come to gain or lose an accidental feature. This is what happened to Socrates, who existed as a swarthy man who then came to be pale. This is a real change in Socrates, but no new substance came into existence at the moment Socrates came to be pale. It would be perverse to insist that Socrates-the-swarthy died at that very instant, only to be replaced by Socrates-the-pale, who was born just then. This can be contrasted with the real birth of Socrates in 460 B.C.E.: when he was born, something new—a new human being—really did come into existence. It is not forced or perverse to insist, then, that there is a kind of change, the coming into being of a new substance, that is something more than the mere accidental change of something already in actual existence. Instead, the birth of Socrates is a case of *generation.* Aquinas explains these different kinds of change by appealing to his distinction between kinds of forms: substantial forms are responsible for generation, whereas accidental forms account for accidental changes of all sorts. That said, in both kinds of change we find something potential coming to be something actual, and in both cases we allot a key role to form. Forms make what exists in potentiality exist in actuality.

Consequently, these two kinds of change can be defined in terms of the prior notions of form already distinguished. Accidental change occurs whenever an actually existing entity loses or acquires an accidental form; generation occurs whenever some matter gains or loses a substantial form. So:

x undergoes accidental change $=_{df}$ *x gains or loses an accidental form*

and

x is generated (or destroyed) $=_{df}$ *x gains (or loses) a substantial form.*

Both kinds of change have something in common: they equally involve the acquisition or loss of a form. So, change, whatever its kind, involves three factors: (1) something that undergoes the change, (2) a lack, and (3) a form gained or lost. It follows, then, that change is in every instance complex. It also follows that something simple, something that remains simple throughout its existence, does not, and cannot, change intrinsically. That is, something simple can never change in terms of its own internal properties.

Aquinas seizes upon this fact about complexity to defend the reality of matter and form. So far, one might safely regard the notions of matter and form as useful heuristic devices, nothing more. After all, one might well agree that when we explain how a pile of bricks becomes a house, and a

house becomes white, it is convenient to think in terms of matter and form; so far, however, matter and form might be convenient fictions, on a par with the average Norwegian family, which has .6 children. This notion of an average family may be useful for all sorts of explanatory and planning purposes, from resource allocation to military preparedness. In reality, however, there is no average family, because there is no .6 child. All of the Norwegian children are an even 1.0. So, perhaps one should think of form and matter on this model: they do not really exist but are nevertheless helpful when we want to think about change.

Aquinas has a much more realistic attitude toward matter and form: they really do exist. They are real features of actually existing entities. When we explain Socrates in terms of his matter and form, we describe how he really is, because we capture genuine elements of the living human being and do not rely on mere explanatory expediencies akin to the .6 Norwegian child.

In fact, argues Aquinas, the real existence of form and matter follows from the real existence of change, of any sort, whether substantial or accidental. For all change involves a complex, but the complex required is precisely a complex of form and matter. So:

1. There is change.
2. A necessary condition of there being change is the existence of form and matter.
3. Therefore, there are form and matter.

The conclusion is meant to state Aquinas's *realism* about form and matter. That is, he thinks that explanations given in terms of form and matter are not merely useful or pragmatically justified. Rather, they are true, because they capture how objects in the world are, prior to our interaction with them, and prior to our attempts to explain or categorize them. In a world with no rational beings, with no one to provide or appreciate explanations given in terms of form and matter, there would nonetheless be form and matter. This is because form and matter would nonetheless be required for change. Form and matter would exist were there no one to comment upon their existence.

That is Aquinas's conclusion. The premises leading to that conclusion are strikingly simple. The first insists that there is change. (Deny it if you can.[3]) The second relies on the reasoning already given: that change perforce involves a complex, and the relevant complexes are complexes of form and matter—that is, of things that are potentially thus and such (are potentially white or human or a house), and of things that make them actually thus and such (whiteness, being human, being a house). With just that much defense, it is easy to appreciate why Aquinas accepts the reality of matter and form.

It should also be appreciated, however, that his discussion of matter and form begins with the implicit postulation of two primitive and undefined notions: *actuality* and *potentiality*, or more precisely, *actual existence* and *potential existence*. Although they may be interdefined (for example, x *is potential* $=_{df}$ *x can be actual*), these terms receive from Aquinas no further definitions in any terms more basic still. Perhaps he regards them as indefinable, or, less significantly, it may be that he thinks definitions of them are unnecessary in the context of introducing the concepts of matter and form. Or it may be that he simply takes it as obvious that we understand what it is for something to exist, and so for it to be actual. In any case, it is important to be clear that the notions are correlative, in the sense that what exists potentially is potentially some range of determinate actual things (the bricks are potentially a house or an oven or a wall, but not potentially a plate of mashed potatoes with gravy), and that what is actually some definite thing has actualized the potentialities of something potential, either by an act of generation or by simple alteration. (A house is an actualized pile of bricks; a white house is a house whose surface was potentially white, made actually white by the application of some paint.) Further, just as these notions are correlative, so too are the notions of matter and form that they usher in: a potentiality is the ability of some matter to acquire a form, and an actuality is the real presence of a form in a bit of matter capable of acquiring it.

The Efficient Cause

Once we grasp the notions of potentiality and actuality, we should appreciate straightaway something further about the relationship of things existing in actuality to things existing in potentiality. What we should notice is that potential things do not snap into actuality of their own accord. That is, nothing potential makes itself actual by means of its own agency. Rather, as Aquinas says directly, "what exists in potentiality cannot bring itself into actuality" (*DPN* 3.3-5). So if something is changed in either of the two ways identified—that is, if something is generated or simply undergoes some sort of qualitative alteration—then some other factor beyond matter and form is needed to explain that occurrence. That something is what Aquinas calls the *agent* or *efficient cause*.

To return to our governing example, it is plain that the piled-up bricks do not spontaneously arrange themselves into a house; nor does the house once built somehow paint itself. Rather, it seems obvious that some agent must bring it about that the bricks are arranged into a house. The obviousness of this fact, however, might conceal something of equal importance to Aquinas. We say that the bricks are potentially a house, and we say that the form of the house makes the bricks actually a house. That much is

already given. This picture might, however, seem to suggest something Aquinas is keen to deny, namely, that before the bricks become a house at some time, say t_2, both the bricks and the form of the house somehow actually exist, at t_1, as ingredients waiting to be combined by the agent—the builder who puts the form into the bricks when building a house.

Aquinas does not view the state of affairs this way. Instead, he insists, "the form does not exist until the thing is made" (*DPN* 3.10–11). This proves to be an important point for him, since it shows that he does not regard a form as an ingredient or constituent on a par with matter. While it is true that things are in some sense made up of form and matter, they are not made up out of them as cakes are made of flour and eggs and other ingredients. Instead, the form comes to exist just as the entity whose form it is comes to exist. There is, then, a kind of mutual interdependence of form and matter. The form makes the matter what it is in actuality by its presence, but the matter supports the form, in the sense that the form exists when, and only when, the matter is made to be actually informed. What makes the matter acquire an actual form, however, is not the form itself but the agent responsible for the change of something potential into something actual. This is the agent cause.

It now follows that in order to explain change and generation it is necessary to posit three factors in every change: (1) that from which it changes, its matter; (2) that into which it changes, some form; and (3) an agent that brings it about that the matter has the form in question. (Since change may occur in different directions, the second factor may be reversed, so that what changes loses rather than gains a form.) Now, again, though the form's presence makes the matter actually what the form determines it to be, the form is not itself already existing in actuality *before* it comes to inform the matter. As Aquinas would have it, the form itself comes to be actual when and only when it is realized in some suitable matter. This too can be illustrated in terms of our governing example. When we destroy a house, it loses its form. Where does the form go? Nowhere: it simply stops. Similarly, when we build a house, we do not grab bricks from the pile of bricks and a form from the pile of forms. There is no actual form existing outside of the builder's own mind. It is the builder who, through the actual activity of building, brings it about that what is potentially a house (the pile of bricks) is actually a house (the bricks when they realize the form of the house).

That said, it remains true that the presence of the form makes so many bricks into a house. As we have seen, the bricks would be something other than a house if some other form were present in them. Now, however, given that we appreciate the role of form and matter in the explanation of change, we can also see how forms qualify as that in virtue of which matter comes to constitute something actual by being informed.

If we focus on substantial forms in particular, we can appreciate the priority of form in another way. We all assume that certain objects exist through time, even though they change along the way. That is, we assume that Socrates is one and the same individual, even though he is at one time pale and at another time swarthy. This is why we feel perfectly justified in holding him responsible today for acts he committed yesterday or last week. Socrates remains numerically identical through time. Similarly, we may buy a brick house and then paint it, improve it, and maybe even add some rooms on to it. Still, we think of it as numerically one and the same house through time. This is why we think we are entitled to keep a deed for it and eventually sell it to someone else. We cannot sell our neighbor's house, even if it is exactly like our own in all respects. That house is numerically distinct. Now, it is true that our house, like Socrates, can sustain material replenishment through time. Socrates eats and digests; our house ages and needs a new roof. Still, again, we say that Socrates and the house continue to exist as numerically identical. If that much seems unremarkable, it has an immediately significant consequence for Aquinas: since Socrates' matter is not the same through time, what makes him the same entity from one moment to the next cannot be sameness of matter but must rather be sameness of form. So, here too form is prior to matter. The form not only makes the matter actually what it is at any given moment but also provides for its continued identity through time. We may say, then, that sameness of form accounts for the *diachronic identity* of individual substances.

Their role in diachronic identity provides an additional reason for taking forms seriously. Forms make things what they are and permit them to continue in existence even though they undergo change and material replenishment. Looked at this way, once they are actual, forms exert just the kind of influence on things existing in potentiality that we expect from forms. They may themselves be, in some contexts, efficient causes.

That said, it is perhaps easiest at this juncture simply to focus on the role of an agent whose activity brings it about that some quantity of matter comes to be actual, either as a new substance or as a changed substance that continues in existence as numerically identical. The builder makes the bricks a house by virtue of his building. He is, then, the efficient cause of the house. A sculptor makes the bronze into a statue of Winston Churchill by imposing the appropriate form on the matter. She is, then, the efficient cause of the statue.

The Final Cause

Given the existence of change, we have good reason to accept the real existence of material, formal, and efficient causation. Aquinas thinks, how-

ever, that something important is still to be added, a fourth cause called the *final cause.* His point is best appreciated by stepping back from our brick house and noticing something about the explanations we have so far offered. It is true that our house is made of brick; but it need not have been. Any functionally suitable matter would do. The house might as easily have been made of wood, or adobe, or composite polymers. It could not, however, have been made of dust collected from a windowsill or of hair swept from the barber's floor. There are no dust or hair houses, and that is hardly accidental. Dust and hair are not the right sort of stuffs to be a house. Their wrongness, evidently, consists in their inability to realize the form of a house. Try as a builder might, he will never be able to make dust or hair into a house. These materials are not functionally suitable. Then again, the form of the house might take any of a number of different shapes, as we have seen. Still, it cannot be in just any shape. To be a house, some material must be put into a shape suitable for human habitation. It cannot, for example, have a two-dimensional shape; no one can live in a picture of a house.

We have seen that shape is only a weak first approximation of Aquinas's notion of form, but if we bear that in mind, we can appreciate his present point about final causes. In all the ways just cited, it is natural and appropriate to appeal to the *suitability* of a shape. Notice, however, that when we make judgments about the functional suitability of matter, or about the configurational suitability of form, we are making an implicit judgment about what houses are *for.* That is, we are implicitly recognizing that nothing qualifies as a house unless it has the function of a house. To be a house is to be a structure suitable for habitation. Aquinas seizes upon this fact in order to point out that without realizing the function of houses, no matter, however informed, will qualify as a house. Thus, in his terminology, houses have *ends* or *functions;* nothing without the end or *final cause* of a house is a house, and everything with such an end or function is.

The defensibility of Aquinas's commitment to final causes, at least for the range of entities that are artifacts, can be seen in two more ways. First, we have seen that houses can be materially and formally *plastic,* that is, that they can be realized in any number of different ways. Still, every house has at least one property essentially: the property of being a house. Given that this property cannot be identified with any particular matter or with any particular form (considered, at any rate, in the simple sense of shape), it must turn out that this essential property will be a certain sort of functional property, a property whose essence is exhausted by what the artifact in question is for. That is just to say, however, that every artifact of necessity has a final cause. Second, given that we are focusing on the four causes as explanatory factors, it is worth noting that typically we cannot

even begin to explain what an artifact is without knowing what it is for—that is, without knowing its function or final cause. Imagine, for example, that a meteor has crashed into the desert, but that it is an unusual meteor in that it has in its core what is evidently an intact device of some sort. Even if scientists are able to provide an exhaustive characterization of the material composition and formal features of this device, they will nevertheless not know what it is—not, at any rate, until they discover what it is for. Once they discern that the device is for transmitting and receiving radio waves, they will then know that it is a radio of some sort. Knowing its final cause, it seems, is tantamount to knowing what the device is, and without knowing its final cause, something central about it is unexplained. Thus, completeness in explanation, at least for artifacts, requires a specification of the final cause.

So far, perhaps, so good. Things become less obviously defensible when we realize that Aquinas does not believe that artifacts alone have final causes. Rather, he claims, "every agent, whether it acts by nature or by will, tends toward a goal." He then adds, however, that "not every agent is aware of the goal or deliberates about it" (*DPN* 3.20–23). As Aquinas's addition makes clear, the notion of "agent" here is a broad one, extending not only to rational agents acting by habit, without deliberation or awareness, but beyond even these to nonrational animals, plants, and all the way to nonliving elements and the like. Starting with the easiest case first, we see that people may pursue ends—they may do things for some purpose—even when they do not deliberate about them. Aquinas mentions the example of a musician who plays a polished piece without stopping to deliberate about how best to proceed (*DPN* 3.31). An accomplished violinist does not pause in the middle of a performance to deliberate about the appropriate fingering for a difficult passage. Indeed, she may be barely aware, if she is aware at all, about her individual actions as she performs them. Rather, because she has drilled the piece in practice sessions, she now acts without conscious deliberation. Arguably, deliberation at this stage would even prove a hindrance, since she could not deliberate and still achieve her ultimate goal, namely, a flawless performance of the whole. Each discrete finger placement is nonetheless clearly done in service of that overarching end. Once again, one could not explain the individual motions without appealing to the final result she hopes to achieve. So, concludes Aquinas, conscious deliberation is not a necessary condition for some action's having a final cause.

This result is relevant, thinks Aquinas, to the range of entities that can have final causes. Human beings have wills, and so can deliberate about how best to reach their goals. Plants, by contrast, do not have wills, and so cannot reflect upon the best courses of action. Their lack of wills does not, however, preclude their having an end: their end, that which

explains their activities, is their own flourishing. When we say that a plant in the desert puts its roots down deep *in order* to find moisture, we speak in a way congenial to Aquinas's point of view. We do not think, of course, that plants reflect upon the best place to find water in the desert; they certainly do not think about their situation and say to themselves, "Go deep." Rather, we think that insofar as plants *seek* water, they do so in order to thrive, because without water they would perish. Aquinas thinks, minimally, that their lacking deliberative faculties does not preclude their having ends.

At the same time, the mere fact that the having of an end does not require a deliberative faculty does not yet show that nondeliberative agents, like plants, in fact have ends. In the *Principles of Nature*, Aquinas takes the existence of final causes for granted. Still, though he offers no argument here, the following considerations are implicit. We see that living organisms are unified entities that exist through time. If we think about a garden snake, for instance, we recognize it as living over the course of several years, despite the fact that during that time it sheds its skin on occasion, grows larger, and changes its colors. What justifies our thinking of the snake as one and the same through time? So far, we have seen that it retains a single form, if not just the same matter. This observation, however, leaves something unexplained. When a snake eats a gerbil, the snake, not the gerbil, grows. When we see a snake that has ingested a gerbil, we do not think that the gerbil has become long and cylindrical; we think that the snake has a bump in it—a bump it is in the process of digesting. That the snake is thus in the process of growing may seem a fairly mundane fact. Still, Aquinas supposes that the best or only way to explain why the snake rather than the gerbil grows is that each has a nonconventional set of identity conditions that subordinate the gerbil to the snake's ends: the gerbil has nourished the snake, not the other way around. In speaking of nourishing, however, we are already thinking in terms of *benefiting* the snake, of having done the snake some good. These are just the terms, however, that Aquinas employs in speaking of the final cause: a final cause is an organism's flourishing, something that in turn involves some notion of how its various life activities (such as eating and perceiving) contribute to its survival and long-term well-being. So, suggests Aquinas, when we reflect on the unified life activities of organisms, we are led to posit for them some end state to which those activities are subordinated. This, then, is the final cause of the organism.

Much the same point can be made by reflecting on the various structures of an animal's organs. We naturally say that the heart is *for* pumping blood and the kidney *for* filtering, that the incisors are *for* tearing food and the molars are *for* mashing it. All such language is on its face teleological in character—that is, it makes an overt reference to an explanation given in terms of a thing's end state or function. Although such language would come under serious attack long after Aquinas's time, he himself sees no reason to take such attributions other than plainly and literally. He sees no reason, that is, to doubt the existence of final causes in nature, and he makes heavy use of them in all areas of his philosophy. Whether he is justified in doing so remains a disputed matter. One way to reflect on his practice is to judge final causation in terms of its explanatory success and then decide whether, as some have contended, the same data can be explained without recourse to final causes.

In any case, Aquinas sees the universe as shot through with final causation. He not only accepts the sorts of *local* final causes so far mentioned but commits himself to a thoroughgoing *global* final causation as well. As we see in Chapter 5, he thinks that the universe is ordered around and explained by God as its ultimate final cause.

The Four Causes Reviewed and Briefly Illustrated

Taking all this together, we see that Aquinas explains the whole universe and its inhabitants in terms of a *four-causal* explanatory schema. Although not everything is explained in terms of all four causes (coincidences, for instance, are not *for* anything; otherwise they would not be coincidences), Aquinas thinks for a very broad range of cases that any explanation omitting one of the four causes is incomplete, and that once all four causes are properly specified, nothing in need of explanation is left over. So, he concludes, appeal to the four causes is both necessary and sufficient for adequacy in explanation.

For ease of understanding, we can illustrate the root idea of the four causes in terms of the example already introduced. The rudimentary terms of this example, however, are expanded and rendered ever more complex by Aquinas in the course of his advanced and increasingly nuanced philosophizing. The complete explanation of a house requires a specification of its:

Material cause: The matter of which the house is made (for example, bricks).

Formal cause: The structure of the house; taken superficially its shape, though taken more robustly its essence or nature.

Efficient cause: The actual agent that brought it about that the matter, the bricks, came to have the form they have (for example, the builder).

Final cause: The function or purpose of the house; what the house is for (for example, the house is for human dwelling).

Failure to specify any one of these causes results in an incomplete or partial explanation of the house's actual existence. By the same token, a proper specification of each of the four causes yields a complete and wholly satisfactory explanation of the house's existence.

2.2 The Four Causes Developed and Articulated

The first level of complexity regarding the four causes concerns their mutual interrelations. A second concerns the various subdistinctions one can make within individual causes as well as across all four of them. Aquinas notes five important features of causes, all of which will need to be borne in mind when we begin to assess the explanatory work to which he puts them.

1. "It is possible for one thing to be both cause and effect of another, though in different respects" (*DPN* 4.9–11). Thus, though a cause is always "prior in nature" to what it causes, something can nevertheless be both prior and posterior to the same thing.
2. There is an important ranking internal to the four causes themselves: the final cause is "the cause of causes, because it causes the causality of all the other causes" (*DPN* 4.34–36).
3. Causes can be more or less proximate.
4. Causes can coincide—that is, in some cases one and the same item can be identified as the formal, final, and efficient cause of some effect.
5. Causes can be inherent or coincidental, a fact of which Aquinas makes heavy use when resolving disputed questions in rational theology and ethical theory.

Because they play important roles in Aquinas's philosophical theorizing, these five causal features need to be explained and illustrated.

Mutual Priority

Aquinas holds that every cause is prior by nature to its effect. What he means is plain enough: what makes a cause a cause rather than an effect is surely at least in part its being prior in the order of explanation to its effects. It is true that the alveoli sacs in the lungs are damaged precisely when smoke is inhaled. Still, we say that the inhalation of smoke causes damage to the alveoli sacs, not that damage to the alveoli sacs causes smoke to have been inhaled into the lungs. Clearly, there is a real priority here: the explanation runs in one direction and in one direction only. Similarly, no one could maintain that Aquinas's becoming sunburned caused the sun to shine on his unprotected flesh; rather, obviously, the sun's shining on his unprotected flesh caused him to be sunburned.

In view of this form of causal priority, this clear asymmetry in explanation, it may seem initially surprising to hear Aquinas allow that x can both cause and be caused by y. He is quick to specify, however, that the circumstance is possible only when the causes in question are of distinct types. There are two sorts of cases worthy of special note.

First, x can be the final cause of y even while y is the efficient cause of x. So, for example, health is the final cause of your jogging four times a week. At the same time, regular jogging produces health. You jog *in order* to be healthy and by exercising achieve the desired result. Similarly, though less obviously, plants have a tropism for light because they seek light for photosynthesis. By turning toward the sun, however, plants expose themselves to light and so engage in photosynthesis. In these sorts of cases, final and efficient causes are prior to one another. In no case, however, is it right to think that x can be the efficient cause of y if y is already the efficient cause of x. The same holds true of instances of final causation. Any such case in either causal domain would violate the requirement that causes be prior in nature to their effects.

The second sort of case Aquinas considers concerns not efficient and final causes but material and formal causes. This sort of case helps to explain the sort of interdependence between form and matter that we have already encountered. Aquinas contends that "matter causes form in those cases where forms exist only in matter; and similarly form causes matter inasmuch as matter can actually exist only through that form" (*DPN* 4.37–40). The ideas here are a bit obscure, but also quite important for an appreciation of Aquinas's eventual conception of human nature. The root idea, as he says, is that "matter and form are correlative" (*DPN* 4.40–41). In a certain way, the point he wants to make already follows directly from his initial definitions of form and matter. Form is what makes that which exists in potentiality, so much matter, exist in actuality. Thus, form causes the matter to be what it is. The form of a house makes the bricks a house in actuality. Insofar as we say that the bricks have been made into a house, we mean that the bricks have been made to realize the appropriate form. Conversely, when the bricks lose that form, they cease to be a house altogether. In these ways, the form causes the bricks to be what they are, a house, when they are a house. The form of the house does not cause the bricks to be bricks, of course, but there is a sense in which it causes them, so to speak, to be house matter. They are potentially the matter of a house until they are informed; when they are so informed, they are actually the matter of an actual house.

Heading in the other direction, the house's form, as we have seen, does not exist in abeyance, piled up along with other actual house forms, in

line to be conjoined with some appropriate matter. Instead, the form is caused to exist in actuality by its being realized in some matter, its material cause. This is a point of some consequence for Aquinas, since he eventually wants to articulate the relation between the human soul and the human body in terms of form and matter. As he observes even when introducing form and matter as correlatives, "body is the matter for the soul, whereas soul is the form of the body" (*DPN* 4.14–15). The immediate consequence would seem to be that unless there is a soul present to it, no matter is the matter of an actual human body. Conversely, unless it is embodied, no human soul is an actual human soul. Aquinas gladly embraces the first of these consequences and relies on it to account for the unity of a human being (see §3.4), but he has to reject the second consequence. Given his commitment to postmortem existence, and given the inescapable fact that human bodies rot at death, he needs the soul's continued existence apart from the body. In Chapter 6, we consider how he attempts to secure this result.

Priority Among the Causes

There might still seem to be a latent violation of the requirement that causes be prior in nature to their effects in the admission that some causes, even though of different types, can be prior to one another. If health is the final cause of jogging and jogging is the efficient cause of health, then which is "prior in nature"—health or jogging? They cannot both be prior in nature to one another. That would yield a plainly unacceptable result, since two things cannot be prior to one another in the same respect. Childhood, for example, cannot be both prior and posterior to adulthood in time. So, given that causes can be prior to one another, Aquinas needs some way of distinguishing different forms of priority. Otherwise, he will be saddled with an unacceptable result.

Aquinas addresses this sort of worry in two related ways: first by distinguishing between different forms of priority; and second—and more importantly—by contending that the final cause "causes the causality of all the causes" (*DPN* 4.35). The final cause, he contends, is always prior in nature. He here commits himself to a fairly radical and important thesis about the relative orderings between the causes, a thesis that will have significant ramifications for a number of areas in his philosophical theorizing.

First consider some different kinds of priority. If Rex is Jane's boss, then Rex is prior in rank to Jane, whereas if Jane arrives at work each morning before Rex, then Jane is prior in time to Rex. He has a superior rank, but she arrives earlier. It is unproblematic that they are prior to one another in different ways. Similarly, as long as different causes are prior to one another in different ways, there will be no problem about competing claims to priority. This is just how Aquinas views the matter. A parent is prior to her child in the sense that she has reached reproductive maturity before the child and in that she has authority over the child. Still, childhood comes before adulthood and is in that sense prior in time to it. There are thus no difficult consequences when we say that a child is and is not prior to her parent, but in distinct ways.

These distinctions go part of the way toward resolving the potential difficulty in Aquinas's view of causal priority, but not all the way. For even if we allow that health and exercise are prior to one another in different ways, there remains a question as to which is ultimately *prior in nature*. Does health ultimately explain exercise or does exercise ultimately explain health? Aquinas is direct: the final cause is prior in nature to the efficient cause. Thus, health explains the practice of exercise, not the other way around.

Apparently Aquinas thinks that we can detect an asymmetry between jogging and health: even though jogging produces health, it does not make health a goal. Its being a goal has some entirely independent source. The efficient cause does not make the final cause be a final cause; it is merely a means, perhaps one among many, to the attainment of that goal, whose specification and value make no reference whatsoever to its efficient causes. By contrast, though this is a bit harder to see, the goal is what causes the efficient cause to be actually productive. What causes a jogger to jog, in fact, is the goal sought. It is, to be sure, an independent fact about jogging that it produces health, but its actually producing health on any given occasion is evidently just the goal of the jogger—more exactly, the subordinate goal of doing something today, right now, to become healthy.

A different sort of example may help illustrate Aquinas's point. A doctor, he says, is an efficient cause of health. Yet a doctor sitting idly at her desk is not the efficient cause of anyone's health. It is only, so to speak, a doctor doctoring that qualifies as the efficient cause of someone's health. What moves a doctor from idleness to active doctoring on any given occasion is the goal of producing health, directly, now, in a patient who seeks attention. In this sense, the final cause is prior: it makes an efficient cause operational and so, as Aquinas says, causes the causality of the efficient cause. So, he concludes, the final cause is in fact prior in nature. It is the final cause that explains the causality of the efficient cause, not the other way around. Hence, there is no problem about priority among the causes: final causes are prior in nature.

The priority of the final cause plays a significant role in Aquinas's explanatory framework. In general, he does not think that we understand something completely and systematically until we have apprehended its

final cause. This means, for example, that we will not understand the nature of a human being until we have grasped the final cause of humanity. So we cannot know what a human being ultimately is without knowing that the goal of human life is supreme happiness (IV *SENT* 49.1.1 ad 3).[4] This turns out to be the goal that human beings seek without choosing to do so. Supreme happiness is in fact good for us; understanding what we are requires understanding what our good consists in. We arrive at self-knowledge, according to Aquinas, only by learning something objective about our natures. All of this follows from his commitment to the priority of final causation. Since something's final cause makes it what it is, it also follows that understanding the nature of anything requires a full appreciation of its final cause, which specifies, in turn, its ultimate good.

Proximate and Nonproximate Causes

When we cite a cause, we may be more or less exact in its specification. Thus, for example, the efficient cause of a house's being built can be specified more remotely as a *craftsman*, more proximately as the *builder*, and more proximately still as the *builder building*. The most precisely specified cause is also the most informative. Importantly, a precisely specified cause, suggests Aquinas, is an activity, one that is in fact cotemporaneous with the result effected. In the same vein, the efficient cause of a fence's being painted white is, remotely, the painter, but proximately the painter painting, or the painter applying white paint. Here too the result is produced at precisely the same moment as the activity that is the proximate cause of the result. It may be, depending on the context, perfectly appropriate to cite only a remote cause of some event; even then, however, there will be a proximate cause available to be cited in more demanding explanatory contexts. It is enough for a layperson to know, for instance, that a car is made to stop by applying the brakes. A forensic engineer investigating liability issues in an accident will need to know a good deal more about the precise kinds of brakes employed, their condition, and a host of other details relevant to their exact performance on the day of the accident. The forensic engineer needs to specify the proximate cause.

Remote and proximate causes pertain not only to the efficient cause but to the remaining causes as well. In all cases, "the more general cause is always the more remote" (*DPN* 5.9–10). Thus, the formal cause of a human being might be specified, proximately, as *mortal animal with reason*. In other more general cases, it suffices simply to mention that human beings are *animals*. So too in the case of the material cause. The material cause of the statue is *metal*. The proximate material cause is *bronze*. Here it is important to bear in mind that though our contextual explanatory needs determine the appropriate level of specificity, there is, as a matter of fact,

always a perfectly determinate proximate material cause, just as there are determinate proximate final, formal, and efficient causes.

As regards one of the four causes, a special circumstance results from there being ever more remote causal specifications. We saw that Aquinas defines the material cause in terms of potentiality. In fact, Aquinas thinks that matter simply is that which is potentially something or other.[5] This identification has an interesting result. Suppose we say that the proximate matter of a house is brick. We can then specify its remote cause as earth and water, since bricks are fired moist earth. Moving to an even more general level, we might want to determine whether the earth is itself made of some more fundamental stuff. Ultimately, suggests Aquinas, we will reach the basement of the material universe: if we continue to specify ever more remote causes, we will eventually specify the basic stuff of all matter, a stuff that, because of its utter generality and remoteness, is really just whatever it is that is potentially anything at all, the very stuff that underlies the basic elements that actually exist. When we think about matter, suggests Aquinas, we should appreciate that at each level the matter specified is already informed, and so is, at its level, actual. Even the bricks were actual bricks, though they were potentially a house insofar as they were functionally suited to being formed into a house.

At the basement of the material universe, however, there seems to be a matter that, considered in itself, is not informed at all, and so is in no way actual. Indeed, it cannot even be properly considered in itself, Aquinas insists, since we know things by knowing their forms—that is, we know things by knowing what they actually are, something we owe to their forms inasmuch as forms make things exist in actuality. One might infer, then, contrary to the current suggestion, that there can be no such thing as pure matter, matter that can become all things but in itself is nothing at all. All actual matter turns out to be already informed. The very idea of an uninformed matter seems somehow incoherent, since everything that exists is actual and everything that is actual is so in virtue of its form.

So, is there or is there not this *pure* or *ultimate matter*, what Aquinas calls *prime matter?* His answer: yes and no. On the one hand, there is nothing called prime matter that actually exists as such. Still, there is a pure potentiality, a purely general matter, even though it actually exists only insofar as it is informed. When we think of what it is that serves as the matter of the basic actual elements, we seem to specify matter at its most general level. So, there is no actual prime matter, but there is a basic potentiality, prime matter, which comes to be actual in the same way everything else does—by being informed.

Some have found Aquinas's most remote material cause rather mysterious. As a first approximation, however, it may be helpful to think of it on the model of pure *extension*. We agree that every material body has

extension, that every material body is extended in space. So, one might say, is there such a thing as actual extension, some thing waiting in space to receive occupancy? We say, for example, that a kitchen table is extended. We do not think, however, that the table's extension is itself something actually existing apart from the table, something we might, for instance, detach from the table and put into a closet, as if a table's extension were akin to its leaves. Instead, the table's extension is simply its being arrayed in space in a certain way. We can certainly conceive of extension, but mainly by abstraction, that is, by thinking away all of the table's other properties, its being brown, expensive, chipped, and so on. In the end, we can focus on its extension. In an analogous way, we can think of prime matter by abstraction. It is that which, at the most basic level, underlies all material transformations and states, including extension.

Whatever one is to make of Aquinas's commitment to prime matter, it is worth stressing that it is best conceived as a limiting case of a perfectly defensible hierarchy of material causes. Material causes, like other causes, can be specified more or less proximately. The most proximate are the most specific and informative; the more remote a cause, the more general and less informative a material cause it will be. Still, not every explanatory context wants a perfectly specific proximate cause.

Causal Coincidence

Somewhat surprisingly, given that the four causes are, well, *four* causes and not merely one, Aquinas claims that three of the causes can coincide. That is, he maintains that we sometimes specify one and the same item when citing formal, final, and efficient causes.[6] This may strike us as odd if we are accustomed to thinking, for example, of the builder's building as a proximate efficient cause, of the structure of the house as its formal cause, and of the function of the house as its final cause. A builder building is not a form, nor is a structure the same thing as a function. So it hardly seems appropriate to look for causal coincidence here.

Even so, we see in later chapters that Aquinas relies on such overlap for central portions of his conception of human and divine nature. Crucial to understanding this is a point that derives from his conception of the priority relations among causes (see §2.2, "Priority Among the Causes"). We saw that the final cause causes the causality of the other causes. Notice, however, that this is because the final cause ultimately specifies a thing's goal or end. The final cause of a house is to be a structure *for human dwelling*. This function constrains both the form and the appropriate matter. Only functionally suitable matter and functionally suitable forms can realize that function, which tells us what houses essentially are—namely, structures suitable for human dwelling. If we think of form merely as shape, then we miss the force of Aquinas's contention. If we instead conceive of the form of the house as the essence or nature of the house, as a metaphysically robust item, and that in virtue of which some matter qualifies as a house, then we see that the presence of a form is that which makes some otherwise merely potential matter suitable for human dwelling. In this sense, the final and formal causes coincide: the goal in this case just is that some matter be suitable for human dwelling, which is simply for it to have a certain form.

This kind of case makes some initial sense of Aquinas's claim that the final and formal causes can coincide. If we grant him that claim, we are left with the still more difficult task of understanding what he means by insisting that the final and formal causes may also coincide with the efficient cause. In so speaking, he seems to suggest, for instance, that a builder is somehow supposed to be identified with the formal or final cause of the house. That seems wrong: a builder's building is an activity of a certain sort, not a function or a form. There seems to be a categorical confusion here.

To make Aquinas's point clear and to see why he thinks that the efficient cause also sometimes coincides with the formal and final causes, it is useful to consider two other sorts of examples. Fire, he says, causes more fire. Thus, the efficient cause of a fire is fire. But what it is to be fire, the form of fire, seems to be precisely that which causes fire. It is fire's heat, therefore, that causes fire, and that is the form of fire. Now, if we are also willing to think of fire as having a final cause (recall that final causes pertain not just to conscious agents like us but also to nondeliberating agents, in virtue of their natural tendencies and proclivities), then we can see that fire tends toward more fire. Fire begets fire in virtue of being fire and moves toward ever more fire so long as there is combustible matter present. Hence, the final, formal, and efficient causes coincide. Notice, however, that the matter that is the fuel—say, the wood—is not the thing cited in the specification of the fire's final, formal, or efficient cause. The material cause, contends Aquinas, never coincides with the other three. The other three causes trade in actuality and essence, whereas the matter is always merely potential.

A second example also helps explain causal coincidence but at the same time introduces a further complexity into Aquinas's account. Suppose we stipulate that the essence of a human being is to be a rational animal. Then we might also wonder why a human body is arranged as it is—why we have just the organs we have, brains and eyes and hearts and lungs, arranged just as they are. In asking this sort of question, we should, according to Aquinas, in this as in other cases, appeal to the final cause of humanity. What explains our having the organs that we have, and explains their being arranged as they are, is that each organ is *for* something—one for

breathing, another for seeing, and another for thinking. Altogether, however, these individual ends are also for something: they subserve the final goal of a human being, namely, that of being a flourishing rational animal. Thus, the final cause of a human being is also its formal cause. In both cases we specify a human being's being a rational animal. *Being a rational animal* is what it is to be a human being (the formal cause) and that for which the human body is arranged just as it is (the final cause). Then again, it is precisely this form that replicates itself in reproduction. The efficient cause of a child's being a human being, not a parsnip or a beetle, is that the child was brought into existence through human sexual reproduction, which results in the human form's being impressed on the appropriate matter. Thus, the human form is also the efficient cause of human generation. In this way, final, formal, and efficient causes coincide.

It is important, however, to attend to the different levels of Aquinas's conception of causal coincidence. He is not saying that what it is for the human form to be an efficient cause is the same as what it is for it to be a final cause. On the contrary, a final cause is what something is for, whereas a formal cause is what something is essentially, and an efficient cause is what makes something potential into something actual. It is just that the human form plays all of these roles. This is why the causes coincide: although they are different types of causes, one and the same item may qualify as each. The situation is like a wife who is also her husband's dentist. The roles she plays as dentist and wife are distinct, but it is the same woman who is the wife and the dentist. The wife and the dentist merely coincide in the same woman. What it is to be a wife and what it is to be a dentist are nonetheless altogether different sorts of things.

Incidental Causes

The very thing that allows causes to coincide also allows Aquinas to mark a fifth and final feature of the four causes: that causes may be *incidental*. Suppose that the dentist in our example had an affair with her hygienist. When her husband discovered this, he first left her (his wife), but then he decided, because she was still an excellent dentist, to continue patronizing her in that capacity. Now, there are two distinct facts to be explained here: the man's leaving the woman (his wife) and his continuing his relationship with the woman (his dentist).

When we think about what caused the man to end his relationship with the woman, we need to consider how his particular actions were taken in light of a particular description of that woman. Suppose, for instance, that the woman had been not only an adulterer but an inept dentist as well. Then the man might have quit seeing his dentist in addition to leaving his wife. What made him terminate his relationship with his wife was something other than what made him terminate his relationship with his dentist. While there is no immediate explanatory connection between the fact that a patient's dentist has had an affair and the fact that that patient sought out a new dentist, surely there is just such a connection in the case of the man's leaving his wife. Compare: (1) Why did he find a new dentist? Because she had an affair. (2) Why did he leave his wife? Because she had an affair.

Aquinas's way of capturing what we might call the *description-relative phenomenon of causal relevance* is to distinguish between inherent and incidental causes (*per se* and *per accidens*). In its most general formulation, this doctrine holds that *F* and *G* may be extensionally equivalent—that the same things may be both an *F* and a *G*—even though the thing's being a *G* is irrelevant to a given causal explanation. Suppose the vice principal for discipline at a Catholic high school is also a priest who hears confessions on Saturday afternoons. Insofar as he is a confessor, he is not at liberty to impose disciplinary actions on the students who have misbehaved; he cannot, for instance, without breaking his vows, call a student's parents to inform them of their child's mischief. Nor can the priest, insofar as he is the vice principal for discipline, forgive the sins of his students. It is, in each case, only insofar as he has a relevant role to play that the priest can be causally active; hence, it is only insofar as he is described in terms of one of his roles rather than another that his activities are explanatorily relevant. In such cases, the one role is incidental to the other. Of course, there is only one man here, the priest. We may say that the vice principal for discipline and the confessor are extensionally equivalent, which means just that one and the same man is both. Put in these terms, Aquinas intends to call attention to the fact that even when two kinds are extensionally equivalent, it may be true but misleading to cite the incidental cause of some result. When your boss is also your lover who, reluctantly, owing to an economic downturn, must dismiss you from a job you relish, it is true, but misleading, to say that your lover took away your source of self-esteem.

These sorts of examples may seem quaint in one way or another. It should be clear already, however, that Aquinas's conception of incidental causes can play a major role in his moral theory and theology. It may be defensible, for example, for someone to use deadly force against another insofar as that person is an aggressor, but not insofar as the aggressor is a human being. Similarly, in its most extreme application, Aquinas will appeal to the doctrine of incidental causes to help explicate such thorny theological matters as the incarnation and the source of sin in the universe. He will consider, for example, the following simple argument: God is the cause of the entire universe; there is sin in the universe; so God is the cause of the sin in the universe. Naturally, Aquinas does not accept this conclu-

sion (see §5.3, "Necessity and Freedom"), and he uses an appeal to incidental causation as part of his strategy for defusing the argument's sting.

2.3 Conclusions

Like other philosophers, Aquinas expects explanations to meet a certain standard of adequacy. He judges one dimension of adequacy, completeness, in terms of the four-causal explanatory schema. In most cases, he expects complete and adequate explanations to specify all four causes: material, formal, efficient, and final. He allows, however, that some explanations are complete even when they do not specify all four of the causes—though only when, because of special circumstances, the things to be explained do not in fact have four causes. For instance, he believes that God, as a completely actual being, lacks a material cause, since material causes introduce potentiality. Still, these sorts of exceptions, however important, should be understood as deviations from his dominant schema. In every case, an entity is completely explained only when all of the causes pertinent to it are specified. Further, in the vast majority of cases of interest to him, all four of the delineated causes pertain. Moreover, once all four causes have been specified at an appropriate level of precision, there is nothing left to explain. Thus, for the vast majority of cases, a specification of all four causes is both necessary and sufficient for adequacy in explanation.

Now, the root idea of the four-causal explanatory schema is not terribly complex. This is fortunate inasmuch as the schema is utterly pervasive in Aquinas's thought. Barely a page of his philosophy goes by without an explicit or implicit appeal to this explanatory framework. As he deploys this schema, however, Aquinas refines and extends it in sometimes surprising ways. We have already seen the first layers of complication. Once we move into a fuller appreciation of the four-causal schema, we will see how relations of priority structure explanations; how proximate and remote causal specification help make sense of some high-level doctrines, including creation and soul-body relations; and how the notions of coincidental and incidental causes help untangle an array of knotty philosophical problems.

Ultimately, to appreciate the force of Aquinas's four-causal schema, in both its basic and more articulated forms, it is best simply to see how he employs and extends it when grappling with real philosophical problems.

Notes

1. Aquinas is most heavily indebted to Ibn Rushd's commentary on Aristotle's *Physics*. Scholars sometimes wonder whether Aquinas is properly Aristotelian in his appropriations of Aristotle, or whether he has somehow done violence to the Aristotelian tradition by importing alien Christian doctrines into the writings of a man who is, after all, a purely pre-Christian pagan. These questions are difficult to answer, and they are also, for present purposes, mainly idle. What matters is that Aquinas made this framework his own, tailoring it in various ways to bring it into line with his own objectives. Hence, to understand his philosophy it is first of all necessary to understand how he himself conceives of the explanatory system in terms of which he advances his own views *in propria persona*.

2. "Just as everything that is in potentiality can be called *matter*, so everything from which something has existence (whichever existence it is, substantial or accidental) can be called *form*" (*DPN* 1.36–39). Aquinas exhibits great care in defining both the technical and the nontechnical terms he uses in philosophy, including those, such as 'matter', that are almost axiomatic for him. We represent his introductions by employing the schema used in the text, which is to be understood as specifying the essential or defining features of the thing defined. Thus, the schema means: matter is by definition whatever exists in potentiality, and whatever exists in potentiality is by definition matter.

3. This is not an idle gambit. Aquinas makes the perfectly reasonable point that those who insist that there is no motion also imply that those of us who believe that there is motion have come to have false beliefs about the world (*InPh* VIII.6.1018). They are also, evidently, enjoining us to change our beliefs. So they must accept that there is change. In brief, as Aquinas notes, "if there is false opinion, there is motion." Evidently, even coming to deny something is already a sort of change. Hence, denying the existence of change is a self-undermining activity, in the sense that in order to effect such a denial it is necessary to presuppose the reality of the very change whose existence is to be denied.

4. See Chapter 8 for details regarding Aquinas's conception of the human good.

5. On matter and material causes, see §2.1, "Matter and Form."

6. "One should know that three causes—the form, the end, and the agent—can coincide in one, as is clear in the case of fire's being generated. For fire generates fire; therefore, fire is the efficient cause, insofar as it generates. Further, fire is the formal cause, insofar as it makes what previously existed in potentiality exist in actuality. Further, it is an end, insofar as it is intended by the agent and insofar as the operations of that agent have it as their terminus" (*DPN* 4.95–103).

Suggested Readings

Aquinas's only systematic treatment of the four causes comes in his early *On the Principles of Nature*, the focal text for this chapter. Since he uses this framework everywhere, from his philosophical disputations to his biblical commentaries, there are countless places where he applies and develops these ideas. For the notions of actuality and potentiality, see in particular his *Disputed Questions on God's*

Power. Perhaps the best places to see the framework as a whole are in his Aristotelian commentaries, particularly those on the *Physics* and *Metaphysics* and *de anima.*

For a stimulating discussion of these foundational issues, plus much else besides, see:

> Peter Geach, "Aquinas," in *Three Philosophers*, ed. G. E. M. Anscombe and P. T. Geach (Ithaca, N.Y.: Cornell University Press, 1961), 67–125.

On the more general question of Aquinas's relationship to Aristotle, see:

> Joseph Owens, "Aristotle and Aquinas," in *The Cambridge Companion to Aquinas*, ed. Norman Kretzmann and Eleanore Stump (Cambridge: Cambridge University Press, 1993), 38–59.

3

Aquinas's Metaphysical Framework: Being and Essence

3.1 Beings and Essences

In his first years as a lecturer at the University of Paris (1252–1256), Aquinas wrote two short treatises at the request of his fellow friars, *On the Principles of Nature* and *On Being and Essence.* Each became widely popular, and with good reason, since each offers a succinct and illuminating summary of Aquinas's core philosophical doctrines. The first, as we have seen in Chapter 2, describes his explanatory framework of form, matter, and the four causes. Likewise fundamental, *On Being and Essence* outlines Aquinas's metaphysical framework. The topic of this treatise is the nature of being, in God and creatures, a subject that turns out to embrace a wide range of central metaphysical questions, such as the nature of substance, the individuation of substances, the relationship between essential and accidental properties, and the problem of universals.

On Being and Essence begins with the striking remark that "a slight error at the start becomes a great one by the end." If one stops to reflect on this clever saying (which Aquinas borrows from Aristotle[1]), one might well wonder why it should apply to the case at hand. The topics that Aquinas is about to take up do not on their face seem to belong to the basic foundations of knowledge. On the contrary, questions about being and essence seem highly abstruse and technical, belonging to the far reaches of human inquiry. Yet Aquinas immediately explains that he takes just the opposite view: he holds that *being* and *essence* are the very first concepts of intellect. This claim looks so surprising that it can be hard to believe he really means it. In what sense could such concepts be the *first* human concepts? It turns out that Aquinas thinks these concepts are primary in

various ways: they are first conceptually, in the sense that all other concepts presuppose them, and they are first temporally, in the sense that they must be acquired before any other concepts are acquired. (In virtue of the way they extend to all things, Aquinas refers to *being* and other such concepts—such as *one* and *good*—as *transcendental*.[2]) Hence, the study of being, remote as it may seem, actually does take up the most fundamental conceptual questions that one could raise. A small mistake here really would infect everything else.

What then can we say about *being*, as a concept? Aristotle's starting point, in the *Categories*, had been to distinguish ten categories of being: substance, quality, quantity, relation, where, when, position, having, doing, and being acted on. Aquinas, though he often makes use of these categories, shows no signs of taking them seriously as an analysis of being. (It is noteworthy that this is the only one of Aristotle's core philosophical texts on which Aquinas did not write a commentary.) It is easy to see why this approach might have seemed unattractive. Is there really a fundamental difference between, say, *being white* (quality) and *having shoes on* (having)? Is there a fundamental similarity between *being white* and *being a grammarian*, both qualities? No doubt there are differences and similarities worth studying in such cases, but there remains a real question as to whether these differences amount to genuine difference in *being*. In any case, moreover, the whole project of distinguishing being into exactly ten distinct categories looks hopelessly quixotic.

What Aquinas insists on preserving from that Aristotelian project is the basic distinction between the being of substances and the being of all the other nine categories, *accidental being*. However many different categories of being there are—ten, or twenty, or two hundred—Aquinas thinks there is a clear divide between those beings that are substances and all the other ways of being, which are nothing more than ways in which substances are. Hence, accidents are said to be beings in a derivative sense: they exist only insofar as they exist in a substance, and their being depends on the being of that substance. It is the substance that most truly exists, inasmuch as only substances have being in their own right, intrinsically. More precisely,

x is a substance $=_{df}$ *(1) x exists on its own, not in another; and (2) x is the subject of accidents*

and

x is an accident $=_{df}$ *x by its nature exists in another.*[3]

This distinction reflects the way that we privilege some kinds of entities by supposing that they can sustain change while remaining one and the same.

We think, for instance, that a human being can be now pale and now dark, but we do not think that a sweet taste can be at first sweet and then bitter. If it changed in that way, we would cease to think of the quality (an accident) as existing at all. Further, we think that some things depend upon others in an asymmetric way. What a corporation does depends upon the coordinated activities of its human employees; human beings themselves, however, do not seem to depend in the same way on their parts. We therefore privilege some beings in virtue of their being prior and autonomous, and we call them substances.

To be sure, there have been philosophers who rejected this intuitive picture of the world: some because they took all things to be just a single substance (like Parmenides and Spinoza), others because they denied that things truly endure through time (like Heraclitus and Hume). Aquinas's conception of form gives him a way of rebutting these radical alternatives. As we will see in more detail in §3.4, the form of a substance gives that substance a coherence and unity that puts it into a special metaphysical class. One can always define 'substance' in such a way that nothing qualifies, or that only God qualifies, but—putting aside quibbles over terminology—Aquinas thinks there are good reasons for drawing a fundamental divide between two classes of beings: those that exist in themselves (that *subsist*, to use his terminology; see §6.7), and those that exist in other things. Even so, it turns out to be surprisingly difficult to determine exactly what counts as a substance on Aquinas's view. The problem is not that we are prone to mistake substances for accidents, but that we mistake substances for *collections* of substances. There is no doubt that colors and shapes and sizes are accidents. But is a wooden train a substance? Is each car in the train a substance? Is each wheel on a car a substance? It is hard to see where to stop. Aware of the difficulties in this direction, Aquinas insists that artifacts do not count as substances. A house, he says, is no more a substance than a pile of stones is.[4] In each case, we have an assemblage of many substances, not a single substance.

The clearest instances of substance, for Aquinas, are living things, because they have a unity and coherence that makes it highly plausible to describe them as a single thing, enduring through change, over time. To say that an oak tree, for instance, endures in this way is to say that there is a single substance, with a single substantial form, and that this substance takes on a series of accidental forms (see §2.1, "Matter and Form") over the course of its life. It begins as a seedling, for instance, and as it grows it runs through a series of accidental forms: being two inches tall, a foot tall, one hundred feet tall, and so forth. It likewise acquires leaves, loses leaves, and then acquires new leaves. There may well be no accidental form that it possesses throughout the whole course of its existence, but it does not follow that the substance cannot remain the same, because

beneath that change there is an enduring substantial form. Hence, there is only accidental change, not the substantial change that Aquinas calls *corruption* (see §2.1, "Matter and Form").

Once we draw this fundamental distinction between two kinds of beings, substances and accidents, we can go on to make many finer sorts of distinctions in a familiar way. We can, for instance, distinguish between living and nonliving substances (such as water and gold), and then between animals and plants. On the side of accidents, we can distinguish between colors and sounds, for instance, and then go on to distinguish between red, green, and blue. To distinguish in this way between kinds or species of being is to divide things according to their *essences*. Drawing on the etymological link between 'essence' (*essentia*) and 'exist' (*esse*), Aquinas holds that the essence of a thing is that which makes it exist as a thing of a certain kind. More exactly,

> *x is the essence of y* $=_{df}$ *(1) x makes y be a member of species z and (2) x is held in common by all members of z.*[5]

Since the essence of a thing defines what (*quid*) that thing is, we can also refer to the essence as the *quiddity* of a thing—literally, its *whatness*. Alternatively, we can speak of its *nature* or its *form*, although we will see in §3.2 that the essence of a material thing is not just its substantial form.

In a sense, both substances and accidents have an essence. There is something that defines what it is to be a specific shade of green, for instance, and this is the essence or quiddity of that color. Still, it is substances that are beings in the truest sense, since their existence is not dependent in the way that accidents depend on a substance. As we see in more detail in §3.4, the being of accidents derives from the being of substances. Consequently, we commonly and quite properly think of substances as having a single essence in virtue of which a substance belongs to its species. The fact that a substance will have many accidental forms, each with its own essence, can generally be set aside.

Whenever two or more things are members of the same species, they share an essence. It is important to notice from the start that sharing an essence is not like sharing a car—it is not as if two people take turns using the essence they share. Rather, they are both wholly human, all of the time, because they both wholly and continuously possess the same essence, *humanity*. Now, the very idea of two things' possessing some one thing in this way—be it an essence, form, nature, or property—is notoriously problematic, and we consider Aquinas's account of this so-called problem of universals in §3.5. There is a problem here to be reckoned with, however, only if we can truly say that two things share a species. Of course, Aquinas is persuaded that this is so. There are many

individual human beings, and to say that we are all human is to say that we are all members of the same species. Hence, according to Aquinas's definition of 'essence', we all share the same essence. This conclusion is now referred to as *essentialism*, and it is often attacked as a false and even pernicious holdover from the days when Aristotle reigned as "the Philosopher." (The doctrine strikes some as pernicious on the grounds that it sets up norms for being human that are then used to define some people as abnormal.)

It is easy to see that Aquinas's form of essentialism is much more plausible than such criticisms suggest. We can think of the doctrine as coming in two parts. First, there is his defense of *natural kinds*—in other words, the claim that individuals can be sorted into species that reflect genuine divisions in the world rather than artificial boundaries drawn by us. Compare the difference between being human and not being human to the difference between shopping at Macy's and not shopping at Macy's. Both divisions sort the world into kinds, but intuitively the former cuts more deeply. Since at least the seventeenth century, some philosophers have questioned the reality of natural kinds. John Locke, for instance, thinks that all of our divisions into species and genera are the product of human convention rather than a real grasp of the true natures of things.[6] Locke seems to concede, however, that things surely can be grouped into kinds—he simply questions whether we have yet succeeded in identifying those kinds. Recently, some knowledgeable philosophers of science have gone even further and questioned whether there are objective lines to be drawn at all between species. Are there twenty species of albatross or only ten? Or is there is no objective answer to that question? Yet even if we acknowledge these modern worries over the boundaries of species membership, we surely do not want to go all the way to the opposite extreme of denying that two things can ever truly and objectively be placed within the same species. Consider the case that matters most, our own case. Though there are obvious differences among individual persons, no one (other than the most extreme racist) contemplates dividing human beings into several species. It is simply an undeniable feature of the world that human beings make up a natural kind, a distinct species. (In this context, essentialism serves as an antidote to the pernicious influence of racism.) No doubt the boundaries are less clear in some other cases, but such vagueness does not undermine the basic legitimacy of sorting living things into kinds.

Even if we accept, with caution, this first component of Aquinas's essentialism, there is a second component with which we must contend: the thesis that members of a species have something in common in virtue of which they belong to that species. At issue here is not the

highly abstract metaphysical problem of how to explain such commonality (see §3.5), but a more concrete question of how to account for natural kinds. Specifically, is there anything that all members of a species have in common? (This is the second part of the definition of 'essence'.) On its face, this might seem difficult to defend. Suppose we grant the reality of species and agree that 'essence' by definition refers to that which gives a thing its species membership (the first part of the definition). Why should we go on to claim that all members of the species must have the *same* essence? On reflection, however, this further claim should seem defensible. For to the extent that there are real species divisions in the world, these divisions must be grounded in some kind of commonality among individuals. If there are criteria for species membership, members of the species must all meet those criteria and must therefore have that much in common. Possibly, the criteria will be highly complex and disjunctive, such that a thing falls within a species by possessing *enough* of a family of properties. Even so, if we want to follow Aquinas's realism regarding natural kinds, then we have to acknowledge that there are criteria of some sort, and that these criteria are captured by the essence, which will be something somehow shared by all members of the species.

In this way, Aquinas's essentialism can be readily defended. It had *better* be defensible, if his philosophy is worth studying, because he takes the search for essences as one of the principal tasks of philosophy. Whether he is investigating God, the angels, or human beings, he is attempting to describe their *nature*—that is, their essence. Now, of course, we have absolutely no hope of acquiring a complete grasp of God's essence. Even in the human case, Aquinas thinks we can give only an approximate account (see §3.4). Still, the project of human inquiry is to go as far as we can down this road, attempting to arrive at the fullest possible account of what distinguishes the different kinds of being. It is part of *our* essence, he thinks, that we seek to grasp the natures of other things (see §7.3, "The Objects of Intellect"), and that we are intellectually satisfied only when we understand not just *that* a thing is, but *what* it is—that is, its quiddity or essence.[7]

3.2 Material Substances

As of yet, we have not managed to say very much about being. We have drawn a distinction between substances and accidents, postulated that beings can be divided into natural kinds, and introduced the term 'essence' to refer to whatever it is that beings share as members of a kind. This is all quite general and abstract and tells us little about what kinds of things there actually are. As a first step toward a more concrete discussion

of being, Aquinas distinguishes between simple and composite substances. Simple substances are entirely immaterial—minds without bodies. The first and most simple substance is, of course, God, though we will see (§3.3) that Aquinas also includes the angels among the simple, immaterial substances. Just as substances are beings more fully than accidents are, since accidents depend for their being on substances, so God is most truly and fully a being, since the being of all other things depends on him. Ideally, then, we should begin a discussion of the kinds of being with God, and work our way down through the various sorts of dependent beings. In practice, however, this is impossible—at least for creatures such as ourselves, who have no direct grasp of any sort of immaterial substance. We therefore have to begin with composite, material substances and work our way upward, toward God. As animals, whose information about the world comes entirely from the senses (see §7.3, "The Objects of Intellect"), we have no choice but to begin with the material realm.

Composite substances are a composite of form and matter. In the case of living composites, their form is their soul (see §6.3), and so we can say that such living things are a composite of soul and body. At this point, we are in a position to ask a crucial question: What is the essence of a composite substance? The question is crucial because, as we saw in the previous section, Aquinas treats essences as the proper object of intellectual inquiry. So to ask about the essence of a material substance is to ask about what it is we are trying to understand when we want to understand the world around us. It would seem that there are two possible answers: either the essence comes from the form or it comes from the matter. In the case of human beings, for instance, the question becomes: Do we understand ourselves by understanding our bodies or by understanding our souls?

Clearly, the essence cannot be identified with matter. By definition (§3.1), the essence of a thing is what makes a thing be of a certain kind—a human being, for instance. As previously explained (§2.1, "Matter and Form"), however, matter stands in potentiality to being a thing of a certain kind. It is not the matter that makes a thing be human, or be anything else. Instead, what makes matter become something is the presence of a form. By definition (§2.1, "Matter and Form"), the form makes something actually be a thing of a certain kind. Hence, it would seem that the essence of a material substance is its form. Yet Aquinas denies this too, arguing instead that the essence includes both form and matter. So the essence of a human being makes reference both to soul and to body.

Why should this be? Given that the matter is just the raw potentiality for being a certain thing, and that it is the form that actually makes a thing be what it is, the matter might well seem irrelevant to defining what a thing is. In *On Being and Essence*, Aquinas defends his claim merely by replying, "Otherwise, natural and mathematical definitions would not

differ" (2.16–17). This telegraphic remark points to the heart of what is at stake. Consider how we pursue knowledge in geometry. We might draw a right triangle on a board, for instance. We can show that it has three sides if and only if it has three angles. We can show that its angles sum to 180 degrees. We can prove the Pythagorean theorem. At no point do we consider that the triangle is made of chalk, on a blackboard. This is just not part of our inquiry. Geometers study form alone, completely excluding any discussion of matter. Now imagine trying to study human beings using this sort of purely formal, geometrical method. The project is by no means inconceivable. We would want to focus on the causal relationships between a human being and the environment, describing how certain events outside the person are followed by certain states internal to the person, which then in turn lead to further internal states and perhaps ultimately to some new external event. The trick would be to say all of this without making any reference to the level of matter. We could not, for instance, refer to light waves acting on the retina, or to the brain triggering a muscle contraction in the arm. All of that would be off limits, because it goes beyond the level of form. Aquinas's claim is that this sort of purely formal, abstract inquiry into human nature could not truly be said to answer the question of what a human being is. If our account does not extend to the level of eyes and brain and muscle, then we have not yet said what it is to be a human being.[8]

Readers familiar with contemporary philosophy of mind will recognize the similarity between the purely formal account just sketched and functionalist theories of mind, which likewise abstract from everything but the causal interrelationships between mental states and the world. Aristotelians are often said to have anticipated this kind of abstract, functional account. There is some amount of truth to that claim, inasmuch as the distinction between formal and material explanation invites analyses that are cast purely in formal terms. Indeed, in §7.1 we look at Aquinas's abstract analysis of cognition. Yet insofar as the project is to understand *human* nature, or the nature of any material being, Aquinas thinks we have to give an account that appeals to both form and matter. Natural definitions are different from mathematical definitions in that the first pay attention to how forms are instantiated in the world. Conceivably, we could give an abstract functional account of what perception is, but if we want to understand *human* perception, then we have to understand the biological mechanisms that produce it. Matter cannot be left out of this account as something purely potential, because it takes the right sort of matter to become an eye, or muscle, or human being. To reuse an example from the previous chapter (§2.1, "Matter and Form"), bricks are not even potentially a set of high-end stereo speakers. Hence, matter enters into the essence of a thing.

Qualifications

This insistence on the role of matter in defining composite substances makes trouble for the standard conception of how form and matter relate. Just as form is what actualizes matter, making it be a certain thing, matter is standardly said to be what makes the individual be the individual it is. This is to say that form seems to be what gives a thing its species, whereas matter is what distinguishes members of a species. Aquinas himself accepts these claims but thinks they have to be carefully qualified in a number of ways.

First Qualification. Matter enters into the essence of a thing only when conceived of abstractly, as something common to all members of the species. This so-called *common matter* is contrasted with *signate matter*, which is the determinate matter of a certain individual. Thus, Aquinas remarks, "*This* bone and *this* flesh are not put into the definition of *human being*, but rather bone and flesh absolutely, which are the non-signate matter of a human being" (*DEE* 2.82–84). Of course, the idea is not that there are two wholly different sorts of matter in a material substance, like white meat and dark meat. Instead, the claim is that matter enters into the essence of a thing only insofar as its general characteristics are concerned. In analyzing the human sensory powers, for instance, we speak in general of the different organs of perception and include them in our account of what perception is. We ignore the sorts of variations that occur within a species, just as the geometer ignores the difference between chalk and pencil. Thus, common or nonsignate matter enters into the essence of a thing, whereas signate or individual matter is what individuates a material substance.

Second Qualification. Although signate matter individuates material substances, this claim has to be spelled out with some care. If the claim were true in the most straightforward sense, it would seem that material beings would constantly be undergoing substantial change every time their matter changed. Aquinas is, of course, aware that all material substances, particularly living ones, undergo constant and dramatic change.[9] Hence, some qualification is plainly needed to the doctrine that matter is the principle of individuation. One move Aquinas cannot make at this point is to abstract away from those features of matter that change and to identify the principle of individuation as the unchanging core matter of a thing. This would be to treat signate matter as common matter, by once again ignoring the distinctive features of an individual in favor of those common material characteristics shared by all members of a species. What is crucial about signate matter is its particularity, and this characteristic cannot be separated from its changeability.

Rather than deny that signate matter changes over time, Aquinas makes such matter the principle of individuation only at the start, when a substance first comes into existence. To understand this, notice that he describes matter as the principle of individuation not for the substance as a whole but for the form.[10] When a material substance is generated, it has a substantial form that makes the substance actually be the sort of thing it is, as well as signate matter that distinguishes it from other individual members of that species. By coming into existence as the form of *this* matter rather than *that* matter, the form takes on an identity that it then maintains until the substance is destroyed. "The essences of composite things, in virtue of their being received in signate matter, are multiplied in accordance with how that matter is divided. This is what makes it possible for some things to be the same in species and numerically distinct" (*DEE* 4.80–83).

To illustrate this idea, consider once again our standard ersatz substance example, a house, and this time locate it in the midst of a housing development containing dozens of identical houses. The houses are qualitatively identical, but (alas!) they are not numerically identical. There is some temptation to say that each house is individuated by its location, but that cannot be right—after all, we might in principle move the houses around. Aquinas's idea is that the houses assume their identities at the start in virtue of the subtle material differences in their constitution. The design is the same for all of them, but of course, there are innumerable small differences in the frame, drywall, siding, and shingles. As these houses age, their material components will gradually be replaced, and we can imagine reaching a point where most of the original matter is gone. If it was this matter that individuated the house initially, does that mean that the house is no longer there? If so, at what point did it go out of existence? When it was exactly 50.1 percent new? Aquinas can avoid the embarrassment of these last questions by giving a negative answer to the first one. The matter individuated the house only at the start. Once the house came into existence, it was the form that individuated it rather than its location or matter. As long as that form remains intact in some suitable matter, the house continues to exist, through successive material renovations.

The same is true for genuine substances, such as a human being. When the human soul comes into existence as the form of a particular body, the soul takes on a certain identity in virtue of that body. Here is how *On Being and Essence* describes what happens:

> The human soul's individuation does depend on the body at one time—for its inception—since it acquires individuated existence only in the body it actualizes. Even so, its individuation does not have to cease when the body is taken away. For since it has the absolute existence through which it acquired individuated existence, through its being made the form of a particular body, that existence always remains individuated. Thus Avicenna says that the soul's individuation and multiplication depends on the body for its start, but not for its end. (*DEE* 5.60–71)

Aquinas calls special attention to this doctrine in discussing the human soul because he needs to explain how the soul can continue to exist after its separation from the body (see §6.6). But the metaphysical point seems to be entirely general. Matter serves as the principle of individuation for form and individuates the substance as a whole only remotely.[11] The form is what ensures the identity of a substance over time.

Third Qualification. There is a final way in which Aquinas modifies the standard view that form determines the species and matter determines the individual. Just as matter needs to be distinguished into common and signate, the first entering into the essence and the second playing a role in individuation, so too form needs to be distinguished in a parallel way. For, as we have just seen, Aquinas thinks that individuals within a species are distinguished by their forms. This means that, even within a species, the forms of things differ—not just numerically but also qualitatively. Two members of a species share the same essence, but they do not share exactly the same form, no more than any two plastic Statues of Liberty will have *exactly* the same shape. In the case of human beings, there should be nothing at all surprising about this. What would be surprising would be if each of us had a soul exactly like the soul of everyone else. Aquinas thinks that differences in intelligence, for instance, often result from differences between human souls.[12] Accordingly, we have to qualify the claim that form is part of the essence of a composite substance. Just as only common matter enters into the essence, so too only the common features of form can be said to do so. To arrive at that which all members of a species have in common, we have to abstract away not just the individuating aspects of matter but also the individuating aspects of form.

3.3 Immaterial Substances

Once we turn to simple, immaterial substances, matters might be expected to become much murkier. In a way this is so, as we will see, but in another way it is not. For whereas it takes some time to unravel the relationship between a composite substance and its essence, there is no such problem in the case of a simple substance. A simple substance, since it lacks matter, can be thought of as pure form. (Aquinas regularly refers to these as *separate substances*, to suggest this idea of form alone, apart from matter.) That form, in turn, just is its essence. In a sense, then, a simple

substance just is its essence. Now, this is not a conclusion that very many of Aquinas's contemporaries embraced—indeed, the doctrine was attacked by the famous Condemnations of 1277 (see §1.5). Aquinas can accept it, however, because he is willing to accept the surprising consequence that follows. (Before reading on, see whether you can spot it for yourself.)

The surprising consequence is that no two separate substances can belong to the same species. By definition (§3.1), things belonging to the same species share the same essence. If there is nothing more to a simple substance than its essence, then two things that share the same essence would not be two things at all. Put differently, there is nothing in simple substances to individuate them other than their essences. So for two simple substances to differ, their essences must differ. If their essences differ, however, then they are not members of the same species. Now, given the final qualification of the previous section, one might suppose that Aquinas has some room to evade this result. Why not say that two simple substances have forms that are qualitatively distinct but similar enough to share the same essence? This, after all, is how it works for human souls. The reason Aquinas cannot accept this, however, has been explained already: he thinks that forms can be made distinct in this way only by being received in matter. Thus, immediately after explaining the way composite beings are individuated (see §3.2), he goes on to say:

> On the other hand, since the essence of a simple substance is not received in matter, there cannot in this case be such a multiplication. Necessarily, then, in the case of these substances one does not find multiple individuals of the same species. Instead, in this case there are just as many species as there are individuals. (*DEE* 4.83–88)

So Aquinas's broader metaphysical views, combined with his insistence that simple substances are pure forms, leads him to the conclusion that no two simple substances can be of the same kind. This would not be at all a surprising view if Aquinas thought that the only simple substance is God. In fact, however, he believes in a vast number of created simple substances—the angels. So he is committed to the rather odd view that each of these angels belongs to a distinct species. Yet, far from regarding this outcome as embarrassing, Aquinas welcomes it (for reasons we consider in §5.2).

The simplicity of separate substances guarantees that the relationship between substance and essence is straightforward. This is not to say, however, that we have much insight into the nature of such essences. Indeed, we know absolutely nothing about the essences of the separate substances, except what they are not. We can say that separate substances are

immaterial and simple (that is, noncomplex), and that they can never share the same species. Yet these are all negative claims. Our only positive information about the world comes through the senses, and we have no reason to suppose that what holds true of the sensory, material realm holds for substances separate from matter.[13] Insofar as separate substances just are minds, we can ascribe to them all the properties that beings with minds must have. This, however, tells us only about what all separate substances have in common. We are still very far from understanding the essence of a single such substance. Indeed, even though the Bible says that there are angels and demons, and even though Aquinas thinks we have strong philosophical reasons for postulating a class of beings that have minds but no bodies (see §5.2), we should be hesitant, as philosophers, about identifying the separate substances of theory with the angels of tradition. Thus, when Aquinas discusses simple substances from a philosophical point of view, he is careful to say only that these are what we call the angels.[14]

Not surprisingly, matters are even worse for God. Since we obviously do not see God himself, but only his effects, we could acquire an understanding of God only by making some sort of inference from creatures back to their creator. Aquinas thinks that we do in fact work this way. Creatures have so little in common with God, however, that our knowledge of the created world tells us nothing positive about God's essence. Aquinas asks us to imagine how someone who has never seen a cow might learn something by making a comparison with a donkey: a cow is an *animal*, one could say, just as a donkey is. Still more remotely, one might learn at least a little about a cow by comparison with a stone: a cow is a *material substance*, one could say, just as a stone is. Still, as feeble as the latter comparison is, it provides more information than anything we can say about God. No creature has *anything* in common with God, and so absolutely no comparison is possible.[15] Indeed, strictly speaking, God is not even a *substance* (though we have followed Aquinas's practice of loosely including God among the simple substances). God's simplicity precludes the possession of accidents (see §4.3, "Absolute Simplicity"), and so he does not satisfy the second part of the definition of substance (see §3.1). Given these remarks, one might expect Aquinas to have nothing at all to contribute to natural theology (the philosophical study of God's nature). Yet, as we will see in §4.4, Aquinas thinks we can say quite a lot about God's nature, so long as we interpret our claims analogously. We can affirm, for instance, that it is God's nature to be perfectly good, wise, and powerful. These attributes, however, do not mean what they would mean if applied to human beings or to any other creature. Moreover, we cannot say anything positive about what these attributes do mean when applied to God. We can only say what God is not.

One way of seeing just how dizzyingly alien God is, in comparison to creatures, is to consider the way in which God's simplicity goes beyond even that of the simple created substances. Both God and separate substances are simple in virtue of being immaterial. They are not composite in that way. The separate substances are composite in another way, however, inasmuch as there is a distinction between their essence and their existence. To see what Aquinas means by distinguishing between essence and existence, it is helpful to look at how he argues for the distinction:

> Whatever does not pertain to our understanding of an essence or quiddity comes from without and produces a composition with the essence, since no essence can be understood without the things that are parts of that essence. But every essence or quiddity can be understood without understanding anything pertaining to its existence. For I can understand what a human being or a phoenix is and still be unaware of whether it has existence in the natural world. Therefore it is clear that existence is distinct from essence or quiddity. (*DEE* 4.94–103)

The argument is straightforward:

1. Understanding a thing's essence requires understanding every part of that essence.
2. Therefore, anything not required to understand a thing's essence is not part of that essence but instead distinct from it.
3. A thing's essence can be understood without understanding whether that thing exists.
4. Therefore, a thing's existence is distinct from its essence.

If the first premise seems doubtful, we can read 'understand' throughout the argument as meaning *completely understand*. The first premise would then be making the uncontroversial claim that you cannot *completely* understand a thing's essence without understanding every part of that essence. We would then understand the third premise to be claiming that you can *completely* understand what a thing is—its essence—without having any idea of whether that thing exists. This seems quite plausible. To update Aquinas's phoenix example, let us consider the dinosaurs. An expert might completely understand the essence of *Tyrannosaurus rex* and yet be entirely unaware that a mad scientist has brought that beast back to life on a remote island. Hence, a thing's existence is not part of its essence but something added on. Dinosaurs, like all creatures, even immaterial ones, are a composite of essence and existence.

This argument is elegant and compelling. Yet one might well wonder just what significance it has. Why is it important to discover that existence

is distinct from essence? The significance of the argument is brought out most clearly by noticing its limits. The passage just quoted seems to be speaking generally of all essences, and so all beings. Yet Aquinas immediately continues by making an exception in the one case of God. In his case, essence and existence are just one thing. If you understand God's essence—that is, if you *completely* understand it—then you understand that God exists. God's essence has existence built in, as it were, in such a way that God must exist, by his very nature. We consider various implications of this claim in Chapters 4 and 5. For now, consider only the relationship between God and creatures. Whereas even the simplest of creatures is a composite of essence and existence, God is, by contrast, perfectly simple (see §4.3, "Absolute Simplicity"). God is also perfectly actual, inasmuch as he inherently possesses his own existence, in virtue of his very nature. Creatures, by contrast, are dependent beings, brought into actual existence only in virtue of some external cause. In terms of the framework of Chapter 2, we can say that all creatures contain some degree of potentiality. Even though separate substances are immaterial, and so not in potentiality in that way (see §2.1, "Matter and Form"), they are in potentiality in another way, inasmuch as their essences only potentially exist until brought into actual existence by God.

It is easy to understand the concept of a dependent being, one whose nature exists only when actualized by something else. Everything we are familiar with is like that. To conceive of such beings as immaterial is somewhat harder: this requires imagining a nature not limited by any sort of material conditions, and hence not subject to the familiar decay and corruption of the material realm. Still, these separate substances are limited by their nature; they exist as a certain kind of being, with certain impressive but still limited mental capacities. God, once again, is radically different. As pure actuality and unlimited being, God is unconstrained by any finite nature. His essence just is *to be*, which is to say that his existence encompasses "all the perfections that are in all genera" (*DEE* 5.32–33). This is not pantheism—Aquinas believes that God chose to create beings distinct from himself (see §5.2). Yet the reason God was able to create the universe was that he already possessed, in his own simple essence, all of what the created realm manifests through its myriad, incomplete essences.

In identifying God's essence with existence, we come up against the ontological argument first stated by Anselm in the eleventh century and reformulated countless times since then. According to that argument, God's existence can be proved to follow from his very nature as a perfect being, that than which nothing greater can be thought. It may look as if Aquinas can easily construct his own version of the ontological argument, by showing that God, by his very definition, must exist. To see how

this would go, consider first a simpler case. Let us define a square as a plane figure with four straight sides of equal length. From this definition it follows that a square has four right angles—we can prove it. Now let us define God as the first cause of the universe. Aquinas thinks it follows (for reasons we consider in the next chapter) that God's essence just is existence. He thinks he can prove it. This seems tantamount to saying that existence follows from the definition of what God is.

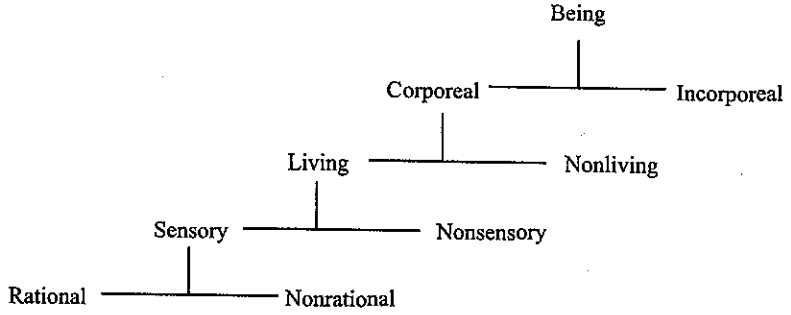
Aquinas is well aware of Anselm's argument and rejects it flatly. It is not, however, that he thinks no version of the ontological argument can be sound. On the contrary, for the reasons we have just seen, he thinks it quite true that God's existence does follow from his very nature. For anyone who understands God's nature, it is entirely self-evident that God exists. The difficulty is that we mere mortals cannot understand God's nature, and so God's existence is not self-evident *to us*.[16] In effect, then, Aquinas accepts the soundness of the ontological argument. Yet not every sound argument is a *good* argument, because the argument must be such that we can recognize its soundness and so have reason to accept its conclusion. This is what we cannot do with the ontological argument, in this life. Although we can formulate true premises about God's nature, we do not understand these premises as we would need to in order to accept the argument's conclusion on the basis of its premises. Quite generally, we can speak about God only analogously (see §4.4), which is to say that the terms we use about God are always inadequate to express God's reality. Consequently, we are not in a position to infer God's existence from what we know of God's nature, even if in principle this is possible.

The ontological argument is therefore worthless for us as a proof of God's existence. As we see in Chapter 4, however, Aquinas thinks there are other ways of proving God's existence. We have to begin with the information we have, about the material world around us, and infer God's existence from the character of that world.

3.4 Substance and Accidents

In comparing God to creatures (by saying, for instance, that God's essence encompasses the perfections of all genera), we have been presupposing a certain picture of how being is organized. This picture, known as the Porphyrian Tree, divides all being into a hierarchy of higher and lower kinds, from the most general down to the most specific.

This is just a fragment of the full Tree, enough to get us from the most common genus, *being*, down to one of the most specific species, *human being*. Other parts of the Tree could, of course, be expanded almost indefinitely. The genus of nonsensory living things, for instance, includes all plant life. Unlike in modern biology, the terms 'genus' and 'species' are



relative on this scheme: the class of nonsensory living things is a genus, but so is the class immediately above it, and the class above that one. Relative to any genus, the class beneath it is a species. When we remarked earlier that God has nothing in common with creatures, Aquinas's exact words were that God does not share a genus with creatures (see note 15). This is to say that God is not on the Porphyrian Tree at all.

At the very bottom of the Tree are what we ordinarily call *species*, and what Porphyry describes as the most specific species, such as *human being*. The classic definition of *human being* as 'rational animal' comes from taking the most immediate genus, *sensory living thing* (= *animal*), together with the so-called differentia that separates *human being* from every other species of sensory beings. This method ensures a description that applies uniquely to the species in question. Since the true definition of a substance picks out its essence, the essence of a human being can be referred to as *rational animal*. This makes good sense, in light of Aquinas's doctrine that the essence of a composite substance covers both form and common matter (§3.2). For it seems that *rational* captures what is distinctive about our soul, whereas *animal* captures the essential sensory contribution of our body.

Matters are not quite that straightforward, however, because Aquinas in fact thinks that we do not know the essence of any substances, not even material ones.

> Even in sensible things, the essential differentiae are unknown, and so they are signified through accidental differentiae that arise from the essential ones, just as a cause is signified through its effect. Thus *bipedal* is put forward as the differentia of *human being*. (*DEE* 5.76–81)

Obviously, no one would suppose that a definition like 'featherless biped' succeeds in capturing the essence of *human being*. One might well have thought, all the same, that 'rational animal' succeeds. In a way this defini-

tion does succeed, inasmuch as it does at least *signify* the essence of *human being*. It signifies, however, without showing us what that essence is, just as 'God' signifies God without showing us God's nature. The reason why even 'rational animal' does not describe the essence of *human being* is that this definition, just like 'featherless biped', is taken from accidental features of our nature.

Initially, it is hard to see how 'rational animal' and 'featherless biped' could be on a par with respect to picking out the essence of *human being*. Surely the first comes at least much closer to the target, in virtue of referring to our rational and sensory powers. Yet Aquinas's surprising view is that these cognitive powers are not part of the essence of a human being, but instead accidents that flow from that essence, in just the same way that being featherless or being a biped does. Hence, the definition 'rational animal' uses these accidental properties—our powers of sense and reason—to get at the essence of *human being* and so signifies that essence only indirectly, in the way we might signify someone across the room by referring to 'the thin man in the top hat'.[17] Of course, Aquinas does not think that our rational and sensory powers are accidental in just the way that being thin or wearing a hat is. The former are accidents of a special kind, known as propria: accidents that are necessary consequences of having a certain essence. Being a featherless biped, however, is a proprium in just the same way. Since propria are necessarily connected with the essence, we can use the propria to signify the essence, "just as a cause is signified through its effect."

In modern terms, we would say that propria *are* essential to a substance, inasmuch as they are necessary properties of that substance. Aquinas uses the term 'essence' in a very different way, however. He takes the essence to include not *all* the necessary properties of a substance, but the internal principle responsible for a thing's having all its properties.[18] In *On Being and Essence*, he offers various examples of how properties depend on the essence of the substance: thinking, sensing, being capable of laughter, being male or female, having black skin (6.59–97). As the list illustrates, it is not only the propria that follow from the essence of the thing—even non-necessary accidents like skin color depend on the essence. This can be so because he thinks that forms vary even among individuals of the same species (see §3.2, "Third Qualification"). At the same time, Aquinas is not claiming that absolutely every one of a thing's properties comes from its essence. He distinguishes between properties that have an intrinsic cause and those that have an extrinsic cause: "[E]verything that holds true of something is either caused by the principles of its nature, as is a human being's capacity for laughter, or comes to it from an external principle, as light in the air comes from the sun's influence" (*DEE* 4.127–130). The example of skin color can be used

to illustrate both cases. By nature, a human being has a certain skin tone, dark or light. Aquinas thinks of this as a property that flows from the particular nature of the individual. But the exact color of one's skin obviously depends on various external factors. The sun, for instance, is an "external principle" that interacts with one's innate skin tone.

Aquinas's conception of essence rests on both a causal and a metaphysical claim. On the one hand, he is advancing what we might think of as a scientific hypothesis about the causal organization of substances. A genuine substance, on this account, is organized in such a way that all of its intrinsic properties are generated and sustained by the thing's essence. A cow has its bodily shape and color, its various cognitive powers, its internal organs, and so on, all as a result of having a distinctive essence. The same is true for gold with respect to its weight, color, malleability, and so on. Modern scientific developments have turned out to offer at least some support for this idea. In the case of living things, their intrinsic properties can largely be traced back to DNA. In the case of nonliving matter, the microstructure explains the macrolevel properties. Clearly, not all objects display this sort of causal structure. The properties of a desk or a house have no such unifying intrinsic principle. As we have seen (§3.1), however, Aquinas denies that artifacts such as these are substances. No doubt part of the reason is that they lack the kind of essence that could play such a central causal role.

Aquinas's theory of essence is not just the medieval ancestor to genetics or chemistry. Though the theory makes causal claims that anticipate modern scientific discoveries, it is also highly metaphysical, in a way that moves it away from the province of science. What makes the theory metaphysical is the way it links a thing's essence with the identity conditions of the whole substance and each of its parts. In other words, the substance exists for as long as its essence exists, and each part of that substance exists only when informed by that essence. This idea is not at all surprising when it comes to the whole substance: whatever else one might say about the essence of a substance, one would expect the substance to endure only for as long as it has that essence. (This likewise fits the theory of individuation described in §3.2, according to which a substance is individuated over time by its substantial form.) More surprising is what the theory claims about the parts of a substance. Aquinas holds that when any part of a substance is separated from that substance, that part ceases to exist and becomes something new instead. When an animal dies, we speak of the corpse as having eyes, skin, and bones, but these things are the same in name only (that is, equivocally; see §4.4). Strictly speaking, the eyes of the animal cease to exist when the animal dies, and the same holds true for every other part of the body.[19] In many cases, this conclusion seems perfectly natural: after all, the 'eye' of a corpse cannot function as an eye;

the 'skin' is no longer sensing or even protecting anything, and so on. Ultimately, however, what accounts for this general doctrine is the crucial role of essence in making a substance and all of its parts be the thing that they are. To be separated from that essence is to go out of existence.

When the causal and metaphysical sides of Aquinas's theory are taken together, it becomes easy to see why he insists on a firm divide between substances and all other types of being, and why he takes substances to exist in the truest and most complete sense (see §3.1). Given their tight causal coherence, and the metaphysical dependence of each part on the whole, substances have an extremely robust and distinctive sort of unity.[20] One would not expect an aggregate of substances—a grove of trees, for example—to be causally unified in this way. Even if it somehow were, any one of the individual substances could surely exist apart from that aggregate. An aggregate of substances has only a very loose sort of unity: we can speak of it as one grove, but it is not one thing in the truest sense. Something similar is true from the other direction. Accidental properties make up one thing with their substance, but they have no existence on their own apart from that substance. The shape and color of a tree depend on that tree, whereas the tree depends on no particular shape or color. Even whole bodily parts of a substance are dependent in this same way. The branch of a tree is produced by the tree, and if severed from the tree it ceases to exist as a tree branch (even if we might, for lack of a better word, still refer to the dried-up wood as the branch of a tree).

In this way, our picture of the world as built up out of discrete substances is based on facts about how things are organized in the world. Central to this scheme is the theory of essences as what unites and individuates substances. Decisions about how to characterize the essence of a certain thing do not rest on convention or arbitrary choice, but instead reflect the causal structure of the universe. That, at any rate, is our goal.

3.5 Universals

Aquinas treats the Porphyrian Tree as a true description of the world. He is, moreover, a realist in this respect rather than a conventionalist: he believes that when we classify substances according to this hierarchy of species and genera, we are saying something that holds true independently of human conventions. On his view, the immediate grounds for such truths lie not in any abstract realm of Platonic Forms, nor even in the mind of God (though he counts the latter as the remote ground for all truth). Instead, natural-kind concepts apply to the world in virtue of the world itself. Anna and Cora are both human beings, and both animals, and both substances, in virtue of facts about the world. The concepts *human being*, *animal*, and *substance* apply to Anna and Cora because of their

natures. These are truths about the world that we discover rather than invent.

All these claims may seem too obvious to merit much attention. Even so, they are claims that Aquinas is hard-pressed to account for. His difficulties stem from his unwillingness to include in his ontology anything other than individuals. Whatever is, is a particular, single thing, and this holds not just for whole substances but for all of their parts. As a result, there is nothing that Anna and Cora literally share. As Aquinas puts it, "no commonness is found in Socrates; rather, whatever is in him has been individuated" (*DEE* 3.80–82). Further, when it comes to their substantial forms, Anna and Cora are not even exactly similar. As we have seen (§3.2, "Third Qualification"), members of a species have forms that are similar but not exactly the same. So if two things can ever be said to *share the same essence*, it does not seem that this will be so in virtue of their actually sharing anything.

We can put the difficulty Aquinas faces in terms of an inconsistent triad: three claims to which Aquinas seems committed but that cannot all be true:

A. Aquinas is a realist about natural kinds (species and genera): he believes that when we say, for example, *Anna is a human being* and *Cora is a human being*, we are saying something that holds true of the world independently of human conventions.
B. Such claims are made true by facts about the world (in particular, by facts about Anna and Cora), not by facts about, say, abstract or Platonic objects.
C. Members of a species do not have anything in common:
   1. Not literally, in the sense that they share *numerically* the same form.
   2. Not even in the looser sense that they share *qualitatively* the same form.

It is easy to see that the problem lies with C. There is no doubt that Aquinas holds A and B, and it does not seem likely that a closer analysis of these claims will help us break apart this inconsistent triad. We can therefore focus our attention on C and ask:

i. Is C1 consistent with the conjunction of A and B?
ii. Is C2 consistent with the conjunction of A and B?

We will argue that Aquinas answers (i) affirmatively, which leaves him free to hold on to C1. He seems to give a negative answer to (ii), however, and that requires him, on pain of inconsistency, to deny C2. In other

words, we take Aquinas to deny literal numerical sameness but to think that there must be some qualitative sameness among members of the same species. We take these claims up in reverse order.

Qualitative Sameness

To see just how hard it is for Aquinas to ground his natural kinds on the things themselves, consider not the level of species but the higher orders of genera. If Anna and Cora are both animals, it seems they must have something in common. Yet Aquinas denies that they share some form, *animality*, which makes them members of the same genus. Instead, genus terms signify in an indeterminate way. They do not pick out some one thing that each member of the genus has in common but refer indeterminately to a range of different forms. (Think of how 'red' refers indeterminately to a whole spectrum of hues.) Aquinas makes this point as follows:

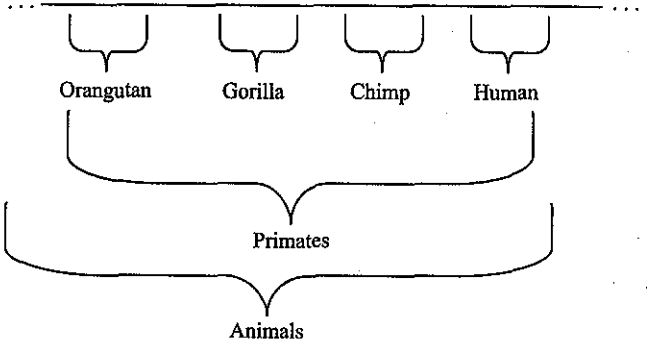
> It is not that what is signified by the genus is numerically one nature in diverse species, to which another thing is added that is the differentia determining it. . . . Rather, it is because the genus signifies some form, yet not determinately this form or that one, which the differentia expresses determinately. (*DEE* 2.227–234)

The passage explicitly rules out the possibility of literal, numerical sameness, but by implication it also rules out the possibility that all members of a genus share a form that is qualitatively the same. If all members of a genus did possess exactly similar forms, then the genus would not need to signify indeterminately in the way it does. In fact, however, the term 'animal' picks out a range of forms (human being, dog, horse, and so on), and we manage to pick out a smaller segment of that range only by tacking on a differentia (such as 'rational') that makes the reference more determinate. (Think of how 'burgundy red' picks out a smaller class of hues.)

Aquinas faces a special problem in the case of genera because he thinks it is the same substantial form that puts a substance into its species and all of its higher genera. Unlike almost all of his contemporaries, Aquinas rejects the idea that a human being might have one form in virtue of which it is human, another in virtue of which it is an animal, and so on, up the Porphyrian Tree.[21] (This doctrine would later be condemned by the archbishop of Canterbury.) Yet Aquinas faces a similar difficulty even at the species level. Even here, where genus and differentia are combined, thereby arriving at a definition that signifies the essence (see §3.4), we still are not referring in a determinate way. Aquinas immediately goes on to

remark that "the nature of the species is indeterminate with respect to the individual, just as the nature of the genus is indeterminate with respect to the species" (*DEE* 2.243–245). This is what we should expect. Just as dogs and cats do not have exactly similar forms in virtue of which they are animals, so Anna and Cora do not have exactly similar forms, in virtue of which they are human beings. 'Human being' signifies in an indeterminate way, individuals that vary even with respect to their substantial form—just as even a fairly determinate description like 'burgundy red' picks out a range of hues.

We thus arrive at a picture of being as located along a continuum. Using a fragment of our modern taxonomy, we would have:



The difficulty for Aquinas is that he wants these brackets to reflect objective features of the world (A and B of the inconsistent triad), but they cannot point to anything shared by every individual that falls within a given bracket (C2). Any two human beings belong at different places on the line, in virtue of their individuating differences. Chimpanzees belong at yet another place. There is no difficulty in individuating these different individuals (see §3.2), and even less difficulty in distinguishing between different species. The difficulty is rather that the members of a species turn out to be altogether *too* individual, and to have nothing in common. Why count Anna and Cora as members of the same species given that they are not exactly alike in form? Why count Cora and a chimpanzee as members of the same order? Given that substances fall along a continuum, how do we know where to draw the lines?

At this juncture, Aquinas appeals to the intellectual activity of abstraction (see §7.3, "Abstraction"). Although members of a species are entirely individuated by their various distinctive features, the intellect can separate off and ignore those accidents and focus only on what is essential. The result is a conception of a thing's species (or genus) that captures only what all members of that species (or genus) share:

> Within the intellect, human nature has existence abstracted from all individuating conditions, and thus it has a uniform relation to all individuals outside the soul, inasmuch as it is equally a likeness of all and leads to a cognition of all (insofar as they are human beings). And in virtue of its having such a relation to all individuals, the intellect devises an account of the species and attributes it to that nature. (*DEE* 3.91–99)

This is really just a reformulation of the problem. The idea of abstracting away from accidents, leaving behind only the shared essence, presupposes that there is something shared by all members of a species (or genus). Indeed, Aquinas seems to be committed to this being so, in virtue of how he characterizes abstraction. Confronting the worry that to abstract selectively is just to falsify reality, he explains that there is nothing wrong with abstraction so long as the concept one arrives at corresponds with something that is actually there.[22] Aquinas thus seems committed to the idea that individuals have within them a core essence exactly similar to the essence of other members of that species, and that members of a genus have within their essence a further core that is exactly similar to what other members of that genus have. Even though each individual has its own form, distinct not just numerically but also qualitatively, that form has a deeper structure that it shares with other individuals.

There is perhaps some temptation to think that all of this is unnecessarily obscure. We standardly and unproblematically distinguish mammals, for instance, in terms of their producing milk for their offspring. Can we not similarly appeal to observable properties for other genera and species? Aquinas would reply that we can and do—indeed, that we must. But the reason we proceed in this way is that, as we have seen (§3.4), we have a very poor grasp of the real essences of things. Accordingly, Aquinas has nothing of value to say about the deeper essential structure of material substances. Even so, his conception of essence, as described in §3.4, leads him to the view that what makes a substance be a mammal, or be a member of any genus or species, is not any observable capacity or function but rather its essence. A genuine understanding of the world—which he did not pretend to have—would attain that level of explanation.

Numerical Sameness

Aquinas rejects C2 of the inconsistent triad, inasmuch as individuals can have forms that are exactly similar with respect to some part of their deeper structure. Even so, this is not yet literally sameness, and one might wonder whether we can speak of Anna and Cora as both human beings if they do not literally share one or more properties in virtue of which they are human beings. This brings us face to face with the venerable problem

of universals. Put briefly, how can we truly describe two things as having the same properties if they do not truly have *the same* properties—that is, numerically the same properties, in which case the properties they have would be universals, capable of existing in more than one place and time? We have seen that, for Aquinas, things can have exactly similar properties, but one might think that this is not enough, and that sameness must be understood as numerical sameness. The very same property that informs one substance would at the same time inform many others. Consider this definition:

> *x is a universal* $=_{df}$ *(i) x is abstract; (ii) x is mind- and language-independent; and (iii) x can be fully present at more than one place at the same time.*

Aquinas denies that there are universals so defined. It is not, as one might suppose, that he finds clause (iii) unacceptably mysterious—on the contrary, he thinks that there are many entities that can be fully present at more than one place at the same time, including the human soul (see §6.8) and God. Naturally, he also thinks that these entities satisfy (ii). So where they fail to satisfy the definition is at (i). Even though God and human souls are immaterial, they are not abstract. Instead, they are concrete beings, having causal powers just as much as any bodily substance does.

In place of the above, Aquinas accepts this Aristotelian definition:

> *x is a universal* $=_{df}$ *x is naturally suited (i) to exist in many things; (ii) to be predicated of many things.*[23]

This definition might be consistent with the first, as long as one supposes that what is naturally suited to exist and be predicated of many things is something abstract and independent of mind and language. Yet this is just what Aquinas denies. On his view, universals are made by intellect and so are mind-dependent in the strongest sense. *On Being and Essence* cites with approval both Averroes and Avicenna, who hold that "it is the intellect that makes universality in things" (3.100–101). What Aquinas means is that, outside of intellect, there is nothing suited to exist in many things or to be predicated of many things. It takes the operation of intellect to abstract away the accidental features of a thing, leaving behind only those essential features that hold true for all members of the species (or genus). Hence, universals do exist as defined in this second way, but they exist only within intellect.[24] Following the traditional terminology, we can refer to Aquinas as a *conceptualist* regarding universals, and we can say that anyone who accepts universals as first defined is a *realist*.

What are Aquinas's reasons for rejecting realism? One initial point of disagreement concerns the notion of abstractness. His conceptual univer-

sals are abstract, but not in the sense intended by the first definition. Rather than treat abstractness as a mode of existence, Aquinas treats it as a mode of representation. In other words, an object is abstract for Aquinas not because it exists abstractly, but because it represents the world abstractly. In this sense of the term, the only abstract entities are entities with representational content—that is, mental and linguistic entities. As a result, nothing can satisfy both of the first two clauses of the first definition. Aquinas has an even more basic disagreement with the third clause—that a universal be fully present at more than one place at the same time. On his preferred definition, a universal is *suited* to be fully present in many particulars at the same time. A universal cannot, however, be *actually* present in many particulars. It is not, as noted, that Aquinas thinks this very idea is incoherent. It is incoherent for material substances, however, because they are individuated by the differences between their natures (see §3.2). If the universal nature of *humanity*, for instance, were to be actually present in both Anna and Cora, then there would no longer be any difference between Anna and Cora.[25] So all Aquinas can allow is that universal natures are *suited* to be present in many things, in the sense that there is nothing in this stripped-down, abstracted nature that is not true of every individual of that kind.

This immediately raises a worry: Are the intellect's universal concepts in fact true of the world? We have already stressed Aquinas's realism with regard to the species and genera of the Porphyrian Tree. Can he be a realist in this regard and reject realism with respect to universals? He endorses the idea that the intellect must *make* universals, through abstraction, since there are none outside the mind. Yet he is also committed to the view that abstraction is truth-preserving only inasmuch as the resulting concepts correspond to what is in the world. If there are no universals in the world, then we seem to have a problem.

Aquinas deals with this new problem of correspondence by distinguishing between three ways in which we can characterize the nature of a thing:

i. That nature as it exists in a particular individual
ii. That nature as it exists in intellect
iii. That nature considered absolutely

Taken in the first way, the nature is individuated (as we have seen) and not apt to exist in any other individual. Taken in the second way, the nature is abstract and universal, which just means (as we have seen) that it is apt to exist in and be predicated of many individuals. This commonality is, of course, precisely what seems to make intellectual judgments false. Aquinas's solution is to invoke a third way of taking this nature—

the nature considered absolutely. When the intellect grasps the nature of a thing, the *content* of its judgment is this nature considered absolutely. So taken, the nature is neither individual nor common.

> If it were asked whether the nature so considered can be called *one* or *many*, neither reply ought to be granted, since each is outside the understanding of *humanity*, and each can accrue to it. For if *being many* were to pertain to the understanding of that nature, then it could never be one, even though it is one inasmuch as it is in Socrates. Likewise, if *being one* were to pertain to its account, then Socrates and Plato would have one and the same nature, and it could not be made many in the many individuals. (*DEE* 3.37–45)

This can be understood as a solution to the problem of correspondence. If the nature had individuality built into it, then it wouldn't apply to *all* individuals. If the nature had commonness built into it, then it wouldn't apply to *any* individual. The solution is to say that when we conceive of *humanity* (for example), the content of that thought is neither individual nor common. This too is abstracted out, in order to make the concept true of each and every individual human being.

What then of universality? Concepts *are* universal within intellect, but Aquinas conceives of that universality as something added on, not part of the content of the concept. He describes the intellect as attaching to the concept an intention (*intentio*) or account (*ratio*) of universality.[26] We can think of this as a kind of mental label attached to the concept, marking the concept as one that applies to any individual of that kind. The nature taken absolutely is not some kind of Platonic entity, but just the nature shorn of any further attachment. Taken absolutely, the nature is neither common nor individual—"each is outside the understanding of *humanity*"—but still, "each can accrue to it," which is to say that this nature taken absolutely is what both universal concepts and particular material individuals have in common. This is what allows for a correspondence between concept and world.

3.6 Conclusions

The task of metaphysics is to study not particular kinds of beings but the very nature of being itself. For Aquinas, this involves drawing a number of basic distinctions: between substance and accidents; between substance and aggregates; between simple and composite substances; between created and uncreated substances; between essence and existence. What there is, for Aquinas, is always particular. To study it, however, requires abstraction and classification. We would understand nothing at all about the world if we tried to grasp each thing as a particular,

paying no attention to what things have in common. So it is that our minds introduce commonality into a world of individuals, through the process of abstraction. If this process is to yield a genuine understanding of the world, there have to be real patterns in the world—natural similarities among kinds that fall into common species and genera.

At this point we leave behind questions of methodology and begin to apply these findings to the particular kinds of beings that are of most interest to us: God and human beings.

Notes

1. "The least initial degree of deviation from the truth is multiplied later a thousandfold. Admit, for instance, the existence of a minimum magnitude, and you will find that the minimum you have introduced, small as it is, causes the greatest truths of mathematics to totter" (*On the Heavens* I.9 271b8–13).

2. "That which the intellect first conceives of, as if best known, and in which it analyzes all concepts, is *being*, as Avicenna says at the start of his *Metaphysics*. Thus all other intellectual concepts must be acquired by adding onto *being*" (*QDV* 1.1c). See also *InDH* 2.9–18: "Those terms are most common that are found in every intellect, and these are 'being', 'one', and 'good'." In later works, it should be added, Aquinas does not include *essence* on this list of basic concepts.

3. For substance, see, for example, *QDP* 9.1c. For accident, see, for example, *ST* 3a 77.1 ad 2.

4. See, for example, *ST* 1a 76.8c; *SCG* IV.35.7/3731; *InDA* II.1.157–158.

5. "'Essence' signifies something common to all the natures through which different beings are classified in their various genera and species—just as *humanity* is the essence of a human being, and so on in other cases" (*DEE* 1.22–26).

6. "The Species of Things to us, are nothing but the ranking them under distinct Names, according to the complex *Ideas* in us; and not according to precise, distinct, real *Essences* in them" (Locke, *Essay Concerning Human Understanding* III.vi.8).

7. "The completeness (*perfectio*) of any power is judged in terms of the character of its object. But the object of the intellect is the quiddity—that is, essence—of a thing, as is said in *De anima* III. Hence the intellect is complete only to the extent that it cognizes a thing's essence" (*ST* 1a2ae 3.8c).

8. "It belongs to the nature (*ratione*) of a human being to be composed of soul, flesh, and bones. For whatever belongs in common to the substance of all the individuals contained within a species must belong to the substance of the species" (*ST* 1a 75.4c; see also *InMet* VII.9).

9. "The human body, over one's lifetime, does not always have the same parts materially, but only specifically. Materially, the parts come and go, and this does not prevent a human being from being numerically one from the beginning of his life until the end" (*SCG* IV.81.12/4157).

10. "Matter, as it stands under signate dimensions, is the principle of individuation *of the form* (*InMet* V.8.876); ". . . individual signate matter and the *form* individuated by such matter" (*ST* 1a 119.1c).

11. "A form, considered in its own right, is common to many particulars, but by its being received in matter it is made the form, determinately, of this particular thing" (*ST* 1a 7.1c); "a difference in form that comes solely from a distinct disposition of the matter produces no distinction in species, but only a numerical one. For distinct individuals have distinct forms, made distinct by their matter" (*ST* 1a 85.7 ad 3).

12. Elsewhere he explains that human souls differ as a result of their being individuated by their underlying matter: "actuality and form are received in matter in keeping with the capacity of the matter. So since, even among human beings, some have better disposed bodies, they take on a soul that has a greater power for understanding" (*ST* 1a 85.7c).

13. "Everything we know that transcends the sensible is cognized by us through negation alone. Regarding separate substances, for example, we cognize only that they are immaterial, incorporeal, and other things of that sort" (*InDA* III.11.188–192; see also *InDT* 6.3).

14. See, for example, *ST* 1a 88 prologue.

15. "If one were to cognize a cow through the species of a donkey, one would cognize its essence imperfectly, with respect only to its genus. One's cognition would be even less perfect if one were to cognize a cow through a stone, since one would be cognizing it through a more remote genus. Yet if one were to cognize a cow through the species of a thing that shared a genus with no cow, then one would in no way cognize the essence of a cow. Now it is clear from the above [*CT* I.12–13] that no creature shares a genus with God" (*CT* I.105).

16. "Just as it is self-evident (*per se notum*) to us that the whole is greater than its part, so for those seeing the divine essence it is entirely self-evident that God exists, from the fact that his essence *is* his existence. But because *we* cannot see his essence, we arrive at a cognition of his existence not through God himself but through his effects" (*SCG* I.11.5/69).

17. "Rational and sensible, considered as differentiae, are not taken from the *powers* of sense and reason, but from the sensory and rational soul itself. Nevertheless, because substantial forms, which considered by themselves are unknown to us, become known through their accidents, nothing stands in the way of accidents at times being put in place of substantial differentiae" (*ST* 1a 77.1 ad 7).

18. "All accidents are certain forms added onto the substance, caused by the principles of the substance" (*SCG* IV.14.12/3508); "every natural body has some determinate substantial form. Therefore, since the accidents follow from the substantial form, it is necessary that determinate accidents follow from a determinate form" (*ST* 1a 7.3c).

19. "The soul is the substantial form both of the whole body and of its parts. This is clear from the fact that both the whole and the parts take their species from it, and so when it leaves, neither the whole nor the parts remain the same in species. For a dead person's eye and flesh are so-called only equivocally" (*SCG* II.72.3/1484).

20. "Anything that is one in substance is one thing absolutely (*simpliciter*). . . . A thing that is distinct in substance and one accidentally is distinct absolutely and one thing relatively speaking (*secundum quid*)" (*ST* 1a2ae 17.4c).

21. See, for example, *ST* 1a 76.3–4. Aquinas's novel position gave rise to a notorious debate, known as the plurality of forms debate. The following passage offers a stark illustration of the difficulties to which this doctrine led with respect to the reality of genera:

> Sometimes a name signifies something that is not a likeness of the thing existing outside the soul, but is that which follows from how one understands the thing outside the soul. The intentions that our intellect devises are of this sort—for instance, that which the word for a genus signifies is not a likeness of anything existing outside the soul. But as a result of the intellect's understanding *animal* as something in many species, it attributes to it the intention of a genus. Even though the immediate foundation for such intentions is not in the thing but in intellect, still their remote foundation is the thing itself. Thus an intellect that devises these intentions is not false. (I *SENT* 2.1.3c)

22. "The nature is said to be in the thing inasmuch as there is something in the thing outside the soul that corresponds to the conception of the soul" (I *SENT* 2.1.3c).

23. *InMet* VII.13.1572. Cf. Aristotle, *Metaphysics* VII 13, 1038b12; *De interpretatione* 7, 17a38.

24. "Whatever is in Socrates has been individuated" (*On Being and Essence* 3.81–82); "universals, inasmuch as they are universal, exist only in the soul" (*InDA* II.12.144).

25. "If the universal is the substance, then it is the substance of something. So what will it be the substance of? It must be the substance either of all [the particulars] in which it inheres, or of one. But it is not possible for it to be the substance of all, since one thing cannot be the substance of many things. For things are many whose substances are many and distinct" (*InMet* VII.13.1572).

26. "For humanity is something in a thing, but it does not there have the *ratio* of the universal, since there is no humanity outside the soul that is common to many. But in virtue of its being taken up in intellect, it has adjoined to it, through the operation of intellect, an intention, in virtue of which it is said to be a species" (I *SENT* 19.5.1c); cf. *ST* 1a 85.2 ad 2, *InDA* II.12.96–151, and note 21.

Suggested Readings

For Anselm's ontological argument, see *Proslogion*, chs. 2–4, in:

> *Monologion and Proslogion with the Replies of Gaunilo and Anselm*, tr. Thomas Williams (Indianapolis: Hackett, 1996).

Aquinas's most detailed reply comes at *SCG* I.10–11.

On modern essentialism and disputes over the reality of species classifications, see:

> Robert A. Wilson, ed., *Species: New Interdisciplinary Essays* (Cambridge, Mass.: MIT Press, 1999).

On functionalism in modern philosophy of mind, see:

> Jaegwon Kim, *Philosophy of Mind* (Boulder, Colo.: Westview, 1996).

For the medieval understanding of genus, species, differentia, proprium, and accident, see Porphyry's *Isagoge*, a concise third-century textbook of Aristotelian logic, translated in:

> Paul Vincent Spade, *Five Texts on the Mediaeval Problem of Universals* (Indianapolis: Hackett, 1994).

For a comprehensive study of Aquinas's metaphysics, see:

> John F. Wippel, *The Metaphysical Thought of Thomas Aquinas: From Finite Being to Uncreated Being* (Washington, D.C.: Catholic University of America Press, 2000).

For a recent critical discussion of the concept of being in Aquinas, see:

> Anthony Kenny, *Aquinas on Being* (Oxford: Oxford University Press, 2002).

4

God's Existence and Nature

4.1 Our Knowledge of God

The conduct of Aquinas's life bespeaks a pervasive, all-encompassing love of God. The centrality of God in his lifelong intellectual activity is unmistakable, and his view of God's role in any explication of humanity's position in the ordered universe manifests itself in countless ways throughout his affairs, ranging from his choice of religious order to the daily regimen of his productive activity. Surely it can be seen in a primary way in the scholarly orientation of his philosophical work, in terms of both its preoccupation with the divine and its tireless promulgation of Church doctrine, and it certainly informs his more obviously theological work as a biblical exegete and commentator. To some extent, the anecdotes recounted regarding the end of his life, however sensational or apocryphal they may be, serve as a testament to his singular, fervent devotion to God. Aquinas was—and was rightly regarded as being—not just a committed theist, but a theist committed to the point of compulsiveness.

It is hard to know what triggered Aquinas's zealousness, and it is probably fruitless to speculate about the recesses of his psycho-biography. It is not difficult to see, however, that Aquinas thought his theism perfectly *rational;* nor is it anything but profitable to inquire into his stated grounds for his conviction in this regard. More specifically, Aquinas thought that belief in God, in an orthodox Catholic God, was not only intellectually permissible but wholly defensible on neutral rational grounds. Thus, he also thought that every reflective rational being ought to accept, as both true and demonstrable, the central tenets of the Catholic faith, including, most centrally, the existence of a wholly benevolent, maximally powerful and perfectly knowledgeable being, God, whose providential concern for human beings is without limit in love or forgiveness. He thinks, in fact, that he can *prove* God's existence and, on the basis of his proofs, *establish*

God's nature via a series of interlocking arguments, all of which have as their common starting point a small set of arguments on behalf of God's existence.

It is true, though often overemphasized, that Aquinas also believes that certain truths about God's nature are beyond the scope of natural reason. He says plainly, for example, that "some truths about God exceed every capacity of human reason" (*SCG* I.3.2/14), and he even contends that "it is perfectly evident that certain truths about God totally exceed the grasp of human reason" (*SCG* I.3.3/15), where what makes this evident is our utter inability to experience God directly in this life. In general, when approaching divine matters, contends Aquinas, it is necessary for human beings to rely on indirect means of knowing, means obtained mainly through inference from what we do experience directly, namely, the data of sense experience. When we perceive the physical world, according to Aquinas, we perceive the results of God's agency in such a way that we come into contact with *effects* that fall short of the greatness of their cause. His general idea is that just as no one can experience electrons directly, even through magnification equipment of the highest order, having rather to rely on trails of evidence left by their activities in cloud chambers, so no one living can experience God directly without the filter of the physical world, through which we can glean only indirectly in sense perception the cause responsible for the effects we experience. Still, insists Aquinas, a surprising amount can be known by this indirect route. Just as disturbances in perceptible vapors can provide rich information about the existence and nature of subatomic particles to the discerning observer, so by reasoning from what we do experience directly we come to know of God's existence and nature. In this way we come to have rationally grounded beliefs about matters that we can approach only indirectly.

Thus, when Aquinas contends that some features of God transcend human understanding, he does not include such central facts as God's existence or basic nature. For knowing indirectly is for him, as for us, a bona fide form of knowing. Rather, the sense of Aquinas's frank admission that some divine matters surpass human understanding pertains to portions of revealed doctrine that seem, on their faces at least, plainly and palpably incoherent. His standard examples of the sorts of divine truths that surpass understanding show that he means only that there are some matters that are properly beyond proof. Thus, for instance, he insists that it does not fall to human reason to establish the doctrine of the Trinity, that in God there are three persons in one substance.

Still, what he means in saying that this sort of doctrine surpasses human understanding is not that it is somehow incoherent or otherwise not amenable to rational explication; for he thinks he can show that even this sort of doctrine is internally consistent and so in this minimal sense not an affront to reason. Rather, he means only that natural reason cannot *prove* the truth of Trinitarian doctrine or other comparable bits of revealed theology. Although crucial to orthodoxy, such matters can appropriately be regarded as posterior to the central missions of rational theology. More to the point, after noting reason's limitations, Aquinas immediately insists:

> There are some truths that natural reason can also reach, such as that God exists, that he is one, and others of this sort. Even the [ancient] philosophers have demonstratively proved these truths about God, led by the light of natural reason. (*SCG* I.3.2/14)

When he turns to the business of proffering his own demonstrative arguments, it turns out that the phrase "of this sort" is given a very wide scope. For Aquinas thinks that he can establish by rational argumentation, not only that God exists, but that: God is eternal; God is absolutely simple; God is fully actual; God is immaterial; God's essence is identical with God's being; God is good; God is intelligent; God has a knowledge of all things; God has a will; God has free choice; in God there is love; and God is a living being—indeed, that God is identical with his own life.

Significantly, this list contains only items thought by Aquinas to be *provable* by natural reason. Presumably, then, he thinks that all who are willing to exercise their rational capacities can come to appreciate the truth of every item on this list. How? He does not, in this project, rely on divine revelation. He sees that pagans do not accept the authority of scripture or countenance the (putative) truths of revelation. "We must, therefore," he allows, "have recourse to natural reason, to which everyone must give assent" (*SCG* I.2.3/11). So he turns himself to arguments rooted in first principles, which he believes any sane person must accept.

In fact, his grand plan in arguing for the truth of Christian doctrine proceeds in three phases. First, he aims to establish God's existence, where this is limited to showing that there exists a first cause that exists necessarily. Second, he endeavors to derive the characteristics or properties of this first cause, by way of showing those features that *must* belong to any being whose existence as a first cause can be demonstrated. It is only at this second stage that we find Aquinas endeavoring to derive the properties characteristic of the Christian God, including omnipotence, omniscience, and omnibenevolence. To some extent, these first two phases are detachable from one another, at least in the sense that should the first fail, the second would retain much of its interest. The failure of Aquinas's own proofs for the existence of God would be compatible with the soundness of other such arguments not provided by Aquinas, which could then equally provide the underpinnings for the second phase, the derivation of God's attributes. Moreover, even if we do not have a proof of God's

existence, it remains interesting to ask whether the concept of a God is consistent, and what the conceptual connections are between the different features of that concept. In any case, it is only after the completion of the second phase that Aquinas turns to the third and final phase of his program—the task of rendering amenable to reason those truths that surpass provability, by showing that no one of them is internally incoherent, so that no one of them is alien to a reflectively rational person.

It will be enough for our purposes to survey the first two phases only. It is worth observing, however, that Aquinas's attitude toward the third phase seems akin to our deference to a trusted physician or a technically savvy computer consultant to whom we have turned for advice: when we recognize that the easily understood portions of her prescriptions and recommendations are successful, then we defer to her other suggestions, not on blind faith, but because she has established herself as an undeniable authority whose views we rightly regard in their holistic totality, as a complete package and not merely as piecemeal bits readily detached from one another to be assessed singly. Similarly, if the first two phases of Aquinas's program prove successful, then that provides a kind of confirming reason for taking the third seriously. Once it is seen, he thinks, that God's existence and nature can be demonstrated by principles available to all, it will follow that the other features revealed by scripture can be rationally accepted as belonging to a general package whose central contentions have been reviewed and judged reliable.

4.2 Phase One: God's Existence

When thinking about Aquinas's attitude toward the role of natural reason in proving God's existence and nature, it is especially instructive to study the first of his two great theological treatises, his *Summa contra gentiles*, because it is a work he evidently wrote with the express intention of convincing pagans and non-Christian theists of the truth of Christian theism. The intended audience for this work consequently conditions and constrains its available starting points: Aquinas rightly believes that he cannot rely, in this context, on anything other than natural reason for the foundations of his argument (*SCG* I.2.3/11). Still, he maintains that natural reason is all he requires.

The *Summa contra gentiles* contains five proofs of God's existence, as does the later *Summa theologiae*, though the proofs in the two works are not entirely parallel. Each of the five proofs in the *Summa contra gentiles* bears investigation, though two are especially instructive inasmuch as they provide insight into Aquinas's basic orientation in rational theology. These two are the first, a *proof from motion*, and the last, a *proof from degrees of truth*.

The Proof from Motion

We begin with a virtually undeniable datum of sense experience: something moves. That is, we perceive, and are justified in believing that we perceive, that *something moves*. If you see a car moving down the street, then you *see* something moving. If you wave your hand in front of your eyes, then, again, you *see* something moving. If you hear a tree falling after being felled by a chainsaw, then you *hear* something moving. If you dip your hand into a cold mountain stream, then you *feel* something moving. In general, in these as in countless other ways, every day, every minute of your waking life, you perceive motion, great and small, important and inconsequential, indistinct and overt. Aquinas does not, in this connection, pause to indulge any skeptical worry to the effect that you might be systematically mistaken, deceived in every particular of every episode of sensation. Instead, his governing attitude seems to be that if anyone feels compelled to deny the existence of motion as a condition of denying God's existence, to insist that he or she is clueless as to the very existence of motion in the world without or within, then that person must be pathetically desperate and doctrinaire, for whatever reason.

For indeed, according to Aquinas, once we have committed this much, we have tacitly conceded the existence of God—or rather, at this first stage, the existence of a *first cause*, a necessarily existing being ultimately responsible for the existence of any motion currently experienced. The primary ideas standing behind his proof are two: (1) that things in motion are caused to be in motion, that things do not find themselves in motion without there being some reason for their being so; and (2) that although there can be, and are, chains of causes moving effects that are themselves causes of other effects and so on, there cannot be an infinite chain of causes moving ever backwards without end. Now, each of these contentions has come in for criticism. Before assessing either, however, it is first necessary to see how they function in Aquinas's first proof. He says:

> Everything that is moved is moved by another. It is evident to the senses, however, that something is moved—the sun, for instance. Therefore, it is moved by something else that moves it. This mover is itself either moved or not moved. If it is not moved, we have reached our conclusion, namely, that we must posit some unmoved mover. This we call God. If it is moved, it is moved by another mover. We must, consequently, either proceed to infinity, or we must arrive at some unmoved mover. Now, it is not possible to proceed to infinity. Hence, we must posit some first unmoved mover. (*SCG* I.13.3/83)

This argument follows Aquinas's general prescription of arguing indirectly about matters pertaining to God and God's nature. It holds that some simple fact is manifest to sense perception and that since the only possible ultimate explanation of this fact is the existence of an unmoved mover, there must exist just such a mover.

When Aquinas says, almost in passing, that we call this mover 'God', he must be understood to be foreshadowing the second phase of his general plan, since nothing said so far—and this is something Aquinas himself perfectly well appreciates[1]—comes anywhere close to warranting such a claim. For example, so far we have not even been given any reason to suppose that if there is an unmoved mover there is but *one* unmoved mover. Consistent with the conclusion of the argument as stated is that there are countless unmoved movers, each one causing motion without being itself in motion. Now, Aquinas is in fact prepared to argue that there can be only one unmoved mover. Such a being, he thinks, must have forever been fully and unchangeably actual, and he thinks there can be only one being like that. Since this aspect of the argument is closely connected to his account of creation, we will set it aside until the following chapter. For now, we presuppose that establishing the existence of an unmoved mover is sufficient for establishing *God's* existence.

The overall argument is easily schematized:

1. Something is in motion.
2. Everything that is in motion is moved by another.
3. Therefore, that which is in motion is moved by another.
4. This mover is itself either (a) moved by another or (b) not moved by another.
5. If (4b), there exists an unmoved mover.
6. If (4a), then (a) we proceed to infinity, or (b) we arrive at an unmoved mover.
7. (6a) is impossible.
8. Therefore, if either (4a) or (4b), there exists an unmoved mover.
9. Therefore, there exists an unmoved mover.

This argument begins with a datum not questioned in the present context—that there is motion.[2] It proceeds by observing (2) that whatever is moving is caused to move by something: things do not move without having their motions somehow initiated. If what initiates the motion of what is in motion is not itself in motion, then it is an unmoved mover (5); otherwise, it too is in motion, and so is moved by another, either on to infinity or there is a first mover, itself unmoved. With the crucial claim (7), that an infinite chain of movers is an impossibility, the argument finds its conclusion—that there is an unmoved mover. The important premises are thus (2) and (7), a fact well appreciated by Aquinas, who sees the need to argue for each in turn.

To understand his ancillary arguments, however, it is first necessary to understand how Aquinas understands the terms of his main argument from motion. In English (as in Aquinas's Latin), we can distinguish two senses of the verb 'moves', one transitive and the other intransitive. Consider the two sentences, the first of which uses the verb intransitively and the second transitively:

I. She moves really well.
T. Just as soon as I moved my car, someone asked me to move it again.

The first sentence might be said of a good dancer, by way of commending her; the second might be said by someone at a party in a house with too many cars parked in its driveway. Pertinent to the argument is that (T) but not (I) involves someone *moving something*, whereas (I) but not (T) focuses on something's *being in motion*. A ball rolling down a hill is in motion, whereas a cue ball hitting another ball causes that ball to move toward the pocket. Of course, some things, like the billiard ball, move other things by being themselves in motion and imparting their own motion to the things they move by colliding with them. Thus, many things move by being themselves in motion. Importantly, Aquinas thinks that some things can also cause other things to move without themselves being in motion. His contention here is controversial, but as a first approximation it is just the thought that the beauty and notoriety of the *Mona Lisa* moves several million people each year to visit the Louvre in Paris, or that the horror captured in Picasso's *Guernica* moves to tears many of those who view it. Of course, neither the *Mona Lisa* nor *Guernica* is in motion; each is at perfect rest on a wall in a museum. If that is correct, then each moves (transitively) without being in motion or moving (intransitively). We can refer to these two senses of 'moves' as moves_T and moves_I, respectively.

Using this terminology, it is possible to present Aquinas's argument from motion in a more nuanced way. He is claiming, in the first instance, that at least some things move_I, that some things are in motion. He then notes, in (2), that everything that moves_I is caused to be in motion; when he adds "by another," Aquinas does not mean that compound organisms like us cannot initiate their own motions, but rather that things in motion are caused to be so by *something* else. If Brown's arm is moving, then something brought it about that it is in motion, where that something might well be some part of Brown. Something moves_T Brown's arm. Looked at this way, the initial thought is really just a special instance of the claim that events are caused to occur, that things do not spontaneously happen to

move$_I$, magically, without there being something responsible for their doing so. Thus, for this portion of his proof, Aquinas is simply relying upon his global commitment to efficient causality (see §2.1, "The Efficient Cause"). Further, when we identify the cause of something's moving, then we have claimed that cause as something that moves$_T$. It is, however, a further question as to whether that cause is also itself in motion, whether it moves$_I$ or, like *Guernica*, moves$_T$ without moving$_I$. If it does not also itself move$_I$, then it is an "unmoved mover"—something that moves$_T$ but does not move$_I$. If we have identified such a cause, claims Aquinas, then we have secured the existence of an unmoved mover. If not, then, by repeated applications of (2), we continue to identify causes that move$_T$. At some point, according to (7), we *must* finally identify some such cause, something that moves$_T$ but does not move$_I$, something that imparts motion without itself being in motion. This something will be an unmoved mover. Sooner or later, contends Aquinas, it is necessary that we arrive at an unmoved mover, if there is to be any motion at all.

It is safe to say that this argument has not convinced many of those who have studied it carefully. Its most crucial claims, as we have seen, are precisely those encapsulated in (2) and (7), the claims that everything that moves$_I$ is caused to be in motion, and that it is not possible for there to be an infinite series of entities no one of which moves$_T$ without moving$_I$.[3] This last claim has come in for especially caustic treatment. Interestingly, this is just what Aquinas expects. This is why he is at pains to offer additional arguments for both of these claims. Whether or not they are ultimately successful, his arguments for these controversial claims merit careful scrutiny.

Aquinas's argument for (2), the claim that everything that moves$_I$ is caused to be in motion by something that moves$_T$ it, does not rely solely on the general considerations already adduced to the effect that nothing simply pops into motion without being caused to be so. Rather, he argues by relying on entrenched principles of the relation between potentiality and actuality, principles drawn directly from his general explanatory framework. He begins by insisting, defensibly, that nothing is in actuality and potentiality in the same respect at the same time. Thus, for example, if a white fence is potentially green, then it is not also actually green, and a fence that is actually green is not also merely potentially green. (Recall from §2.1, "Matter and Form," that Aquinas's conception of potentiality is not the same as a broader notion of possibility. Everything that is actually *F* is also possibly *F*, but things are actually *F* and not also merely in potentiality; everything actually *F* has had its potentiality for being *F* fully realized.) Now, as a special case, nothing is both actually moving$_T$ something and potentially moving$_T$ something. If x is actually moving$_T$ y, then it is not also potentially moving$_T$ y. So, let x and y refer to the same thing. If x were actually moving$_T$ itself, then it would also be in potentiality with respect to that very same motion, since it would be able to be moved with respect to the very motion it was generating (*SCG* I.13.9/89). If that is correct, then Aquinas is right to insist on (2), the claim that whatever moves$_I$ is moved by another, where, again, "another" may mean nó more than another part of itself.

However that may be, it is the claim that the sequence of cause and effect cannot carry on into infinity that has garnered the most attention, precisely because it seems the most problematic. Typically, Aquinas's claim (7) is understood in temporal terms. The idea here is that the chain of causes and effects leading to the present moment cannot extend back infinitely in time, since, if it did, then before the present moment there would have been an actual infinity of causes and effects extending ever backward without beginning. In the next chapter (§5.1, "The Beginning of the Universe"), we consider this question of an infinite past. Without entering into the details here, we can say that Aquinas does not think it *impossible* for there to be an infinite chain of movers, extended over time. The proof from motion must accordingly be understood in some other way. A single consideration suffices to show that this must be so. When taking up his defense of (7), Aquinas insists directly that causes are simultaneous with their effects: "The mover and the thing moved must exist simultaneously" (*SCG* I.13.13/93). More generally, he conceives of causings and instances of being effected as *processes* that occur at precisely the same moment. Thus, your pressing your foot into the sand *causes* a footprint, but it is not that you first step into the sand and then shortly thereafter a footprint results. Similarly, applying paint to a fence causes it to become white. The fence is caused to be white just when the paint is applied, not shortly thereafter. Causes, or *causings*, are simultaneous with their effects. If that is so, then Aquinas's argument cannot rely on the putative impossibility of traversing an infinite series of causes and effects heading ever backwards in time. The argument contains nothing that requires this sort of temporal reading.

Rather than understand (7) as ruling out an infinite sequence of causes and effects extended over time, we should understand it as ruling out an infinite series of simultaneous causes and effects. Aquinas makes this quite explicit in a later passage from the *Summa contra gentiles* when he discusses the question of whether the universe might have existed forever and so contains an infinite series of causes extended back over time, forever. There is, he explains, nothing incoherent about such a possibility. What would be incoherent, he explains, is an infinite series of concurrent causes:

> It is impossible, according to the philosophers, for agent causes to proceed to infinity in the case of causes acting at the same time. This is because, in that case, an effect would have to depend on infinitely many actions existing at the same time, and causes of that sort are essentially infinite, because their infinity is *required* for their effect. On the other hand, in the case of causes not acting at the same time, this sort of infinite regress is not impossible, according to those that postulate perpetual generation. Instead, this sort of infinity is accidental to the causes. For it is accidental to the father of Socrates that he is or is not the son of another. It is not accidental to a stick, however, inasmuch as it moves a stone, that it is moved by a hand. For it moves insofar as it is moved. (*SCG* II.38.13/1147)

Socrates's father (Sophroniscus) can be the cause of Socrates, regardless of whether Sophroniscus was the son of another (or perhaps sprang from the forehead of Zeus). Since this causal chain is not simultaneous, facts about what brought Sophroniscus into existence are accidental to questions about Sophroniscus's causal powers. What is essential is just that Sophroniscus does exist and does have certain causal powers. Matters are quite different in the case of simultaneous causes that are *essentially ordered* to one another.[4] The stick's moving a stone depends essentially on its being moved by a hand. An infinite series of causes ordered in this way is impossible, Aquinas thinks, because the stick's causal power depends on the whole of this infinite series.

In making this argument, Aquinas is relying on a feature of his general explanatory schema that may not seem immediately relevant to his argument from motion. This is that there are both remote and proximate causes of effects (see §2.2, "Proximate and Nonproximate Causes"). Thus, for example, we can identify the friction of the bow upon the strings as the cause of the sound emanating from a violin. We can also, more generally, identify the motion of the violinist's arm moving the bow as the cause; we might also, more generally still, identify the cause of the music as the violinist's *playing* the instrument as the cause of the music, where the explanation now becomes fully intentional. Note that these causes are not specified in the same way, or at the same level. In one sense, the first specification might address a concern at a fairly low physical level, about harmonics and the production of waves. The second might pertain to some performance technique, and the last to something comparatively abstract, perhaps in aesthetic theory, about the nature of music among other sounds. (Why, for example, is the noise emanating from the violin music, whereas the deliberately orderly sound produced by a fire engine rushing to a fire is not?) Some of these causes are more remote and some more proximate to the actual production of the sound in question.

With this thought in mind, we can understand why Aquinas thinks an infinite series of essentially ordered causes is impossible. His thought is plainly not that causes and effects cannot extend forever backwards in time, but rather that they cannot extend ever more remotely, infinitely, so to speak, *vertically at a time*. That is, his thought is that every case of motion_I is explained by something moving_T, and that if every case of moving_T is also a case of moving_I, it will follow that there is always something potential in the causal antecedents of every case of motion_I. If that is right, however, then we evidently stand in violation of a second axiom of Aquinas's explanatory schema, which at the time of its introduction seemed innocuous but now turns out to have a surprising consequence. That is his claim that *only something actual can bring it about that something potential comes to be something actual* (see §2.1, "Matter and Form"). His complaint about the impossibility of an infinite regress is evidently at least in part an appeal to just this conviction. If everything potentially moving were made to be actually moving by something itself in motion, and so in this way in potentiality, then there would be nothing actual to serve as a sort of platform upon which the series of potentialities would ultimately rest. There could no more be motion without something actual and not potential, Aquinas supposes, than there could be a case of someone being saved from an airline disaster by jumping off a crashing airplane just before it hits the ground. Just as it is obvious that no one could, by this crafty maneuver, land safely and softly without injury while the remaining passengers perished upon impact, so too is it true, if not so immediately obvious, that there must be an ultimate actuality backer in every case of motion. In neither imagined case—the life-saving jump and the case of an entity moving_I without there being a mover_T that is not itself moving_I—is there a stable platform of actuality, something not itself moving_I, from which motion can originate.

Further, any contention that causes could extend back infinitely, all existing at once, offends Aquinas's considered view that there can be no actual infinity. If, that is, every infinity is of necessity merely potential, then there cannot be, at present, an actual infinity of causes each of which effects some result while being itself the outcome of an actually existing antecedent cause. Thus, in this way too, Aquinas rejects the suggestion that there can be an infinitely receding series of causes.

Of course, these considerations raise issues both about the priority of actuality to potentiality and about the vexing matter of infinity's nature, each of which issues the detractors and proponents of Aquinas's argument from motion should now want to revisit. In the present context, it will suffice to observe that Aquinas's characteristically compressed presentation of his argument from motion requires careful expansion and exposition if its flaws are ultimately to be brought into their sharpest relief.

The Proof from Degrees of Truth

Included in Aquinas's five ways to prove the existence of an unmoved mover is a comparatively neglected proof, based upon the existence of degrees of truth (*SCG* I.13.34/114). Perhaps its neglect is justifiable because of its obvious ineffectuality, or perhaps it has seemed just too brief and derivative to merit serious consideration. However that may be, the proof is worth considering briefly, if only because it illustrates a conviction of Aquinas's that he never defends extensively and that does not flow directly from his stated explanatory schema. It is, nonetheless, a conviction central to his general philosophical program. He thinks that just as every potential motion is ultimately grounded in something actual, so every comparison along a single dimension presupposes a single standard of comparison, a sort of paradigm case against which comparisons need to be made. If we say, for instance, that Mahler's Fourth Symphony is *more beautiful* than Nielsen's Fourth, then we evidently think we have some standard of beauty available to us in terms of which we advance our comparison. Aquinas thinks that this standard must be a kind of paradigm without which we could not even begin to issue such claims.

His commitment to the existence of grounding paradigms surfaces in his argument from degrees of truth, an argument whose impetus he identifies as Aristotle, though he rightly refrains from ascribing the argument's expression to Aristotle:

> Another argument may be gathered from the words of Aristotle. In *Metaphysics* ii he shows that what is most true is also most a being. But in *Metaphysics* iv he shows the existence of something supremely true from the observed fact that of two false things one is more false than the other, which means that one is more true than the other. This comparison is based on the nearness to that which is absolutely and supremely true. From these Aristotelian texts we may further infer that there is something that is supremely being. This we call God. (*SCG* I.13.34/114)

Whatever its Aristotelian pedigree,[5] this argument relies on some premises supplied independently by Aquinas himself. The argument accordingly also holds some interest for what it reveals about Aquinas's most primitive conception of the first being. Note that this argument, unlike the argument from motion, already imports to the primary being some defining features with a distinctly Christian ring, including that God is supremely true—not a feature easily derived from the bare existence of an unmoved mover.

In any case, the argument, shorn of its Aristotelian trappings, has only two premises:

1. Whatever is most true is also most a being.
2. There is something supremely true.
3. Therefore, there is something that is supremely being.

The conclusion as stated is purposely somewhat arcane. Aquinas is here relying on a conception of being itself as admitting of degrees, with something higher on the scale than others. This conception, it should be stressed, is not merely the pedestrian claim that some things are greater than others, or that some things are necessary whereas others are contingent, nor even the plainly correct insistence that some things are more powerful than others. Rather, it is the claim that some things *are more than others*—full stop. If we are inclined to ask, "Are more *what* than others?" then this is only because we are inclined to wonder at how the thesis that being admits of degrees is to be understood and defended.

That said, in Aquinas's worldview, God sits atop all being as supreme. This is here held to follow from (1) and (2). The first premise exploits what might be called an *ontic conception of truth*, one familiar to us in such simple claims as: "Napoleon was a true Frenchman," or, "To find a true philosopher, don't look in the halls of academe but in the back alleys of the oppressed," or, again, "He complains about the demise of good singing, but he wouldn't recognize true *bel canto* if he heard it." In each of these cases, 'true' could be safely replaced, without loss of meaning, with 'real' or 'genuine'. The sort of truth invoked in such sentences is not semantic, but ontic; truth is here held to apply not to sentences or propositions, but to features of the world about which true sentences might be uttered. In each instance the speaker is appealing to some way of demarcating the genuine item from the spurious and so is implicitly relying on a specifiable standard of appraisal. This notion of truth admits of degrees, since someone might be more or less a genuine Frenchman or more or less a real philosopher or more or less an authentic *bel canto* singer. Accordingly, if we understand Aquinas to be relying on just this ontic conception of truth, (1) becomes unproblematic. Indeed, it seems almost trivially true. Degrees of reality march in step with degrees of truth, considered as ontic, and, at least relative to a functional standard, degrees of being equate with degrees of reality. Thus, degrees of being covary with degrees of truth. Consequently, whatever is supremely true in this sense will also be supremely a being.

That leaves only premise (2), which asserts that there is something supremely true. In this case, Aquinas feels compelled to provide a supporting argument, one that relies explicitly on his commitment to the need for grounding paradigms. That argument (still following the earlier text) runs as follows:

1. Some things are more false than others.
2. (1) only if some things are more true than others.
3. Therefore, some things are more true than others.
4. *X* can be more true than *y* only if there is some standard *S* that is itself supremely true.
5. Therefore, there is some standard *S* that is supremely true.

If there is some standard *S* that is supremely true, then it follows that the second premise of our first argument is also correct, since it is really just a near entailment of the conclusion of this supporting argument. Thus, it remains only to assess the plausibility of this supporting argument.

The first two premises, together with the interim conclusion (3), that some things are more true than others, seem fair enough. It must be cautioned, however, that in the current context what motivates (3) cannot be the thought that some theories or propositions are closer to being correct than others. Perhaps there is a notion of degrees pertinent to semantic truth. As a response to the question "What is the square root of eighty-one?" the response "Eight" is closer to being true, or is somehow *more true,* than the response "The uterus." This notion of verisimilitude, however, cannot be what is wanted by Aquinas, since his argument trades in what we have called the ontic sense of truth, not the more familiar semantic one. Even so, it is surely defensible for Aquinas, when relying on the ontic sense, to suppose that truth admits of degrees. For what the interim conclusion (3) really comes to is just the thought that some things are more genuine than others. That much seems plainly correct. A doctor who has completed years of training and a residency is more genuinely a surgeon than a charlatan who injuriously sets up shop with a forged medical license and no relevant training whatsoever. Thus, the first phase of the argument is unobjectionable.

The supporting argument's difficulty begins at (4), the distinctive claim that a necessary condition for there being cases of things being more or less *F,* where *F* is any arbitrary comparative predicate, is there being a standard against which to judge degrees of *F*-ness—a standard that is itself somehow supremely *F.* Now, on its surface this claim seems problematic. After all, some things are larger than others, even though there is no Largeness, the largest thing of all, in terms of which all other large things are judged to be large or otherwise. (That is, even if there is a universal Largeness, it does not seem itself to be a large thing; on the contrary, as a universal it is presumably an abstract entity, and so not in space or time at all and possibly not even something large.) Still, (4) can be understood in less literal terms, terms that may nevertheless suffice for the purposes of the argument. Perhaps Aquinas really intends only that whenever we

judge that something is more *F* than something else, we must have some conception of *F*-ness that serves as the essential nature of *F*-ness employed in the comparison. Thus, though there is no supremely large Largeness, the largest thing there is or ever could be, there is nevertheless some feature, largeness, implicated in every judgment of relative largeness. Similarly, if one says that kippers are saltier than french fries, then there is some trait, being salty, which is held to be more prominent in kippers than in french fries. In this slightly more attenuated sense, which carries no implications regarding the existence of a self-exemplifying standard of comparison, perhaps it is permissible to allow that (4) is at least worth entertaining. At any rate, there is nothing obviously incorrect with it so understood, and there is in fact something to be said on its behalf—namely, that implicated in all comparative judgments is an implicit appeal to a standard, something whose conditions specify an axis along which the comparison is to be understood.

Granting that much, however, may well be insufficient to achieve the argument's intended conclusion—that there is some standard of truth that is itself supremely true. For, by defending the fourth premise only in its attenuated sense, which shies away from any commitment to literal self-exemplification for standards invoked in comparative judgments, the proponent of this argument is not then at liberty to conclude that the standard of truth in judgments of comparative ontic truth is itself supremely true. That conclusion evidently requires a stronger version of the fourth premise than is readily defended. Hence, Aquinas may find himself in a difficult dilemma regarding this argument: either its fourth premise is true but incapable of supporting his intended conclusion, or it is false, in which case, again, it will fail to establish the wanted inference—that there is a standard of truth that is itself supremely true.

Without some further development, then, the argument cannot be judged a success. Still, it holds a fair bit of interest for our understanding of Aquinas. The argument betrays a preoccupation, also evident elsewhere in his thought, with the paradigms in terms of which imitations, or copies, or inferior productions must be judged. Fairly plainly, this sort of contention is congenial to Aquinas's Christian theism. Its deployment at this early phase of his argumentative schema, however, seems premature. After all, at this juncture Aquinas is still endeavoring to prove the existence of an unmoved mover, a mover whose properties cannot yet be discerned even if it is judged to exist.

4.3 Phase Two: God's Nature

Summing up phase one, then, we should admit that Aquinas has so far failed to meet the lofty goal he set for himself. Neither of the arguments

considered approaches being a conclusive demonstration of the existence of an unmoved mover. Even so, the second phase of his program, that of deriving God's properties or attributes from the bare fact of the existence of an unmoved mover, retains a good deal of its interest. After all, although we have seen problems with the two arguments presented, neither has been conclusively refuted. It therefore remains open to a defender of Aquinas to show that the criticisms mounted might be turned back. Further, Aquinas also advances additional arguments not here reviewed, any one of which may prove more decisive than those considered. Then again, as we have seen, the two phases of his program are effectively detachable from one another, since it is open to anyone, whether persuaded by Aquinas's first phase or not, to proffer novel arguments intended to establish the existence of the unmoved mover; certainly, at any rate, nothing said so far precludes this possibility. Finally, however, it must also be said that one can approach Aquinas's derivation of God's nature from the bare existence of an unmoved mover on purely hypothetical grounds. Indeed, the derivation may hold considerable interest even for someone wholly pessimistic about the prospects of there ever being a sound argument establishing the existence of the unmoved mover. For the derivation, as given in the *Summa contra gentiles*, is an intellectual tour de force, one so bold and nimble that even someone who regards the first cause as a lost cause can appreciate it for its uncommon blend of rigor and philosophical creativity. Someone who supposes that there is, or may well yet be, a sound argument for the existence of an unmoved mover will find in this derivation something still more.

Although not characterized in just this way by Aquinas, the derivation of God's attributes in phase two can itself be thought of as proceeding in two distinct subphases. Aquinas proceeds first by establishing some foundational attributes of the unmoved mover, considered not as a personal God but simply as a necessarily existing abstract entity that moves$_T$ other things without itself moving$_I$. These foundational attributes are largely *impersonal*, in the sense that they might be manifested by an abstract entity with none of the attributes ascribed to God by Christian orthodoxy—being a loving, providential creator, for instance. Aquinas next seeks to show, partly on the basis of these derived foundational impersonal attributes, that the unmoved mover is a living being, with properties akin to those of a human being, though incommensurably greater, because altogether perfect. These are *personal* attributes, in the sense that they are most characteristically, or even exclusively, the attributes manifested by persons. One point of special interest concerns Aquinas's attempt to build a bridge from the impersonal to the personal. Without such a bridge, he will not have delivered on the goal he has articulated for himself: his promise to establish the nature of the Christian God (*SCG* I.14.1/116).

Toward this end, Aquinas provides a protracted derivation that occupies most of the first of the four-volume *Summa contra gentiles*. He offers, in effect, a great, galloping master argument whose general structure provides the architectonic for the entire book. Here, in its most general form, is the overarching argument, divided into its impersonal and personal subphases. This schematization contains only the briefest indications of the many subarguments deployed along the way, describing mainly only those required to make sense of the progression of the argument as here stated:

A. The Impersonal Attributes of God

1. There exists an unmoved mover, which we shall name (without prejudice) 'God'.
2. If x begins to exist or ceases existing, x moves$_I$.
3. God, as an unmoved mover, does not move$_I$.
4. Hence, God does not begin to exist or cease existing.
5. If x does not begin to exist or cease existing, x is eternal.
6. Hence, God is eternal (*SCG* I.15).
7. If x is eternal, then x is completely actual (and so is in no way in potentiality).
8. Hence, God is completely actual (and so is in no way in potentiality) (*SCG* I.16).
9. If x is completely actual (and so in no way in potentiality), then x has no matter (for matter is potentiality; see §2.1, "Matter and Form").
10. Hence, God is immaterial (*SCG* I.17).
11. If x is composite, there is actuality and potentiality in x.
12. Hence, God is not composite (*SCG* I.18).
13. If x is not composite, x is simple.
14. Hence, God is simple (*SCG* I.18).
15. If x is a body, then x is not simple (because every body is divisible and so composite).
16. Hence, God is not a body (*SCG* I.20).
17. If x is simple, then x is identical with its essence (*essentia*) or whatness (*quidditas*).
18. God is simple (see [14]).
19. Thus, God is identical with God's essence (*essentia*) or whatness (*quidditas*) (*SCG* I.21).
20. If x is wholly actual, and so lacking in nothing, then x is perfect.
21. God is wholly actual.

22. Hence, God is perfect (*SCG* I.28).

B. Personal Attributes of God

23. If *x* is perfect, then *x* is good.
24. Hence, God is good (*SCG* I.37).
25. If God is good, and is without accidents, then God is essentially good.
26. Hence, God is essentially good; indeed, since God is identical with his essence, God is Goodness itself (*SCG* I.38).
27. If *x* is perfect, then *x* is unique (since were there two perfect beings it would not be possible to distinguish them).
28. Hence, there is one God (*SCG* I.42).
29. If *x* exists without matter, then *x* has intelligence.
30. Hence, God, as an immaterial being, has intelligence (*SCG* I.44).
31. If God is intelligent, and is without accidents, then God is essentially intelligent.
32. Hence, God is essentially intelligent; indeed, since God is identical with his essence, God is Intelligence itself (*SCG* I.45).
33. If God is Intelligence itself, then God understands all things.
34. Hence, God understands all things (*SCG* I.55).
35. If *x* understands all things, then *x* understands the good.
36. If *x* understands the good, then *x* wills the good (since the good is understood only as that which is to be desired and willed) (*SCG* I.72).
37. If *x* wills the good, then, trivially, *x* has a will.
38. Hence, God has a will (*SCG* I.72).
39. If God has a will, and is without accidents, then God has a will essentially.
40. Hence, God has a will essentially; indeed, since God is identical with his essence, God is identical with his own will, or, more precisely, with his own activity of willing (*SCG* I.73).
41. If God's goodness is not augmented by the existence of other things (that is, by something created by God), then it is not necessary for God to will the existence of other things (in order to will his own goodness).
42. Hence, it is not necessary for God to will the existence of other things (*SCG* I.81).
43. If God wills the existence of other things, but does not do so of necessity, then God has free choice.
44. Hence, God has free choice (*SCG* I.88).

45. If God freely wills his own good and the good of others, then God loves himself and other things.
46. Hence, in God, there is love (*SCG* I.91).
47. If *x* has intelligence and will, then *x* is a living being.
48. Hence, God is a living being (*SCG* I.97).
49. If *x* is alive and is without accidents, then *x* is essentially alive.
50. Hence, God is essentially alive; indeed, since God is identical with his essence, God is identical with his life (*SCG* I.98).
51. If God is essentially alive and simple, then God's life is a life everlasting, since what dies is separated from life and God cannot be separated from his essence (*SCG* I.99).

Among the personal attributes derived, then, are intelligence, goodness, will, and life—indeed, eternal life. Accordingly, by the time he reaches the end of his long series of sometimes arcane derivations, Aquinas thinks he has shown that the unmoved mover is none other than the same being who says in the Gospel of St. John (14:16): *I am the way and the life.*

Needless to say, there are very many points in this derivation where objections can and should be advanced. In some cases, the pressure applied only serves to point to a new pathway of discovery into an arresting line of defense already put in place by Aquinas in anticipation of the problem foreseen. In other cases, potential objections go unanswered, perhaps because he did not notice or appreciate them.[6] In any case, Aquinas very often stands ready to address the sorts of concerns a rationally reflective, neutrally disposed critic might reasonably produce. Two such concerns arise at crucial junctures in Aquinas's derivation—one in the first subphase, dealing with the unmoved mover's impersonal attributes, and another in the second subphase, pertaining to the personal attributes ascribed to God by Christian orthodoxy.

Absolute Simplicity

Surely one of the most distinctive and important of God's impersonal attributes is *simplicity*, absolute simplicity. It qualifies as impersonal inasmuch as one might expect it to hold true of an unmoved mover whether or not it is also characterized in personal terms; indeed, it might be thought that every abstract entity is simple, no matter what holds true of it. If there is, for instance, such a thing as the abstract universal *blueness*, then it will evidently be nothing other than precisely that universal, with no intrinsic accidental properties of any kind.

However that may be, Aquinas has distinct reasons for holding the unmoved mover to be absolutely simple. Most notably, the thesis of absolute

simplicity, once established, shows up several more times in Aquinas's derivation; without it, he would not be able to show that God is identical with his essence, a claim he makes repeatedly, indeed virtually each time he derives a new attribute. Thus, simplicity is in this way central to his entire derivation.

Divine simplicity is also worthy of investigation for a very different sort of reason: it will turn out that divine simplicity threatens the internal coherence of Aquinas's portrait of God. After all, if God is supposed to be both knowledgeable and powerful, for example, and knowledge and power are different sorts of things, as surely they seem to be, then it is utterly unclear how Aquinas can hold both that God displays this kind of (seeming) diversity and that God is absolutely simple.

Taken together, then, these two thoughts create some prima facie difficulty for Aquinas: he needs divine simplicity to conduct the later stages of his derivation even while simplicity itself threatens to render some facets of that derivation incoherent.

First, then, we need to examine the derivation of simplicity itself. Aquinas argues in several ways for this conclusion. First, he relies on the already established conclusion that the unmoved mover is wholly actual, a conclusion that he in turn thinks follows from the necessary eternality of the unmoved mover (see stages 1–6 of the master derivation). If we grant complete actuality, thinks Aquinas, then we also have already implicitly granted simplicity. For everything composite is potentially dissoluble and so, in this respect at least, already not fully actual (*SCG* I.18.4/143). The idea here is not that every composite *must* at some point decompose; rather, it is merely that every composite *can* decompose. Whatever is joined together out of various parts is such that its parts can be detached from one another. When a new car rolls off the assembly line, although it is a single unified entity, it remains such that it can be disassembled and so made to be no more. In a more rarefied context, whenever elements are bonded by some force or other, there remains, thinks Aquinas, a stronger force—possibly if not actually existing—that can cleave them apart. In general, suggests Aquinas, composite entities are posterior to their parts; they *depend* for their existence on their parts (*SCG* I.18.3/142). Insofar as they are dependent, however, composites are vulnerable and for this reason in potentiality. The unmoved mover was shown to be, however, wholly actual. It is thus wholly simple.

Aquinas also arrives at this same conclusion by another route. He attempts to derive simplicity not from actuality but directly from the unmoved mover's status as a first cause. Recall that in the proof from motion (§4.2, "The Proof from Motion") Aquinas had argued for the impossibility of a hierarchical regress of causes and effects proceeding ever higher without end. For in that case there would be no cause that would

be already fully actual, with the result that there would never be an entity whose actual existence could, ultimately, account for the actualizations of the potentialities beneath it. That is, without such an actually existing entity, argued Aquinas, his independently plausible stricture against the actualization of potentialities by potentialities would have been violated. Strikingly, however successful or unsuccessful that claim may have been, it now turns out to have a further consequence. If there were composition in God, if God were nonsimple, something would have to be responsible for the parts of God having been put together. So, there would have been an efficient cause of God, which, as a necessarily existing unmoved mover, there cannot be. Thus:

> Every composition needs something that composes it. If there is composition, it is made up of a plurality, and a plurality cannot be fitted into a unity without something that composes it. If, then, God were a composite, there would be something that composed him. He could not compose himself, since nothing is its own cause, because it would be prior to itself, which is impossible. Now, that which composes something is the efficient cause of the composite thing. Thus, God would have an efficient cause. In this way, too, he would not be the first cause—which was proved above. (*SCG* I.18.5/144)

Here Aquinas appeals directly to the unmoved mover's status as a first cause, as an *unmoved* mover, for the result sought—that God is simple.

Suppose that Aquinas attains this result. Then God will be absolutely simple, without internal composition or complexity of any kind. If we grant this conclusion, it might seem that we do so at a prohibitive cost. More to the point, if Aquinas himself accepts the conclusion that God is absolutely simple, then he seems to jeopardize his own program. For if God is simple, it is difficult to see how God could be characterized in any way approaching the way found in the annals of Christian orthodoxy. Minimally, this characterization includes that God is all-good, all-powerful, and all-knowing. Surely these traits are distinct; and if they are, then there is division in God. But if there is division in God, then God is no more simple than any other being characterized in these distinct and nonequivalent ways. In this sense, the two phases of Aquinas's program seem at variance with one another. As he himself insists, the first phase gives rise to a conception of God as simple; but that God seems austere, remote, and metaphysically removed from the sort of being worshiped and loved by Catholics like Aquinas. The second phase tries to derive just such a personal God. If that is right, the first phase renders the second phase improbable. Or, looked at the other way, the second phase tries to foist a God naturally understood to be complex in all sorts of ways onto a philosopher's God whose very nature finds complexity repugnant.

Aquinas, needless to say, does not see things this way at all. He wants to maintain not only that the notion of an absolutely simple God is consistent with Christian orthodoxy, but that such a God is absolutely required by the very terms of that orthodoxy. Only a God identical with Being itself, which exists seamlessly and necessarily as the ultimate source of all, could ever attain the exalted majesty of the God whose power knows no equal.

If that is so, then God's simplicity must after all be reconcilable with the variegated attributes ascribed to him. Aquinas thinks that the reconciliation is none too difficult. It is easiest to see why by following his preference for putting his point in a linguistic mode. Suppose we characterize God as F and G; so we use the words 'F' and 'G' to describe him. Suppose F and G express different concepts, as indeed 'powerful' and 'good' do. Even so, argues Aquinas, this much is insufficient to establish complexity and so is fully compatible with simplicity. Appealing to some facts about language and the ways we employ it to make his case, he argues:

> Although the names of God signify the same reality, they are not yet synonyms, because they do not signify the same notion. For just as diverse things are likened through diverse forms to the one simple reality that is God, so our intellect is through its diverse conceptions likened to God insofar as it is likened through the diverse perfections of creatures to know him. Therefore, in forming many conceptions of one thing, our intellect is neither false nor futile, because the simple being of God is such that things can be likened to it according to a multiplicity of their forms. But in accord with its diverse conceptions, our intellect devises diverse names that it attributes to God. Hence, since these names are not attributed to God according to the same notion, it is evident that they are not synonyms even though they signify a reality that is absolutely one. (*SCG* I.35.1–2/299–300)

This much seems appropriate. Why, after all, should we think that there is complexity in God? One obvious reason is just that the different things said about God (he is wise, he is powerful, and so on) evidently *mean* different things. So, if true, these different claims about God must be made true by different features of God. So God must have different features. Hence, God must be complex, not simple.

This is just the chain of inference Aquinas seeks to combat, however natural it may seem. In a nontechnical way, his point is most easily grasped by means of a simple analogy. Imagine two line segments intersecting at point *a*. Call the two lines BC and DE. Suppose further that *a* bisects BC and DE. Then it will be true to characterize *a* as "the point bisecting BC" and as "the point bisecting DE," where these are evidently two distinct characterizations with two different meanings. Does it follow that *a* must be complex, with internal parts, one looking toward BC and the other toward DE? Hardly. On the contrary, a point *cannot* be complex. What can be complex are our multifarious characterizations of the point. The characterizations refer, in different ways, to precisely the same simple thing, to point *a*, by describing it differently. In such a case, Aquinas urges, we have expressions with different meanings that lead us to the same simple entity, which shows plainly that we are not entitled to infer complexity in God from the fact that truths may be expressed about him using nonsynonymous expressions. Thus, it is wrong to infer that sentences using nonsynonymous predicates could be made true only by distinct, non-equivalent features of God.

About so much Aquinas is on firm ground. Indeed, his point can be put in a slightly more technical fashion, for clarity's sake and because it will be consequential for other stages of his derivation of God's nature. What is indisputably true is that we use nonsynonymous terms to express features of God's nature. Still, nonsynonymous terms can be coreferential—they can pick out precisely the same entity, even the same features of the same entity, although they do so by capturing those features in different ways. Since nonsynonymous terms can be coreferential, it is also possible for claims about one entity, even a simple entity, to be made true by the existence of that entity without its being the case that it exhibits internal complexity. It follows, therefore, that Aquinas is at liberty both to characterize God in various non-equivalent ways and to insist on the doctrine of divine simplicity.

This conclusion falls short of establishing that Aquinas is right to insist on divine simplicity or on any other feature of God's nature. This will turn exclusively on the soundness of his individual arguments along the way. We have seen, however, that there is no reason to suppose that the first subphase of his derivation, where impersonal traits dominate, is ultimately at variance with the second, personal subphase. Now there is a further question, to be explored in §4.4, about whether distinct terms for God's nature can be understood as nonsynonymous but coreferential. So far, we have seen that this is a general strategy open to Aquinas, even though it does not settle the question of how best to understand God's divine attributes. Still, from what we have seen, it looks as if Aquinas's notion of divine simplicity is both coherent in its own terms and compatible with the sort of attributes he seeks to derive from God's nature.

From Intellect to Will

Aquinas argues that if the unmoved mover has all of the attributes derived in the first, impersonal phase of his overarching argument, then it will be inescapable that this being also has personal attributes, including

goodness, intelligence, and will. Thus will it be shown that the unmoved mover has precisely the attributes ascribed to God by Christian orthodoxy.

The first of the personal attributes attempted by the derivation are *goodness* and *intelligence*. In fact, the derivations of these attributes prove a bit insecure. At any rate, the arguments deployed by Aquinas, though engaging, seem incapable of bridging the gap; they do not show that the abstract entity shown (let us grant) to be a necessarily existing unmoved mover must be a being who also thinks, lives, and loves.

The earliest stage of the derivations of God's personal attributes meets its primary impediment in the evidently distinct application conditions of particular personal and impersonal predicates. That is, there seems to be a very different way in which we say that a halogen lamp is good and that Mother Theresa is good. In the first case, *goodness* is no form of moral appraisal; presumably this is precisely what is at play in the second application. In the context of Aquinas's derivation, then, if it is established that the unmoved mover is perfect, it will follow trivially that it is good; it will not, however, follow that the goodness that pertains to it is the goodness associated with moral agency, or even with agency of any kind. Thus, it will not follow that the goodness associated with God is the sort of goodness typically understood to belong to persons. Similarly, it is difficult to derive intelligence from immateriality, as Aquinas evidently seeks to do (*SCG* I.44.5/376), since this claim of an analytical entailment would prove far too much if it proved anything at all. If the number two is an abstract entity (something Aquinas doubts), then it is immaterial but not intelligent. Here too Aquinas appears in desperate straits; without establishing that the unmoved mover is and must be intelligent, Aquinas will have no chance of grounding still further derived personal attributes of the sort characteristic of the Christian God.

That said, some of Aquinas's subsequent derivations take on an independent interest, both for the analytical entailments they seek to uncover and for their application beyond the narrow domain of immediate concern to Aquinas. Moreover, it is again compatible with the failures of earlier stages of Aquinas's derivation, if they are failures, that arguments other than those he actually mounts be mounted, with the result that later stages of his argument will find the underpinnings that Aquinas assumes he himself has provided. For these reasons, the later stages of his derivation retain a considerable interest.

Of special interest is Aquinas's derivation of God's will. The abiding force of this derivation can be understood by considering a question that at first seems remote from Aquinas's own framework of inquiry but that nevertheless does no violence to his own precise intentions. Suppose as a university student you were to discover that one of your professors was

not a human being but an astonishingly sophisticated android, developed by the university administration with the assistance of the psychology and computer science departments for the eventual purpose of replacing the faculty with comparatively cost-effective and compliant *professing units*. It would seem appropriate, without any additional evidence one way or the other beyond what you normally have obtained through dealing with this professor (in class, during office hours, in chance meetings in local coffee shops), that you would probably have to allow that this android was a thinking being. At least, at a bare minimum, you would have to allow that the professor in question certainly *seemed* to be an intelligent being, that you had precisely as much evidence for that conclusion as you had for a conclusion about any other professor of your acquaintance.

Of course, the mere discovery that the professor was actually an android might itself give you pause, because that information too constitutes a kind of evidence. Still, however difficult it might be to make a final determination of intelligence—engaging as it would complex questions about the existence of other intellects and our grounds for ascribing mentality from a third-person point of view—there would seem to be at least a prima facie ground for regarding the being as thinking. Now comes another question, one with an answer already implicitly assumed by the university's administrators. For while the administration might in fact not much care whether the android actually thinks (leaving such speculation to its philosophy faculty and the more theoretically inclined among its cognitive scientists), those in charge should want to take notice of the following question posed in the admittedly remote context of Aquinas's derivation of God's attributes: *if* the android in fact thinks, must it perforce also have a will? If the answer is yes, the administration might have gotten more than it bargained for. If, that is, whatever thinks also necessarily has a will, then the administration might have merely ended up trading one form of willful being for another, an organic for an inorganic faculty member, so that the professing units would end up as unruly and headstrong as the original professors. The possibility of this result might, in turn, recommend a reconsideration of whether the android ought to be regarded as an intellectual creature in the first place.

It is this question, general in scope but nonetheless instructive for its being so, that Aquinas answers in the midst of his derivation of God's personal attributes: *If* x *has an intellect, then does it of necessity follow that* x *has a will?* This is, rather oddly upon reflection, a question that has been largely neglected in recent discussions of the mind and its nature, including most notably discussions of the character and possibility of artificial intelligence. Perhaps the neglect is in one way understandable: since the question is unwieldy and forebodingly general, it seems to require a reasonably firm grasp of the natures of intellect and will as such, in addition

to an appreciation of the conceptual connections between them, if any. These in turn are questions that might strike some as pitched at so high a level of generality as to be only fruitlessly explored.

They do not, however, strike Aquinas that way. On the contrary, he tries to establish, in his derivation of God's personal attributes, the following simple conditional, from intellect to will (IW):

Necessarily (if x has an intellect, then x has a will)

Of course, his interest in doing so stems from his desire to derive God's necessary attributes from his existence as an unmoved mover and all the impersonal features his being such entails. It will be appreciated, however, that (IW) has a perfectly general application: if there is a necessary connection between intellects and wills, then it will hold of you and your android professor, no less than of God. To this extent, this portion of Aquinas's derivation holds some surprising implications for areas outside of his primary focus.

Aquinas offers two distinct arguments for (IW), here presented and assessed with an eye both on Aquinas's narrow polemical purposes and on the broader framework of application afforded by the terms within which he casts his argument. The first argument is direct:

> From the fact that God is endowed with intellect it follows that he is endowed with will. For since the understood good is the proper object of will, the understood good is, as such, willed. Now, that which is understood is so by reference to one who understands. Hence, whoever grasps the good by means of intellect is, as such, endowed with will. But God grasps the good by his intellect. For since the activity of his intellect is perfect, as is clear from what has been said, God understands Being with the quality of being good. He is, therefore, endowed with will. (SCG I.72.3/618)

It will follow, as a general result, that anyone who knows goodness also wills it, where, without a doubt, any being that wills goodness has a will; since God knows goodness, God wills it and so, trivially, has a will.

This argument can be developed in a number of different ways, each worthy of consideration. One simple way to understand Aquinas's argument takes seriously his conception of the will as *a rational desire for the good*. This account reflects Aquinas's stance on a complex running debate of his time concerning the relation of intellect and will (see §5.3, "Necessity and Freedom"); for the present purposes, it suffices to note that to will something is, inter alia, to understand it as good and in this way to desire it. If I will that I remain healthy, for instance, then this is in part my recognition of health as something good and my desire, in this very

recognition of health's goodness, to remain healthy. Arguably, recognizing health, or any other good, *as good* is at least partly to recognize it as something desirable. In a simple way, if I think that *pizza is good* when I am hungry, then I also think of it as desirable, and so, unless I have some overriding desires or defeating reasons, I desire it straight away. Even when I am not hungry, if I think of pizza as good, then I think of it as the sort of thing I would want to eat if I were hungry. If I had no such attendant desire at all, it is difficult to know what the judgment of pizza as being good would really amount to. In any case, there seems to be a tight connection between a certain kind of rational appraisal and a recognition of desirability. In this sense, Aquinas's idea is just that what it is to will something is to understand it as good and in so doing to desire it.

Looked at that way, Aquinas is supposing only that to will something crucially presupposes understanding it as something desirable in some way. If we cast his judgment in egoistic terms for a moment, then his contention becomes perfectly clear. If I understand a certain action as *good for me*, as something desirable because it is, in my own terms, something really good for me, then part of that understanding seems to implicate me in my wanting to move toward it. For that is what it is for me to understand it as *good for me*. Now, if it has already been proved that God is good and has perfect intelligence, then it will not escape God's notice that (1) there is goodness, and (2) goodness is the sort of thing that, by its nature, is apprehended as worthy of desire. But if a being understands something as worthy of desire, then that being also understands that something desired as good is arrayed before its intellect as an object worthy of pursuing; that is, that being will have a rational desire by virtue of its very understanding of the nature of its object of thought. Thus, that being will have a will.

Part of what makes Aquinas's argument engaging is its assumption that a precondition of understanding the good *as good* seems to be the ability to understand *qualitatively* what an experience of goodness consists in. That is, Aquinas attempts to close the gap between intellect and will by noting that some understanding is in a certain way already experiential; no one genuinely understands an object as good without also understanding that object as holding certain attractions. If that is correct, then God's intellect, comprehending all and so understanding itself as good, will necessarily also have a capacity for willing. (IW), the thesis that necessarily if x has an intellect, then x has a will, is thus shown to be plausible at least in the special case of God.

Is this case, however, so special as to call into question (IW) as a general thesis? One might suppose so. After all, a great many people with minds never even reflect on the nature of goodness and so have no understanding of the good as good. While that is fair enough, there does seem to be a

deeper point about capacities suggested in Aquinas's argument, a point overlooked in this attempted restriction of (IW). Surely, one might like to respond, every intellect is, as such, capable of understanding what goodness is; if so, then every intellect is, as such, of a nature to be able to have a rational understanding of the good. If that is in turn correct, then every intellect must have at least the capacity for apprehending the good, which seems all the broad applicability one could hope to establish for (IW). Since the having of an intellect carries with it an ability or capacity to form rational desires for what is good, it seems fair to conclude that every being with an intellect also has a will. A will seems nothing other than this very capacity.

Aquinas also offers a second argument, one not rooted so immediately in a putative analytical entailment between judgments of goodness and desirability. Instead, Aquinas draws upon his general explanatory framework, as he so often does in the course of his derivation, by appealing to his notion of a final cause. This is fair enough, since in thinking about matters of the will, we perforce focus on the domain of intentional action—action, that is, done for some purpose, or for the acquisition of some goal. It is, accordingly, natural and appropriate for Aquinas to embed his defense of (IW) in teleological language:

> Now, it belongs to every being to seek its perfection and the conservation of its being, and this in the case of each being according to its mode: for intellectual beings through will, for animals through sensible appetite, and to those lacking sense through natural appetite. The seeking of perfection belongs differently to those that have it [*viz.* perfection] and those that do not have it. For those that do not have it tend by desire, through the appetitive power proper to them, to acquire what is lacking to their desire, whereas those that have it rest in it. Hence, this cannot be lacking in the first being, which is God. Since, therefore, God is intelligent, there is in Him a will by which His being and His goodness are pleasing to him. (*SCG* I.72.4/620)

Here Aquinas seeks to derive the existence of will from facts about the nature of intellectual beings, facts that find their ultimate explication in the natures of living beings as teleological systems (see §2.1, "The Final Cause," and §8.2).

Here too the argument is perfectly orderly:

1. Every being seeks its perfection and continued existence.
2. A being seeks its perfection relative to its mode of being (animals through perception, intellectual beings by understanding).
3. God's mode of being is intellectual.
4. Therefore, God seeks perfection through understanding.
5. What is (already) perfect seeks its perfection through resting in it.
6. God is already perfect.
7. Therefore, God seeks perfection through resting in understanding.
8. God need not rest in understanding.
9. Therefore, God prefers to rest in understanding.
10. An intelligent being prefers to rest in some state only if it is pleasing for it to do so.
11. Therefore, it is pleasing for God to rest in understanding.
12. If it is pleasing for God to rest in understanding, then this is something God must will.
13. Therefore, God has a will.

With the exception of (8), the assumption that God need not rest in understanding, a premise that seems to presuppose some notion of freedom, Aquinas's argument simply derives will from other attributes he understands himself already to have established together with a simple appeal to final causation.

The appeal to final causation enters the argument at its very beginning. The idea implicit in the first premise is just that beings of all sorts take it as their first end to preserve themselves in existence. Most clearly, living creatures engage in all manner of behavior intended to keep themselves in existence. They eat, they digest, they spontaneously recoil from that which pains or damages them, and they engage in flight or other avoidance behavior when faced with predators. Although a necessary being, God too is like this. Unlike creatures, who never attain complete perfection but only strive toward their good, God seeks, and achieves, his own good by his very existence. To support this contention, Aquinas relies on an odd counterfactual, to the effect that if given the opportunity, God would never veer away from the good he currently enjoys, for the simple reason that it would be bad for God to do so. Any such course of action would, accordingly, be undesirable to God. Having attained every perfection appropriate to his nature, God abides.

There is a general point about living systems and their ends built into Aquinas's conception of God's activity. In a sense, it is not that Aquinas relies in this argument on some special understanding of God's nature; rather, it is just that God, as a living being, is like other living beings who, by their very nature, seek their own good, beginning with their own continued existence. Hence, implicit in Aquinas's teleological argument is the thought that a being with understanding is also a living being, and a living being is, as such, a being with an intrinsic end (see §2.1 and §8.2). If that is correct, then it is difficult to see how one kind of living being, an intelligent being, a being with real understanding, could lack a will. For again, a will is nothing more than a rational appetite for the good, where 'appetite' is Aquinas's word for any sort of desire or inclination. Now

understanding carries with it at least the possibility of self-understanding, but for a living being, self-understanding necessarily also involves the possibility of grasping what one's own good consists in. With that grasping, evidently, comes a recognition of what is desirable for the being. Thus, intellectual beings have available the ability to conceive of themselves as agents, as beings capable of pursuing what is desirable to them. When, therefore, Aquinas appeals to his teleological framework to derive God's will from God's intellect, he also avails himself of a framework that underwrites (IW) taken generally, not only as applied to God.

Taken together, these two defenses of (IW) provide insight, in different ways, into connections that, partly in view of their very generality, ought to command our interest. In the broadest application, Aquinas's arguments seem to show that it is difficult to comprehend fully what a willless intellect might be conceived to be. Consequently, in their narrower application, as part of a derivation of God's attributes, these arguments also make a good case that *if* God has an intellect, then God also has a will. These attributes are not easily prized apart.

4.4 Understanding God's Attributes: Analogical Predication

When speaking of God's attributes, such as his *having a will*, Aquinas employs terms familiar from their human applications. God is *omniscient*, and so supremely *intelligent;* God is *omnibenevolent*, which is to say, all-good; and God is *omnipotent*, or powerful without limit. It is natural to assume, then, that God simply has, in boundless measure, the very attributes we find exemplified by human beings who are intelligent, good, or powerful. Indeed, when we conceptualize Aquinas's God, it is easy and almost unavoidable to do so by considering God to be, in a certain sense, a person, or person-like, a being manifesting just the attributes we habitually regard as constitutive of personhood. God is the subject of mental states, has beliefs (all true beliefs, of course), knows things as we know things, and is a conscious living being just as we are conscious living beings. Aquinas's God seems to be, in fact, a person—a perfect person, to be sure, but a person nonetheless.

If there is something unavoidable about approaching Aquinas's God in these terms, there is also something deeply problematic in doing so. One of God's most primitive impersonal attributes renders all such talk hard to fathom: God is simple, absolutely simple, whereas no person is or could be simple.

As we have already seen, at its root, this one characterization already puts significant stress on our conception of God as having diverse attributes, and we have also seen (§4.3, "Absolute Simplicity") that Aquinas

can indeed speak of God as simple, because a simple thing can be described by using coreferential terms rather than synonymous ones. Now, however, our worries can be taken to a higher level of difficulty. Given God's absolute simplicity, it seems fair to ask by what right Aquinas permits himself to speak of God as having 'attributes' or 'properties' in the first instance. God is, according to Aquinas, identical with his essence; everything said truly of God's intrinsic nature obtains of God necessarily and immutably. So, when speaking of God on the one hand, and God's attributes on the other, Aquinas already seems to implicate God in some kind of fundamental complexity of a sort that is plainly incompatible with divine simplicity. Any given person has the property of being good in some measure, though the degree of goodness in a person's life will vary as it grows sometimes greater and slackens off at other times. Minimally, the degree of goodness a person manifests is accidental. No person is identical with her goodness; unlike God, then, persons exhibit complexity even in the very exemplification of their attributes. We are inclined to say that a person *has* some degree of goodness. But we do not say that a person *is* the same as goodness itself. God's simplicity precludes our talking this way. According to Aquinas, God is goodness itself.

Now, if we think of persons as necessarily complex, then we are not at liberty to conceive of God as a person. If we are not at liberty to conceive of God as a person, however, neither are we entitled, at least not without some special pleading, to regard God as manifesting personal attributes. If, however, the attributes of goodness and intelligence as applied to God are not personal attributes, are not the sort of attributes we understand as belonging paradigmatically and exclusively to persons, then we shall have to admit that we do not know exactly what we mean when we ascribe them to God. We do not even rightly conceive of them as "attributes" of God, since God is not a subject with attributes, but a seamless being whose nature finds any division repugnant.

Already, then, we may be losing our bearings when we come to characterize God in the terms employed by Aquinas in his grand derivation. Moreover, matters are becoming still worse. Consider Professor Smedley. She is, let us say, intelligent, powerful, and good. Of course, she is a human being and thus imperfect in all sorts of ways. Still, she is truly intelligent, powerful, and good. She can be contrasted with Professor Portley: he too is intelligent and powerful, but he is also morally rotten and so not, in this respect, at all good. So much seems plainly possible; some people are intelligent and powerful but not good; others are powerful but neither good nor intelligent; and so on for the various other combinations of these attributes. Such variability shows conclusively, it seems, that these attributes are distinct. That is, as applied to persons, being powerful, being good, and being intelligent are altogether different traits. Because

these traits are not even extensionally equivalent, they are certainly not identical.

Now, however, consider the applications of these traits to Aquinas's God. This God is *absolutely* simple. Indeed, as is perfectly plain in the master derivation, God is identical with God's essence (recall stages 19, 26, 32, 40, and 50, where Aquinas repeatedly asserts this sort of identification). It follows, then, that in the case of God the attributes *being good, being powerful, being intelligent, being alive,* and so on for any other attribute correctly ascribed to God (if indeed it is in the first instance appropriate to speak of attributes in this domain) cannot be distinct. Instead, they must all be distinct ways of characterizing one and the same thing.

If we grant that so much is cogent, by relying on a doctrine of nonsynonymous but coreferential terms, we do not yet really address the root problem for Aquinas. For now a deeper problem emerges and threatens to undermine any understanding of what these coreferential terms are even supposed to mean. If the attributes designated by ordinary predicates such as *good* and *intelligent* are the same in God but diverse in human beings, then the attributes we ascribe to God are not—indeed, cannot be—the same attributes we ascribe to human beings. Yet if they are not the same attributes, and only happen to be named the same, then surely we are at sea when we pretend to be conceptualizing anything about God. It is as if, having characterized Stalin as an uncommonly humble man, someone confronted with overwhelming evidence of his brash arrogance and haughty pride insisted by way of response that Stalin was *definitely* humble, even supremely humble, but that *humility* as applied to Stalin meant something special and distinct. Humility in Stalin's case, the response continues, was something altogether unique and not to be compared to the pedestrian sort of humility manifested by ordinary citizens. He was, after all, no ordinary man. He was Stalin. Well, perhaps. But we can hardly even begin to agree or disagree with his sycophant, since we do not yet have any understanding of what his claim about Stalin was supposed to mean.

This case illustrates that, if we are intent upon reserving absolute simplicity for God, then we are hard-pressed to understand what it means to ascribe to him attributes normally understood to be distinct. The first thing to notice in this connection is that God's attributes are not the same attributes as those ascribed to Professors Smedley and Portley—or to any other human being who ever lived or will live. Perhaps that is so obvious as to need no proof, though a simple one is available, employing just two attributes for illustration:

1. If God is absolutely simple, then God's *goodness* and *knowledge* are identical.

2. God is absolutely simple.
3. Therefore, God's *goodness* and *knowledge* are identical.
4. If it is possible for *goodness* and *knowledge* to diverge as applied to ordinary humans, then *goodness* and *knowledge* as applied to humans are not identical.
5. It is possible for *goodness* and *knowledge* as applied to ordinary humans to diverge (for it is actually so: some people are knowledgeable but not good).
6. Therefore, *goodness* and *knowledge* as applied to God and as applied to ordinary humans are not identical.

From this conclusion, it is easy to derive the further conclusion that no attribute applied to human beings can be identical with an attribute applied to God.

7. Divine goodness has the property of being identical with knowledge.
8. Human goodness lacks the property of being identical with knowledge.
9. If x and y have distinct properties, then x and y are not the same things.
10. Therefore, human and divine goodness are not the same thing.

What holds of goodness holds of every other attribute as well, since this example is chosen arbitrarily. If we are inclined to think that we know what human goodness is (at least more or less), or that we know what human knowledge is (again, at least more or less), then what we fail to know is what these traits are in the case of God. All we seem to know is that they are not all the same traits we find showing up in persons of our acquaintance. Hence, we might now be tempted to conclude that what holds for Stalin holds for God: we do not really have any idea at all what these claims about God mean. We are not, in truth, even in a position to agree or disagree; for we do not so much as understand them.

If there is a fault here, it lies with Aquinas. It was, after all, his contention that God is absolutely simple. We have merely traced out the consequences of his claim. Still, his claim about simplicity was not idle: without it, much of the rest of his derivation could not have moved forward. So we find him in an uncomfortable dilemma: either he must withdraw his characterization of God as absolutely simple, and so abandon his derivation of God's attributes at a very early stage (stage 14, to be exact), or he must leave simplicity intact at the expense of rendering the very terms of that derivation utterly inexplicable. Neither alternative seems a happy

one for Aquinas. Either his derivation fails or it employs terms whose very meanings are mysterious to the point of incomprehensibility.

Aquinas rejects this dilemma as false. He argues that it turns upon an unsustainable semantic dichotomy according to which two terms either mean just the same or are utterly disjoint in their meanings. He thinks that he has available to him a *tertium quid*—a third alternative between these two extremes. It is not that, for example, 'goodness' as applied to God and 'goodness' as applied to Professor Smedley either mean the same thing (are, in Aquinas's terms, *univocal*) or mean utterly distinct things (are *equivocal*). Rather, 'goodness' as applied to Professor Smedley indeed means something different from what 'goodness' as applied to God means, but these terms are nevertheless systematically related in ways that make each of their meanings individually clear and the relations of their meanings to one another fully explicable.

In Aquinas's terms, 'good' in the sentence (a) "God is good" and 'good' in the sentence (b) "Professor Smedley is good" are *analogical*. In fact, the predicate 'is good' in (b) is derived from its primary application in (a), so that we may understand them both as distinct but perfectly understandable, each in its own domain. If that is right, then there is no parallel between God and Stalin: whereas Stalin's lackey obfuscated when pressed, Aquinas advances a theory that deserves a hearing, both in the context under consideration and more generally as an approach to the systematic relations we may find between discrete but non-equivocal meanings or, in a more metaphysical mode, between properties that bear interestingly asymmetric dependence relations to other more fundamental properties.

To understand Aquinas's point of view, it is first of all necessary to understand some of the technical machinery and terminology he develops to handle challenges of the sort now being put to him. Whatever else may be true of him, he is fully aware of just the worry now being entertained. In fact, he himself is the first to insist that no predicates are applied to God and creatures univocally:

> As is clear from what has been said, there is nothing in God that is not the divine being itself; and this is not the case with other things. Nothing, therefore, can be predicated of God and other things univocally. (*SCG* I.32.3/285)

Here Aquinas argues forthrightly, relying directly on his conception of divine simplicity, that nothing is predicated univocally of God and creatures. It follows, again, that 'good' as applied to God does not mean the same thing as 'good' as applied to human beings.

This can be further appreciated by focusing on Aquinas's own very careful analysis of univocal predication. By 'univocally' in this and other connections, he means something quite precise:

a and b are univocally $F =_{df}$ *(i) a is F; (ii) b is F;*
and (iii) the accounts of F-ness in 'a is F' and 'b is F' are the same.

So, for example, 'round' as applied to a penny and a circus ring are univocal. That is, the account corresponding to 'round' in these two applications will be precisely the same. Aquinas is denying, then, that this sort of sameness of account will obtain in the case of, for example, 'good', or of any other predicate ascribed to creatures and God. If we construe such accounts as definitions that capture the real meanings of the predicates whose accounts they are, then it will also follow that the meanings of these predicates will diverge in these distinct applications. Thus, 'God is good' does not say of God what 'Professor Smedley is good' says of Professor Smedley.

That would seemingly lead to the conclusion that 'good' in these various applications is *equivocal*—that is, that the meanings are distinct—with the result that we really do not have a clear conception of God's attributes. Aquinas disagrees. Just after denying univocity, he is quick to point out that predicates do not attach to God and creatures merely equivocally. For then we really would be without a clue as to the meanings of terms applied to God:

> It is also a fact that a name is predicated of some being uselessly unless through that name we understand something of the being. But, if names are said of God and creatures in a purely equivocal way, we understand nothing of God through those names; for the meanings of those names are known to us solely to the extent that they are said of creatures. In vain, therefore, would it be said or proved of God that he is a being, good, or the like. (*SCG* I.33.6/295)

This seems just the right conclusion to draw, given Aquinas's conception of equivocity, which is:

a and b are equivocally $F =_{df}$ *(i) a is F; (ii) b is F;*
and (iii) the accounts of F-ness in 'a is F' and 'b is F'
have nothing in common and do not overlap in any way.

So, for example, 'bank', as applied to the sides of rivers and to buildings where money is saved and borrowed, is equivocal. No one should think that there is a real connection between banks and the sides of rivers merely because they are called by the same name. As Aquinas notes above, if there were only this much connection between the predicates applied to God and creatures, then the entire derivation of God's attributes would have been "in vain."

What is striking about Aquinas's approach to this issue is his clear and defensible recognition that univocity and equivocity are not exhaustive options. This can be appreciated in a formal way by attending to the precise definitions of these terms: univocal predicates have the same accounts, whereas equivocal terms have accounts with "nothing in common" and so "do not overlap in any way." A moment's reflection makes patently clear that there is a third possibility, namely, that some terms are neither univocal, because their accounts are not precisely the same, nor equivocal, because their accounts, although not the same, overlap and have some things, perhaps a great many things, in common with one another.

This third way is what Aquinas calls *analogical* predication:

> From what we have said, therefore, it remains that the names said of God and creatures are predicated neither univocally nor equivocally but analogically, that is, according to an order or reference to something one. (*SCG* I.34.1/297)

It should be stressed immediately that his conception of analogy is a stipulatively defined notion, one that has to be sharply distinguished from the contemporary notion of analogy, considered as a linguistic trope, namely, as a certain kind of comparison (for example, "Her skin was as supple as the petal of a spring lily"). Rather, Aquinas intends his notion of analogical predication to occupy just that space between equivocal and univocal predication left open by their precise definitions. His general approach to analogical predication, stated formally, is:

a and b are analogically F $=_{df}$ *(i) a is F; (ii) b is F; (iii) a and b are literally F; and (iv) a and b are neither univocally nor equivocally F.*

In appealing to literalness, we mean to rule out metaphor. Though the distinction between the literal and metaphorical is notoriously difficult to analyze, it is perhaps clear enough in practice. Still, even if we help ourselves to the notion of something's being *literally F*, the definition tells us little about how Aquinas conceives of analogical predication in particular cases. As soon as one pursues the matter further, it becomes clear that his approach turns very technical very quickly. He distinguishes several varieties of analogical predication, one of which is especially relevant to his conception of the way predications of God and creatures are related. This may be called *ordered analogy:*

a and b are analogically F in an ordered way $=_{df}$ *(i) a is F; (ii) b is F; and (iii) the account of F in 'b is F' necessarily makes reference to the account of F in 'a is F' in an asymmetrical way.*

If we think of God's goodness and the goodness of creatures along these lines, then we can finally arrive at Aquinas's full theory of their relation.

Although initially perhaps a bit overwhelming, Aquinas's doctrine can be understood by a simple illustration. Consider the following sentences:

a. To be *healthy* is to flourish in mind and body.
b. Albert's complexion is *healthy.*
c. Albert's diet is *healthy.*

Two things should be clear immediately: (1) 'healthy' as it appears in these sentences does not mean exactly the same thing; and (2) the appearances of 'healthy' in these sentences are somehow related. That is, 'healthy' in these applications is neither univocal nor equivocal. It is not univocal, since we cannot insert the account of 'healthy' in (a) into (b) or (c), nor can the accounts presupposed in (b) and (c) be substituted for one another. (In [c], 'healthy' might be paraphrased as "is productive of health," and in [b] as "is indicative of health.") Still, it is plain that these are not cases of equivocity, since there are clear connections between the applications ('healthy' is not like 'bank'). Thus, we have neither equivocity nor univocity, but analogy.

The kind of analogy we have in this case also helps illustrate ordered analogy, since if we want to understand (b) and (c), we have to appeal to the notion of being 'healthy' in (a). Thus, for instance, to say that Albert's diet is healthy is just to say that he eats the kind of food that tends to produce health in him, food that tends to help him flourish in mind and body. So, though the *account* or definition of 'healthy' in (a) makes no appeal to the accounts of 'healthy' in (b) and (c), their accounts *must* appeal to the account of 'healthy' in (a) if they are to be correct. This captures the *asymmetry* that Aquinas understands in cases of ordered analogy. The nonprimary cases depend upon the primary cases, though the primary cases do not depend upon the nonprimary cases.

This is, then, the circumstance Aquinas envisages between God and creatures. Although it is not obvious, as it is in the case with 'healthy', he thinks there exists the same form of dependence of nonprimary on primary in these applications of 'good':

a. God is good.
b. Professor Smedley is good.

To provide an account of 'good' in (b), it will be necessary, according to Aquinas, ultimately to provide an account of 'good' in (a). If we attend carefully to the derivation of goodness in Aquinas's master argument, then we see instantly that the notion of goodness as applied to God is

rooted in God's complete perfection and actuality. Ultimately, then, to understand goodness even as it is applied to creatures (that is, to be able to provide a full analysis of goodness in any application outside of God) it will be necessary to understand goodness in terms of God's perfection and complete actuality. This, then, is the sense in which ordered analogy appeals to the notion of a *source:* it is God, as the ultimate source, according to Aquinas, to whom we must look if we are even to put ourselves in a position of understanding fully what goodness—or any other shared predicate—consists in.

Aquinas cautions, however, that it does not follow that we have no inkling of goodness before we come to learn something of God's goodness. After all, a great many people, including a great many to whom Aquinas addresses the *Summa contra gentiles*, have no knowledge of God's goodness. Not only may they not believe in the existence of Aquinas's God, but they may even positively deny that such a being is coherent. So much Aquinas appreciates. In fact, although he thinks of God as the ultimate source of goodness, Aquinas supposes that we first experience goodness, however imperfectly, in other things. In keeping with the indirect character of his proofs for God's existence, Aquinas thinks we first experience the effects of God's activity and then, on the basis of that experience, come indirectly to an understanding of God's existence and nature. He concludes:

> Because we come to a knowledge of God from other things, the reality in names said of God and other things belongs by priority in God according to his mode of being, but the meaning of the name belongs to God by posteriority. And so he is said to be named from his effects. (*SCG* I.34.6/298)

Thus, just as we know of God's existence as the ultimate and necessary explanation of what we have experienced after we know the existence of things encountered in sense perception, so we come to know God's nature by grasping the effects of that nature in our daily lives.

For example, if we see that some human has been good, has done something fine and noble, then we learn the meanings of the terms used to describe her behavior. However, says Aquinas, we do not understand those terms fully before we understand them in their primary applications, because they are, though it is unknown to us, nonprimary instances of ordered analogy. For example, when, as children, we learned to drink milk because it was healthy, we had some notion of what was meant by the locution, though we were not in a position, if pressed, to offer up an account of what it was that made milk healthy, or even of what it was for a living being—a person, a dog, or a tree—to be healthy. Surely we had some clue, but it does not follow that we needed to have complete mastery of the concept in order to apply the term correctly. At any rate, it is not the case that we can offer a defensible analysis of every word we understand at the level of linguistic meaning. In this sense, Aquinas is right to urge that we may learn the meanings of the words we use to some level of adequacy without knowing how the concepts they express are to be understood at the end of the day. What, after all, is the correct analysis of 'goodness'?

4.5 Conclusions

Aquinas's proofs and derivations have rightly met with close scrutiny, and they will doubtless continue to do so. Very often Aquinas shows himself up to the task of turning back his detractors; in other cases, he seems vulnerable to their objections. That the study of his arguments is nonetheless edifying will be clear to anyone who has taken the trouble to investigate them in their intricacy. Moreover, the derivations of God's nature attendant upon the existence proofs can be safely decoupled from the proofs themselves, with the result that the interest they hold will be more than merely instructional. At any rate, the strategies deployed in Aquinas's appeals to analogical predication find immediate application to philosophy far removed from their primary home in his theocentric system. For these reasons, the study of Aquinas's proofs and derivations continue to repay the careful study they demand. It is not that the journey matters more than the destination; certainly, in Aquinas's view, it does not. It is rather that the journey also has some surprising and unanticipated interim destinations well worth the effort it takes to find them.

Notes

1. Thus, after he has taken himself to have proved the existence of a first cause as unmoved mover, Aquinas observes: "We have shown that there exists a first being, whom we call God. We must, accordingly, now investigate the properties of this being" (*SCG* I.14.1/116).

2. For those who are inclined to make a fuss at this juncture, Aquinas gamely observes, in effect, that making a fuss is itself a form of motion, since even mental motions are motions. Thus, if I assert that (1) is false, then I evidently move mentally and so undermine my own assertion even as I issue it. See *InPH Phys* VI 1018.

3. "In this proof there are two propositions that need to be proved, namely, that everything that is moved is moved by another, and that in movers and things moved one cannot proceed to infinity" (*SCG* I.13.4/84).

4. "In the case of things that are not ordered essentially (*per se*), but are connected to each other accidentally (*per accidens*), nothing prevents them from being infinite, since accidental causes are indeterminate" (*ST* 1a2ae 1.4c; see also II *SENT* 1.1.5 sc 5).

5. Aquinas is presumably relying on such passages of Aristotle's *Metaphysics* as ii 1 993b30 and iv 4 1008b37.

6. The best way to determine which objections meet with adequate responses is to turn to the relevant chapter of the *Summa contra gentiles*, as indicated throughout the course of this master argument, to see what Aquinas has to say for himself. The work contains some surprising nooks and crannies.

Suggested Readings

Aquinas wrote a number of comprehensive treatments of God's nature. Our focus here has been *SCG* I, but one might equally prefer *ST* 1a. A somewhat more concise treatment can be found in *CT*.

The best recent study of Aquinas's natural theology in all its details is:

Norman Kretzmann, *The Metaphysics of Theism: Aquinas's Natural Theology in* Summa Contra Gentiles *I* (Oxford: Clarendon Press, 1997).

For a less rigorous but perhaps more accessible treatment, extending over all aspects of Aquinas's philosophical theology, see:

Brian Davies, *The Thought of Thomas Aquinas* (Oxford: Clarendon Press, 1992).

On the proof from motion and related forms of argument for God's existence, see:

William L. Rowe, *The Cosmological Argument* (Princeton, N.J.: Princeton University Press, 1975).

On Aquinas's proofs for God more generally, see:

Anthony Kenny, *The Five Ways: St. Thomas Aquinas's Proofs of God's Existence* (London: Routledge, 1969).

5

The Order of the Universe

5.1 God's Power

Aquinas takes his evidence for God's existence from an analysis of the visible world around us. From the start, then, Aquinas conceives of the universe as including both God and the material realm, of which we are a part. That conception naturally raises the question of how God is related to this world in which we live. The first part of his answer, unsurprisingly, is that God *created* the world.

Creation

In each of his two great theological *Summae*, Aquinas moves from discussing God's nature to discussing the nature of the created world. All (or, as we will see, almost all) of the divine attributes derived in *Summa contra gentiles* I and *Summa theologiae* 1a encourage the hypothesis that God is the ultimate source of being. As the first mover in any causal chain (see §4.2, "The Proof from Motion"), God must be the cause of all the motions in that chain. Inasmuch as some such chains cause things to come into existence, God must be the ultimate source of their existence.[1] Moreover, as an eternal being, God must have existed for at least as long as anything else in the universe (see §4.3). As an omniscient being, God has the knowledge to produce whatever God likes. As pure actuality, God is ideally able to go into action, so as to produce what God decides on.[2] As a good and loving being, God has a motive to produce other things.

So it is *consistent* with God's nature to be the cause of things. What Aquinas wants to establish, however, is that God *is and must be* the cause of *all* other things. Now, it might seem that the proof from motion has already shown this as well, if it shows that God is the first mover. The most that proof shows, however, is that there must be a first mover for any one causal chain. It does not establish that there must be one being, God, who

puts all other things in motion. That has yet to be established. And though Aquinas does take himself to have established God's uniqueness (*SCG* I.42; *ST* 1a 11), it is still not clear that this one supreme being is the cause of all other beings. He therefore introduces the following argument, near the start of *SCG* II, in order to obtain this further result:

> Everything to which something belongs non-intrinsically (*non secundum quod ipsum est*) belongs to it through some cause. (This is how *white*, for instance, belongs to a human being.) For that which does not have a cause is first and immediate; thus it is necessarily the case per se and intrinsically. It is impossible, however, for any one thing to belong to each of two things intrinsically. For what is said of something intrinsically does not exceed it: having three angles equal to two right angles, for instance, does not exceed *triangle*. Therefore if something belongs to two things, it will not belong to each intrinsically. Therefore it is impossible for any one thing to be predicated of two things in such a way as to be said of neither through a cause. Instead, either one must be the cause of the other (as fire is the cause of heat in a mixed body, even though each is said to be hot), or some third thing must be the cause of each (as fire is the cause of light in two candles). Now *being* is said of everything, insofar as it exists. Therefore it is impossible for there to be any two things of which neither has a cause of being. Instead, either each of those things must exist through a cause, or one must be the cause of being for the other. Therefore, everything that exists in any way at all must come from that for which there is no cause of being. We have shown above, however, that God is a being of this sort: one for whom nothing is the cause of being. Therefore everything that exists in any way at all comes from him. (*SCG* II.15.2/923)

This is not a proof of God's existence—on the contrary, it presupposes God's existence as a first, uncaused cause. It also presupposes, without explicitly saying so, that there can be no infinite causal chains. Yet if we grant these two assumptions (both highly controversial, of course, but both defended elsewhere by Aquinas; see §4.2, "The Proof from Motion"), then the argument appears to be sound. Despite its intricacy, it is worth analyzing in some detail. The main premises are as follows. For any subjects x and y, and any property F,

1. If x is F non-intrinsically, then x is F through some cause.
2. If x and y are different things, then they cannot both be F intrinsically.
3. Therefore, no two things that are beings can be beings intrinsically (from [2]).
4. Therefore, there can be only one thing that is a being intrinsically, without any cause (from [3]).

5. God is a being intrinsically, without any cause.
6. Everything that is, is a being.
7. Therefore, aside from God, everything that is must be a being non-intrinsically (from [4], [5], and [6]).
8. Therefore, aside from God, everything that is must have a cause for its being (from [1] and [7]).

[9. Causal chains must terminate in a first, uncaused cause.]

10. Therefore, everything that is comes into being ultimately from God (from [8] and [9]).

The argument begins by drawing a distinction between two ways in which a thing can have any sort of property: intrinsically (that is, by its nature) and through a cause. Now, we have already seen Aquinas claim (in §3.3) that there is a distinction between a thing's essence and its existence, in all cases except for God. Here he is giving us an argument that God can be the only thing that exists by its very essence or nature, intrinsically. Accordingly, assuming that all causal chains must emanate from a first cause, all other things must have their existence from God.

Putting aside controversial premises (5) and (9), defended elsewhere, the argument rests largely on (2), which is stated and defended as follows:

> It is impossible, however, for any one thing to belong to each of two things intrinsically. For what is said of something intrinsically does not exceed it: having three angles equal to two right angles, for instance, does not exceed *triangle*. Therefore if something belongs to two things, it will not belong to each intrinsically (*SCG* II.15.2/923).

The example of a triangle makes it clear that Aquinas is thinking of two things of different *kinds*. Obviously, the property of having three angles equal to two right angles belongs intrinsically to every triangle. So, contrary to what the passage seems to say, (2) should be formulated as follows:

> 2′. If x and y are different *in kind*, then they cannot both be F intrinsically.

The case of the triangle illustrates the force of this claim. The property of having three angles equal to two right angles belongs to a triangle by its very nature, in virtue of its being a triangle. Accordingly, nothing that is not a triangle will have that property intrinsically. If a piece of paper has that property, it will have it in virtue of being a triangle.

Unfortunately (2′) is more complicated than this example suggests. As we saw in §3.4, two beings can be of the same kind either by sharing the same most specific species or by sharing in some higher genus. Accordingly, it seems that two things can both have the same property intrinsically in virtue of both belonging to the same genus. A dog and a cat, for instance, can each have the intrinsic property of being sensory, in virtue of both being animals. A square and a triangle can both be plane figures, intrinsically, in virtue of both being shapes. So (2′) turns out to be equivalent to an extremely weak claim: that two things can have the same intrinsic property only if they are both members of the same species or genus. At this point, however, with (2) modified in this way, the argument as a whole may seem hopeless. At the level of the highest genera, things have too much in common: all substances, for instance, fall into the genus *substance*. God, however, is an exception. As we have seen (§3.3, §4.4), Aquinas thinks that God shares no genus with anything else. God is unique and utterly different from everything else that exists. So given (2′), and given that God has being intrinsically (= 5), and given this further premise,

5.1. God is absolutely one of a kind,

it follows that God must be the only thing that has being intrinsically (= 7). And given that the only alternative is for things to have being through some cause (= 1), all other beings must have a cause (= 8). If we disallow beginningless causal chains (= 9), then God must be the cause of all other things (= 10, QED).

Admittedly, this conclusion is rather modest and predictable—especially in proportion to the amount of work that went into establishing it. All it shows is that if there is a thing that exists by its very nature, then all other beings must come into existence through it. For readers still unpersuaded of God's existence, this may not seem very interesting. For Aquinas, however, such arguments are the backbone of philosophical theology. Showing that God exists is just the first of many, many steps down the long road to articulating a full picture of the universe. Aquinas thinks that we can prove through philosophical arguments not just that there is a God, but also that this God is the cause of all things, and that God brings things into existence in a certain definite way.

With regard to this last question of *how* God brings things into existence, the first and most important conclusion Aquinas establishes (*SCG* II.16) is that God brings things into existence out of nothing (ex nihilo). This follows straightaway from the preceding argument. Suppose that God were to make things out of something else. We can then ask where this other stuff comes from. Since we have shown that "everything that exists in any way at all comes from God," this other stuff must also have been made by God. So, at some point, God must have made something out of nothing. To bring things into existence in this way, out of no preexisting stuff, is what Aquinas calls *creation*.

It seems to many a truism that nothing comes from nothing. Aquinas must, of course, deny that the truism is true, and he does so explicitly (*SCG* II.37.2/1130). What makes the claim seem self-evidently true is that it holds without exception in all of the cases we are familiar with: cases where a thing is brought into existence through some process of change or transformation. When we bring things into existence, we collect our ingredients, mix them together, and—*voilà*, a cake. God can do that too, of course, but God can also bring things into existence in a different way, ex nihilo. In making a thing out of nothing, there can, of course, be no collecting of ingredients, or mixing them together. In general, there can be no transformation at all, and so no process of turning one thing into another thing. Instead, creation requires the making of pure being—being where before there was nothing at all. Whereas we can only make changes to the kinds of things there are, God can make being where before there was nothing. How this can be done is something we cannot fathom, and so Aquinas does not attempt to explain *how* God creates but rests content with having established that God *does* create.

Omnipotence and Freedom

Once we establish that God creates the universe ex nihilo, various further questions immediately arise. First, can anything other than God create? Avicenna, among others, thought that God had created a first separate intelligence, which then in turn created a second separate intelligence, and so on and on to the creation of the world.[3] It might seem that Aquinas already has a way of blocking this story, given his argument that God brings all things into existence. It turns out, however, to be rather hard to prove that only God creates. Although Aquinas has shown that God is the ultimate cause of all things, he has not shown (nor does he believe) that God is the direct and immediate cause of all things. I can bring a cake into existence; bears can bring baby bears into existence. (Human babies are another story, because Aquinas thinks that God *creates* the human soul.) Obviously, if A creates B, and B makes C, then C comes from A. In just the same way, however, if A creates B, and B creates C, then C comes from A. So it would be perfectly consistent to claim that all things come from God and yet that some creatures are themselves capable of creation. Accordingly, when Aquinas argues for the claim that only God creates (*SCG* II.21), he has to introduce a whole new set of rather subtle arguments, which we will not discuss here.

A second question raised by God's power to create is whether there are any limits to that power. In our case, we are limited by our materials, by our knowledge, and also by our powers to transform the materials we have. One cannot make a good crème brûlée, for instance, without the right ingredients, a good recipe, and some fancy equipment to caramelize the top very quickly under intense heat. Since God creates ex nihilo, he cannot be limited with respect to ingredients; since he is omniscient, he cannot be limited by any lack of knowledge. This leaves the possibility that God might be limited with respect to his creative power. This is to ask: Are there certain kinds of things that God cannot create? Aquinas believes, unsurprisingly, that God is omnipotent, and so one might take it to follow that God is unlimited in his creative power. This is not exactly right, however. Since God has the power to create pure being, being *simpliciter*, he is not limited to creating certain kinds of being. Instead, "God's power extends to all things that are not incompatible with the nature of being. For if his power were capable only of a certain sort of effect, then it would not in itself be the cause of being as such, but of *this sort* of being" (*SCG* II.22.3/983). In other words, an agent that can make being out of nothing must be able to make any kind of thing that can have being.

It is in this sense that God is omnipotent: whatever can be, God can create. Still, there is a class of things that are incompatible with being, things that by nature are nonbeings. What on earth could these things be? Anything, Aquinas says, that contains within it a contradiction. Since he takes the principle of noncontradiction to be inviolable, any supposed thing that contains a contradiction entails its own nonbeing. Since God's creative power is the power to create being, not to create nonbeing (whatever that would mean!), he cannot create that which is contradictory. Most straightforwardly, he cannot make a thing be and not be at the same time. He also cannot make opposite properties true of the same thing at the same time in the same respect (for example, he cannot make a thing be white and black all over), and cannot make a thing survive the loss of an essential property (for example, a human being without a soul). There are a great many more such examples (see *SCG* II.25), and this shows that there are limits even to God's power. These can hardly be regarded as significant limitations, however, since the only things that are beyond God's power are things that cannot be coherently supposed to exist at all, by any means.

Accordingly, even if God's omnipotence is not utterly unlimited, he still has the extraordinary power to bring into existence anything at all whose existence is not contradictory. To say that God has this power is to say that God can do this. There is, however, another sense of 'can' about which one might reasonably wonder whether God's creative options are really so vast. Given God's perfect goodness and perfect knowledge, could he really create *anything* that is possible? Could God create a universe with no intelligent life in it? Could God have created a universe with no life at all in it? Could God have created nothing at all? None of these possibilities is internally contradictory—none entails nonbeing, as we have seen Aquinas put it—yet each seems on its face to be incompatible with God's goodness, and hence not to be open possibilities for God, given his nature.

It is easy enough to reconcile these limitations on God's power with the claim that God can do anything that does not involve a contradiction. When we claim that a certain thing is or is not possible, we are always speaking relative to certain facts that we hold constant. In saying that God is omnipotent, we mean that if we hold constant only God's existence and his creative power, then he has the power to make anything that is not contradictory. In saying that God cannot have made a world without any intelligent life, in contrast, we mean that given God's creative power *and* his goodness and omniscience, he could not have made such a world. This is no more puzzling than to say that, yes, Sue could run a marathon, but that, no, she could not do so right now (holding constant her current level of fitness).

Although this sort of compromise position is perfectly consistent, it is not Aquinas's view. He thinks that, even given God's goodness and omniscience, God could have made nothing at all, or nothing but inanimate matter. In thinking about such questions, Aquinas naturally thinks of God as a kind of person, a divine person. As we saw in §4.3, Aquinas's God has not only impersonal attributes, like eternality and perfect actuality, but also personal attributes, like intellect, will, and goodness. So in considering whether God might have created a world other than this one—or no world at all—Aquinas considers whether God could have *conceived* of such a course of action, and of course, the answer is yes. He then considers whether God could have *willed* such a course of action, and again the answer is yes—inasmuch as the will can choose whatever the intellect selects. "The will is naturally suited to extend toward whatever the intellect can propose to it under the aspect of being good" (*SCG* II.27.2/1044). This leaves us with the obvious question of whether the various possibilities under discussion are ones that God could possibly conceive of as good. In effect, we are asking whether God was under some moral obligation to create the world as he did.

If one supposes that this is the best of all possible worlds, then it is easy to arrive at the conclusion that God was morally obligated to create *this* world, and that therefore, holding constant his goodness and omniscience, he could not have done otherwise. Aquinas is not even remotely tempted to suppose that no world could be better than this one. As we will see in §5.2, there is no limit to the ways in which God could have made creation better. Accordingly, Aquinas thinks it obvious that

God could have made many different sorts of universes—worlds with unicorns, worlds with dragons, worlds where people are smarter. Conversely, Aquinas also thinks that God could have made creation worse—worlds without giraffes, worlds without dolphins, worlds where people are dumber and even more selfish. The interesting question, from Aquinas's point of view, is whether there is some lower boundary to what God might have created, a universe so inferior that God could not have made it (again holding constant his goodness and omniscience). Aquinas's rather startling answer is that there is no lower boundary, and that even the limiting case of no universe at all was an open possibility.

One quick route to this conclusion would be to claim that God cannot ever be under any sort of moral obligation. Although this may seem initially attractive, it is hard to square with the doctrine of God's perfect goodness. If that doctrine means anything, it presumably means that God always does that which is good. To that extent, however, we can say that God's nature does impose on him a certain sort of obligation: an obligation to do the good, whatever that may be and from wherever it may derive. Now, if one holds that God *decides* what counts as good, then one might think that God can change it. For Aquinas, however, God can no more change what counts as good than he can change his own nature. (His own nature, after all, is perfectly good.) Moreover, even if God could change what counts as good, we could still ask about God's moral obligations, *holding constant the nature of the good*. Accordingly, Aquinas does not reject the very question of whether God's act of creation might be morally constrained in certain ways. Instead, he denies that God's goodness forces God to have made the world a particular way.

To assess this claim, it is helpful to draw a distinction between two familiar kinds of obligations, deontological and consequentialist. We will see in Chapter 9 that Aquinas's ethics allows for both sorts of considerations. Not surprisingly, then, his discussion of creation likewise takes account of both. With respect to deontological obligations to other individuals—treating others as they justly deserve to be treated—Aquinas insists that this can have no place with respect to creation:

> Justice, according to the Philosopher in *Ethics* V, is directed toward another, to whom one returns what is owed. But in the case of the universal production of things, there is nothing presupposed for which something is owed. Therefore, that universal production of things could not have come from an obligation of justice. (*SCG* II.28.2/1047)

Justice, on this analysis, is always a matter of satisfying some prior debt, "returning what is owed" in a very broad sense that includes, for instance, equal rewards and punishments for individuals of equal merit. Now, prior to the creation of the universe, there was nothing at all other than God. Hence, there could be no obligation of justice, and no basis for complaint should God have made fewer species of living things, or no living things, or nothing at all. It is not as if we *deserved* to live, since there was no "we" at all before God made the universe.

Even if there are no relational obligations of justice, there might still be obligations growing out of God's own nature. Here it is natural to think in more consequentialist terms. One might suppose, for instance, that God is morally obligated to maximize the goodness of the universe. Since Aquinas does not think there is any such maximally good world, he cannot suppose God is under that sort of obligation. Aquinas goes even further, however, and argues that God is not obligated to produce any goodness whatsoever:

> In a second way, something is said to be owed to something in its own right, for whatever is required for a thing's perfection is owed to it of necessity. It is owed to a human being, for instance, to have hands or to have virtue, because we cannot be perfect without these. Divine goodness, however, needs nothing external for its perfection. Therefore, the production of creatures is not owed to divine goodness in any necessary way. (*SCG* II.28.9/1053)

Whereas the first sort of obligation presupposes a prior relation, and hence is irrelevant to God's initial act of creation, this sort of obligation is based on the agent's intrinsic character. The perfection of our own nature, for instance, requires us to have certain virtues—courage, prudence, and so on (see §9.3), and even merely physical strength. The perfection of God's own nature is something we can take for granted at this point. Still, we can ask whether there is anything that God must *do*: Must God use his perfect nature to bring about anything in the world? Would God be less than perfect if God failed to act in certain ways? Aquinas's striking answer is that God is under no obligation to act at all. God's goodness "needs nothing external for its perfection" because it is *already* perfect, intrinsically.[4]

Accordingly, God was under no obligation to create a perfect universe, or even a very good universe. God was utterly free to create or not to create, and to create one kind of universe or another—free not just in the sense that he had the power to do these things, but also in the more demanding sense that such actions (or inactions) are entirely compatible with God's moral obligations. Somewhat paradoxically, God's creative act is free of such obligations because God is so very, very good—perfectly good. A less than perfect creator (if such a thing were possible) would be morally obligated to make as good a world as it could make.

As things are, in contrast, the universe is already and necessarily perfectly good, just in virtue of God's own existence. If this seems counterintuitive, the reason is perhaps that we tend to think of goodness in quantitative terms, such that there would be no upper limit to the amount of goodness possible in the universe. That, however, is quite alien to Aquinas's conception of goodness, which is thoroughly qualitative. Just as we can speak of a surface that is perfectly blue—a surface to which no addition will make it *more* blue—so we can conceive of a state of affairs that is perfectly good, in virtue of being exactly what it ought to be (see §8.2). This, of course, is always the case for God, whose goodness is infinite. Hence, the creation of some finite amount of further goodness could not make the universe any better.

The Beginning of the Universe

Medieval theologians did not imagine that creation literally took six days. Yet, though the account in Genesis was understood metaphorically, it was still understood to rule out the possibility that the earth, and the living things on it, had always existed. God created the universe; before that, there was only God.

Aquinas treats it as an unassailable Christian truth that the universe had a beginning, a first moment in time. Given this truth, he thinks we have a further and very powerful argument for God's creative freedom. For if God had been under some obligation to create, then he would have always satisfied that obligation, and so the world would have existed for as long as God had existed, which is to say that the world would have had no beginning in time. We tend to ignore such questions about the past and fixate entirely on the future. Thus, we dread the possibility that after death we might cease to exist for all eternity. Yet we are entirely unconcerned with a fact that should be just as dreadful: that for all of the eternal past, up until the time of our birth, we did not exist. Similarly, we cannot imagine that a perfect God could allow the universe to go out of existence. Yet, if the universe has not always existed, then there was a past eternity during which God existed without creating at all. What starker evidence could there be that creation was not obligatory and that God was utterly free to create or not to create?[5]

What stands in the way of this powerful proof of God's freedom is the difficulty of establishing the initial premise—that the world has not existed forever. Although Aquinas thinks this claim should be accepted on faith, he does not think it can be proved philosophically. This has to be the case, he thinks, if we suppose that God freely chose to create, for there can be no proof of something that depends entirely on the divine will.[6] In reaching this conclusion, Aquinas was taking an enormously controversial stand. Many earlier philosophers—including Aristotle, Avicenna, and Averroes—had supposed that the world could be proved to be beginningless. Many Christian authors, such as Philoponus (in the early sixth century) and Bonaventure (Aquinas's contemporary), went to the opposite extreme, arguing that the world could be proved to have had a beginning. Aquinas takes the middle ground, arguing that none of these alleged proofs on either side are demonstrative, and that the world's coming into existence has to be accepted as an article of faith, on the basis of biblical authority.

This modest and moderate conclusion might seem an unlikely object of controversy, but Aquinas drew attention to himself by the vehemence with which he attacked his opponents, particularly his contemporary Christian opponents. When asked to give his opinion on this subject as part of a quodlibetal disputation (see §1.3), he concluded his reply with the following remark:

> One should be extremely cautious about not presuming to produce demonstrations for what belongs to faith, for two reasons. First, this denigrates the excellence of faith, whose truth exceeds all human reasoning . . . , whereas things that can be proved demonstratively are subject to human reason. Second, since most of such reasoning is frivolous, it gives rise to the scorn of the nonfaithful, when they suppose that it is on account of such reasoning that we assent to these articles of our faith. (*QQ* 3.14.2c [31])

This shows Aquinas at his pugnacious best, confident in the validity of philosophical reasoning but also insistent on distinguishing philosophy from faith. In this case, where God's free will is concerned, we should not imagine that human reason can decide the choice that God made. Moreover, to pretend that we can do so, and to advance bad arguments on behalf of the faith, is in fact quite damaging to the faith, because it suggests to outsiders that Christianity is based simply on bad philosophy. It is far better, says Aquinas, to be clear about the limits of reason and to concede without hesitation that in some cases the doctrines of faith rest on faith alone.

What are those bad arguments advanced by others on behalf of the faith? The most straightforward and obvious one proceeds from the result established earlier (§5.1, "Creation"), that God is the creator of all things. Since Aquinas thinks this conclusion can be proved philosophically, it might seem that he has to think the universe has a beginning in time. This does not follow, however, because Aquinas thinks God could have been the cause of the universe even if the universe has always existed. God would have always existed, and the universe would have always existed, and it always would have been the case that God was the cause of the

universe. Of course, this is not the way Aquinas thinks things actually happened. He sees nothing contradictory, however, in the possibility that the world might have been created in this way and that it might *always* have been so created, forever back into the infinite past. For there to be some contradiction here, one would have to suppose that a cause must exist prior to its effect, so that first God existed and *then*, at some later time, the world was created. As discussed in the previous chapter (§4.2, "The Proof from Motion"), however, Aquinas makes no such assumption, and indeed he insists here that "in the case of things that act at an instant" it is not the case that the agent must precede its effect (*SCG* II.38.9/1143).

Other arguments purporting to establish that the universe had a beginning depend on puzzles concerning infinity. The most notorious of these arguments, which goes back to Philoponus, argues that if the universe had always existed, back into the infinite past, then we never could have arrived at the present. Aquinas states this argument as follows:

> One cannot pass through what is infinite. If, however, the world had always existed, then the infinite would have been passed through already, because what is in the past has been passed through. Yet if the world has always existed, then there are infinitely many past days or revolutions of the sun. (*SCG* II.38.4/1138)

The alleged impossibility of "passing through what is infinite" can be illustrated by a simple example. Suppose that it were possible for the universe to have always existed, without ever having begun to exist, so that it has already passed through "infinitely many past days." Then it would also be possible for there to have been a being, perhaps an angel, counting *backwards from infinity*, such that the angel counts down backwards in our presence from ten to one, only to announce that he has just finished counting without having begun to count. He has *always* been counting, he says, since he has just finished saying aloud an infinite number of numerals. Of course, if we began counting now, we would never finish, but the backwards-counting angel claims to have done just the converse of that. He has just counted an infinite number, backwards, having never begun counting, of course, but simply having always been counting. That, at any rate, is what he claims. *If* that report betrays an incoherence, then it is equally incoherent to imagine an infinite sequence of days, each of them passed through and now complete. After all, there could have been such a sequence only if the backwards-counting angel could have enumerated them.

Aquinas replies that the argument is "not cogent," for the following reason:

> The infinite, even if it does not exist all at once in actuality, still can exist in succession. For, in this latter way, any [part of the] infinite one takes is finite. Therefore each solar revolution from the past could have been passed through, because it was finite. With respect to all of them together, however, if the world had always existed then there would be no way of taking a first. In that case, there would also not be any passing through, since this always requires two boundaries. (*SCG* II.38.11/1145)

This is not the most lucid of replies, especially since it ends with the disconcerting concession that an infinite series of days could in fact *not* be passed through. Still, it is possible to see the point being made. Aquinas's view is that we can grant the major premise of the opposing argument, that "one cannot pass through what is infinite," and still hold that the world could have always existed. To make this point, he begins by drawing the distinction we have seen already (in §4.2, "The Proof from Motion") between an infinite sequence extended over time and an infinite sequence occurring all at once. The latter may not possible—Aquinas thinks it is definitely not possible—but the former is. To establish that, he invites us to pick some arbitrary stretch of days out of that infinite sequence. Any segment we pick must be finite. As a result, there can be no problem about passing through that segment. Generalizing, Aquinas asserts that "*each* solar revolution from the past could have been passed through, because it was finite." In other words, although the series as a whole is infinite, there is no day or stretch of days in the series that is infinite, and so there is no reason why the world could not have already existed forever.

Let us return to our backward-counting angel. Part of what boggles the mind in this case is that for all of time the angel has been assigning numerals to each number that it counts, in such a way that it is just now approaching *one*. One wants to know: What number did it start with? But as soon as this question is asked, the answer, of course, is obvious: it never did start, and so never faced the problem of deciding which numeral to begin with. It has just always been counting backward, and it just so happens that we are on hand to witness its arrival at zero. Is there any reason the angel could not have completed this task? Aquinas would have us pick any one particular segment of the task. Obviously, there is no problem about completing that segment. Now, if there is no problem segment by segment, why is there a problem for the series as a whole? *Where* does the problem lie, if not in any one part? Likewise, with respect to an eternal world, there is nothing incoherent about any part of this world's history. If the parts are all coherent, however, then what makes the infinite whole incoherent? Aquinas concludes that the world has not been proved to have a beginning in time.

Aquinas sees that the opposing argument depends on a conceptual confusion about the nature of an infinite series. To say that a series is bounded on one end and infinite on the other is not to say that there is any event in the series that is an infinite distance from its lower boundary. What makes a series of numbers or days infinite is that it has no end point—it just keeps on going. It is not as if there is a particular day or number of which we can say that, yes, finally! here is the one that is infinite. Instead, each day or number is itself a finite distance from the lower boundary, and we will never reach a day or number that is an infinite distance away. We will never reach it—not because it is there and unreachable, but because there simply is no such member of the series. Aquinas can grant that the infinite cannot be passed through, because that claim is irrelevant to an infinite sequence of days. We do not think that the world's future cannot be infinite, just because we will never reach that infinite day. Yet the situation is no different with respect to an infinite past. If there were a past day, infinitely distant from today, then we never could have gotten from there to here. To conceive of an infinite past in that way, however, rests on a misunderstanding of the nature of the infinite.

At the same time that Aquinas was fighting this rearguard action against his fellow Christian theologians, he had to be likewise concerned with arguments for the contrary view—that the world could be proved to be beginningless. These arguments were made not just in the books of Aristotle and his Islamic followers, but also by some contemporary Christian philosophers. Siger of Brabant, for instance, maintained that while as a Christian he believed that the world began to exist, he was compelled when speaking as a philosopher to accept the world's eternity. In effect, Siger held that we should believe one thing, even though there are demonstrative arguments that show the contrary. Aquinas harshly attacked this attitude, for being dangerous to both faith and philosophy, and famously remarked that "if anything is found in the words of the philosophers that is contrary to the faith, this is not philosophy but instead a misuse of philosophy resulting from a failure of reason" (*InDT* pro. 2.3c). To allow that sound philosophical arguments might conflict with the faith is to allow that either the faith is false or the very enterprise of philosophy is flawed. Aquinas rejects both possibilities and so insists that though philosophy is not *complete* (in the sense that it could prove all the truths of the faith), it is at least *sound* (in the sense that what it proves is never false).

So what are these arguments for a beginningless world, these misuses of philosophy? The most interesting are those based on facts about God's nature. Since God is unchanging, he never begins to act in one way or another. God's actions, insofar as he can be said to act at all, must have occurred for all of eternity, without starting or stopping. How, then, can God have created the world at a certain point in time? (*SCG* II.32.1088). Aquinas's simple

answer is that God did (and does) eternally will to create—that has been God's unchanging will for all of eternity. What he willed, however, was to create when he did create. Thus, "nothing prevents our saying that God's action was from eternity, and yet that the effect was not from eternity, but was *then* when he had decreed from eternity" (*SCG* II.35.3/1113). God did not have to do anything new or different when that determined point came about—his unchanging and omnipotent will made creation happen then because that was the content of his will: for it to happen *then*.

This way of describing God's act of creation immediately raises the question of why God would have chosen one moment rather than another to begin the universe. If there were, for all eternity, God and God alone, unchanging and eternal, then there would seem to be no basis for preferring one moment in time rather than another. Now, as we have seen, Aquinas wants to say that God freely made this choice—so there is nothing embarrassing about the implication that he was not determined to create at one moment rather than another. The worry, however, is that God would be unable to make any choice about when to begin. He considers this neat little argument:

> An agent chooses one thing over another through intellect only because of one's worth relative to the other. But where there is no difference, there cannot be any greater worth. Therefore where there is no difference, there is no choice of one over the other. For this reason, an agent equally related to both will not act. (*SCG* II.32.7/1092)

This is what has come to be known as the case of Buridan's Ass, named after a fourteenth-century philosopher and a donkey that starved to death between two equally attractive piles of hay. Of course, there has never been such a donkey, and one might think that if donkeys are smarter than that, God is too. Rather than reject the argument out of hand, however, Aquinas offers an extremely interesting reply.

God is not confronted with a Buridan's Ass scenario, says Aquinas, because there were not multiple times at which God might have chosen to create the world. Instead, time began to exist when the world began to exist, since time presupposes motion. This is not to say just that, before the world existed, there were no clocks or celestial movements by which to measure time (as when, awake in bed in the middle of the night, with no clocks in sight, time can seem not to exist). Aquinas means something much more interesting: that before the world existed, there was no time at all, but only God, whose mode of eternal existence "is entirely simple, having neither prior nor posterior" (*SCG* II.35.6/1116). It is a flat-out conceptual error to suppose that God waited for the right time to create the world, or that he chose between multiple possible starting times. The

only question for God was whether the world should exist from all eternity, or whether the world (and with it, time) should have had a beginning. Beyond those two choices, there is no further question of *when* to begin the world. The very question is incoherent.

As an analogy, Aquinas imagines someone asking why the universe was located where it is in space. Just as time depends on motion, for Aquinas, spatial location depends on relations to other bodies. So we can ask why one particular body is located where it is, relative to the rest of the universe. We cannot ask that question about the universe as a whole, however; it makes no sense to wonder why the universe was not placed five feet more to the left or the right. The question makes no sense, because the concept of location has meaning only relationally, once the universe has been created. Much the same is true for time: "so we should not consider the reason why the world was created now and not earlier, but only why it had not always been created" (*SCG* II.35.6/1116). This latter question makes sense, but unfortunately—as we have seen—Aquinas thinks we cannot know the answer. All we can say is that, according to the Christian faith, God freely chose to do it that way.

5.2 The Created Order

If God had been under some obligation to create, then he would have always created, from eternity. If we accept Aquinas's view that the world began to exist, then we should accept that God chose to create freely and might just as well not have created anything. Once we get over the surprising idea that the created world might just as well never have existed, without the total sum of goodness being any less, we should consider the question of why God did decide to create. Presumably, the choice was not random or whimsical. Presumably, God had his reasons.

In fact, given that the choice to create was a voluntary act of will, it had to be done for some end or purpose. (Voluntary actions always have *some* end.) Now, the ultimate end for God, Aquinas says, is the same ultimate end that we all have (see §8.6), which is God himself: "God wills his own goodness as an end, and wills everything else as the means to that end" (*SCG* I.86.2/718). Aquinas goes on, in this same chapter, to describe three levels of explanation for why God wills the things that he wills:

1. God wills the goodness of the universe because this fits with his own goodness.
2. God wills particular goods in the universe for the sake of the good of the universe.
3. God wills further details because they are entailed by choices at level (2).

Lower levels depend on higher levels, and so the ultimate explanation for God's act of creation is that it fits (*decet*) with his own goodness. Of course, given his views about divine freedom (§5.1), Aquinas does not want to claim that God wills the universe because his goodness *requires* it. He carefully limits himself to saying only that creation fits or suits his goodness, leaving room for there to be many other courses of action that would be equally suitable.

Still, the claim is not just that God's goodness is *consistent* with creation, but that his goodness gives God some reason to create. Usually, when we say that an action is done for some end, we mean that the action yields that end or at least contributes to it. In the present case, however, we cannot say this. Since God's goodness is eternal and unchangeable, the act of creation cannot help God achieve or improve on his own goodness in any way. What this leaves us with, Aquinas says, is that God created the world in order for it to *participate* in his goodness.[7] To say that a thing *participates* in something else is to say that it partakes or shares in it. Necessarily, it must have the character of that thing in an imperfect way. So to say that the created world participates in God's goodness is to say that the created world is good, but imperfectly so. This imperfection of the created world is inevitable, since one limit to God's omnipotence (see §5.1) is that God cannot make another perfect being. Consequently, since an infinity is not made greater by the addition of something finite, God's choice to create cannot be a way of adding to the amount of goodness in the world. Instead, as Aquinas puts it in his *Disputed Questions on Truth*:

> God wants creatures to exist so that in them his goodness is manifested, and so that his goodness, which by its essence cannot be *multiplied*, is at least *spread out* over many by participation in his likeness. (*QDV* 23.1 ad 3)

The eternal perfection of God's goodness makes it impossible for him to bring about any more good, and so that cannot be a motive in creation. Yet if what is perfect cannot be increased, it can at least be "spread out over many." Ordinarily, to spread something out without any increase requires the source to undergo some sort of diminishment. Once again, however, the infinity of God's goodness yields a counterintuitive result: God can spread out his goodness while being in no way diminished himself.

In the face of all this, one might still ask: Why is God doing this? Contrary to what the passage just quoted might suggest, God's goal is not to show off his goodness to others. Creatures exist not so that God's goodness is manifested *to* them, but so that his goodness is manifested *in* them. Why? Not, of course, to satisfy God's vanity, as a kind of imperfect reflection of his own infinite goodness. Instead, the idea seems to be

a claim associated with Pseudo-Dionysius (a sixth-century Neoplatonist): that things that are good are inclined, in virtue of their goodness, to share that goodness with others. Goodness, in other words, is by its very nature self-diffusive. To some this principle has seemed to entail that God must necessarily create—that his very goodness requires it. Aquinas endorses the Dionysian principle without reservation,[8] and it seems to be a crucial part of what, on his view, motivates creation. Yet this must be, for God, the sort of motivation that could just as well have been resisted, for the now familiar reason that God's sharing his goodness does not increase the total sum of goodness. Spreading out his goodness in time and space is a good thing, but not uniquely so. From our perspective, it is hard to understand how God might have chosen not to create anything, but what we tend to ignore is that God's ultimate motive is not our well-being but his own perfect goodness.

Of course, whatever choice God makes, it must be suited to his perfect goodness. So given that God has decided to create the world, the world must be good. This means, at level (2), that the kinds of things God chose to create must have been chosen in order to make the universe good. Now, for Aquinas, the most striking feature of the created world is its variety—what we now call biodiversity. Indeed, he takes the array of species to be so rich as to support the general principle that "a higher nature at its lowest connects with a lower nature at its highest" (*SCG* II.91.4/1775). Aquinas surely does not mean that there are no gaps between species (see the discussion of natural kinds in §3.1), but rather that species overlap in a certain way: human beings, for instance, have features that we share both with other primates (beneath us) and with the angels (above us). Since Aquinas was, of course, unaware of the role played by genetic mutation and natural selection in the formation of species, he took every kind of thing, living and nonliving, to be the direct product of God's creative activity.

Biologists tell us that the entire natural world is connected in such a way that the destruction of any one part has repercussions for the rest. Surely, God could have made a much simpler world, with only a few select species—without quite so many species of beetle, for instance. Indeed, why was God not altogether more selective, so that the only things created were the really excellent things (and some really excellent food for those things to eat)? We might say that God has created the universe on the model of a state university rather than an Ivy League college. Why? Aquinas's answer is that God's goodness is manifested by diversity better than by selectiveness (*SCG* II.45). When a potter makes a bowl, she wants it to reflect her talents. Hence, she aims at making the very best bowls she can make, and she is likely to throw out anything that falls too far short of that mark. In God's case, nothing God creates can adequately

reflect God's talents, and so the strategy of making only the very best things is a poor one. Instead, God's strategy is to make a vast number of different kinds of things. Though the results will still inevitably be inadequate, they better manifest God's perfection than would a simpler, more selective universe.

In this same vein, Aquinas thinks that it is diversity among species rather than among individuals that makes the world better. Creating many things of the same kind—even if that kind is excellent—is not as good as making many different kinds of things, in fewer numbers. "Many species adds more to the goodness of the universe than many individuals of a single species" (*SCG* II.45.6/1224). So God could have made more human beings (for instance, by making more planets like earth, and inhabiting them with people), but this would not have been as good a universe as one that contained fewer human beings but a greater variety of other things. Still, one might wonder, why not do both? Why not make more people *and* a greater variety of things? To this there is no real answer, because no matter what kind of world God created, he could have always created a better one, one with more individuals and (more significantly) more different kinds of things.[9] This brings us back to God's freedom with respect to creation. The world God has created is a good one, one that fits God's own goodness. There are, however, an endless number of alternative worlds that God might have made, including the limiting case of no created world at all.[10]

If it was open to God to create nothing at all, then presumably it was also open to God, as suggested earlier (§5.1, "Omnipotence and Freedom"), to create a world without any intelligent life. Still, Aquinas thinks that it is especially fitting for there to be creatures with minds. Whereas all beings, just by being, are a partial manifestation of God, only intellectual beings manifest God in their mode of operation (*SCG* II.46.3/1231). When God acts, he does so through will and intellect. Even his act of creation is entirely a mental operation. This makes it at least natural, if not quite inevitable, that God would make some creatures of this kind. Further, the creation of intellectual beings opens up a whole new avenue through which God can make the created world resemble himself. Intellectual beings have the potential to resemble God not just in their being and in their operation but also in the content of their thoughts. That is, intelligent beings can form thoughts and volitions about God and in this way add one further element of goodness to the created world. Indeed, Aquinas goes so far as to say that "the highest perfection of the universe *requires* there to be some creatures in whom the form of the divine intellect is expressed by existing within intellect" (*SCG* II.46.5/1233). So perhaps Aquinas thinks that, given God's choice to create, it would in fact *not* be consistent with his goodness to have failed to create intellectual beings.

If Aquinas is committed to this last claim, it would be just one instance of the sort of conditional necessity that God is under in many respects. Given the choice to create, God could not have created a flawed universe. Given the choice to create human beings, God had to create the rational soul. This last is one of many examples of level (3) explanations. Given God's choice to create animals, he had to create sensory powers; given his choice to create plants, he had to create nutritive powers, and so on. There is nothing at all problematic in ascribing to God this sort of conditional necessity, and so it is open to Aquinas to think that, given God's choice to create, he had to create intellectual beings.

When we think about intellectual beings, we naturally tend to think about ourselves. Still, there certainly might be other kinds of intellectual life. Whereas philosophers today like to puzzle over the possibility of alien minds from distant galaxies, Aquinas's extraterrestrials are the angels. We today have some indirect reasons for thinking that there probably are such alien life forms (namely, the vast size of the universe and the way in which complex life can evolve out of simpler forms). Aquinas similarly thinks that the existence of the angels can be given some indirect theoretical support, beyond simply appealing to biblical authority. For if we accept that God's governing motive in creation is to make a broad diversity of kinds, then we ought to expect that this diversity would extend above all to that part of creation that is most excellent, intellectual beings. What would be the rationale for creating so many kinds of beetles, but only one kind of intelligent being? Since this seems so unlikely, Aquinas posits the existence of angels.

Like us, the angels have minds. Unlike us, they are pure minds, without bodies (see §3.3). In several ways, the angels fill in what would otherwise be gaps in the created order (the seamless continuum of being from God to the lowliest inanimate entity that is sometimes called *the great chain of being*). For one thing, without the angels, the only rational beings would be corporeal. There is absolutely no reason, however, why a rational being must have a body. For, as we will see (in §6.7 and §7.2, "An Argument for the Intellect's Immateriality"), Aquinas thinks that minds are incorporeal and capable of existence without a body. Hence, from his perspective, there would be something quite disordered about the created order if it contained only rational beings that were united to a body. Now, the reason why the human intellect is united to a body is so that it can acquire sensory information. Our intellects work best when supplied with data through the senses—this is how they were designed to function. Yet this empirical orientation, far from being the only way in which an intellect could work, is in fact "an imperfect mode of intellective cognition" (*SCG* II.91.8/1779). It is far better, according to Aquinas, to grasp concepts directly through intellect, without having first to receive sensory images

and then to turn those images into intellectual concepts (for details, see §7.3, "The Objects of Intellect"). Again, there would be something disordered about the created order if the only intellectual beings in existence all operated according to this imperfect mode of cognition.

These arguments make at least a plausible case for the existence of another kind of intellectual being. Aquinas wants to argue, however, for something much stronger than this: he thinks there must be a vast hierarchy of angelic kinds. For reasons we considered in §3.3, he thinks that no two angels can share the same species. Hence, there must be as many species of angel as there are angels. What distinguishes these species—the only thing that *could* distinguish them, given what angels are—is differences in intelligence. Thus, the hierarchy will run from the lowest rank (not so far beyond us in intellectual power) to the most lofty and Godlike. Of course, even those angels at the top of the hierarchy must be infinitely distant from God's infinite mind. Still, these highest angels will be radically different from us, capable of understanding in an instant concepts that a human being can grasp only after years of study.

Aquinas thinks it intuitively obvious that "the order of the universe seems to require that what is nobler in things exceeds the less noble in quantity or number." He therefore concludes that "the separate intellectual substances exceed in number the sum of all material things" (*SCG* II.92.7/1789). This is a vast hierarchy indeed, and it saddles Aquinas with a conception of the universe that could scarcely be less parsimonious. Again, however, the account is driven by his general understanding of why there is a universe at all:

1. The universe exists as a reflection of God's goodness.
2. The best reflection of God's goodness is a world as varied as possible in its natural kinds.
3. The variety manifested among lower kinds should be exceeded by the variety at the highest level, the level of intellectual substances.

From these premises, it follows that most of the created universe, as well as its best part, consists in beings that we have no direct contact with at all and whose existence we grasp only through revelation and highly speculative inferences.

5.3 Providence

We saw in the previous section that God's goodness, combined with his choice to create, can impose upon him various kinds of conditional necessity—an obligation to set things up in a certain way, given other choices that he has made. If we wanted to deny this and insist that all worlds are

equally good (and so equally good candidates for God's creative energies), then there would be no basis for praising the beauty and harmony of this world. That is not Aquinas's view. His writings are full of praise for the wisdom and justice with which God has ordered all things.[11] This doctrine, that God orders all parts of creation, is known as the doctrine of *providence*. Though it is highly problematic, for reasons we will consider, Aquinas defends it in an extremely strong form.

Conservation

In its most basic form, the doctrine of providence follows straightaway from two conclusions reached earlier in this chapter: first, that everything that exists comes ultimately from God (§5.1, "Creation"); and second, that everything God does, he does for the sake of his own goodness (§5.2). From these premises, it follows that God must be providently directing creatures—for what else is it to direct a thing other than to use it for the sake of some end? Therefore, since God created all things, for the sake of his own goodness, his providence must extend over all things (*SCG* III.64.3/2386). If not, he would have to be a fool, or he would have to care nothing about the end at which he is supposedly aiming.

From just this much, it is not clear what the extent is of God's ongoing involvement with the world. It might even be consistent with this argument for God to have set the universe in motion and then let it run its own course, without any subsequent interference—a so-called clockwork universe. Aquinas thinks he can show, however, that God must be involved in the universe in on ongoing way—that the universe would not continue to exist if God did not continue to preserve it. Thus, contrary to the clockwork universe hypothesis, Aquinas defends the doctrine of *conservation*—the claim that God must continue to play a role in the universe, after creating it, in order for creatures to conserve their existence.

One argument for conservation comes from consideration of God's will and its efficacy. As we saw in discussing the beginning of the universe (§5.1, "The Beginning of the Universe"), God created simply by willing, eternally and unchangingly, for the universe to begin to exist. Given God's omnipotence, whatever he wills to be the case is the case. What goes for the moment of creation, however, goes for the entire subsequent history of the universe. If God wills things to be a certain way, they will be that way; if he wills them to be otherwise, they will be otherwise.[12] Even this argument, however, fails to capture the full strength of Aquinas's commitment to providence. For it would be consistent with this picture of conservation that God might create the world, see its whole subsequent history, and then decide that it is a good thing to let this history play itself out, without any supernatural interference. What God would eternally will, in effect, is a clockwork universe.

To see the full force of Aquinas's doctrine of conservation, we can look at how he compares bringing a thing into existence with putting a thing in motion. As we saw in §5.1, "Creation," Aquinas argues that God is the cause of the existence of all things. From that premise, he reasons as follows:

> The divine operation stands to the existence of things as the motion of a moving body stands to the making and moving of a thing that is made or moved. It is impossible, however, for the making or moving of a thing to continue, if the motion of the mover ceases. Therefore it is impossible for the existence of a thing to continue if not through divine operation. (*SCG* III.65.5/2401)

When x moves y, or makes y be something, x must continue to act for as long as y continues to be moving or undergoing transformation. These are not really two different cases for Aquinas, because he thinks that, in the case of corporeal things, to be made into something, or to undergo transformation, just is to be moved in some way. So Aquinas wants to defend conservation through a principle he takes from physics: that a thing cannot continue in motion unless it has some cause that continuously moves it. Unfortunately, this principle is false. According to Newton's first law of motion, "every body continues in its state of rest or of uniform motion in a right line unless it is compelled to change that state by forces impressed upon it" (*Principia* I). From this principle of inertia, it follows that a body in motion needs no further cause to sustain its motion; instead, it will remain in motion until something acts on it. Aquinas has to hope, therefore, that the case of motion is *not* analogous to the case of existence. If there is an analogy here, it would show precisely the contrary of what Aquinas wants: it would show that beings, once created, can remain in existence without any need for divine conservation.

Although the analogy to motion turns out to be fairly disastrous for Aquinas as an argument, it nevertheless illuminates the doctrine of conservation. What it shows, first, is that Aquinas takes conservation to involve God's ongoing causal activity in the world. God conserves the existence of things not just in the sense that he eternally wills for them to carry on, as they are, but also in the sense that he continuously sustains their existence, by acting on all things. Hence, since he denies that there can be action at a distance, he uses the doctrine of conservation to infer God's *omnipresence:* "God is everywhere and in all things" (*SCG* III.68.1/2422). The analogy to motion further helps to make clear what

options are available to someone who wants to reject the doctrine of conservation. Consider these two alternatives to Aquinas's account:

A. Once things come into existence, they continue to exist on their own through time. What needs to be explained is not why things continue to exist, but why they cease to exist.
B. Nothing exists for more than an instant. A thing comes into existence, and then immediately goes out of existence. What appears to be endurance is in fact a succession of different things that closely resemble each other.

Aquinas rejects both in favor of this:

C. Once things come into existence, they endure only if there is some cause that continuously sustains their existence.

These claims lie at the level of fundamental metaphysics and make no direct reference to the doctrine of divine conservation. Of the three, (A) is surely the most intuitive, but it is very hard to see how one might prove or disprove any of them. Aquinas explicitly considers both (A) and (B), but he does not offer anything like a decisive refutation of either. Some modern philosophers—most notably David Lewis—have defended something like (B), but their arguments have not proven to have wide appeal.

If we were to decide that existence, unlike motion, is not subject to any principle of inertia, then we would have to choose between (B) and (C). Neither option directly entails the doctrine of conservation, but each furnishes it with a significant amount of support. Consider a series of persons at successive instants, and call those persons P_1, P_2, and P_3. These three persons may or may not be the same person, depending on whether we accept (B) or (C). In any case, both accounts agree that we need some cause for the existence of each member in the series. Aquinas will, of course, say that this is God. What else could it be? The only plausible alternative would seem to be that P_1 causes P_2, and then P_2 causes P_3. This seems highly implausible, however. For one thing, the three stages do not exist at the same time. So if we believe, as Aquinas does, that causes and effects are simultaneous (see §4.2, "The Proof from Motion"), then P_1 is not even eligible to be the cause of P_2. Moreover, even if we allow that cause and effect need not be simultaneous, the theory still seems enormously implausible. Let P_2 be you, right *now*. There were various things that you were doing at that instant, but is it really credible to think that one of those things was bringing a new you into existence, at the next instant of time? If we seriously do want to reject (A), the principle of inertia for existence, then we seem to need something like a God to keep the world going, moment after moment.

Necessity and Freedom

Shortly after arguing for the doctrine of conservation, Aquinas goes on to make the further claim that "for all things that operate, God is a cause of their operations" (*SCG* III.67). This will turn out to be a fairly staggering claim, but Aquinas thinks it follows in some form straight from his earlier claims. First, the claim follows from the argument considered in §5.1, "Creation," showing that God is the cause of all being. Since "everything that operates is in some way the cause of being, either with respect to substantial or accidental being," God must be at least a remote cause of all creaturely operations (*SCG* III.67.1/2415). This involves God in creaturely operations in only the weak sense that God must at some point have played a causal role in any action. On reflection, this should not be at all surprising. After all, since God is ultimately responsible for the creation of all things, he must also be ultimately responsible for their actions.

The thesis that God is a cause behind all creaturely operations also follows from the doctrine of conservation. There is a connection, because "if the divine influence were to cease, every operation would cease" (*SCG* III.67.3/2417). This once again establishes the thesis only in a fairly weak sense. It makes God a necessary background condition: without God's conservation, there would be no creatures, and so *a fortiori* no creaturely operations.

The thesis in question emerges in its strong form when Aquinas attempts to derive it from his proof from motion for God's existence (see §4.2, "The Proof from Motion"). He argues as follows:

> Whatever directs an active power toward an action is said to be the cause of that action. For an artisan directing the power of a natural thing toward some action is said to be the cause of that action—a cook, for instance, is the cause of the cooking that occurs through fire. But every directing of a power toward an operation is principally and firstly from God. For operative powers are directed toward their proper operations through some motion of either the body or the soul. But the first principle of every motion is God, since he is the first and altogether unmovable mover, as was shown above [*SCG* I.13]. . . . Therefore every operation ought to be attributed to God as to the first and principal agent. (*SCG* III.67.4/2418)

Here the full extent of God's providence becomes clear. God not only foresees and approves of everything that happens in the universe but

also plays a causal role in bringing it about. He acts, moreover, not just as a remote enabling cause, bringing into existence and sustaining the substances that then go on to act on their own, but as the first mover in every individual causal series, directing everything that happens by beginning the series of events that gives rise to that ultimate intended event.[13]

In our discussion of the proof from motion (§4.2, "The Proof from Motion"), we mentioned Aquinas's commitment to the claim that God is the only first mover. Now we are in a position to see the full implications of that claim. Aquinas holds that any event at the level of creatures must have some cause, and that cause must have a further cause, and so on, until we reach God. This does not mean that there are no true creaturely causes. Aquinas argues at length against the view of some Islamic philosophers that only God can exercise causal efficacy in the world; instead he claims that God and creatures cooperate in producing their effects (*SCG* III.69–70). In every case, however, creatures must act in virtue of being moved by God—even in the cases of will and intellect. Thus he argues:

> Order is found more perfectly in spiritual things than in corporeal things. In corporeal things, however, every motion is caused by the first motion. Therefore in spiritual things, too, every motion of the will must be caused by the first will, which is the will of God. (*SCG* III.89.6/2649)

With this, Aquinas explicitly extends the argument from the last paragraph to cover the case of the human will, and he says much the same with respect to intellect.[14] Now, there is no reason to think that God moves our will and intellect in ways inconsistent with our larger set of beliefs and desires. Yet it is hard to avoid the suspicion that this is so only because it is God that has given us all of our beliefs and desires. What we think, and what we do, seems determined by God's providence, in such a way as to deprive the world of all contingency, and to deprive us entirely of freedom and moral responsibility.

Aquinas himself sets out the quandary he seems to face with respect to providence and necessity:

> It is necessary to say either that (a) not all effects are subject to divine providence, in which case providence does not concern all things (though it was shown earlier to do so); or (b) it is not necessary that, when providence is posited, its effect is posited, in which case providence is not certain; or (c) necessarily, all things occur of necessity. For providence concerns not only the present or past time, but the eternal, since nothing can be in God that is not eternal. (*SCG* III.94.3/2687)

Aquinas denies that he faces a problem here—he thinks he need not accept any of the three claims. To be sure, he thinks that, contrary to (a), all effects are subject to divine providence. Providence governs all individual things, both their existence and their operations, including individual human choices (*SCG* III.67, 75, 90). After all, if providence did not extend this far, then how could God be said to govern the created world at all? Too much would be left out. Moreover, contrary to (b), God's providence is utterly certain, infallible, and immutable. What God has eternally willed to happen, and what he sets in motion, always happens.[15] So how can he avoid (c), that all things happen of necessity? What Aquinas contends is that God can providently decree that a thing will happen contingently rather than necessarily. Suppose, for instance, that God has providently willed that a certain man will be king. It follows from this that he will be king. Yet it does not follow that, considering that state of affairs absolutely, he will necessarily be king. For, considered absolutely, it might not happen—there is nothing in the state of affairs itself that makes it necessary.[16] In this way, Aquinas takes contingency and divine providence to be compatible.

Aquinas's strategy depends on an observation made earlier (§5.1, "Omnipotence and Freedom") that claims about possibility are always made relative to certain facts that we hold constant. So in asking whether it is possible for a certain man not to become king, we need to specify what we will hold constant in answering that question. If we think of the event in a general sort of way, then it clearly is possible for him not to be king. After all, he might die first, or the monarchy might be overthrown, and so forth. God has established the universe in such a way that there are many contingent events of this sort: events that are not determined *by their very nature* to come out one way or another. Indeed, so understood, there is virtually nothing in nature that happens of necessity. (Aquinas thinks that the celestial spheres revolve by the necessity of their own nature, but we now know that even this is not so.) If, on the contrary, we are asking about what is possible given divine providence, then the only thing that is possible is what God has decreed, and in this sense nothing is contingent and everything is necessary.

Now, since the very concept of *contingency* becomes empty on this broader reading, and all things become necessary, Aquinas is convinced that the broader reading is not what we mean when we ask whether there is contingency in the world. Instead, we must mean the more limited reading, which asks only whether a thing must happen in virtue of its nature, just as the kind of thing that it is. Similarly, he thinks that we can talk about things happening by chance and fortune—again, in a narrow sense—inasmuch as this involves things happening outside of what was intended by the particular agents involved (*SCG* III.74, 92). In a broader

sense, there is, of course, no chance and no fortune, inasmuch as all things happen exactly as God wants them to happen.

Obviously, this doctrine raises large and difficult questions about freedom, moral responsibility, and the existence of evil. It is very hard to suppose that everything that has happened on earth has happened just as God wanted it to happen. Moreover, if it did happen that way, then it is hard to see how anyone other than God could be held responsible. Here we address just one aspect of that problem, the question of whether divine providence can be reconciled with human freedom. In his explicit consideration of this question, Aquinas begins by distinguishing the contingency associated with nonvoluntary actions from the contingency associated with voluntary actions. In the first case, "the contingency of causes is the result of imperfection and defect: for inanimate things are determined by their nature to one effect, which always occurs unless there is an impediment: either due to the weakness of the power, or due to some external agent, or due to the indisposition of the matter" (*SCG* III.73.2/2488). In these cases, to say that an outcome is contingent is to say that, given the thing's nature, the outcome does not necessarily have to occur—there could be some sort of failure. In the case of voluntary actions, in contrast, the contingency is a kind of perfection, because a voluntary agent "does not have a power limited to one thing, but has the power to produce this effect or that one. For this reason it is contingent as regards each" (*SCG* III.73.2/2488).

Of course, given that the contingency of voluntary agents is a perfection, God has all the more reason to create in such a way as to preserve it. Aquinas goes on to explain how such contingency is preserved:

> The form through which an agent acts voluntarily is not determinate. This is because the will acts through a form apprehended by intellect, since what moves the will as its object is some good that has been apprehended. The intellect, however, does not have one form that determines its effect; instead, it is its nature to comprehend a multitude of forms. For this reason, the will can produce many kinds of effects. (*SCG* III.73.3/2489)

The idea is that nonvoluntary agents are programmed to act in certain ways. Trees always grow toward the light, birds always make nests, and so on. These actions are not necessary, as we have seen, because some sort of defect or impediment is always possible. The actions of human beings, in contrast, are free from necessity in an entirely different sort of way. We are not programmed to act always in the same way; instead, we are capable of modifying our behavior to fit the circumstances, to such an extent that there is almost nothing that we necessarily must will. In fact, Aquinas contends that the only thing we will of necessity is happiness (*ST* 1a 82.1).

So how is God's providence consistent with human freedom? Aquinas thinks that our choices are free because they have this sort of voluntary contingency. God gives this to us by giving us intellects with which we can notice different courses of action and judge which course seems best, and by giving us wills with which we can bring ourselves to act in whatever way seems best. Our actions are not necessary, then, because nothing in our nature determines that we will act in one way rather than another, in any given situation. At the same time, in a broader sense, our actions are necessary. For, given God's eternal and unchanging will and his providential governance of everything in the universe, our choices must accord with whatever God has decreed. From this broader perspective, we could not have done otherwise. It seems fair to say, then, that Aquinas's theory of providence entails a kind of determinism. Philosophers continue to disagree over whether human freedom and moral responsibility are compatible with such determinism, and scholars also disagree on just where Aquinas falls in this debate. His discussion of providence, however, provides strong reason to believe that he should be placed among the compatibilists. Accordingly, his views regarding human freedom are neither more nor less defensible than other forms of compatibilism.

It might seem that the view we have described not only necessitates our actions but also renders them involuntary, inasmuch as our choices would seem to be God's choices more than our own. This is a consequence Aquinas cannot allow, since he thinks that our actions can be free only if they are voluntary. Indeed, he makes a very powerful reply to this objection. It is generally true, he says, that an action is involuntary when it is caused by some external agent. Hence, if anything other than God were to act on our wills in this way, the action would be involuntary, and not our responsibility at all. The case of God, however, must be different. After all, we are supposing that it is God who made the will and gave it its initial inclination toward the good. This inclination was imposed upon us, it remains out of our control, and yet we do not suppose that this makes our actions involuntary. Now, when God acts upon our wills, giving rise to those choices that he has providently decreed, he does not do so by forcing us to will something we have no inclination to will. Instead, he influences us by changing our very inclinations (or perhaps by showing us something that stimulates our existing inclinations).[17] As a result, our choices match our inclinations and are produced by those inclinations rather than by some external compulsion. Admittedly, those inclinations are produced by God and so are not under our control. Yet who would suppose that all of our most basic inclinations are under our control? Surely, many are the product of nature. If this does not make our actions any less voluntary, then neither should the ongoing influence of divine providence.

5.4 Conclusions

Reflection on the relationship between a perfect being and its creation gives rise to some of the deepest problems in philosophy, including questions about time, causation, possibility, infinity, freedom, and evil. In some respects, Aquinas's theological framework provides an opportunity to achieve clarity about these problems. In other respects, his doctrine of creation entails certain consequences about our place in the universe that are surprising and perhaps unwelcome—above all those that arise from the relationship between divine providence and human autonomy. Throughout this material, Aquinas displays the clarity and resourcefulness that is characteristic of all his philosophy.

Notes

1. "The first mover in any order of motions is the cause of all the motions that belong to that order. Therefore since many things are produced in being through the motions of the heavens, in whose order God is the first mover, as was shown, God must be the cause of being for many things" (*SCG* II.6.3/880).

2. "Pure actuality, which God is, is more perfect than actuality mixed with potentiality, as there is in us. Actuality, however, is the source of action. . . . So God, much more than us, can not only understand and will but also produce an effect, through his being in actuality. Thus he can be the cause of being for other things" (*SCG* II.6.7/884).

3. See *SCG* II.21.11–12/979–980; *SCG* II.42.11–12/1191–1192. For Avicenna, see his *Metaphysics* (*Liber de philosophia prima*) IX.4.

4. "Since God's goodness is perfect, and he can exist without other things (since none of his perfection comes to him from others), it follows that there is no absolute necessity that he will things other than himself" (*ST* 1a 19.3c).

5. "The excess of divine goodness above creatures is expressed most of all through the fact that creatures have not always existed. For from this it appears expressly that all things other than him have him as the author of their being, and that his power is under no obligation to produce effects of this sort" (*SCG* II.35.8/1118).

6. "Things that depend on pure divine will cannot be demonstratively proved" (*QQ* 3.14.2 [31]).

7. "The end of the divine will can only be his own goodness. But he does not act in order to bring this end into existence, in the way that an artisan acts in order to make an artifact. For God's goodness is eternal and unchangeable, and so nothing can be added to it. It also could not be said that God acts in order to improve it, or that he acts in order to acquire this end for himself, in the way that a king fights to acquire a city. For he is his own goodness. What remains, then, is that God acts on account of his end inasmuch as he produces an effect that participates in that end" (*SCG* II.35.7/1117).

8. "The sharing of being and goodness proceeds from goodness. . . . Thus the good is said to be diffusive of itself and of being" (*SCG* I.37.5/307).

9. "Speaking in absolute terms, for everything made by God, God can make another that is better" (*ST* 1a 25.6c).

10. "Since the divine goodness is infinite, it can be participated in in infinitely many ways, and in other ways than by being participated in by the creatures that there are now" (*SCG* I.81.4/685).

11. "Because God wills something, God also wills the things that are required for it. What is required for the perfection of a thing, however, is owed to it. Therefore, there is justice in God, which consists in giving to each its own. Hence it is said in Psalm 10.8: *The Lord is just and has loved justice*" (*SCG* I.93.6/784).

12. "He permitted things not to be when he so wanted, and made things be when he wanted. Therefore they exist for as long as he wants them to be. Therefore his will is what conserves things" (*SCG* III.65.8/2404).

13. Neatly summarizing the various causal roles that God plays with respect to creatures, Aquinas writes: "God not only gives things their forms, but *also* conserves them in existence, *and* directs them toward action, *and* is the end of all actions, as was said" (*ST* 1a 105.5 ad 3). With respect to God's role as the end of all actions, see Chapter 8.

14. "Human cognition pertaining to the intellect is ordered by God through the mediation of the angels" (*SCG* III.91.2/2662).

15. "If all things that can act minister necessarily to God in acting, then it is impossible that any agent impede the execution of divine providence by acting contrary to it. Nor also is it possible for divine providence to be impeded by the defect of anything that acts or is acted on, since every active or passive power has been caused in things in accord with the divine disposition. It is also impossible that the execution of divine providence be impeded by any change in providence, since God is entirely immutable (as was shown above). What remains, then, is that the divine provision cannot in any way be annulled" (*SCG* III.94.10/2694).

16. "Consider something posited to be providently decreed by God as a thing that will occur. If it belongs to the class of contingent things, then it is able not to be, when considered in its own right. For in this way it was providently decreed to be contingent, able not to be. Still, it is not possible that the order of providence fail in such a way that it does not contingently occur. And thus the third argument is solved: for on this basis it can be posited that he will not be king if that is considered in its own right, but not if it is considered as providently decreed" (*SCG* III.94.14/2698).

17. "That which is moved by another is said to be compelled if it is moved contrary to its own inclination. If, however, it is moved by that which gives to it its own inclination, then it is not said to be compelled" (*ST* 1a 105.4 ad 1; cf. SCG III.88.4–6/2640–2642 and ST 1a2ae 6.1 ad 3).

Suggested Readings

Aquinas's most detailed treatment of God's power comes in his extensive *Disputed Questions on God's Power*, which considers in greater depth many of the issues discussed in §5.1. With respect to a beginningless universe, see Aquinas's short treatise *On the Eternity of the World*, which has been translated, along with the contrasting contemporary views of Bonaventure and Siger of Brabant, in:

Cyril Vollert, Lottie Kenzierski, and Paul M. Byrne, trs., *On the Eternity of the World* (Milwaukee: Marquette University Press, 1964).

For a detailed survey of the medieval controversy on this topic, see:

Richard C. Dales, *Medieval Discussions of the Eternity of the World* (Leiden: Brill, 1990).

The starting point in the secondary literature for any detailed discussion of Aquinas on creation should be:

Norman Kretzmann, *The Metaphysics of Creation: Aquinas's Natural Theology in* Summa Contra Gentiles *II* (Oxford: Clarendon Press, 1999),

which works through the whole of *SCG* II in careful detail. For further reflections on the created order, our place in it, and the problem of evil, see the epilogue to:

Robert Pasnau, *Thomas Aquinas on Human Nature: A Philosophical Study of* Summa Theologiae *1a 75–89* (New York: Cambridge University Press, 2002).

Aquinas's most extensive argument for the doctrine of conservation comes at *ST* 1a 104.1. As for the doctrine that nothing endures through time, he considers this at *SCG* III.65.10/2406, attributing it to Islamic philosophy. His source seems to be the critical discussion in:

Moses Maimonides, *The Guide for the Perplexed*, 2nd ed. tr. M. Friedländer (London: Routledge, 1904; reprint, New York: Dover, 1956), I.73, 124–125.

The classic modern statement of this view is:

David Lewis, *On the Plurality of Worlds* (London: Blackwell, 1986), 210–220.

6

The Human Soul and the Human Body

6.1 The Special Status of Human Beings

In Aquinas's schema of the created universe, human beings straddle the profane and the divine as no other creature above or below. As he sees things, human beings are conspicuously unique in the whole of creation: they look, by their very nature, Janus-faced toward both the angels and the brutes, and they are what they see. This is why in Aquinas's *Questions on the Soul*, his most complex and intricate treatment of the subject, he maintains that human beings sit "on the boundary line between corporeal and separate substances" (*QDA* 1c). Humans owe their special status to their being *rational animals*, where this implicates them in being both spiritual, since rational, and corporeal, since animal. By contrast, no angel is an animal; and no other animal has a rational soul. It is fairly clear why no angel is an animal, since no angel is even a material being (see §3.3). It is less clear, even if we allow that among the animals only human animals are rational, why the presence of intellect should make so consequential a difference for them. Why should it be the case that the ability to think makes human beings singular among animals? After all, nonhuman animals perceive, and as we shall see, Aquinas is keen to provide a kind of explanatory uniformity when characterizing the commonalities in the animal kingdom. His contention is that intellectual ability marks a kind of divide between those whose lives are terminal and those with life everlasting. So human beings, though animals, are also the lowest order of the immortal; though they are not angels, because they are animals, human beings are akin to the angels in being able to direct their minds and wills to the contemplation and love of God.[1] In this consists their final good, because humans beings—despite having bodies—have a determinate rational nature realized in that body.

Consequently, when Aquinas analyzes human beings and their nature, and when he characterizes the human soul and the human body, he sets himself a difficult task. Since he seeks to explain how humans are both animal and immortal, and since he thinks that their being *essentially* animals requires their being essentially material whereas their being *essentially* intellectual guarantees their being also in some way immaterial, Aquinas has to accommodate features of human nature that pull in diametrically opposed directions. One question pertaining to his success will be, then, whether he is able to offer a portrait of the human soul and human body that is in the first instance even internally consistent. Assuming that he can, a second—and more difficult—question concerns whether his motivations for selecting the desiderata he sets for himself are in the first instance defensible. Whether or not they are, though, Aquinas's delicate balancing act in characterizing the human soul and body proves instructive and in some ways surprisingly illuminating for questions regarding mind-body relations. His conclusions should be of interest even to those who do not share his most general presuppositions and commitments.

To see why this should be so, however, it is first necessary to understand Aquinas's general framework for articulating the relation between the soul and the body.

6.2 Soul as a Principle of Life

Aquinas begins with what he reasonably believes are some bedrock data. Some things are alive. Others are not. Among the nonliving are both the dead and the inanimate. Neither a ballpoint pen nor a mobile phone is, or ever was, alive. A corpse, by contrast, has undergone some kind of change: a corpse was once animate; it was once the body of a living human being. Living things, however, encompass more than human beings: dogs, cats, and other nonhuman animals are surely alive; plants of all kinds are living beings; and then there are various simple organisms, pond scum and bacteria, which also qualify as living beings. To be sure, as we descend through the orders of living beings there are various gray cases. Viruses and certain parasites strike some people as living systems and others as insufficiently autonomous to qualify as living beings in their own right. Perhaps, some think, these should be understood on the model of the human liver—as things that are surely part of a living system but are not themselves living beings. Nonetheless, if there is some gray, there is also plenty of black and white: the reader of these words is alive, though Winston Churchill is dead, and Pavlov the dog is alive, though his chain-link collar is not and never was.

Just as we can descend into gray cases, so too can we, according to Aquinas, ascend to ever clearer cases of living beings, through plants to nonhuman animals, on through human beings to angels, who live lives of immateriality, and finally on to God, whose nature is identical with his existence (see §3.3) and whose existence is eternal life.[2] This talk of *ascending* and *descending* stations of life is for Aquinas serious and literal. It encompasses both a relatively value-neutral and a distinctly more value-laden assessment of the nature of living systems. To Aquinas it seems plain that a housecat has more and greater capacities than a houseplant, a human being more and greater capacities than a housecat, and God more and greater capacities than all else. So, on the value-neutral side, he means only to indicate that some living things have more comprehensive endowments than others. A plant can eat, grow, reproduce, and die, but no plant perceives, something that all animals, human and nonhuman alike, do as a matter of course. Further, no primate or parrot, no matter how adept at manipulating rudimentary symbols, does well at calculus. Humans, by contrast, engage in higher-order intellectual activities in addition to perceiving, as the other animals do, and to taking on nutrition and growing, as all other earthly living beings also do. In this straightforward sense, living beings form a kind of hierarchy, with those at the top able to do everything doable by those below them, and those at the bottom able to do only some of the things doable by those above them.

Significantly, Aquinas regards certain life activities as intrinsically more valuable than others. It is better, he contends, as indicated by its being more choice-worthy, to have rational faculties rather than perceptual faculties only, and it is better too to perceive than merely to take on nutrition, as a plant does. Of course, only beings with an ability to choose can make a choice. Still, it seems noteworthy that most of us who can choose signal that we agree with Aquinas. Most would allow that if given the option of having a mind to not having one, we would choose to be minded. Further, if given the choice, most of us would rather maintain our sensory faculties than lose them. To this extent, at least, most of us share in the judgment that our rational and sensory faculties are valuable and so to be guarded and preserved throughout life.

Still, if there are differences of these sorts, there is also a common denominator among living beings. There is something shared by a plant and an angel, and everything in between, something plainly not enjoyed by a slag heap or a feather bed. All living things have an intrinsic end that is their ultimate good and toward which they can move themselves. Even thinking counts as a kind of motion, according to Aquinas, an intellectual motion (see §2.2).[3] (Perhaps his view here is continuous with ours when we say, for instance, that someone has been especially *intransigent*, or that someone *skipped* from view to view as fashion dictated, or again that someone has *wobbled* on the issues.) So, however gray things may become when we attempt to determine whether various sorts of viruses

qualify as alive, it remains true that all living things are in some sense capable of moving themselves. Moreover, where there is self-motion, there is directional behavior. All living beings, according to Aquinas, have an intrinsic end toward which they move themselves; we look to this end in judging whether or not they are flourishing. Perhaps, then, gray cases are gray for epistemic reasons: perhaps these are cases where it is difficult to judge whether the entities in question have intrinsic ends of their own or are best conceived as systemically dependent in one way or another.

However that may be, his ascription of self-motion to all living beings allows Aquinas to insist upon something that may seem a bit alien to modern ears, *that all living creatures have souls,* including plants no less than animals, and nonhuman animals no less than human beings. This may sound odd to those accustomed to thinking in post-Cartesian terms, where human beings alone have souls (if indeed we think that even humans are ensouled). Aquinas's view here in one way represents a mere terminological divergence from some contemporary practices, but in another way it represents an important difference regarding his general approach to the nature of souls. On the terminological side, even those who might wish to restrict souls to human beings will agree that plants and nonhuman animals are alive. So they will agree that such creatures are *animate,* where this, for Aquinas, is virtually equivalent to their holding that they are *ensouled* (*anima* = soul, in Latin). From this perspective, it makes ready sense to regard all living things as ensouled, since living things are, trivially, animate.

6.3 Souls and Bodies: Hylomorphism

Unsurprisingly, when he turns to the business of explaining the phenomena of life, Aquinas appeals to his overarching explanatory framework, the doctrine of the four causes (see Chapter 2). As it turns out, the general framework of four-causal explanation finds an especially intriguing application in the domain of soul-body relations. Aquinas articulates a type of *hylomorphism,* according to which soul and body are related to one another as form and matter. (In Greek, hylē = matter, and morphē = form.) So the general relationship that we find obtaining between some bricks and the form in virtue of which they qualify as a house ought to be more or less the same relationship that we find in the case of body and soul. If that is correct, then the following general analogy must hold true:

form : matter :: soul : body :: a house's form : bricks

The terms of the analogy should be at least initially clear and familiar, because they make an immediate appeal to Aquinas's settled explanatory framework. Indeed, soul-body relations are to be understood at least initially as a simple special case of the general relationship held to obtain between form and matter (see §2.1, "Matter and Form," and §3.4).

Consequently, we can expect the general features of that relationship to carry over to soul and body. To begin, then, a living body is that which is potentially alive. A form, or soul, is that whose presence makes it actually alive. Note, though, that the form-matter relation is a relative one. That is, the body that is the matter of any animate compound is already itself a structured compound, since it is itself made up of simpler matters made complex by being themselves informed, much as bricks making up a house's matter are already themselves informed bits of clay. So, focusing on the human body, we have something already highly complex and organized, something already made up of simpler matters that have themselves been worked up into complexes of various sorts.

It may seem in one way odd to think of the body as merely potentially alive, since there seems to be a disanalogy between a human body and so many bricks. After all, part of the point of thinking of bricks as merely potentially a house was that the bricks might well have been informed in a different way, becoming a fence or an oven instead. What can be said of a complex human body? It seems *dedicated* to its form, in the sense that it cannot readily be informed by anything other than the soul. Still, this need not be problematic, insofar as we do not reasonably think of a corpse as actually alive. For a short period, at least, a body that has lost its life functions, through trauma of some sort, can be revived; that body, the body during the interval when life processes have halted, is merely potentially alive. In this sense, a body is not at all unlike other sophisticated forms of matter. An organized bit of silicon and metal will serve as the matter of a computer, but of little else. It too is dedicated to its form and was put together for just that purpose. So too with the parts of a car: each portion of the engine, the suspension, the transmission, and the electrical system has a dedicated function and so a highly specialized form. Still, those parts are not a car; they are merely potentially a car until they are assembled in just the right way and given the appropriate power source. A human body, at least so far, is like other highly complex sorts of matter. In general, the higher the organization level of the matter, the lower its latitude of potentiality. It is true that a human body is unlike a pile of bricks, but that is only because, as matter, bricks are comparatively unsophisticated.

In terms of the general analogy, then, a body is a sophisticated bit of proximate matter but is not actually a living being until it is informed by the soul—the form—of a human being. Thus, the form of a human being is like the form of a house: it is that whose presence makes something potentially a living being actually a living being. The soul of a rosebush is the principle of life in terms of which the matter of the bush qualifies as

the matter of an actual rosebush. So too with the matter of a squirrel and the matter of Socrates: in each case the presence of the soul makes the matter the matter of the actual being. What is the soul, however, beyond the mere shape? We have seen (§2.1, "Matter and Form," §3.1, §3.4) that some forms are *essential* in the sense that their presence makes the entity whose form they are the very entities they are. The form of a house is our familiar ersatz example of this, contrasted with the form of whiteness: a house is a house whether it is painted white or gray. A soul is a genuine essential form: its presence makes a body into a particular kind of living being, and its departure spells doom for the entity whose soul it is. Nothing lives without its soul, without its essential form. Here too, then, the hylomorphic theory of soul appears to be a straightforward application of Aquinas's general explanatory framework. As he says in his *Questions on the Soul:*

> Each being comes to be a member of its species through its essential form. Now, a human being is human insofar as he is rational. Therefore, a rational soul is the essential form of a human being. (*QDA* 1 sc 1)

In this and many other passages, hylomorphism about soul and body directly inherits such support as Aquinas's general explanatory framework offers. Since that general framework has proved explanatorily fruitful, we can expect its application in this domain to be similarly fruitful.

6.4 Against Reductive Materialism

For these reasons, hylomorphism may seem like a reasonable first approach to the host of difficult questions regarding the relationship between soul and body. Still, even if we are inclined to accept that approach at this general level, quite a few significant questions remain. To begin, it is so far unclear whether Aquinas's hylomorphism is best regarded as a kind of materialism or a kind of dualism. On the one hand, in view of his orthodox Christianity, one might expect Aquinas to be attracted to some form of dualism, according to which the soul is separable from the body and capable of some form of postmortem existence. At the same time, it is not clear how dualism of any form could be reconciled with hylomorphism. The form of a house cannot exist without the bricks and mortar that realize it. Why, then, should the soul of a living body be capable of existing without the body whose form it is? More to the point, how *could* a soul, as the form of a body, exist as separated from its body? Yet if according to hylomorphism the soul, as the form of the body, perishes along with the body at death, then it is difficult to understand how Aquinas can hope to reconcile his hylomorphism and his Christianity. Hence, whatever attractions it may initially hold for Aquinas, the hylomorphic explanatory framework seems plainly at variance with other commitments from which he is plainly unshakable. There is, consequently, a real question as to whether he can avail himself of his canonical four-causal explanatory schema when he turns to characterizing the human soul and the human body.

As a first approach to this sort of tension in Aquinas's thought, it is necessary to see how forcefully Aquinas means to distance himself from reductive materialism. (We will regard as *reductive* any form of materialism that purports to explain all the properties of the soul in terms of properties already present in the material stuff that constitutes the body.) When we see his reasons for rejecting reductive materialism, we can also come to appreciate that in deploying a hylomorphic explanation of body and soul, Aquinas relies on an especially robust notion of form, one so robust that it marks off the souls of living organisms as importantly distinct from the souls of nonliving hylomorphic compounds. That is, a soul is indeed a form, but it is not just any form. It is a form responsible for the activities characteristic of the living being whose form it is. Thus, a soul must have explanatory capabilities distinct from those of the forms belonging to inanimate objects.

One way of seeing why the soul must have these distinct capacities is to consider why Aquinas is so sharply critical of elementary forms of reductive materialism. He summarily rejects, for example, those views of the ancients, both early and late, that he regards as explanatorily inefficacious. Thus, he sets aside as explanatorily impoverished the similar views of Empedocles and Galen (a fifth-century B.C.E. philosopher and a theoretically inclined physician of the second century C.E.), according to whom the soul is a sort of harmony or mixture of various physical elements.[4] Although their views are subject to various interpretations, it seems clear that Empedocles and Galen both advanced—and that Aquinas understood them both to advance—theories according to which the soul could be understood as a kind of mixture or arrangement of simple elements, so that the soul would derive all of its own features from the properties of the elements constituting it.

Aquinas argues against this kind of view as follows:

> Now, some men have denied to soul the two characteristics that belong to the definition of a substance, declaring that a soul is a harmony, as Empedocles did, or that it is a mixture, as Galen did, or something else of this sort. For if they are correct, then a soul cannot subsist on its own; nor will it be complete in a species or a genus of substance, but will simply be a form like other material forms. Now this position is not tenable even with respect to the vegetative soul, whose operations must possess a principle that tran-

> scends active and passive qualities, which in the process of nutrition and growth are instrumental qualities only. . . . Mixture and harmony, however, do not transcend elemental qualities. (*QDA* 1c)

This passage is rich in its conception of the adequacy conditions for any account of soul. With respect to Empedocles and Galen in particular, however, Aquinas contends that the activities of soul must "transcend" or otherwise outstrip the active and passive qualities of matter. The idea here is that material bodies have various dispositions: fire tends to rise, earth to fall, and so forth. When mixed or simply arranged, the active and passive properties of the resulting mixture or simple arrangement will be a direct function of the relative contributions of the original elements and their basic dispositions. So, for example, if something is a mixture predominantly of earth, then that mixture will have just those dispositions found already in earth unmixed. Thus, if a statue is made of clay, and so ultimately predominantly of earth with a bit of water mixed in, then the statue will behave as earth behaves: it will tend to fall when not propped up and will continue falling until it is impeded from doing so. Aquinas's thought, then, is that no matter how complex a mixture becomes, it will always derive its dispositions directly from the dispositions of the elements in the mixture, with the result that all of its tendencies will be exhausted by just those elemental dispositions.

Explanatory resources restricted in this way seem to Aquinas plainly inadequate for the task of explaining living systems. Living systems, for example, exhibit directionality and limited patterned growth in two directions. An infant human grows, but unlike fire, does not grow ceaselessly as long as there is nourishment available to it. Instead, when it reaches maturity according to its own internal impetus, it ceases to grow. So, Aquinas urges, there is a simple fact, common to many living systems in need of explanation—namely, that they exhibit such limited, patterned growth. Since the elements, singly or in combination, cannot account for this fact, explanations given in terms of the simple elements or their mixtures are wholly inadequate to the purpose of explaining life.

Interestingly, although aimed at rather simplistic materialist frameworks, Aquinas's complaint here seems to have a far-reaching consequence. If he is right, and the phenomenon of limited, patterned growth requires explanation for any acceptable account of life, then it also follows that any explanation, materialistic or not, will be inadequate if it fails to proffer some sort of suitably rich explanatory principle. If we agree that simple forms of materialist explanations are too impoverished to offer any such explanations, then we will naturally turn to more sophisticated forms of explanation. Note, however, that to the extent that Aquinas's diagnosis of the problem with the mixture and harmony theories is apt, we require either sophisticated forms of material explanations (explanations that posit explanatory principles beyond those present in the basic elements) or explanations that eschew austerely reductive forms of materialism altogether. To this extent, Aquinas prefigures the many philosophers and biologists working today who have been attracted to *emergentist* approaches to life, according to which systems of sufficient complexity begin to exhibit properties and dispositions that cannot be derived in any direct way from the properties manifested by the individual components of those systems. Emergentist approaches to life echo in a fairly direct way Aquinas's claim that the properties of living systems "transcend" or outstrip the properties of the elements composing those systems.

Already for these reasons, Aquinas's approach has some lasting appeal, though his initial appeal to hylomorphism proves to be deceptively simple. When he avails himself of his characteristic four-causal explanatory schema to address the tangled and difficult questions circling around life, the soul, and the relation between soul and body, Aquinas takes care to make clear that only a suitably understood, enriched form of hylomorphism will suffice. Souls are forms, but not just any forms: they are essential forms. Moreover, souls are those essential forms whose activities as actualizers cannot be captured in reductive terms. This is not true, for example, of the forms of simple material elements, "which are the lowest forms and those closest to matter, [and so are forms that] do not possess any operations exceeding active and passive qualities" (*QDA* 1c). By contrast, souls explain the activities of living systems by being principles that, at the very least, emerge from and act upon the material dispositions of the bodies whose souls they are.

It is important in this connection to recall that forms come in two varieties: substantial and nonsubstantial (see §2.1, "Matter and Form," and §3.1). Forms are, as we have seen, functionally characterized as *actualizers*. A form is that which makes something that is potentially *F* actually *F*. But not everything that is actually *F* is actually a substance, as something *F*. If Socrates is pale, then he has the form of pallor in him. Still, there is no substantial kind, pale things, to which Socrates belongs insofar as he is pale. Those forms that place Socrates into a substantial kind Aquinas regards as *substantial forms*, where a substantial form is simply that which makes what is potentially a substance exist in actuality as a substance. Souls are substantial forms, and so, as Aquinas urges, every living being is essentially alive.[5] A soul, then, makes so much matter into a human body.

Taken together, these observations suggest that we should regard Aquinas's antireductive hylomorphic approach to soul and body as a sort of inference to the best or only explanation. Something or other must explain the directionality and the limited, patterned growth of living bod-

ies; that something cannot be any material element or any combination of material elements; so there must be some other principle, a soul, that is itself neither an element nor any combination of elements.

So far, then, Aquinas's appeal to souls might well be congenial to all but the most reductive among materialists. After all, we can all agree that something or other must explain the phenomena of life. It is also easy to agree that simple-minded materialist explanations fail to do so. When Aquinas points to the soul as the relevant explanation, he does so appropriately, insofar as souls are forms, and forms are precisely those entities whose presence explains how various quantities of matter, as potential, come to be the matter of actually existing compounds. Since the compounds in question are in the domain of living beings and are indeed essentially living beings, Aquinas thinks the forms that explain their activity will have features not amenable to any simplistic material explanation. Again, however, saying this much does not close off further investigation into the nature of souls. Such investigation might or might not turn up information indicating that souls are naturalistically specifiable. Indeed, for all that has been said so far, a soul might turn out to be nothing more than the sorts of directionality we now know to be encoded in DNA. Thus far, at any rate, all Aquinas really—and rightly—insists upon is that we accept the existence of whatever it is that explains the special and unique features of living systems.

6.5 Against Platonism

Aquinas's hylomorphism is incompatible with reductive materialism but not therefore committed to any form of dualism. That is, with just this much theoretical motivation, Aquinas has little or no reason to think of soul-body relations on a Platonic or Cartesian model, both of which treat the soul as an immaterial substance in its own right. Still, one might well expect him to be at least tempted by dualism. After all, he is fully aware of a Platonic alternative that, whatever its ultimate merits, seems at least initially more obviously consistent with the doctrinal demands of orthodox Christian theism than is his own preferred hylomorphism. Platonism is a fully *dualist* conception of soul and body according to which persons are identical with their souls, conceived of as immaterial substances that inhabit their bodies without depending upon them for their existence. On this approach, personal postmortem existence emerges as a possibility in an obvious way: persons are souls and souls are immaterial substances that, as such, do not depend upon the existence of bodies for their own separate existence. Thus, at death the soul and body are separated, and the person goes the way of the soul.

Aquinas rejects Platonism not only as inimical to hylomorphism but as indefensible in its own right. He has a raft of complaints against Platonism, including the following two arguments, each of which he regards as decisive.

First, from Plato's metaphor that the soul steers the body as a sailor steers a ship, Aquinas infers that Plato is constrained to posit many souls inhabiting each human body, each with its own peculiar function, just as there is one sailor handling the rudder and another manning the oars (*QDA* 10c).[6] He allows that the body might be one in the way that a ship is one, but then he faults Plato on the grounds that on his account "a human being would not be an essential and unqualified unity, nor would he be an animal, and nor would there be generation and corruption in the absolute sense when a body acquires or loses its soul." He then concludes that "one must maintain that the soul is united to its body not only as a mover, but as a form" (*QDA* 10c). The gist of the complaint, then, is that a human being is a genuine unity, not a composite of detachable parts. If we place two marbles next to each other, then we do not have a genuine unity that functions as one entity, but rather a pair of marbles, which is plainly an aggregate of discretely existing entities. So Aquinas's first objection to Platonic dualism is that it fails to account for the genuine unity of a human being. He touts hylomorphism as the preferred alternative, because the presence of a soul, as form, gives the body, as matter, the special sort of unity that genuine substances have (see §3.4). On this picture, we do not have two separately existing entities, each capable of existing in its own right.

Plato has a concessive rejoinder to this argument. As Aquinas himself notes, Plato can simply agree that a human being is not in fact a genuine unity. Instead, Plato can (and evidently did[7]) assert that a human being is not a conjunction of a soul and a body but is rather identical to the soul alone. In this way, it can be allowed that soul and body do not form a genuine unity. Indeed, it might be said, this was part of the force of the original metaphor: a sailor and a ship do not make up a genuine unity either. Rather, a sailor uses a ship for the purposes of sailing, but then departs when the voyage is complete.

Aquinas is unimpressed with this response.[8] Arguing that Plato, thus construed, has simply miscast the relevant data, he offers this second argument. Let a neutral observer focus on such human experiences as fear, high anger, embarrassment, and even such pedestrian perceptual experiences as the tasting of something bitter, or hotly spiced, or sweet. Each of these experiences clearly has both a psychic and a corporeal component. When deeply angered, when enraged, a man trembles, turns red, and in extreme cases even has difficulty forming words with his mouth. He also *feels* slighted, *regards* himself as having been treated unjustly, or *understands*

himself to have been cruelly deceived. For Aquinas, trembling and feeling slighted are equally, and ineliminably, features of human anger. Anger is common to soul and body. The subject of anger is plainly the human being; since anger is both psychic and corporeal, however, the human being must be both—it must be, as hylomorphism insists, a compound of soul and body. No soul could tremble, because no soul, even according to Plato, is a body. So, Aquinas infers, it is only by ignoring the manifest data of our lived lives that a Platonic dualist is able to pretend that a human being is really a soul and not an ensouled body.

Accordingly, a human being is a substantial unity of soul and body and is neither an unensouled body nor an unembodied soul. Human beings are essentially corporeal and essentially psychic. For these reasons, Aquinas has little sympathy for Platonism and so is in no position to avail himself of whatever advantages it may hold for his Christian theism. Because he thinks that it is untenable, he sets it aside.

6.6 A Difficult Intermediary

So far, then, Aquinas has advanced a form of hylomorphism and has made it plain that he regards it as incompatible with, and superior to, both reductive materialism and Platonic dualism. There is no contradiction in his doing so, because reductive materialism and Platonic dualism are not exhaustive alternatives. All the same, when he rejects these extreme views, Aquinas does not thereby commit himself to a determinate positive characterization of the soul's relation to the body. Even if the soul is not a substance capable of existing independently of the body, it may nonetheless be a substance—if, that is, it is possible for something to be both a substance and inseparable. Moreover, when he rejects *reductive* materialism, Aquinas does not reject materialism, since there are also available to him nonreductive forms of materialism, including the emergentist variety mooted in our discussion of Aquinas's rejection of the ancient harmony and mixture theories. That is, if he is not a reductivist, Aquinas may nonetheless be an emergentist who thinks that the distinctive powers of living entities emerge when, and only when, compounds of sufficient organizational complexity arrive on the scene. Indeed, as far as his rejection of reductive materialism is concerned, Aquinas may even deny that the soul is *the* soul—that is, that the soul is something substantial in its own right—preferring instead to treat it simply as a capacity, or set of capacities, that emerge when suitably sophisticated sorts of proximate matters find their way onto the scene. Indeed, one might even suppose that his hylomorphism encourages this sort of stance: the form of a computer, one might say, is just the structure of some highly sophisticated proximate matter. The computer is a substance, perhaps, but not its form. So too one

may conclude that the soul is not a substance in its own right but rather is merely the emergent organization of some appropriate organic matter.

Since these incompatible views, one according to which the soul is a substance and the other according to which it is not, remain consistent with his rejections of reductivism and Platonism, more fine-grainedness is needed from Aquinas if we are to arrive at a satisfactory characterization of the final commitments of his hylomorphism. His criticisms of the extremes propel him toward some intermediary position but fail to situate him in a single stable alternative.

There is another form of instability in Aquinas's hylomorphism, one stemming from his attitudes not toward those whose views he rejects but rather toward those whose views he regards not only as true but as sacred. Here, indeed, there is more than an instability in Aquinas's hylomorphism; there is a positive tension, one that surfaces when it is recalled that many features of Platonism have rightly been regarded as congenial to Christianity. The tension is just this: the soul, as the form of the body, seems dependent upon the body for its existence and so incapable of existing without it, and hence incapable of postmortem existence. Since Christian orthodoxy carries a commitment to postmortem existence, Aquinas's hylomorphism appears positively incompatible with his Christianity.

So there are two issues regarding Aquinas's hylomorphism. The first is that his rejections of extreme views fail to specify the precise contours of his own positive doctrine. The second is that whatever those contours may turn out to be, hylomorphism seems ill suited to express Aquinas's Christian conception of postmortem personal survival. It turns out that these two worries are related: once we are clear about the precise contours of Aquinas's positive doctrine, we also appreciate why he thinks he can reject Platonism and reductive materialism, endorse hylomorphism in their stead, and yet defend Christian orthodoxy. We can also appreciate some further subtleties in his view that merit consideration in their own right, independent of the particular framework that motivates them.

6.7 Soul as Subsistent

Given the forcefulness of his rejection of Platonism, it is somewhat surprising to discover Aquinas, in other contexts, characterizing the soul in positively Platonic-sounding terms. For example, Aquinas thinks that the soul has two defining features that seem as if they were tailor-made for Platonism: (1) no soul is a body, and (2) the human soul is subsistent. Now, to say that the soul is *subsistent* is to say that it has independent existence—in Aquinas's terms, that it exists *per se*. Indeed, given his definition of 'substance' (§3.1), the human soul turns out to be a substance, just

as the Platonist insists. Accordingly, Aquinas must think that hylomorphism, though incompatible with Platonism, can nonetheless accomplish for Christianity much of what Platonism does more readily. He argues as follows:

> A human being is human insofar as he is rational; therefore, a rational soul is the essential form of a human being. Now a soul is some particular thing and subsists on its own (*per se*) because it operates on its own (*per se*); for the action of understanding does not take place through a bodily organ. . . . Therefore, a human soul is both some particular thing and a form. (*QDA* 1 sc 1)[9]

Aquinas here affords some measure of autonomy or independence to the human soul, in virtue of its intellectual powers. He thus treats the human soul as exceptional among souls, since it alone has rationality.

It may seem initially surprising that human souls are both incorporeal and self-subsisting substances. The second of these claims has an especially Platonic ring to it. How is the soul itself a self-subsisting substance, when, as the form of a body, it plainly depends upon the body for its existence? (The form of a house exists when, and only when, the house whose form it is exists; the form of a house neither predates the house nor survives its destruction.) Aquinas seeks to address this issue—as he often does—first by posing an objection to the conclusion he ultimately seeks. Suppose, he says, the soul were something subsistent. The argument then follows:

1. If the soul were something subsistent, an operation would belong to it without the body.
2. No operation belongs to it without the body.
3. Therefore, the human soul is not something subsistent.[10]

Aquinas thinks that this argument would be a very good argument were it not for the fact that human souls, uniquely among all souls, have some operations that are not also operations of the body. Clearly, for instance, digestion is an operation of living systems executed in common with the body. So too is perception: we see with our eyes, smell with our noses, and in general perceive all that we perceive by means of dedicated sensory organs. What makes human beings unique, according to Aquinas, is intellect: intellection, he insists, is an operation of the human soul not conducted in common with the body. Now, it will turn out that his reasons for believing this are not, as one might assume, a simple result of some empirical ignorance about the brain and the central nervous system. Instead, he will argue, there is an in-principle reason for supposing that intellectual operations are nonbodily.

Whatever the ultimate success of his arguments in this regard, Aquinas thinks that the uniqueness of intellect licenses a conclusion about rational souls as such—that they are self-subsistent. In other words, he argues, the second premise of his argument to the contrary is simply false. In fact, he concludes in the passage quoted at the start of this section that since the rational soul has operations peculiar to it, it must itself be a self-subsisting substance in its own right. Ceding that conclusion for now (until §7.1), we arrive at the view that the human soul is incorporeal and itself a subsisting substance. These two theses together bring him perilously close to the very Platonism he rejects as untenable.

So in the end how is his hylomorphism supposed to avoid straightforward Platonic dualism? The answer resides in the advantages of Aquinas's hylomorphic theory of substance. On the Platonic position, souls and bodies are discrete substances, as distinct from one another as are a prisoner and his prison. The prison can and does exist without the prisoner, and the prisoner can leave the prison without a loss of any kind. This picture, suggests Aquinas, seriously distorts the *unity* of the human being. A body, as the matter of the soul, is not even made a human body until it is actually informed by a human soul. This is equally true, of course, of the bricks that are the matter of a house: the bricks are merely potentially a house until they are actually informed. The form, as we have seen (§2.1, "Matter and Form"), is what *makes* the matter of a house into an actual house. So too the soul makes some functionally suitable matter into a human being's body.

As a genuine substantial form, the human soul does something more: it organizes every part of the body, specifying its functions and sustaining its identity over time (see §3.4). A corpse is not a human body but an ex-human body, something that, for a while at least, continues to have the outward shape of a human being but has become a body only in the sense in which we call an eye in a painting *an eye*. In this sense, human bodies are parasitic for their identity conditions on the soul whose body they are. This is something the Platonist fails to appreciate. As we have seen (§6.5), Plato might reply by simply denying that human beings possess that sort of unity. It seems far more plausible, however, to treat a human being as one enduring thing, not as two things contingently conjoined together.

Hylomorphism looks even more attractive in light of the teleological character of living things (see §2.1, "The Final Cause"). When we focus on the existence of a body through time, we observe that it changes and grows, that it gains and loses matter, that it ultimately declines and decays. In all these ways, throughout a human life a human body sustains material replenishment. As we have seen (§3.2), Aquinas thinks that the only way to account for the numerical identity of a living body through time is to advert to its soul as a principle of unity throughout the span of

its life. After all, given the facts about material replenishment, we cannot appeal simply to the matter of a body. If there were some way of individuating matter independently of form, then we would have to allow that parts of my body might now be parts of your body. In fact, what makes your body *your* body is not merely its matter but rather the fact that your various organs and material processes are organized around your life activities. That is to say, your body depends upon your soul for its very existence as a body existing through time.

Given the demands of unity, both synchronic and diachronic (that is, unity *at a time* and unity *through time*), Aquinas has good reason to reject Platonism and, for the same reason, to embrace hylomorphism. At the same time, however, he loses whatever advantages Platonism may have enjoyed from the standpoint of orthodoxy, with its unshakable commitment to life after death. The challenge for Aquinas thus becomes one of reconciling hylomorphism with postmortem existence. The task should not be an easy one for him, given that he has himself forcefully argued that the forms of hylomorphic compounds, as a rule, exist when, and only when, they structure some functionally suitable matter. Any hope Aquinas may have of reconciling his disparate commitments in this domain reside in his conception of intellect, a topic for the following chapter.

6.8 Where in the Body Is the Soul?

Aquinas trumpets his hylomorphism as superior to both Platonism and reductive materialism. Its ultimate plausibility resides centrally in its ability to accommodate the data that incline the proponents of these two views to their unacceptable extremes, without acceding to their more problematic commitments. In this sense, soul-body hylomorphism is rightly thought of as a middle way between polarized positions, as a compromise between views that are rightly regarded as incompatible with one another. As with many such attempted compromises, Aquinas's success in effecting a workable middle way depends centrally on his ability to explain a broad range of phenomena without being forced to set aside other data that, if possible, ought to be taken into account. This is why Aquinas faults reductive materialism for its inability to account for the directionality and patterned, limited growth of a living system. It is also why he criticizes Platonism for lacking an account of how the soul, as an immaterial substance merely imprisoned in the body, can serve as the subject of a full panoply of natural human states.

It is for this reason worth assessing Aquinas's approach to what seems at first a rather odd question: Is the soul present in every part of the body? The question raises an issue that, though not immediately transparent, continues to plague philosophers down to the present day. It is also a question whose answer reveals the nuance, detail, and subtlety of Aquinas's approach to soul-body unity.

The issue is best broached in two ways. First, consider the following simple question. When I stub my toe, *where* is the pain? One natural thought, of course, is that the pain is *in my toe.* On the other hand, we have firm data that those who have lost limbs continue to feel pain *as if* it were in their limbs. An amputee will report, for instance, that her fingers feel swollen with pain, though in fact she has no fingers, and so no fingers for the pain to be *in.* Moreover, we also recognize that there are pain receptors in our nervous systems, including regions of the brain where pain is, so to speak, processed. One might say, then, that we *feel* the pain in our brain, though the injury is to the toe. As evidence, when we dampen the pain receptors' ability to process incoming information by means of analgesics, the pain abates. So perhaps we should say that the pain is *in our head.* That, however, also sounds a bit odd. My toe hurts in my head?

Add to that sort of question the following concern. Descartes, whose view of soul-body relations was deeply akin to the Platonic dualism rejected by Aquinas, seemed to face some embarrassing questions as to: (1) how an immaterial body might causally influence a corporeal substance like the body (the so-called ghost-in-the-machine problem); and (2) just *where* the soul conjoins itself to the body. On this second question, Descartes was led to suggest, implausibly and in a way that has made him the subject of ridicule, that there is a gland in the middle region of the brain, the pineal gland, where soul and body hook up. His answer, then, to the question of where in the body the soul is located seems to be that it interacts at just that one region, the pineal gland, and at no other place.[11]

Aquinas thinks that hylomorphism offers a much more subtle and defensible approach to these sorts of questions. His various treatments of the question of where the soul is located in the body often begin, as is his custom, by laying out grounds for maintaining a view he will ultimately oppose—namely, that the whole soul does not exist in each part of the body. The argument establishing that conclusion follows from a characterization of the human soul accepted by all parties to the debate, certainly including Aquinas. This is that the human soul is *essentially* characterized by intellectual and perceptual powers. If so, and if the whole soul is present in every part of the body, it evidently follows that each of its necessary and defining powers must be present in each part of the body as well. If that is correct, then it turns out that each of the soul's powers is present, for example, in our toes. Hence, our toes have in them the power to perceive, which includes among other powers the power to see. Thus, our toes have the power to see—a result that is plainly absurd. Since the absurdity follows upon the supposition that the whole soul is

present in each part of the body, that supposition must be rejected.[12] Perhaps Descartes was right, then, to overlook Aquinas's hylomorphism. Surely he would not have wished to be saddled with the sad result that his toes could see.

Aquinas's reply to this sort of argument illustrates just how intricate his approach to hylomorphism can become when it is put under pressure. He notes in reply that the soul, like any other whole, could have its parts present in the sundry parts of the body only if it could be divided in one way or another. He then distinguishes the ways in which something whole might come to be divided: (a) into quantitative parts; (b) into features identifiable in a complex expression of its essence; or (c) in terms of its capacities or powers. Because the distinction is somewhat technical, Aquinas helpfully illustrates it by pointing to the various ways in which we might think of the whiteness of a surface as being something whole. Consider, for purposes of illustration, a white formica kitchen table. We can think of the whiteness of a surface of the table in sense (a), as a quantitative whole, when we imagine splitting the table in two and, so to speak, taking half of the whiteness in one direction and half in the other. We can also appreciate how the whiteness in the surface of the table can be a whole in sense (b), in terms of its essence or definition. Here the idea is that we can point to any part of the whiteness of the table and see that the definition of whiteness applies to it just as much as it applies to the entire white surface. Note that, in this sense, each part of the white surface has exactly the features pertaining to the whole. Finally, in sense (c), we can divide the whiteness in terms of its ability or power to affect a perceiver. Aquinas suggests that though every part of the table's surface has the power to cause a perception of whiteness in a normal perceiver, it remains true that the whole surface causes a greater perception of white than any one of its parts. (Similarly, any particular wave will cause a normal perceiver to hear it, but a thundering crash of a bay full of waves will more certainly cause a perception in a normal perceiver, and will do so more loudly.) Thus, in this sense a whole can be divided in terms of its capacities or powers.

Now, says Aquinas, the soul cannot be divided in sense (a), since it is not a quantity at all. Nor can it be divided in sense (c), since it is a substantial unity, not merely an aggregate or set of its various powers. This latter thought requires some explication, but basically all that is meant is that the soul, as we have seen, is what brings unity to a single body conceived both synchronically and diachronically (see §3.4 and §6.7).[13] So it cannot be itself a plurality of discrete components. If that is so, then it will not be itself divisible in the third sense. That leaves only sense (b), the sense in which a whole can be divided with respect to its definition. Notice, however, that the definition of the whiteness of the table's surface pertains to each and every part of the table's surface. Thus, every part is white, and so every part is a color. However, on this approach—which is the only option left among the ways in which a whole can be divided—each part of the body will have the definition of the whole soul said of it. So it seems as if the whole soul must be present in each part of the body. This is entirely appropriate, suggests Aquinas, since each part of a living body is itself living. To be sure, not every part of a living body is itself a living being, or a living substance; rather, it is true to say of each part that it is alive, and so animate, which is to say that it is ensouled. If ensouled, however, then the whole definition of the soul applies to each part of the body. Consequently, there is no way in which only a part of the soul could be present in part of the body. Rather, the whole human soul suffuses the entire human body, and the whole soul is present in each part of that body.

So why do our toes not think? Aquinas notes that the relation the soul bears to the whole animated body is not the same relation it bears to each part of the body. If we focus again on sense (c)—that a whole can be divided in terms of its powers—we see that the soul can be regarded in two different ways, relative to two distinct relata: the whole soul and so all of its powers are *present* in each part of the animated body, yet the individual powers of soul are *operative* only in those parts of the body that have functionally suitable matter. The idea here is that not every part of a car is itself a car (the shock absorbers are not cars, for instance), and indeed that *no* proper part of the car is a car. Rather, the whole car is a car, and it is true that when you look at any part of a car, you see a car. That said, only some parts of a car are structured for internal combustion and the tires, which are round and rubber, cannot perform that function. So, says Aquinas, the soul's powers will relate to the individual parts of the body in terms of the sort of potentiality each presents in virtue of its proximate matter. Eyes will see, ears will hear, and teeth will tear and grind. No one of these is suited for a function discharged by any of the others.

One way of viewing Aquinas's reply here is simply to insist that hylomorphism treats many powers of the soul not as powers of the soul considered in isolation but rather as powers of an animated body. It is not as if the soul can see, all by itself. It is, rather, the eye of a living animal that sees, in virtue of the fact that eyes are so structured as to detect light, and when eyes are components in a properly functioning organism, they will see, so long as light is present to them. Again, not even the eyes, considered in isolation as so much matter, can see. An eye plucked out of its socket is an eye only equivocally (see §3.4 and §6.7). That is, we call it an eye, by custom or courtesy, but it is only an eye in the sense in which an eye in a statue is *an eye*. It has the outward appearance of an eye, but it is not, in fact, an eye, because it cannot see.

Taking these observations together, we have Aquinas arguing that the whole soul is present in every part of the body. It is not that the soul is tethered to the body at some point, some gland, which mysteriously serves as a causal conduit from the corporeal to the spiritual and back again. Still, not every part of the soul manifests every power in terms of which the soul is defined. For not every part of the body provides the sort of matter required for the discharging of the soul's various powers. What perceives are hylomorphic compounds, not souls when considered in their own right, and not bodies when bereft of their souls. This, however, is just as one would expect: we do not live in the forms of houses, and we do not live in bricks strewn about the yard; we live in bricks informed in the appropriate way. We live in houses.

6.9 Conclusions

Hylomorphism seeks to steer a middle course between the dualism rejected as untenable by Aquinas and the reductive materialism he regards as hopelessly impoverished in terms of its explanatory resources. The middle course he advocates has some undeniably attractive features. At the same time, it threatens to undermine some elements of Christian orthodoxy that are deeply entrenched in Aquinas's entire philosophical system. He thinks that a reconciliation can be effected because of the special status of intellect, the lone psychic power that proceeds, of necessity, aloof from the body and its operations. Hence, unlike perception, thinking makes human beings spiritual and so divine. Hylomorphism is then consistent with Christian theism if, and only if, there are good reasons for characterizing the intellect as unique among the soul's powers. It is to this that we will turn in the following chapter.

Notes

1. "The soul and an angel have the same end—namely, eternal blessedness. . . . But eternal blessedness is an end that is ultimate and supernatural" (*ST* 1a 75.7 obj. 1 and ad 1). For further discussion of the angels, see §3.3 and §5.2.

2. To God belongs "life and continuous and eternal duration," since "God is identical with his own eternal life" (*InMet* XII.8.2544; cf. *ST* 1a 18.3c).

3. "The proper account of life derives from something's being suited to move itself, where 'move' is interpreted broadly so that even the operation of intellect is said to be a kind of movement. For we say that those things that can be moved only by an external source are without life" (*InDA* II.1.177–181).

4. For Empedocles, see Aristotle, *De Anima* i 4 407b27–408a28; for Galen, see Nemesius, *De Natura Hominis* ch. 2.

5. "Life is predicated not accidentally, but substantially" (*ST* 1a 18.3c); cf. *InDA* II.1.242–257; *ST* 1a 76.3, 76.4, 77.6.

6. Cf. Plato, *Timaeus* 69e–70a and *Republic* 580d–581c.

7. See *Alcibiades* 129e, 130c.

8. See *SCG* II.77.4–8.

9. "Therefore this intellectual principle, which is called mind or intellect, has an operation on its own (*per se*) that the body does not share in. But nothing can operate on its own unless it subsists on its own, because every operation belongs to something actually existent, and so a thing operates in the same manner that it exists. (For this reason we say not that heat heats, but that the thing that is hot does so.) We can conclude, therefore, that the human soul, which is called intellect or mind, is something incorporeal and subsistent" (*ST* 1a 75.2c).

10. "If the soul were something subsistent, then some operation would belong to it without the body. But no operation does belong to it without the body, not even understanding, because it is not possible to understand without a phantasm, and there are no phantasms without the body. Therefore the human soul is not something subsistent" (*ST* 1a 75.2 obj. 3). See also *SCG* II.56–59, 68–70; *QDA* 1, 2, 14; *InDA* III.7.

11. Descartes does follow the lead of Aquinas and others in describing the soul as located throughout the body. Yet he was hard-pressed to explain the sense in which this is so, remarking for instance that "we need to recognize that although the soul is joined to the whole body, nevertheless there is a certain part of the body where it exercises its functions more particularly than in all the others" (*Passions of the Soul* I.31); moreover, "apart from this gland, there cannot be any other place in the whole body where the soul directly exercises its functions" (*Passions of the Soul* I.32).

12. "All of the soul's powers are grounded in the soul's very essence. Therefore, if the soul is whole in each part of the body, it follows that all of the soul's powers exist in each part of the body. As a result, there will be sight in the ear and hearing in the eye, which is absurd" (*ST* 1a 76.8 obj. 4). See also I *SENT* 8.5.3; *SCG* II 72; *ST* 1a 76.8; *QDSC* 4; *InDA* I.14.

13. There is an excellent discussion of this matter in *QDA* 11. See also *SCG* II. 58; *QDP* 3.9; *ST* 1a 76.3; *QDSC* 3.

Suggested Readings

Aquinas sets out his theory of soul most fully in four works dating from the mid-1260s: *Questions on the Soul*, *Questions on Spiritual Creatures*, *Commentary on Aristotle's* De anima, and the *Treatise on Human Nature* (*ST* 1a 75–89). Of these, the last is the most concise and authoritative, though often not as rich and complex in its treatments.

Platonic dualism is so-called in view of the fact that Plato offers a version of it in the *Phaedo*, where he goes so far as to suggest that the soul is *imprisoned* in the body and that it finds its liberation at death, when it is released and becomes free to dwell in its purest state. He also contends that the person goes with the soul and exists immortally and that the body can be discarded as so much rubbish, thereby suggesting that the soul is bearer of a person's identity. See *Phaedo* 115b–116a. Aquinas expressly rejects this approach to soul-body relations at *SCG* II.57.

For an overview of Aquinas's general theory of soul, including cognition and will as well as the mind-body problem, see:

Norman Kretzmann, "Philosophy of Mind," in *The Cambridge Companion to Aquinas*, ed. Norman Kretzmann and Eleonore Stump (Cambridge: Cambridge University Press, 1993), 128–159.

For a book-length discussion of these same topics, see:

Anthony Kenny, *Aquinas on Mind* (New York: Routledge, 1993).

The relationship between soul and body is discussed at greater length in:

Eleonore Stump, "Non-Cartesian Substance Dualism and Materialism Without Reductionism," *Faith and Philosophy* 12 (1995): 505–531,

and

Robert Pasnau, *Thomas Aquinas on Human Nature: A Philosophical Study of* Summa Theologiae 1a 75–89 (New York: Cambridge University Press, 2002), chs. 1–3,

and

Bernardo Bazán, "The Human Soul: Form *and* Substance?: Thomas Aquinas's Critique of Eclectic Aristotelianism," *Archives d'histoire doctrinale et littéraire du moyen age* 64 (1997): 95–126.

7

Sense and Intellect

7.1 The Nature of Cognition

The study of the human soul principally consists in the study of its various powers. In the case of a human being, this includes the various powers for respiration, nutrition, growth, and reproduction—powers that even the soul of a plant possesses. The human soul also has powers for locomotion (that is, for moving from place to place) and for sensation, powers that we share with other animals. What makes us special, however, is our further possession of an intellect, something that we have in common with the angels and even with God, but that all other animals entirely lack.[1]

Aquinas is most interested in those powers that are most distinctively human. With respect to the so-called vegetative powers that are present even in plants, Aquinas has little to say. About the senses he has more to say, and he has still more to say about intellect. One might well be initially skeptical, however, about the various claims that Aquinas makes in this regard. Is it really right that sensation is something shared by human beings and all other animals? What precisely is this intellect, which we are held to have along with God and the angels, but which all other animals lack? To answer such questions, we must first arrive at a clearer understanding of what Aquinas takes sense and intellect to be.

As with philosophers today, Aquinas is interested more in conceptual questions regarding the nature of sense and intellect than in the physical processes that underlie such capacities. Given Chapter 5's discussion of creation, it should come as no surprise that his analysis begins with the assumption that the human cognitive capacities were created by God for specific purposes. So we might consider, initially, why cognitive capacities such as sense and intellect are useful at all. Here is a passage from early in the *Summa theologiae* where Aquinas describes the nature of cognition:

> Cognitive beings are distinguished from noncognitive beings as follows. The noncognitive have nothing other than their own form alone, whereas the cognitive are naturally suited to have the form of something else as well: for the likeness (*species*) of the thing cognized exists within the cognizer. Thus it is clear that the nature of a noncognitive thing is more confined and limited, whereas the nature of cognitive things has a greater breadth and extension. This is why Aristotle says in *De anima* III [431b21] that *the soul is in a certain way all things*. (*ST* 1a 14.1c)

This passage is interesting in a number of ways. Initially, we should notice what it suggests about why cognition is useful. Things that lack cognition, like rocks and plants, "have nothing other than their own form alone." Cognitive beings, in contrast, can acquire other forms. This is to say that a dog, for instance, takes in a likeness of the cat it pursues. Obviously, the dog does not *become* a cat. To say that the dog can acquire "the form of something else as well" is to say that it acquires *information* about the world around it. This is what dogs can do and rocks cannot. Now, the ability to acquire such information is obviously valuable: dogs could not chase cats, or do any of the wonderful things that dogs do, if they could not somehow register facts like *Cat!* Of course, plants manage to get by without this capacity (or, if you like, they have the capacity in only the most negligible ways, insofar as they crudely detect light, pressure, and so on). But life that goes beyond a purely vegetative state requires the capacity to obtain information about the world: it requires "greater breadth and extension." The more complex a life is, the more information it requires.

This account of cognition in terms of in-*form*-ation, although it acknowledges the place of form in Aquinas's account, may seem not to explain very much—it simply replaces the Aristotelian jargon of *having a form* with the contemporary jargon of *information*. Can we do better? It is helpful to remember at this point that this is yet another instance of Aquinas's putting his general explanatory framework to work (§2.1). To say that the dog receives the form of the cat is to make a certain sort of causal claim: that something about the cat produces a change within the sensory powers of the dog, a change that in turn can lead to changes in the dog's behavior. Of course, all of this lacks the sort of fine-grained detail required for an ultimate evaluation of its cogency. In particular, one might reasonably want to learn something about the physical mechanisms involved in this process. Yet part of the point of appealing to formal causes here is to abstract away from the particular physical details at work in any particular case of cognition. As noted, Aquinas is looking for a general conceptual account rather than for any specific physical story. Accordingly, it seems just right to say that, for Aquinas, cognition is the acquisition of information. To say much more requires considering the different ways in which living things cognize.

Before doing just that, we might consider a further aspect of Aquinas's general account: the fact that he supposes cognition to occur when a *likeness* of the object is produced within the cognitive power.[2] In the passage quoted above, Aquinas uses the Latin word *species* to make this point. That word might be translated by 'form' or 'image' or 'likeness'. It is probably best of all, however, to retain the Latin word. *Species* is Aquinas's most general term for any sort of cognitive representation. Even at the intellectual level, Aquinas believes that we think about objects in the world in virtue of forming "intelligible species" of those objects. Such species are likenesses, he often says, but obviously they are not literally images. (They cannot be images, at least not in any straightforward sense, because the immaterial intellect is not spread out in space in the way that an image is.) It is not easy to say exactly what sort of resemblance Aquinas sees here between the abstract intellectual thought of a dog and a dog in the world. On his view, as the above passage makes clear, the intellect takes on the *form* of the dog, so there is resemblance in that respect. Still, that by itself fails to explain much. We know what it means to say that *a statue* has the form of some dead president, but this does not shed much light on how *the human intellect* could have the form of a dog. Again, however, such indeterminacy can be seen as part of Aquinas's strategy. We are still sketching out a general conceptual account of cognition, expressed in terms of the explanatory framework of form. To say that the intellect formally resembles its object is to say that there is a certain (still unspecified) causal relationship at work. Indeed, for Aquinas all causation involves a form's being transferred from that which acts to the thing it acts upon.[3] To be capable of cognition, then, is to have a certain sort of sensitivity to causal stimulus. Different cognitive powers manifest different kinds of sensitivity.

7.2 The Cognitive Powers

The human cognitive powers divide into sensory and intellectual, then further divide into nine sensory powers and two intellectual powers. In every case, these differences in powers are the result of our need to acquire certain sorts of information about the world. There are, however, two very different kinds of information that human beings need to acquire:

1. We need to acquire particular information about the world around us: how big a thing is, what color it is, where it is, and so on.
2. We need to acquire general concepts that allow us to think about and talk about things in the world, such as the concepts *large*, *yellow*, or *ten feet away*.

Human beings need the *sensory* powers to acquire, retain, and process the first kind of information, and they need the *intellectual* powers to acquire, retain, and process the second kind of information. Again, Aquinas is appealing to his explanatory framework, this time with respect to final causality (see §2.1), inasmuch as the appeal to our *needs* expresses his teleological conviction that we have just those powers required for our flourishing.

Sensation

At the sensory level, Aquinas distinguishes five *external senses*, so called because these are the cognitive powers that most directly receive external stimulus. Each of these five senses has its own kind of proper object, and according to Aquinas we distinguish between the different senses precisely because of these differences in the sensible qualities they perceive.[4] These five senses and their corresponding qualities are:

Sight: Color
Hearing: Sound
Smell: Odor
Taste: Flavor
Touch: Temperature, and so on

These qualities are capable of individuating the senses precisely because they are themselves necessarily discrete in their natures—no taste is a color and no sound is an odor. The case of touch is something of an embarrassment, since there is no single object of touch—in addition to temperature, touch detects texture and hardness, among other things. In response to this difficulty, Avicenna considered dividing touch into four separate sensory powers. Aquinas prefers to retain the traditional five-way division of all the senses, but he allows that touch can be regarded as a genus comprising various species of tactile sensory power (*ST* 1a 78.3 ad 3). Modern psychologists go even further and regularly distinguish between a dozen or more different sensory powers.

This framework for distinguishing the external senses gives rise to a distinction between different kinds of sensory objects (*sensibilia*). Aquinas thinks of each of the senses as designed to detect a certain quality in the world. We have the sense of hearing, for instance, so that we can perceive *sound*, which otherwise we would have no means of detecting. In general, each of the qualities on the above list is the object of just one sensory power, and so these are referred to as the *proper* sensibles. (We now know that smell and taste overlap to a surprising degree, and as a result—in keeping with Aquinas's theory—modern psychologists sometimes regard smell and taste as a single sensory power.) Other sensible objects are not

restricted to just a single sensory power but can be perceived by more than one sense. We can see size and shape, for instance, but we can also detect both by touch. These and other sensible features of objects are known as the *common* sensibles. It is noteworthy that this distinction between *proper* and *common* sensibles precisely matches the early modern distinction between primary and secondary qualities, even though the two distinctions seem to be grounded on very different sorts of considerations.

In addition to the five external senses, Aquinas recognizes four *internal senses*, so called because they store and process the sensory information initially acquired through the external senses:

Common sense: Compares impressions of different senses and reflects on the sensations themselves
Imagination (also called phantasia): Stores sensory impressions received in the common sense
Estimative power (known in human beings as the cogitative power): Responsible for instinctive reactions to sensory stimulus, such as fear of spiders
Memory: Stores impressions produced by the estimative power

Human beings and other animals possess all these powers because we need to do all these things in order to thrive.[5] In virtue of these powers alone, we have some fairly sophisticated cognitive capabilities, not only for storing and recalling sensory information but also for processing that information in certain ways and for achieving some amount of self-awareness of our own perceptual states. Just as animals can reason in certain limited ways and be aware of their own states, so can we, through these internal senses. Such processes are physical in the same way that respiration is a physical process. The internal senses are powers of the brain and function in virtue of the brain's being in certain physical states.

The Immateriality of Cognition

Despite the remarkable capacities of the sensory powers of animals, Aquinas thinks these powers are limited in certain striking ways, inasmuch as animals are incapable of abstract, conceptual thought. The difference described earlier between two kinds of information, particular and general, leads Aquinas to postulate a dramatic divide between sense and intellect. That divide can be spelled out in terms of two theses:

I. The senses can be acted on by particular material stimuli—colors, sounds, textures, and so on—only if they are themselves material.

II. The intellect can form abstract, general concepts only if it is immaterial.

Aquinas's straightforward argument for (I) is that corporeal entities can act only on other corporeal entities. The corporeal cannot act on the incorporeal.[6] For (II), Aquinas offers various complex arguments—not surprisingly, given that this thesis is much more controversial and important to Aquinas. Indeed, this is in many ways his central philosophical thesis regarding human nature, inasmuch as he believes that human immortality depends on the soul's immateriality, and that a whole host of Christian doctrines depends on human immortality. He thinks, for instance, that moral behavior would collapse without the hope of eternal life: "Death would without doubt be dreaded intensely, and a human being would do anything bad before suffering death" (*On the Apostles' Creed* ch. 11).

The core idea behind many of Aquinas's arguments for (II) is expressed in a passage that immediately follows the passage analyzed at the beginning of this chapter:

> Now form is confined by matter. Thus we said above that the more forms are immaterial, the more they approach a kind of boundlessness. Therefore it is clear that the immateriality of a thing is the reason why it is cognitive, and that its manner of cognizing accords with its manner of immateriality. Thus it is said in *De anima* II [424a32–b3] that plants do not cognize because of their materiality. But the senses are cognitive, because they can receive species without matter. The intellect is still more cognitive, because it is more separate from matter and unmixed, as is said in *De anima* III [429a18]. (*ST* 1a 14.1c)

The earlier passage distinguished cognitive from noncognitive beings by pointing toward the way the latter are more "confined and limited." Here Aquinas attempts to make some sense of that idea: he invokes matter as that which is responsible for confining and limiting beings so that they are capable of having "nothing other than their own form alone." Plants, then, are too material to have any sort of cognition. The senses are somehow less material, and the intellect still less so.

It would be natural to misread this passage as arguing that the divide between the material and the immaterial occurs at the divide between the noncognitive and the cognitive—that is, that the senses themselves are immaterial, incorporeal powers. This claim, which would require the rejection of (I), is definitely not Aquinas's view. According to the present passage, the senses "can receive species without matter." Elsewhere, however, he is quite clear that such species are received in a sensory organ—a physical part of the body such as the eye, the ear, or the brain.[7] It is not obvious just what Aquinas means when he remarks that species are

received "without matter." In saying this, he is following a remark of Aristotle's—that the senses receive species "without the matter, as wax receives the imprint of the ring without the iron or gold" (*De anima* II 12, 424a17–20). As with Aristotle's wax, Aquinas holds that a sense is physically transformed in seeing an object. To say that this transformation occurs "without matter" is—at least in part—to say that the sense does not become what its object is. The eye neither becomes a dog nor takes on the shape of a dog, just as the wax neither becomes a ring nor turns golden.

At this point, one might wonder why the wax itself is not said to *perceive* the ring. After all, if the view is that the reception of some form or species without matter is *sufficient* for perception, and a ball of wax can do that as well as an eye, then it seems that Aquinas is saddled with the unhappy conclusion that inanimate beings experience cognition. One promising line of reply is that, as Aquinas stresses, the eye can see a color without itself taking on that color: it takes on the form of red, for instance, without becoming red.[8] This is something the wax cannot do: it represents a shape, but only in virtue of taking on that shape. In this respect, the wax is confined and limited in its representational powers. In the above passage, Aquinas uses the language of form and matter to draw this same distinction between what a plant can do and what the senses can do. The soul of a plant is too constrained by its matter to acquire information in this way about the world around it. The senses have a greater degree of what we might call *formal plasticity:* their material constitution does not constrain them from taking in, and retaining, vast quantities of information about the world around them.

At this point too we are in a position to see how the senses differ from intellect. The senses, because they are themselves physical, are attuned to particular items in the physical world. This is their great virtue but also their great constraint, inasmuch as all they can do is detect the discrete sensible qualities that distinguish them. The eye, for example, is marvelously sensitive to light, but blind to everything else. The intellect is quite different: it is a kind of all-purpose cognitive device, equally suited to think about every object in the natural world and in abstraction from particular cases. Such a power, according to Aquinas, must be "more separate from matter and unmixed." Aquinas's arguments for thesis (II) largely rest on various attempts to show how only something wholly nonphysical could be sufficiently separate from matter to achieve this sort of abstract grasp of the world around it.

An Argument for the Intellect's Immateriality

Can the abstract argument schema just described be fleshed out in persuasive detail? Most often, Aquinas argues in one of two ways. A first line

of argument appeals to the scope of intellect's cognition. Whereas each sense is limited to its proper object of sensation—limited because it is material—the intellect is unlimited in the kinds of things it can think about. If it were material, it could not be unlimited in this way.[9] Here Aquinas seeks to infer the immateriality of the intellect from its unlimited plasticity in part by contrasting intellect with the narrowly focused materiality of each of the senses. A second line of argument rests on the intellect's capacity to form universal concepts—that is, to abstract away from the particular conditions of a single sensible object (see §3.5). Since it is matter, Aquinas believes, that gives such an object its singularity (see §3.2), to abstract away from that singularity, he argues, requires a power that is immaterial.

There is considerable controversy among students of Aquinas as to whether either of these arguments for the intellect's immateriality is effective. Let us look more closely at one formulation of the second sort of argument:

> It is clear that everything received in something is received in it according to the mode of the recipient. But any given thing is cognized in keeping with how its form exists in the one cognizing. Now the intellective soul cognizes a thing in that thing's unconditioned (*absoluta*) nature—for instance, it cognizes a stone as it is a stone, without [material] conditions. Therefore the form of the stone exists in the intellective soul without conditions, in terms of the stone's own formal character. Therefore the intellective soul is an unconditioned form, not something composed of form and matter. For if the intellective soul were composed of matter and form, then the forms of things would be received in it as individuals; then it would cognize only singular things, as happens in the sensory capacities, which receive the forms of things in a corporeal organ. For matter is the principle of individuation for forms. We can conclude, therefore, that the intellective soul—and every intellectual substance that cognizes forms unconditionally—lacks composition of form and matter. (*ST* 1a 75.5c)

Laid out schematically, the argument runs as follows:

1. Anything received in something is received in accord with the state of the recipient.
2. Something is cognized in accordance with how its form is received in the cognitive power.
3. The intellect cognizes the abstract nature of a thing, apart from its material conditions.
4. Therefore, a form is received within intellect apart from its material conditions (from [2] and [3]).

5. Therefore, the intellect exists in an immaterial state (from [1] and [4]).

As regards its logical form, the argument appears to be valid. Moreover, the initial three premises seem defensible. The third simply asserts that the intellect does grasp the abstract natures of things and then connects this with the thesis that matter is what makes a thing particular. The second states the conception of cognition discussed in §7.1, that for a thing to be cognized is for its form to be received in a certain way in a cognitive power. The first premise states an innocuous-looking general principle—that the way a thing is received in something is influenced by the state of what receives it. (Think of how the water received by a jug takes on the shape of the jug.)

All the same, the argument as it stands is not very persuasive. The problem does not seem to lie with the inference from (4) to (5). If Aquinas can establish what (4) claims, then he would seem entitled to the intellect's immateriality. For (4) makes really quite a strong claim—that the intellect takes in forms that are entirely without matter. This must mean something more than what was meant when Aquinas claimed that the senses receive forms "without matter"; what that meant, as we have seen, was that the senses do not take on exactly the material conditions that the external object has. But here the claim must be something further—that the forms do not carry with them *any* "material conditions," which is to say that they do not bring about any material change in the thing they inform. This seems possible only if the thing they inform, the intellect, is immaterial. Hence, we arrive at the conclusion stated in (5).

Once (4) is given this strong reading, it becomes clear that the real weight of the argument rests on the inference to (4) from (2) and (3). Here we are told that the intellect's ability to think abstractly requires that forms be received abstractly in intellect, and since abstract thought is thought that strips away the matter, it is supposed to follow that the forms received in intellect will themselves be stripped of matter. All of this puts a great deal of weight on premise (2)—that how a thing is cognized depends on how its form is received. Consider an analogy. If we learn that our friend Maureen cannot see color, but only black and white, then we will naturally suppose that there is something different about Maureen's visual faculties. We might reason that since she sees differently from how we do, she must take in visual information differently from how we do (≈ 2), and that if she receives information differently, there must accordingly be something different about the visual powers that do this receiving (≈ 1). All of this seems perfectly obvious, but what does it show? Following Aquinas, we might say that Maureen's visual powers perceive things apart from their colors (≈ 3). If we were then to invoke

(2) in the strong form that Aquinas needs, and hold that the way a thing is cognized *matches* how its form is received in the cognitive power, we would conclude that Maureen's visual powers altogether lack color. But this is, of course, absurd. There might be various explanations for why she sees as she does (she probably lacks retinal cones), but there is no reason to accept such a crude and literal inference from how a thing is cognized (*in black and white* or *immaterially*) to what the cognitive faculty is like (*black and white* or *immaterial*). So construed, the second premise turns out to be false. Hence, if Aquinas is to secure his final conclusion, then either another, defensible interpretation of this premise will need to be mounted, or else he will need to rely on another argument altogether.

7.3 Cognitive Functions

It is controversial whether any of Aquinas's arguments for thesis (II)—the intellect's immateriality—are effective. Even those who are most enthusiastic about one or more of these arguments tend to concede that they need to be embellished in various ways in order to be persuasive. A full assessment of the issues involved would require a separate study. For Aquinas, however, the intellect's immateriality is merely the first step toward a full account of human cognition. The conjunction of theses (I) and (II) leads to the conclusion that human beings are a hybrid of two cognitive systems, a physical sensory system and a nonphysical intellectual system. This makes us unique in the created world (see §6.1): we are unlike other animals in having an immaterial intellect, but we are also unlike God and the angels in combining such an intellect with a physical system for detecting sensible qualities in the world around us. (Aquinas thinks that God and the angels *do* apprehend what goes on in the world around them, but not through sensory perception.)

The Objects of Intellect

Our unique hybrid status leads Aquinas to a series of further conclusions about the proper objects of the human cognitive powers. Consider the following passage, again from the *Summa theologiae:*

> The objects of cognition are proportionate to the cognitive powers. There are, however, three levels of cognitive powers. (i) One kind of cognitive power, sense, is the actuality of a bodily organ, and so the object of any sensory capacity is a form as it exists in bodily matter. Because this sort of matter is the principle of individuation, every capacity of the sensory part is cognitive of particulars only. (ii) There is another kind of cognitive power that is neither the actuality of a bodily organ, nor in any way connected to bodily matter. (This is what an angelic intellect is.) So the object of this cognitive power is a form subsisting without matter. (iii) The human intellect falls in between. For, as is clear from things said above, it is not the actuality of any organ, but yet it is one of the powers of the soul, which is the form of a body. So it is proper to it to cognize a form existing individually in bodily matter, but not as it is in such matter. (*ST* 1a 85.1c)

This passage works through the three different levels of cognitive powers: (i) sensory powers; (ii) purely intellectual powers, as in an angel; and (iii) intellectual powers that are connected to a body capable of sensation, as in a human being. The governing principle of the passage, stated at the start, is that "the objects of cognition are proportionate to the cognitive powers." This should be understood in the sense explained earlier, that the various kinds of cognitive powers were created to cope with the various sorts of information in the world. With this principle in mind, Aquinas makes a series of claims about each level of cognitive power. First, regarding the senses, he claims

> III. Every sensory capacity is cognitive of particulars only.

This follows from earlier theses. If (I) the senses are physical, and if (II) physical things are incapable of abstract, universal cognition, then (III) the senses must be limited to particulars.

Next, regarding intellect, Aquinas has a more subtle point to make. As we have seen, the objects of intellect are forms abstracted from matter. But what exactly does this mean? It turns out that it means different things depending on the kind of intellect in question. The above passage goes on to contrast the case of an angelic intellect and a human intellect. For modern readers, this talk of angels may seem quaintly medieval and irrelevant, but here as in so many places it allows Aquinas to reach interesting theoretical conclusions. We human beings have intellects that are attached to a physical system for detecting sensory stimuli. So much seems plainly correct. What are the consequences of this simple observation, however, for our abilities to form concepts and thus our abilities to gain knowledge of both the material and immaterial realms? Well, imagine a being that had an intellect but had no sensations at all—that is, imagine an angel, which is neither physical "nor in any way connected to bodily matter" (see §3.3 and §5.2). What would *that* be like? Then ask, how are things different for us? The angels, Aquinas holds, spend their time thinking about forms that are entirely separate from matter—forms that, in his words, are "subsisting without matter." This is the object of the angelic intellect, just as color is the object of sight. But what are such forms? If Aquinas were a Platonist, he might mean that the angels think about the

Form of the Good, and so on. But Aquinas is not a Platonist, not even the sort of latter-day Platonist who believes in abstract mathematical entities. So what do the angels think about? The answer is that they think about each other and about God and God's ideas. This means that their intellects are not directly attuned to our physical world. They can acquire information about our world, through thinking about God's ideas of this world, but this is not what they were designed to do. Imagine the most abstracted professor of philosophy, someone so wrapped up in the realm of ideas as to be virtually oblivious to events in what gets called "the real world." (Imagine Aquinas himself, as described in Chapter 1; he was known, after all, as the *angelic doctor*.) For a human being to be like this is odd, perhaps even ridiculous. The angels, in contrast, are like this by design, and for Aquinas that is a mark of their superior intellects and their greater worth in general.

So what is it like to be a human being? Although our intellects are nonphysical—"not the actuality of any organ"—the intellect belongs to a soul that *is* the actuality of a body, the human body (see §6.3 and §6.5). As a result, our intellect is just one part of a composite substance that also has sensory powers. This means that our intellect has direct access to a realm of information available to the angels only indirectly, the realm of the physical world. For Aquinas, the fact that we are given access to this information reveals something about our proper operation. What is natural for the human intellect, he claims, is to apprehend the nature of material things, but to do so in abstraction from particular cases. In his words quoted above, the proper object of our intellect is "a form existing individually in bodily matter, but not as it is in such matter" (*ST* 1a 85.1c). We have been designed, that is, to be physicists and biologists and astronomers. This is what we do best. (Mathematics and philosophy simply carry on that project at a higher level of abstraction; see §3.2.)

From Aquinas's point of view, these natural talents have their cost. For although we might take pride in ourselves in comparison to other animals, we ought to be humbled by a comparison to the angels. Whereas the angels are naturally oriented upward, toward God, we are naturally oriented downward, toward the physical world. Halfway between angels and beasts, we have the capacity to understand spiritual things, but only by looking through material things first (see §4.1), and we have a natural tendency to dwell where we must first look—in our natural environment, the sensible world, which alone affords a window on the spiritual. Aquinas's career, that of a theologian, is therefore a quixotic one. Theology is the loftiest of sciences, but it is one that we human beings can pursue only feebly, at best. Aquinas's famous remark at the end of his life—that all he had written now seemed like straw (see §1.6)—was a response to the traumatic last months of his life. But it might just as well be read as a statement of the prevailing working conditions for the human being who would be a theologian.

We can now formulate a further thesis about the human cognitive powers:

> IV. The proper objects of the human intellect are the natures of material things, abstracted from their material conditions.

We have considered this thesis already in §3.1, in the context of Aquinas's theory of essence. In the present context, it leads to some obvious questions about how this process of abstraction takes place. Before taking up that issue, however, we should register one further and surprising thesis that Aquinas holds about the objects of intellect. On his view, the intellect is not only capable of such abstraction but actually bound by it, in the sense that the intellect is incapable of directly grasping material individuals. Just as the senses are limited to apprehending the particular, so the intellect is limited to apprehending the universal:

> V. The human intellect can directly apprehend natures only if they have been abstracted from their material conditions. Hence particular material things cannot be directly apprehended.[10]

Aquinas was persuaded of this thesis by considerations much like those that drove the argument considered earlier for the intellect's immateriality. For if (1) the state of a thing determines how a form is received in it, and if (2) a thing is cognized in accord with how its form is received, then Aquinas can run that earlier argument in a different direction, using the intellect's immateriality to show that it *must* cognize forms in abstraction from their material conditions.

Still, (V) is a startling thesis to hold, because it seems obviously the case that we can and do constantly think about particulars. As Aquinas himself remarks, it would seem impossible to take action unless we could reason about the particular circumstances of a case.[11] He makes quick work of such objections, along the lines we considered in §6.5. In contrast to Plato or Descartes, each of whom tends to identify the mind with the human being, or at least with everything that is essential to being human, Aquinas thinks of the mind as just one essential component of what a human being is. If the mind by itself proves incapable of reasoning in characteristically human ways, that is of no particular concern to Aquinas, because he thinks that human reasoning has to be the cooperative effort of intellect and the senses. The intellect does not directly grasp particulars, but the senses do, and so *the human being* can reason about particular states of affairs, using both sense and intellect. As Aquinas

remarks, paraphrasing Aristotle, "neither sense nor intellect cognizes, properly speaking; instead the human being does, through each" (*QDV* 2.6 ad 3; cf. *De anima* 1 4, 408b11). For Aquinas, this was a point, not about the correct use of language, but about the way in which cognition is a joint product of a human being's various cognitive capacities, working in concert.

Abstraction

The most obvious way in which sense and intellect work together is that the senses supply the data used by intellect to form universal concepts. The passage quoted earlier immediately continues:

> But to cognize that which is in individual matter, not as it is in such matter, is to abstract the form from the individual matter that the phantasms represent. And so it is necessary to say that our intellect understands material things by abstracting from phantasms. (*ST* 1a 85.1c)

Here 'phantasms' is Aquinas's word for sensory representations—sensible species—as they are found within the internal senses of the brain. Such phantasms provide the data for intellectual cognition, but they themselves are doubly unsuited to do so directly. First, phantasms are themselves physical (in the sense that they inform a physical organ, the brain), and as a result they cannot inform something nonphysical. This is to say that they cannot have any direct causal impact on the intellect. Second, phantasms represent "the individual matter" of things—that is, they represent particular sensible qualities in the world, such as the opening notes of a favorite song, or the color of a favorite, missing sweater. But, according to (V), this is the wrong sort of representational content for the intellectual level. For both of these reasons, phantasms need to be transformed into what Aquinas calls *intelligible species*, which are simply mental representations at the level of intellect. This transformation requires abstraction.

We have already seen, in §3.5, the central role of abstraction for Aquinas. We are now in a position to consider squarely the question of just what it is and how it occurs. Here it is important to see that Aquinas distinguishes two intellectual powers. Whereas many philosophers have supposed that the mind is entirely simple, Aquinas thinks that 'mind' is a cover term for three different immaterial powers of the soul: the appetitive power of will, plus these two cognitive powers:

> Agent intellect: The active power that abstracts away from the particular material conditions of phantasms, uncovering the universal form

> Possible intellect: The power that first receives the universal forms abstracted from phantasms and then reasons using them

The basic idea and terminology for this distinction comes from Aristotle's *De anima* III.5, but there the discussion is terse and much disputed. Accordingly, Aquinas has to defend his own reading of the distinction against various lines of attack. Some thought that the agent intellect is not a power of the human soul at all, but something divine. Others—most famously the Islamic philosopher Averroes—thought that not even the possible intellect belongs to the human soul. Against these lines of interpretation, Aquinas replies that they would make it impossible for us to think as individuals. The fact that we do so is something he takes to be self-evident.[12] Of those who accepted both agent and possible intellect as powers of the human soul, many questioned whether they are distinct powers. Aquinas's argument is that they have to be distinct, because the agent intellect is active whereas the possible intellect is passive, and no one power can be active and passive in the same respect.[13]

This way of drawing the distinction leads Aquinas to think of the possible intellect as initially a blank slate (*tabula rasa*), potentially cognizant of any universal concept but actually void of all ideas. The agent intellect, in contrast, is somehow actualized from the start. This is not to say that Aquinas believes in innate knowledge on the part of the agent intellect. For one thing, we can speak of knowledge only once intelligible species are received in the possible intellect. Moreover, what the agent intellect has is not knowledge but rather the capacity to draw out universal ideas from sensory stimulus. Before such stimulus is available, in the form of phantasms, the agent intellect can do nothing. Hence, "it is *necessary* to say," in the words of the passage just quoted, "that our intellect understands material things by abstracting from phantasms."[14] This capacity on the part of agent intellect just is the capacity for abstraction. But now at last it must be said that Aquinas does not have anything very revealing to say about how abstraction actually takes place. Later in the same article of the *Summa theologiae* he offers this:

> And this is to abstract the universal from the particular, or an intelligible species from phantasms: to consider the nature of the species without considering the individual principles that are represented by the phantasms. (*ST* 1a 85.1 ad 1)

Here, and elsewhere, abstraction is simply a process of selective attention, whereby the agent intellect focuses on one thing (the form alone) and brackets off the rest (the particular material conditions). This capacity of agent intellect seems to be, for Aquinas, entirely primitive, in the sense

that it cannot be analyzed or explained any further. It is just something we are able to do. It is also, given our cognitive orientation, something we *need* to do if we are to have intellectual cognition at all. We are humans, not angels; if we are to think, we must think through matter, but this requires that we engage in abstraction.

Illumination

There is, however, one further step that Aquinas takes in explaining the agent intellect's capacity for abstraction. When faced with the question of how the agent intellect has the capacity to transform phantasms in the way that it does, he remarks that our intellect participates in the light of the divine intellect and receives thereby the capacity to illuminate phantasms through a light of its own.[15] This is revealing in several ways. First, it shows how Aquinas at this point gives up on the project of accounting for human cognition in naturalistic terms. His appeal to the supernatural at this point supports the idea that the capacity for abstraction is not something we can further analyze or explain. Second, by invoking the divine light at this point, Aquinas is introducing an Augustinian component into what has been, so far, an overwhelmingly Aristotelian account of cognition. Augustine had famously insisted that genuine human understanding requires some sort of divine illumination.[16] There has always been disagreement over just how that claim should be understood; here, Aquinas offers his own distinctive version of the doctrine. Human understanding requires divine illumination not in any ongoing way over the course of our lives, but only at the moment of creation. This is so inasmuch as human beings can understand only by virtue of having an agent intellect that has been created with the innate capacity to grasp the universal in the particular. God pours that illumination into us at the start, rather than constantly feeding it to us. To say this much would not preclude an account of how it is we do abstract phantasms. After all, Aquinas thinks that all of our capacities are, at some level, God-given. Still, what is striking about the account of agent intellect is that he is uncharacteristically silent about the process involved in the abstraction of phantasms, and that he appeals to the divine just where we would expect him to offer a more explanatory account.

Concept Formation

At this point it might start to look as if Aquinas has simply given up on offering a substantive account of intellectual cognition. With so much of the burden of the account taken over by the innate, God-given capacity of agent intellect, there may seem little scope for further philosophical

analysis. Yet this is not the case, because agent intellect in fact plays a rather limited role in Aquinas's overall account. The abstraction of phantasms and the corresponding grasp of universal forms is just the first of many steps down the road to full-fledged human understanding. Indeed, human beings are distinct from other intellectual beings (God and the angels) largely because we are very limited in what we can instantaneously grasp with our intellects. For us, substantive knowledge requires a protracted process of reasoning, whereby we take our initial universal ideas, as generated through agent intellect, and develop them into something more complex and interesting. We might, for instance, begin by seeing George the monkey at the zoo. We might then, almost immediately, form a universal idea of monkey-in-general. That is an important step, for Aquinas, because we have now begun the process of abstract, intellectual reasoning. But there is another sense in which that first universal idea of George is not so significant, because it conveys no new information. Think of it as a kind of shadow-image of the full-color sensory impression we have of George, where what has been drained off is not literally the color but instead all of the particular details about George. This thin initial idea of monkey-in-general is enough for us to attach a word to, and so we can speak to each other about monkeys. This is impressive enough, of course, compared to what other animals can do. But the intellectual process really begins to take off when we take that shadow-image and work hard at trying to understand something about what monkeys are. We might determine that this is a certain species of Old World monkey, perhaps a Colobin, and we might go on to study what Colobins have in common and how they are different from other monkey species. Our intellectual goal, Aquinas says, is to grasp the essences (or quiddities) of material things in the world around us.[17] This is what the human intellect has as its distinctive object. But that object is the *ultimate* goal of human cognition, rather than something we grasp right from the start through agent intellect.

These latter stages of inquiry are largely the province of the possible intellect. Aquinas distinguishes three operations performed at this level:

> Simple understanding: The grasp of a single, noncomplex idea, such as *monkey*
> Composition and division: The assembly of complex propositions built up out of simple ideas
> Reasoning: Inference from one proposition to another

Sensory information feeds into the process at the first stage, inasmuch as phantasms abstracted by intellect become the intelligible species that give rise to simple understanding within the possible intellect. Sensory infor-

mation continues to play a role at later stages of the process; indeed, Aquinas constantly stresses a further way in which sense and intellect work in concert:

> VI. Human beings can understanding nothing without turning toward phantasms.[18]

This means not only that sensory images constitute the original data of thought, but that we must continue to form sensory images as our thoughts develop. While the intellect labors to assemble its ideas in new and interesting ways, the internal senses are continuously framing pictures of what such ideas look like. At this stage of reasoning, the intellect needs the senses for the same reason that professors and their students need a blackboard, even for the most abstract subjects—indeed, *especially* for the most abstract subjects. The truth of (VI) is supposed to be obvious from our own experiences of attempting to understanding things.

The above three operations of intellect culminate in a fourth operation in which the intellect forms a mental word (*verbum*). Aquinas asserts the following thesis:

> VII. Complete understanding requires the formation of a mental word.

The argument for this thesis is that earlier intellectual operations—acquiring a simple idea, forming propositions, drawing inferences between propositions—are simply stages of thought on the way toward understanding. Properly speaking, understanding requires the formation of some kind of concept, and such a concept just is a mental word.[19] Theologically, (VII) sets up a parallel between the human mind and the divine mind, inasmuch as Christ, the Son of God, is considered the Word of God.[20] Philosophically, (VII) highlights the connection for Aquinas between thought and language. This connection already holds to some extent for the three initial operations of possible intellect, the first of which is analogous to the expression of a spoken word, the second to the expression of a sentence, and the third to the expression of an argument.[21] In this way, the patterns of thought are structurally similar to the patterns of language. Still, the actual production of language is possible only once the fourth stage has been reached. This conception of a mental word is not the silent thought of a word in English or any other conventional language. The mind has a language of its own, and it takes form prior to the formation of a written or spoken statement. Only after such prior formation can thought find its expression in a natural language such as English, Latin, or Italian.

Aquinas goes one step further. He contends not just that a verbal utterance requires the antecedent formation of a mental word, but that the mental word is what the utterance signifies.

> VIII. Linguistic utterances directly signify concepts within intellect.

The argument for this thesis is that words like 'monkey' and 'human being' signify not particular things but rather the abstract forms of those particular things. These forms, so abstracted, exist within intellect and nowhere else.[22] Hence, when we talk to one another, what we are doing immediately is conveying to one another the contents of our thoughts. Of course, we are also, standardly, talking about the world around us, but we do that indirectly, by sharing our thoughts. One obvious consequence of (VIII) is that only intellectual beings are capable of genuine language use. Sometimes it is suggested that other animals *are* talking to one another without our realizing it. (Or perhaps they simply choose not to talk?) Aquinas, however, would take their apparent inability to use language as strong evidence for the conclusion that they lack intellects.

7.4 Conclusions

In this way, we return to the issue with which this chapter began: the issue of what distinguishes human beings from all others. What seems most salient, in comparison with the living things around us, is that we—alone among animals—have immaterial intellects. To the extent that Aquinas's arguments for this conclusion may be uncompelling, this central differentiating feature—on which large parts of his thought rest—requires further consideration. We should not, however, let this one aspect of his account overshadow the rest. For whereas we are distinct from other animals in virtue of having an intellect, we are distinct from other intellectual beings—God and the angels—in virtue of having an animal body. Much of what is most interesting about Aquinas's theory of intellect is the story he tells about how the senses and intellect cooperate in understanding the world around us.

Notes

1. With intellect necessarily comes will, as discussed in §4.3, "From Mind to Will." There the derivation of will from intellect pertained specifically to God; the principles invoked in that derivation, however, presumably apply equally in the case of human beings. Regarding the will's operation, see §5.3, "Necessity and Freedom."

2. "Cognition occurs in virtue of the cognizer's being made like the thing cognized" (*ST* 1a 76.2 ad 4).

3. "Everything acted on receives something from that which acts on it, considered as an agent. But the agent acts through its form and not through its matter. Therefore everything that is acted on receives a form without the matter" (*InDA* II.24.19–22).

4. "The external thing making the impression is what the senses perceive per se, and the sensory powers are distinguished in terms of how that cause differs" (*ST* 1a 78.3c).

5. "Because nature does not fail in necessary things, there must be as many actions on the part of the sensory soul as are adequate for the life of a complete animal. And all of those actions that cannot be reduced to a single principle require distinct powers" (*ST* 1a 78.4c).

6. "Nothing corporeal can make an impression on a thing that is incorporeal" (*ST* 1a 84.6c).

7. "In seeing, for instance, *the pupil* is transformed by the species of a color, and the same is evident in other cases" (*ST* 1a 75.3c).

8. "The form of color is received in the pupil, which is not by this made colored" (*ST* 1a 78.3c).

9. See, for example, *ST* 1a 75.2c; *InDA* III.7.131–159.

10. "Our intellect is directly cognitive only of universals" (*ST* 1a 86.1c).

11. See, for example, *ST* 1a 86.1 obj. 2.

12. "It is clear that an individual human being engages in thought. If that is denied, then the person maintaining this view has no thoughts about anything and is not to be listened to" (*InDA* III.7.281–284).

13. See, for example, *ST* 1a 79.7c.

14. More explicitly, "the whole of our intellect's cognition is derived from the senses" (*InDT* 1.3c).

15. "That intellectual light that is in us is nothing other than a certain likeness of the uncreated light, obtained through participation" (*ST* 1a 84.5c).

16. See, for example, *On the Teacher (De magistro)* 12.40: "When I speak the truth, I do not teach someone who sees these truths. For he is taught not by my words but by the things themselves made manifest within when God discloses them."

17. "The human intellect, which is connected to a body, has as its proper object a quiddity or nature existing in corporeal matter" (*ST* 1a 84.7c).

18. See *ST* 1a 84.7.

19. "Understanding is completed only if something is conceived in the mind of the one who understands, and this is called a word. For before some conception is made firm in our mind, we are said not to understand, but to be thinking in order to understand" (*QDP* 9.9c).

20. The central text is the first verse of the Gospel of John: *In the beginning was the Word, and the Word was with God, and the Word was God.*

21. See *InPA* I.1.32–50.

22. "It cannot be that [spoken words] immediately signify the things themselves, as is evident from their mode of signifying: for the term 'human being' signifies human nature in abstraction from singulars. Hence it cannot be that it immediately signifies a singular human being. Hence the Platonists posited that it signifies the separate idea of *human being*. But since this, in virtue of its abstractness, does not subsist in reality, on Aristotle's view, but exists in intellect alone, it was therefore necessary for Aristotle to say that spoken words immediately signify the conceptions of intellect and, through their mediation, signify things" (*InPH* I.2.100–112).

Suggested Readings

Aquinas's most extensive discussions of these topics come in his commentary on Aristotle's *De anima* and in the *Treatise on Human Nature* (*ST* 1a 75–89). For a more detailed treatment of many of the topics discussed in this chapter, see:

> Robert Pasnau, *Theories of Cognition in the Later Middle Ages* (New York: Cambridge University Press, 1997), chs. 1 and 3,

and

> Robert Pasnau, *Thomas Aquinas on Human Nature: A Philosophical Study of* Summa Theologiae *1a 75–89* (New York: Cambridge University Press, 2002), chs. 6, 9–10.

There is considerable controversy over how to understand the immateriality of sensation. For an account that gives greater weight to the nonphysical aspects of the account, see:

> Myles Burnyeat, "Aquinas on 'Spiritual Change' in Perception," in *Ancient and Medieval Theories of Intentionality*, ed. Dominik Perler (Leiden: Brill, 2001), 129–153.

Unlike so many modern authors, Aquinas does not give prominent attention to the question of what knowledge is. For an illuminating discussion of what his account of knowledge amounts to, see:

> Scott MacDonald, "Theory of Knowledge," in *The Cambridge Companion to Aquinas*, ed. Norman Kretzmann and Eleonore Stump (Cambridge: Cambridge University Press, 1993), 160–195.

Aquinas's most extensive remarks on the mental word are found in his commentary on the Gospel of John. The relevant material is translated in:

> Thomas Aquinas, *Treatise on Human Nature*, tr. Robert Pasnau (Indianapolis: Hackett, 2002), appendix 5.

8

The Goal of Human Life

8.1 Introduction

Given his pervasive theism, it is unsurprising that Aquinas identifies union with God as the best goal for a human being: "Final and complete happiness can consist in nothing other than the vision of the divine essence" (*ST* 1a2ae 3.8c). As with other areas of his philosophy, however, he does not merely suppose that this contention should be taken for granted or otherwise accepted on blind faith. On the contrary, Aquinas advances this claim as following from what he understands to be a now-established interlocking concatenation of facts concerning human nature, the divine essence, the relation between creatures and their creator, and the structure of the human will—facts all undergirded and supported by his general explanatory framework. Here, as in other divisions of inquiry, his remarkable systematicity is a sort of liability with dividends. To the extent that it requires support from theses he has failed to establish, Aquinas's analysis of the human end may seem to wobble, foundationless, without the support he claims on its behalf; at the same time, his system-building proclivities incline him toward a boldness of conjecture and a creativity in forging connections that yield arresting and often fruitful results. In any case, the broad teleology presupposed by many of his investigations into human conduct continues to seem perfectly intelligible and defensible today: people do things for reasons; people's reasons reflect their goals; so, as Aquinas insists, people do things to attain their goals.

It seems appropriate, then, to ask what sorts of goals are best adopted by human beings, both in making local decisions and in structuring their long-term and ultimate life plans. This, at any rate, is just the sort of question Aquinas poses when asking about the best *end* of human beings. Just to forestall unnecessary misunderstanding, it is worth pointing out that when Aquinas speaks about the *ends* of action, he is not talking about

how actions terminate or come to their conclusions, as in "The concert ended later than we had thought it would." Still less when talking about the *end* of human life does he have death in mind, as in "He was mercifully calm and at peace at the end." He is, rather, thinking of ends in the way we do when we speak, perhaps somewhat colloquially, of someone's doing something "to no good end"—that is, pursuing some activity with no defensible intention or goal in view, or else being thwarted in one's ambitions, concluding one's affairs with those goals left unattained. In Aquinas's sense, the end of an action is its goal, and the end of a human life is its overarching purpose. Although some will doubt that life has an overarching purpose, no one should doubt that we do things with goals in mind or with various ends in view. (Why are you reading this book?)

Aquinas wants to argue that once we agree that some actions are done for the sake of attaining various ends, it will not be a long road to show that human beings have a single overarching end, a purpose that a rationally reflective person should embrace. The end of human life should be *embraced* rather than chosen, thinks Aquinas, because we do not choose our own ultimate ends; they follow from our natures or essences, and we do not choose our natures or essences. Once we grant that we have some end or other, Aquinas assumes, it remains only to specify what that end consists in. Someone might, then, agree with a fair bit of this teleological approach to the human end without embracing his distinctive specification of its ultimate content, the beatific vision of God. Then too, Aquinas asks to be judged solely on the strength of his *arguments* for that specification.

8.2 That There Is a Human End

Why suppose in the first instance that human beings have an end? If we begin by thinking of ends as *what things are for,* then ends are effectively *functions.* We say that a computer has a function; and we know precisely what that function is and where it came from. The function of a computer is to compute, an end it received from us. We designed computers as devices for running programs that execute specific tasks, ranging from word processing to home finance to modeling complex weather patterns. There is, accordingly, no mystery about the ends of computers, or of other like artifacts. They have ends that they derived from our interests, and the particular bits of matter, the hardware used to implement the software dedicated to this or that task, came about by the conscious and careful design and manufacturing efforts of human beings with identifiable ambitions. In Aquinas's terms, consequently, it is easy to define the four causes (see §2.1) of a computer: its matter is so much plastic, steel, and silicon; its form is the configuration used for binary processing; its efficient causes are the human beings who created it, where the proximate efficient cause

can also be specified as the motions of the factory workers and robotic devices; and finally, its end is simply to implement programs. As the cause of causes, this last cause governs the others. The form imposed serves the end of computing, as does the material, which must, of course, be functionally suitable if the end of computing is to be realized. One reason, it seems, for the ease of these assignments is just that the ends of a computer are *derived* from us. It is consequently no surprise that we can identify the ends we give to computers.

The case differs dramatically when we turn to human beings. Again thinking of ends as *what things are for,* we see at once that it is not at all obvious what a human being might be for, or even that a human being is for anything at all. It is natural to suppose, on the contrary, that a human being is not for anything and perhaps *cannot* be for anything at all: a human being is precisely not an artifact and so is not something upon whose matter an end was imposed by conscious design. That is, one might reasonably suppose that a necessary condition for having an end is being created through the efforts of a conscious designer, with the result that only artifacts can have ends. Thus, even those disposed to think of human beings as God's handiwork must allow that humans lack ends, where ends are understood to be functions. No one should think of humans as God's artifacts, as entities whose sole function and sole value are thus so thoroughly instrumental.

Aquinas agrees that human beings should not be so conceived, but he insists that human beings have identifiable ends, ends that, like the ends of artifacts, are explanatorily prior to their other causes. Not only do they have ends, he maintains, but human beings cannot be explained without an ineliminable appeal to those ends, since their functions, like the functions of their various parts, find their ultimate explications in what they are for. Aquinas begins with the thought, evidently denied only by those with a perverse need to disregard what is manifest, that human beings do at least some things for reasons, with some end in view. We go to the market *in order* to buy food; we drive across the country *in order* to visit with friends and family; we go to the dentist, not because we enjoy pain, but *in order* that we may enjoy oral hygiene. So much is apt. So much does not, however, provide any reason to think that there is some one end to which all of our sundry actions are subordinated. Perhaps although we perform individual actions for the sake of something, there is no one something for which, ultimately, we do all we do. Every letter goes to some address, but there is no one address to which every letter is delivered.

Aquinas does not, however, reason in this way. That is, he does not try to infer fallaciously that there is one final end for human beings from the observed fact that humans uniformly act for the sake of something each time they act intentionally. Instead, he relies on what in this context he

assumes is an already established fact about human beings, that every human has a single and unified nature:

> There must indeed be one ultimate end for man insofar as he is man because of the unity of human nature, just as there is one end for a physician as physician because of the unity of the art of medicine. This ultimate end of man is called that human good which is happiness. (*InNE* I.9.106)

Aquinas here appeals to his contention that human beings are unified beings, that each human being is some one determinate entity. Key to his conception of the unity of human beings, as we have seen (§2.1, "The Final Cause"), is the organization of their various activities around some one end state. Here the appeal to medicine seems apposite. What makes the various activities of a doctor when doctoring all parts of some one craft? She examines a patient, orders X-rays, interprets them, diagnoses a fracture, and wraps a limb in plaster. All of these disparate activities are part of medicine precisely because they serve the same end, namely, the health of the patient. If the same person, the doctor, encountered an X-ray in an art installation at the Museum of Modern Art, her viewing it would not be part of her craft. It is only when she reads the X-ray for the purpose of restoring health that she is practicing her art; the end is what makes her activity, the viewing of an X-ray, belong to the practice of medicine. So, just as the end provides unity in the case of the crafts, it also provides unity in the case of an organism. This in turn tells us something about what makes individual human lives numerically one and the same through time. It is extremely difficult, if not impossible, to explain this indisputable fact without also assuming that human beings in fact have final causes, though these are not imposed upon them in the way that functions are imposed on computers. Consequently, humans belong to a category of beings with unified intrinsic ends, ends that are not merely instrumental to the interests of beings outside of themselves.

The introduction of a unifying intrinsic end leads Aquinas to the introduction of a single final good for human beings. It is true, he allows, that every human is drawn most immediately to the form of life he has chosen or has simply developed: the hunter wants to hunt, the philosopher wants to philosophize, and the athlete wants to play sports. Even so, these are subordinate activities, in the sense that they are desired and pursued not as ends in themselves but because they are understood as contributing to a more comprehensive good, which is the ultimate end of man: "the end has the nature of the good" (*InNE* I.5.58). "There must be," Aquinas contends, "some ultimate end on account of which all other things are desired, while this end itself is not desired on account of anything else" (*InNE* I.1.22). Whatever the ultimate end for human beings may turn out to be, it is also

their final good, that which is done for its own sake and not for the sake of anything beyond itself; it is that which, when attained, leaves a human complete and lacking in nothing (*InNE* 1.9.106). This is why, Aquinas comments favorably, Aristotle asserts that all "philosophers have rightly declared that the good is what all desire" (*InNE* I.1.9). Altogether, then, he sees a nexus of connections binding human desire, the human end, and the human good. All humans desire their own good; that good is the end of human life; thus, all humans desire their own end. Accordingly, all humans want to function well, which is to say that all human beings want to attain the best form of life available to them as human beings.

8.3 Happiness

The identification of the human end as the ultimate object of desire paves the way to a further conclusion, one in any case hardly in need of independent motivation, since almost everyone will grant it without a moment's pause: what people desire, ultimately, is *happiness*. Surely happiness fits the bill, if anything does, of being an ultimate end. It is, after all, something sought for its own sake; happiness is not like money, or dieting, or trips to the dentist, which are all goods sought for ends beyond themselves. Happiness does not seem to be sought for anything beyond itself. Physical health is sought for its own sake, to be sure, but it also is reasonably desired both in view of the fact that the best life is healthy, though not just that, and because without health other activities regarded as desirable could not be pursued. So, to this extent, health is not final, since it is not comprehensive and it is desired not only for itself but for goods beyond itself.

It also seems to be the case that a truly happy person would be living a life in no way lacking. Imagine yourself to be supremely, utterly happy. Now ask yourself whether you in your imagined state might not yet feel pangs of desire for more, for further goods required to fill perceived lacks in your current state. One natural supposition, evidently endorsed by Aquinas, is that you surely would not, or could not, imagine yourself as both perfectly happy and as somehow incomplete, as having as-yet-unfulfilled voids in your life. On the contrary, if you regard yourself as missing anything key to your own well-being, then you are perforce at the same time regarding yourself as somehow, to the degree that you are lacking in something worth having, unhappy rather than happy. Indeed, "since happiness is the ultimate end of all of our activities, it is the perfect good and self-sufficient" (*InNE* I.9.117).

In advancing this conclusion, Aquinas remains alert to the obvious fact that even when a person is happy she might nonetheless regard additional and unattained goods as desirable. He contends, however, that

> [h]appiness . . . has self-sufficiency because of itself it furnishes everything that is absolutely necessary [for human well-being]; but it does not supply everything that can come to a man. Man can be made better by an additional good. But a man's desire for this does not remain unsatisfied because a desire controlled by reason, as a truly happy man should have, is undisturbed by the things that are unnecessary even though attainable. (*InNE* I.9.116)

In fact, a happy life could be made better by the augmentation of further goods and made still more desirable, since "the greater the good, the more desirable it is" (*InNE* I.9.116). Still, happiness, the state into which you have imaginatively projected yourself, is already such as to be utterly complete and self-sufficient even though other goods could augment it. Thus, if you set a new world record in running the mile, it remains true that you might have done still better, by shaving one one-hundredth of a second off your time; it is hard to suppose, however, that your state of satisfaction at your accomplishment would be anything but complete, even if you agree that it would have been still more desirable to have performed ever so slightly better.

A Platitudinous Result

It is easy to be sanguine and to collect ourselves in agreement around the judgment that we all, in the end, want happiness. After all, who will deny it? Even suicides so often move to their sad and desperate conclusions because they have come to believe in despair that happiness will forever elude them. Less severely, almost everyone will agree that in the final analysis they conduct themselves as they do—going to work or school, or to the doctor or the gym, or to the symphony or the beach—because they believe that such activities will contribute to their happiness. Importantly, however, Aquinas observes that so much agreement tends to obscure a deeper disagreement among the parties to the agreement: all may agree that happiness is the ultimate end without even beginning to agree about how that ultimate end is to be understood. On the contrary, when pressed, although just about anyone will agree that happiness is to be sought, controversy erupts as soon as a clarification regarding the nature of the happiness to be pursued is requested. A mother wants her son to study because she wants him to grow into adulthood well equipped to lead a happy life; just now, however, he wants to watch television and wonders aloud why his mother finds it necessary to meddle in his affairs when she could simply leave him alone and let him be happy.

If the illustration is prosaic, the point illustrated is not. Anyone can "admit that happiness is the very best of things," believing even "that it is the ultimate end and the perfect self-sufficient good." Nonetheless, "it is rather obvious that some clarification must be made about happiness to give us knowledge of its specific nature" (*InNE* I.10.118). This is obvious because people disagree, deeply and substantively, about what happiness is, about what it is that qualifies as what is, at the end of the day, the complete and comprehensive good for human beings. Some think that happiness consists in the satisfaction of desires, regardless of what those desires may happen to be; others equate it with pleasure; still others eschew pleasure in pursuit of honor, because they suppose that pleasures are transient and honor everlasting; and finally, some others seek happiness in political ascendancy, in part because it brings honor but mainly because they suppose perfect happiness to reside in perfect power. Noticing these forms of disagreement, Aquinas rightly concludes that a superficial agreement regarding the status of happiness as our ultimate end obscures a more fundamental disagreement, one that effectively disfigures any agreement we may seem to have reached. Labor and management can be of the same mind about wages—to the effect that they should be fair and equitable and even that they should be conditioned by current economic conditions—while remaining miles away from a contract settlement. So too with happiness. If we do not know what happiness is, then we do not yet know what we accept when we identify it as our final good, and until we know what we have accepted, we have no clue as to the best way to structure our lives.

What, then, is happiness?

8.4 What Happiness Is Not

Aquinas begins by endeavoring to disabuse others of their false views about happiness. So much may already strike some sensibilities as unwarranted or even absurd: If I desire my own happiness, and I conceive it in a certain way, then how can Aquinas interpose himself between me and my own desires? What business is it of his? After all, it is my happiness that is in question, not his. Aquinas regards those who ask such questions as boys on couches, listlessly idling away their time in ignorant self-indulgence. He has little sympathy for the easy judgment that happiness consists in desire satisfaction, whatever those desires may happen to be. Instead, and importantly, he thinks that the nature of happiness is centrally keyed to its being an end, an identification that sharply constrains how we are to conceive of its nature: we desire an end, he maintains, because it is good; an end is not made good by our desiring it. Most obviously, if I desire to drink the liquid in the glass on the counter because I believe it to be guava juice, then my desire for it does not make it in any way better for me when the liquid is not guava juice but rather drain cleaner.

That said, Aquinas expends little effort arguing that happiness does not consist in desire satisfaction as such. Rather, he identifies two candidate conceptions of happiness, both of which have attracted many adherents: pleasure and honor. He argues that neither candidate succeeds, since neither meets the criteria for being the ultimate good already established. His rejection of pleasure reveals the degree to which his conception of happiness presupposes metaphysical and psychological underpinnings regarding human nature:

> First we must consider that the sensual life, which fixes its end in pleasure of the senses, necessarily has to place that end in those very intense pleasures following from the natural operations by which the individual is preserved, that is by eating and drinking, and that by which the race is preserved, that is by sexual intercourse. Now, pleasures of this kind are found in both human beings and beasts. It follows then that the multitude of human beings who fix their end in such pleasures seem quite bestial in choosing a life that even pigs enjoy. If the happiness of a human being were to consist in this, then dumb animals enjoying the pleasure of food and sexual intercourse would also have to be called happy, and for the same reasons. Assuming that happiness is a characteristically human good, it cannot possibly consist in these things. (*InNE* I.5.58)

Aquinas contends that *hedonists*—those who seek happiness in sensuous pleasure—effectively regard themselves as pigs. This may initially seem both caustic and tendentious. After all, those who think of bodily pleasure as the best good life affords may simply think that humans, like other animals, are built to seek pleasure. This is why humans, like other animals, as a matter of fact relentlessly pursue the pleasures of the flesh, of all kinds.

In response, Aquinas appeals to what he regards as the plain fact that human beings have a capacity lacking in the nonhuman animals: humans reason. This, he thinks, differentiates them in such a way that humans are simply not at liberty to stipulate that human ends are the same as pig ends. On the contrary, the life of pleasure befits only an animal with a perceptual soul, whereas genuine happiness belongs only to those with rational souls. It is tempting for some at this juncture to counter that pigs no less than humans can be happy. After all, we naturally speak of dogs as happy when they are given juicy pieces of meat to eat or when they enthuse at the return of their masters. Aquinas is not, however, being preemptory in denying happiness to pigs. For the state whose nature is being sought is precisely the state that answers the criteria already laid down for being the highest good *for humans*, the state that is desirable in itself, desired for nothing beyond itself, and whose possession renders a human complete and lacking in nothing. He is not interested in a low-level cavil about habits governing our use of the word 'happiness' or about how we happen to apply that word in this or that context. Rather, he is after an account of a condition whose possession completes us, and he here contends that bodily pleasure, though surely a good thing, can leave us unfulfilled as human beings. As a simple thought experiment, one might ask whether it would be desirable today, right now and without delay, to swallow a pill that would make us feel utterly content for the rest of our days, in a permanent buzz of bodily pleasure, even though it would also leave us inactive, sitting on a park bench drooling on our chins. If we think not, then we think that a life of perfect hedonism is somehow lacking in something; we think, with Aquinas, that a better and more desirable life is available to us as human beings.

The life of honor displays similar shortcomings. As with pleasure, Aquinas is not concerned to show that honor is somehow a bad thing. On the contrary, both honor and pleasure are good things. Again like pleasure, however, honor is a poor candidate to qualify as *the* good. The first problem with honor is just that it is not something a happy agent *does*. That is, the bestowal of honor is dependent upon the attitudes of the bestower rather than the one upon whom it is bestowed. "Therefore," concludes Aquinas, "honor is something more extrinsic and superficial than the goal we are seeking" (*InNE* I.5.64). Moreover, it would be perverse to seek honor from those we despise. One would hardly want, for example, to be the guest of honor at a meeting of mass murderers. Instead, we seek honor from those we esteem, those other humans whose character we admire and whose judgment we respect. This very attribute, however, gives rise to the second problem with honor: it is subordinated to something more prizeworthy than itself, and so disqualified from constituting our ultimate good:

> Happiness is a very good thing, something not sought on account of another. There is, however, something better than honor, namely that on account of which honor is sought. People appear to seek honor in order to confirm the solid opinion they have of themselves that they are good people and that they may be assured of this by the judgment of others. They look, therefore, for honor from prudent people with correct judgment and from those who know them best and can be better judges. Hence, they seek to be honored for their virtue. . . . So virtue, for whose sake honor is sought, is a better thing than honor. It follows then that happiness does not consist in honor. (*InNE* I.5.65)

Our ultimate good, being ultimate, is not sought for anything beyond itself. Thus, simply put, honor cannot be our supreme good because it is pursued for something beyond itself. For the same reason, and even more clearly, those who identify their final good with money are mistaken. Whatever else it is, money is essentially an instrument for procuring

things beyond itself. So it is not an end at all, let alone one that is final or ultimate (*InNE* I.9.70).

8.5 What Happiness Is

So happiness is none of these things. How then should it be understood? Aquinas has already implicitly shown how he intends to go about answering this question when he argues against hedonism. His contention there is in part that pleasure is not something whose attainment renders a life lacking in nothing. So, pleasure is not self-sufficient. There is, however, according to Aquinas, a reason why this turns out to be so: human beings have a definite and identifiable nature, something unchosen by them, just as a pig's nature is unchosen by the pig. For this reason, Aquinas trains his inquiry on those features of human nature that underwrite his conception of happiness.

For Aquinas, the question about human happiness is effectively a special case of a more general sort of question, namely: What is it that makes an *F* a good *F*? In other words, a question about the ultimate good for any kind of thing is a question already constrained by something given in the question, namely, *the kind of thing whose good is being sought.* For example, if we want to know what a good computer is, then we are seeking what goodness consists in for a computer, not for a salad spinner or a sparrow. In a general way, then, judgments of goodness are held to be *sortal relative,* that is, judgments of goodness are always made with reference to the kind of thing whose goodness is under consideration. Further, in addition to being sortal relative, judgments of goodness derive from considerations regarding a kind's operation. Thus, a good computer is one that operates well, as computers are supposed to operate. Good knives do well what knives are designed to do, while good drawbridges operate as they are intended. In general:

> When a thing has a proper operation, the good of the thing and its well-being consist in that operation. Thus the good of a flute player consists in his playing, and similarly the good of the sculptor and every artist in their respective activity. The reason is that the final good of everything is its ultimate perfection, and the form is its first perfection while its operation is the second. . . . Accordingly, the final good of everything must be found in its operation. If then man has some characteristic activity, his final good, which is happiness, must consist in this. Consequently, happiness is the proper operation of man. (*InNE* I.10.119)

Here Aquinas concentrates not on artifacts, which have derived functions, but on human beings insofar as they have adopted various occupations for themselves. When we ask what it is to be a good flute player, we ask a sortal relative question about human beings considered as flute players, and we appropriately focus on the activity of flute playing when making our judgments of goodness or badness.

As we have seen (§8.2), however, human beings themselves, not considered as artisans or musicians or in terms of any occupation whatsoever, have functions and so operations just as human beings. Aquinas meets skepticism about this commitment by considering the possibility that human beings should be naturally functionless, a possibility he dismisses twice over:

> It may happen that a man is a weaver, tanner, grammarian, musician, or anything else of the kind. In none of these capacities does he lack a proper operation, for otherwise he would possess them as empty and useless things. Now it is far more unfitting that a thing ordained by divine reason, as is what exists by nature, should be more unprofitable or more useless than something arranged by human reason. Since, therefore, man is a being possessing a natural existence, it is impossible that he should be by nature without a purpose or a proper operation. There is a proper operation of man no less than of the abilities that are incidental to him. The reason is that everything, whether natural or acquired by art, exists by means of its form, which is a principle of some operation. Hence, as each thing has a proper existence in virtue of its form, so also does it have a proper operation. (*InNE* I.10.121)

Here Aquinas makes two discrete points. First, if humans can arrange for things to have functions, still more can God do so. Living things, unlike artifacts, have functions as a result of God's creating them, contends Aquinas. Second, humans, like artifacts, are what they are because of their forms. Recall that a form is something whose presence makes something what it is in actuality (§2.1, "Matter and Form"), but a form also specifies what something does. A computer form makes so much plastic, metal, and silicon a computer, and this form also specifies a computer's operation as computing. By extension, this same form sets the conditions for being a good computer, that is, one that succeeds in realizing the operations of the form. What, however, does a human form specify as a human's operation?

Aquinas notes first, relying on his metaphysical psychology, that a human form has a special character:

> Now it is evident that each thing has an operation that belongs to it according to its form. But the form of a human being is his soul, whose activity is life, not indeed life as the mere existence of a living thing, but a special operation of life, such as understanding or feeling. Hence, happiness obviously consists in some operation of life. (*InNE* 1.10.123)

His idea here is that just as we isolate the operation of a computer by identifying its form, so too we single out the proper operation of a human being by focusing on the human form, which is the human soul. Now, a soul is unlike an artifact's form insofar as it brings not only structure but life to a material system. A soul, in short, is that in virtue of which human beings are alive, but a human soul is more than a bare principle of life. A human soul marks off human beings, not only from nonliving entities but also from other sorts of living creatures, as a certain kind of living entity, one that shares some activities with cauliflowers and cows but holds others uniquely. Those other activities, as we have seen (§6.2), are the activities of reason.

The significance of this demarcation resides in its implications for determining the human function, and so the human good, and so, finally, human happiness. For Aquinas maintains that reason and its expression are involved centrally in human flourishing, precisely because it is in the activity of reason that the proper operation of a human being consists. He arrives at this conclusion by insisting that the human function, like any other function, is identified by fastening onto what is unique, characteristic, and essential to human beings. A human being is essentially an entity capable of reasoning, so the human function resides in the proper expression of reason. It follows, then, that the final good of a human being is just this: reasoning well.

The general argument in this train of thought is straightforward:

1. The function of x is determined by the unique and characteristic activity of the kind F to which x belongs.
2. The unique and characteristic activity of any x is determined by the operation of the form in virtue of which x is an F.
3. Therefore, the function of any x is determined by the proper operation of form in virtue of which x is an F.
4. The goodness of x, as sortal relative, is determined by the proper operations of x as an F.
5. Therefore, the goodness of x is determined by the proper operation of the form in virtue of which x is an F.

Although a bit abstract when put thus schematically, Aquinas's argument finds its purchase when applied directly to human beings:

1. The function of a human being is determined by the unique and characteristic activity of the kind *being human* to which that human belongs.
2. The unique and characteristic activity of any human is determined by the operation of that human's form, the human soul, which is a rational soul.
3. Therefore, the function of any human being is determined by the proper operation of that human's soul, which is a rational soul.
4. The goodness of a human being, as sortal relative, is determined by the function of that human's soul, which is a rational soul.
5. Therefore, the goodness of a human being consists in the proper operation of that human's rationality.

Human beings, according to this approach, are like every other kind of thing with a function: the human good consists in functioning well, that is, in reasoning well.

Now, some will surely object at this juncture that human beings simply do not have a function, insisting that human beings are not at all like other, obvious functional kinds like computers and knives. It should be clear, however, that Aquinas does not intend, in the course of this argument, to prove that human beings belong to a functional kind. Rather, in the present context, he assumes that this is so, because he takes himself already to have established that there is an end to human life, an intrinsic end, recognized but not chosen. In this connection, he reaches back, ultimately, to his basic explanatory framework, because he here relies on the foundational claim that human beings, like all other living beings, admit of teleological explanations, indeed that no complete and satisfying explanation of humanity is even possible without this.

To the extent, then, that each of us should desire our own goodness, we should also desire, Aquinas concludes, to engage in a life of rational activity, or at least in a life orchestrated by reason, one that is an expression of rationality if not its exercise narrowly circumscribed. There will be a question, if this much is allowed, as to how one's own goodness ought to relate to the well-being of others, especially since it may seem plain that what is required for one's flourishing can, in some circumstances, come to stand in conflict with what is required for someone else's flourishing. More directly, given the importance of charity in Aquinas's scheme of Christian virtue, it is difficult to see why, allowing that we want to seek our own happiness and so also want to live lives rich in rational activity, we should be motivated to engage in other-regarding virtuous activity. Aquinas does have an account of the transition from the expression of the human function to the practice of human virtue, though this extension moves us beyond the consideration of the individual human good, with its focus on objectively given and attained happiness.

8.6 The Beatific Vision

So far we have been following Aquinas's commentary on Aristotle's *Nicomachean Ethics*, an appropriate source given how far Aquinas himself follows Aristotle's lead with respect to the goal of human life. We have now reached the point, however, where Aquinas leaves Aristotle behind and turns from philosophy to theology. To follow the story further, we must eventually leave behind the *Ethics* commentary—where Aquinas resolutely stays within the bounds of Aristotelian philosophy—and look to Aquinas's theological works. In these works, Aquinas agrees with Aristotle that human happiness consists in the proper exercise of reason. This claim takes on a distinctly Christian hue, however, when he comes to his final specification of the most true and most elevated expression of our rational nature. We are, he thinks, at our cognitive peak when, having died in a state of grace, we enjoy the beatific vision. Indeed, Aquinas draws a linguistic distinction between happiness generally (*felicitas*) and a state still more prized, blessedness (*beatitudo*). For the most part, Aquinas speaks of *happiness* when considering the best condition attainable for humans while still upon the earth, while reserving *blessedness* for the state gained, if ever, when the intellect comes to gaze upon God after death. Sometimes, however, he uses 'happiness' as a kind of generic term covering both earthly happiness and blessedness; for clarity's sake, it is helpful to follow his dominant practice of distinguishing between them. Employing this terminology, then, it will turn out that Aquinas does not regard happiness as, so to speak, the *final* final end; rather, in the last analysis, the human good is blessedness, something beyond the reach of incarnate creatures.

Aquinas reasons that the highest human good must correspond to the highest human capacity. When we reflect on our various intellectual activities, we can distinguish readily between our *practical* and our *theoretical* reasonings. Practical reason pertains to our rational activity insofar as it is directed at the acquisition of some end outside of itself (IV *SENT* 49.1.1.1 ad 4). Thus, for example, practical reason might be concerned with the optimal way to achieve some end, like winning an election or increasing the rate of vaccination among the poor, or the most efficient way to produce some product, like a knife or a new town hall (*InNE* VI.2.1135–1136). Each of these sorts of activities requires planning, deliberation, calculation, and strategizing. So each requires high-level intellectual activity.

Even so, the sort of intellectual activity involved in these sorts of activities, insists Aquinas, is of a lower grade than another form—pure theoretical activity. Pure contemplation is not in any way directed to the attainment of some good or end beyond itself; on the contrary, contemplation produces nothing, creates nothing, issues in nothing. In this sense, contemplation is not subordinated to something beyond itself, in the way that every instance of practical reason is insofar as it seeks its end in something beyond its own activity. So, Aquinas infers, contemplation, the activity of the theoretical intellect, has a better claim to being an end in itself than practical reason. It therefore also has a better claim than practical reasoning to being the final good of human beings, since, as Aquinas lays down at the very beginning of his discussion of these matters (see §8.2), the final good, whatever it is, must be something desired for itself and not for the sake of anything else. Thus, he argues:

> Happiness is so desirable in itself that it is never sought for the sake of anything else. . . . But this is manifested only in the contemplation of wisdom which is loved for itself and not for something else. In fact the contemplation of truth adds nothing to a man apart from itself, but external activity secures for him a greater or lesser benefit beyond the action, for example, honor or favor with others; this is not acquired by the philosopher from his contemplation. . . . Therefore it is obvious that happiness consists in contemplation most of all. (*InNE* X.10.2097)

So the best form of happiness, the best good for human beings, turns out to be not merely intellectual activity, but the activity of the theoretical intellect—namely, contemplation.

For this reason, "[i]t is clear that the person who gives himself to the contemplation of truth is the happiest a man can be in this life" (*InNE* X.12.2110). Interestingly, Aquinas notes that contemplation, though delightful in itself—indeed delightful in its own distinctive way among all human pleasures (*InNE* VII.13.1511)—is nonetheless not always in every instance a delight. Sometimes contemplation is not pleasurable, because it strains our capacities to their very limits, sometimes even overloading what we are able to bear (*InNE* VII.14.1534). So much seems phenomenologically apt: when we strive to contemplate at the highest level, we can experience palpable mental strain bordering even on mental anguish. Still, the goal of human life, Aquinas reminds us, is not pleasure: if pleasure were our goal, contemplation would not be our good. All the same, contemplation is regularly and predictably delightful, because pleasure is regularly attendant upon contemplation, and because we naturally take a satisfaction, supposes Aquinas, in engaging and expressing the finest element in us. The case, Aquinas suggests, parallels our experience with food (*InNE* VII.14.1534). We reasonably expect pleasure to accompany our eating, though not every instance of eating affords pleasure. If we are ill, or already full and eating only to be polite to an anxious host, then eating is less than pleasurable, perhaps even painful. Consequently, we can-

not assert an ironclad law between eating and pleasure, though surely we are right to connect the two in our regular expectations. Contemplation is like that too: we expect it to be delightful, and our expectations are only rarely thwarted. We do not infer from the exceptions that contemplation lacks its own delight, only that it does not in every instance usher in pleasure. That should hardly dissuade us from recognizing it as our end, if we have in any case already agreed on independent grounds that hedonism miscasts our nature and so mischaracterizes our final good.

The point that at its extremes contemplation can be overwhelming finds a special significance when it is wed to Aquinas's ultimate conception of the human good, blessedness, which turns out to be a kind of contemplation not even attainable in this life. Just as theoretical reasoning is finer than practical reasoning, so some forms of theoretical reasoning are more elevated than others. That is, within the contemplative realm, some forms are simply higher than others, where height or elevation marches in step not with the intensity of the activity but with the augustness of its objects. Unsurprisingly at this juncture, it will turn out that the human good resides ultimately in the contemplation of the highest and most august object in the entire universe, God.

To arrive at this conclusion, Aquinas thinks it is necessary to reflect primarily on only two points: "First, that man is not perfectly happy, so long as something remains for him to desire and seek; and second, that the perfection of any power is determined by the nature of its object" (*ST* 1a2ae 3.8c). The first point seems fair enough. Whatever is to qualify as a final end must be such that its presence renders the person whose end it is complete and lacking in nothing. Given the context, Aquinas reasonably illustrates this contention by drawing attention to the knowledge-seeking essence of human beings. As he says: "If a man, knowing the eclipse of the sun, considers that it must be due to some cause, but does not know what that cause is, he wonders about it, and from wondering proceeds to inquire. Nor does this inquiry cease until he arrives at a knowledge of the essence of the cause" (*ST* 1a2ae 3.8c). When we find ourselves confronted with some alien or inexplicable phenomenon, then we wonder about it, and as we wonder about it we seek its explanation, which is to say its causes. If we have accepted the thought that our final end consists in theoretical reasoning, then we may also be impressed by the fact that contemplation still en route to its ultimate destination, so to speak, is somehow incomplete, a condition that consequently carries with it a desire for something more, something final.

What is more final, however, than God? Aquinas, of course, thinks that nothing *could* be more final than God. Moreover, the entire created universe is an effect of God's divine activity in creation. We saw in the previous chapter (§7.3, "Objects of Intellect") how Aquinas thinks the human

intellect is designed to understand the nature of the physical world around us. Our natural intellectual orientation is downward, toward bodies, rather than upward, toward God. Still, in seeking to understand the physical world, we seek to understand its causes—and eventually its ultimate cause. In this case, as in others, we are simply not satisfied until we have come to know the essence of the cause of the effects whose explanation we seek. This, then, leads to Aquinas's second contention—that the perfection of any capacity derives from the nature of its object. What makes the capacity of vision actually engaged in seeing at any given moment is the presence of some appropriate object of sight, some color. Similarly, what makes the intellect fully actual is the presence to it of its object, something intelligible. Since God is purely intelligible, God's presence to an intellect prepared to receive it makes that intellect fully actual, or perfect.

Aquinas's idea here is that we begin by knowing first *that God exists*, not by experiencing God directly, but by encountering the effects of God's activity in sense perception and then seeking to know their proximate causes. Having identified the proximate causes of what we see, we are naturally—that is, by our very natures—drawn to seek the explanation of those causes in turn. Now, so much is in keeping with the *a posteriori* character of Aquinas's proofs for God's existence (see §4.2) and is already reflected in his insistence that no *a priori* proof for God's existence is possible (see §3.3). Let us suppose that some one of those proofs succeeds. Then we know something, *that God exists*. This much, however, does not afford us knowledge of God's essence. We gain this further knowledge, to the extent that our capacities can bear it, only by direct acquaintance. Someone born and raised in the tropics might know that there is such a thing as snowy weather without ever having experienced it. On a first trip to a wintry climate, the encounter with snowy weather affords a kind of experiential knowledge not given in the bare knowledge *that snowy weather exists*. Something is lacking before that direct acquaintance brings with it firsthand knowledge, knowledge not merely that something or other exists, but knowledge of what that thing is. Eventually, if not immediately, one hopes to acquire knowledge of what that thing is in its essence. So too, thinks Aquinas, with God. If we know that God exists, we do so indirectly, through experiencing God's effects and then reasoning carefully about them. Knowing God directly, insofar as we can do so, brings our intellect into a higher state of knowledge, a state in which we can rest, perfectly content, because once attained there is simply nothing left for us to desire.

Unfortunately, according to Aquinas, direct experience of God is not possible in this lifetime. Although it is possible for someone who lives in the tropics to travel to a place where it snows to experience winter first-

hand, we cannot travel to heaven while still living to see what it is like. Even so, knowledge of the divine essence is at least possible (*SCG* III.41–48, 51), a contention rooted for Aquinas in his overarching teleological conception of God's universe. He regards as repugnant the idea that the God whose existence he understands himself to have proved and whose nature he has indirectly characterized could orchestrate the world in such a way that we would be endowed with reason, with its attendant desire to know, only to find ourselves unable to fulfill our highest aspirations. If we were precluded from having knowledge of God's essence, he contends, we would be so structured that all of our intellectual seeking would perforce be finally in vain. But in neither God nor in nature, he insists, do we find effort expended in vain, to no end at all (*SCG* I.56). That, however, is just what we imagine if we believe that we are so constituted that we seek understanding even while we are also permanently incapable of attaining it. This possibility, contends Aquinas, is made manifest in the beatific vision.

8.7 Conclusions

Aquinas's conception of happiness is teleological from beginning to end. He begins with the simple thought that all people desire what is good for them, what is really good for them, and not what merely seems to be so. He then adds that judgments about goodness are always sortal relative, that is, that whenever we maintain that something is good, we implicitly judge it to be a good *F* of some kind or other. What kinds of things are human beings? Here too he relies upon his contention that human beings are teleological systems, creatures with determinate and specifiable end states that are their functions and so against which their goodness can be determined. The human function is to reason; hence, the human good is to reason well.

It follows, then, that various other goods sometimes promoted as the human good fall by the wayside. Although pleasure and honor are generally good things, for instance, neither of them constitutes *the* human good, the final and complete good that every human constitutionally seeks. As for reasoning, it itself admits of higher and lower forms, practical and theoretical. Theorizing is higher and more final than practical reasoning because it is not subordinated to some end beyond its own activity. Consequently, the final good of a human being resides in contemplative activity. The highest form of contemplative activity in turn consists in grasping the essences of the causes of those experienced effects whose explanations we seek. Now, concludes Aquinas, since God is the highest and first cause, the highest and best form of contemplation is our blessedness: it consists in grasping, insofar as we are able, God's essence, and it is a final culmination of our striving, something denied to us in this life but in some cases given after death. This is how and why Aquinas can find himself in full agreement with the sentiment of I Corinthians 13:12: *Now we see through a glass, darkly, but then face to face.*[1]

Notes

1. See especially Aquinas's explication of Matthew 5.8: *Blessed are the pure in heart: for they shall see God* (*InMat* 5.8).

Suggested Readings

We have largely focused on Aquinas's commentary on the *Nicomachean Ethics*, an excellent place to learn not just about Aristotle's thought but also about Aquinas's. These commentaries must be used with some caution, however, because they consist largely in a sentence-by-sentence explanation of the text, and Aquinas almost never stops to criticize anything Aristotle says. Still, the reason Aquinas devoted so much time to writing these commentaries is that he takes Aristotle as his guide in all areas of philosophy. Of course, Aquinas interprets Aristotle in a certain way, as every reader must, but this is precisely why the commentaries can be so useful in understanding Aquinas's own views.

What confirms the value of the *Ethics* commentary, and also illuminates its limitations, is that Aquinas takes up the issues discussed in this chapter in many other places, reaching the same conclusions but also introducing our supernatural end, blessedness. The best sources for this material are *ST* 1a2ae 1–5 and *SCG* III.2–63.

Regarding Aquinas's general framework of practical reasoning for the sake of some end, see:

Alan Donagan, *Human Ends and Human Actions: An Exploration in St. Thomas's Treatment* (Milwaukee: Marquette University Press, 1985),

and

Scott MacDonald, "Ultimate Ends in Practical Reasoning," *Philosophical Review* 100 (1991): 31–66.

For discussions of Aquinas's conception of happiness in light of Aristotle's theory, see:

Anthony Celano, "The Concept of Worldly Beatitude in the Writings of Thomas Aquinas," *Journal of the History of Philosophy* 25 (1987): 215–226,

and

Anthony Kenny, "Aquinas on Aristotelian Happiness," in *Aquinas's Moral Theory: Essays in Honor of Norman Kretzmann*, ed. Scott MacDonald and Eleonore Stump (Ithaca, N.Y.: Cornell University Press, 1998).

9

Ethics

9.1 Overview

No other area of contemporary philosophy is connected with its past in the way that ethics is. When it comes to the study of mind or metaphysics, for instance, most scholars feel little obligation to look back more than one hundred years. In ethics, matters are quite different. Aristotle, Hobbes, Kant, and Mill are not just a part of the curriculum. In many ways, these authors *constitute* the core curriculum. The study of ethics, in other words, largely just consists in the study of the history of ethics.

Whatever happened, then, to the ethics of Thomas Aquinas? Judging from his written output, this was the area of philosophy with which he was most concerned. Whereas the *Summa theologiae* devotes 15 questions to human nature, it dedicates 303 questions to ethics. Yet even though these sections dwarf everything else in the *Summa theologiae*, they have come to be among the least studied and least influential parts of his work, both among medievalists and among modern philosophers. This is unfortunate, because Aquinas's ethics is in many ways the high point of both his philosophy and his theology. Indeed, the central project of his last years was to elaborate a comprehensive account of how human beings ought to conduct themselves.

So why has Aquinas's ethics received less attention than his metaphysics or his psychology? The reason is perhaps that the theory is highly eclectic. It is, all at once, a virtue theory and a natural law theory, with divine commands playing a role as well. It combines deontological and consequentialist aspects and in addition has a strong teleological component. All of this, Aquinas seems to think, needs to be embraced by a complete theory of human ethics. That theory, as a result, resists summation in any but the most superficial and uninteresting fashion. Whereas the spirit of Mill's utilitarianism can be captured in a few sentences, and Kant's ethics in a few paragraphs, there is no way to give a corresponding sense of

what is distinctive in Aquinas's ethics. The theory is enormously interesting in its details but refuses to take the sort of bold (and often implausible) overarching stands that are found in more familiar ethical theories.

Characteristically, in fact, Aquinas's ethics altogether lacks any sort of substantive, straightforward criterion for the rightness and wrongness of moral acts. Although he believes, as we will see, that there are ethical first principles, known to all, he sees these principles as too general to offer any substantive ethical guidance in particular cases. There is nothing in Aquinas that even remotely resembles Kant's categorical imperative. Now, as we have seen in the previous chapter (§8.6), Aquinas does identify a single, ultimate goal for human life: blessedness, understood as eternal life with God in heaven. Right actions, he holds, are all and only those actions that contribute to the attainment of that end. In this respect, the theory has a structural resemblance to Mill's doctrine that right action consists in that which best achieves the ultimate end of human life. For Mill, of course, that end is happiness. Since it is often fairly clear what will best promote the greatest happiness altogether, Mill can move quite directly from his thesis about ultimate ends to concrete conclusions about how to act. For Aquinas, in contrast, matters are not nearly so clear. The goal of eternal life is best pursued by doing what God wants us to do, yes. But what is that? And even if we can say in broad outlines what that is, how are we to apply that knowledge to the unpredictable variety of particular occasions?

Aquinas recognizes the complexity of such questions by articulating a theory that is itself complex and multifaceted. The account can be broken into two components, a theory of natural law and a theory of virtue, each of which depends crucially on the other.

9.2 Natural Law

Nature and Eternal Law

As we saw in Chapter 5, the universe is governed by God, who directs all things providentially toward their end. In this connection, we can speak of the *eternal law*, which is simply God's plan for the universe, in place and unchanged for all of eternity. The good, for human beings, as for all creatures, is to act in accord with this law. Now, as we also saw (§5.2), the end of all things is God himself, who created the universe in order to manifest his own glory. It follows, then, that the good for human beings is to act in the way that best suits this end, the manifestation of God's glory. This is a weighty task indeed, and one that one might well greet with despair or even resentment: How can *I* contribute to God's glory, and why should *that* be my goal?

In fact, both reactions would be inappropriate, given Aquinas's broader theory, according to which God has set things up in such a way that we best suit his end by serving our own ends, by achieving our own excellence as human beings. There is no conflict between our interest and his interest, and not the slightest reason for resentment, because the good for us as human beings (what will make us happy, to use the terminology of the previous chapter) is the same as what befits God's goodness. What is good for us, Aquinas explains, is using our rational powers to the best of our abilities:

> The good of a human being *qua* human being is that his reason has completely cognized the truth and that his lower appetites are regulated as reason's rule requires; for a human being is human because he is rational. (*QDVC* 9c)

This is the Aristotelian idea that was developed in §8.5, that what is good for a thing is determined by its proper function, where the proper function of a thing is what distinguishes a thing as a thing of that kind. Since the proper function of a human being is to be rational, the good for us is to use reason well. Accordingly, Aquinas recognizes two modes of ethical evaluation. There is the theological mode, according to which wrongdoing (sin) consists in offending God, and the philosophical mode, according to which wrongdoing (immorality) consists in acting contrary to reason.[1] These modes of evaluation yield the same verdicts, except in matters pertaining to the faith alone. In such cases, knowledge of what we should do is not naturally accessible, and so we must follow the eternal law.

Why not *always* follow the eternal law, rather than reserving it for matters pertaining to faith? It turns out that Aquinas thinks we do constantly follow the eternal law. Yet how can this be possible? It is not as if we have any sort of direct access to God's plan for the universe. Aquinas's answer is that "every rational creature grasps the eternal law in virtue of its shining forth, to a greater or lesser degree. For every grasp of the truth is a kind of shining forth and participation of the eternal law, the unchangeable truth" (*ST* 1a2ae 93.2c). Since God's eternal plan extends to every aspect of the universe, any truth whatsoever will count as part of that plan. Hence, any time we have knowledge of anything, we can be said to be grasping some aspect of the eternal law. In this sense, the eternal law shines forth in the created world, and we grasp that law simply by observing the world around us. Moreover, contrary to the dominant trend in contemporary philosophy, Aquinas thinks that the clearest instances of our grasping the eternal law concern matters of value rather than empirical fact. For there are hardly any truths that are known by all human beings without exception. There are, however, certain basic ethical

principles that Aquinas regards as universally known in this way. Such universal knowledge is possible inasmuch as God has imprinted upon the human mind certain aspects of the eternal law, enabling us to live our lives well, in the way intended by God.

This imprint of the eternal law upon the human mind is what Aquinas calls the natural law, which is grasped through "the light of natural reason, by which we discern what is good and what is bad" (*ST* 1a2ae 91.2c). In the *Treatise on Law* (*Summa theologiae* 1a2ae 90–108), Aquinas distinguishes various kinds of laws that serve to guide human beings toward right action. There are, of course, *human laws*, imposed by governments or other institutions. There are also *divine laws*, as in scripture, which God has revealed so as to provide guidance beyond the limits of human reason. Third, there is the *natural law*, which is central to Aquinas's ethical theory. On the basis of this natural law, we judge actions to be wrong, not because they go against the law of the state or the word of the Bible, but because we see through the light of reason that such actions are immoral.

Despite Aquinas's description of the natural law as impressed upon us by God, the account can largely be understood and defended in philosophical terms. As we will see, it is much more than a crude sort of ethical innatism: it is not that we all just know right and wrong when we see it because God has built that information into us. What is innate within us, instead, is a capacity to see the truth of certain basic ethical principles, from which it is our responsibility to develop a more comprehensive moral outlook. This framework is continuous, moreover, with Aquinas's broader theory of rational thought. In general, he holds that theoretical knowledge is built up on the basis of first principles, such as the principle of noncontradiction, and that we have an innate intellectual ability to grasp such first principles through the light of agent intellect, a light that is given to us by God (see §7.3). He makes precisely the same claims in ethical theory, except that here he usefully attaches a label to this capacity for grasping ethical first principles: *synderesis*.[2]

What does synderesis yield, by way of ethical first principles? According to Aquinas (*ST* 1a2ae 94.2c), the first principle of practical reasoning is this:

I. The good should be done and pursued, and the bad should be avoided.

It is at this level that all human beings grasp the eternal law. Obviously, Aquinas has purchased this general consensus at the expense of some substantive content. So is this principle at all interesting, or is it trivial? It is natural to assume, and Aquinas encourages the assumption, that this

first principle is deeply important. But it is not easy to see why that should be. Aquinas describes it as self-evident (*per se notum*), which is to say that it is true by definition, in virtue of the meaning of its terms. To take another example, it is self-evident that *every whole is greater than its part*, inasmuch as we grasp that this is so when we grasp the meanings of 'whole' and 'part'. Yet how should this test be applied to a practical principle such as (I)? How can any claims about what "should be done" be grounded purely in the meaning of terms? The answer is that, according to Aquinas, the very meaning of 'good' has a practical component built into it. Following the opening lines of the *Nicomachean Ethics*, Aquinas defines 'the good' as *what all things desire* (*ST* 1a2ae 94.2c). Given this definition, (I) turns out to be self-evident as follows. Since all things desire the good, it will be universally true, for everyone and everything, that he or she or it *should* pursue the good (and should flee the bad, inasmuch as 'the bad' is defined as what all things despise). This analysis shows that (I) is much broader in scope than what we now tend to expect from an ethical principle. The only way that (I) can be self-evident is if 'the good' extends to all and only those things that happen to be desired. Take 'good' in our narrow sense of 'morally good', and it no longer becomes what all people desire, let alone what *all things* desire. Still, this is the fundamental principle of natural law: Aquinas immediately goes on to remark that "on this are founded all the other precepts of natural law."

In what way is (I) foundational? Aquinas cannot mean that (I), taken alone, entails substantive moral principles. At a minimum, Aquinas will need some way of independently establishing that certain activities count as good or bad for human beings. Given the conclusion that, for example, gluttony is bad, we might then draw on (I) to conclude that gluttony should be avoided. Even then, however, the procedure would be fallacious. If we were to argue that (1) the bad should be avoided, (2) gluttony is bad, and thus (3) gluttony should be avoided, the conclusion would follow only if 'bad' means the same thing in both premises—otherwise we would be equivocating. As we have seen, 'the good' and 'the bad' were defined in (I) as what all things desire and despise—this is what the terms must mean if (I) is to be self-evident. Accordingly, the argument will be sound only if 'bad' in premise (2) means *what all things despise*. Clearly, however, it is not the case that all things despise gluttony. This shows that we cannot replace 'good' and 'bad' in (I) with just anything that turns out on analysis to be good or bad. The terms can be replaced only by things that are universally desired or despised. This makes it very difficult to use (I) as a premise in any sort of argument for some more substantive conclusion about what should be pursued and avoided. Instead, it looks as if any further principles will have to be established independently of (I).

Natural Inclinations

How can more substantive moral principles be established? Aquinas's strategy is to rely on certain assumptions about what human beings desire. (I) seems to be foundational in the sense that it is a kind of template for this strategy, a normative thesis established on the basis of facts about human desire. In appearance, (I) is akin to what Kant calls a categorical imperative, holding unconditionally. In fact, however, it is a disguised hypothetical imperative, holding only given certain background assumptions about the universal desirability of the good. Since that background assumption always obtains, by definition of 'the good', the antecedent condition can be dropped and (I) can be formulated categorically. Kant thought that only categorical imperatives deserved to be called moral, and that hypothetical imperatives simply supplied practical guidance in achieving one's inclinations. Aquinas, far from wanting to separate morality and inclination, takes the two to be tightly linked, holding that:

> II. "The order of the precepts of natural law accords with the order of natural inclinations" (*ST* 1a2ae 94.2c).

As a result, he supposes that our best guide to the natural law is an analysis of our natural inclinations. The human good is to act in such a way as best to satisfy those inclinations, and the precepts of the natural law are just so many rules for how we should act in order to achieve that end. This means that, for Aquinas, normative principles are always conditional upon certain facts about what we desire. There is nothing about these principles that makes them true in the abstract, independently of facts about human nature. Instead, those acts are morally right that best allow us to achieve the various ends that human beings all desire. This means that we can be good, at least in principle, simply by being rational. (In §9.4, we will consider why doing the right thing is not so simple in practice.)

Why would Aquinas defend (II)? For him, this is just one more way in which we can see imprinted on us the influence of the eternal law. God created human beings for certain ends, and so he naturally gave us not only the ability to recognize how to pursue those ends but also the inclination to pursue them. Reason alone would be of little value unless we also had the appropriate desires. Accordingly, immediately after stating (II), Aquinas goes on to classify the different sorts of natural inclinations and the kinds of precepts they give rise to. First is the inclination for self-preservation, which we are said to share with all substances. Second are those inclinations that we share with all animals—such as for sexual intercourse between male and female, and for the rearing of children. Last

are specifically human inclinations, such as to grasp the truth about God and to live in society.

It seems clear that this is not intended as a complete list of natural inclinations. Yet it is striking to see how far Aquinas can take his ethical theory just on the basis of this list. Excessive indulgence in food is immoral (*ST* 2a2ae 146.1c) because it is bad for one's health (desire for self-preservation) and disruptive to those with whom one lives (desire for society). Sexual promiscuity is bad because it leads to children who will lack a supportive father, which in turn is bad because human offspring need the care of both mother and father (desire for raising children).[3] Having multiple wives is consistent with the desire for raising children, whereas having multiple husbands is not, because only in the first case are both the mother and the father clearly established. Still, polygamy is wrong because it is so difficult to maintain a stable and happy family on that model (desire for society *and* desire for raising children) (*SCG* III.124). And so on.

What is immediately striking about Aquinas's strategy in all these cases is that ethical principles are clearly grounded in things that we care about. These are all dictates of the natural law because we can see, through "the light of natural reason," why such conduct is contrary to the human good. To the extent that Aquinas is right about our natural inclinations, his ethical theory has a built-in solution to the question of why we should care about behaving morally. This strategy carries with it an interesting further implication. If actions are wrong only to the extent that they interfere with our ability to achieve the ends we hold dear, then changes in society and technology may lead to changes in what is right and wrong. For instance, if technological advances make it possible to have sex without any risk of having children, then Aquinas will have lost his stated rationale for why sexual promiscuity is bad. (As if fearing this very result, many societies today have been very slow to make reliable and safe birth control widely available.) Accordingly, Aquinas's natural law theory is highly responsive to changes in the world. Though some ethical principles are so central and timeless that they can literally be carved on stone tablets, not all such principles are like that. Generally, ethics is the product of rational deliberation about what will best achieve the ends to which human beings aspire. Presumably, this is an attractive feature of the account.

Now, it would be extremely difficult, in any specific case, to prove that societal changes have actually produced this kind of normative change, by Aquinas's own lights, in the seven centuries since his death. The case of sexual promiscuity illustrates this point well: even if Aquinas's *stated* rationale is now close to becoming irrelevant, he has other arguments against sexual promiscuity. Most notably, he thinks that sexual intercourse is morally acceptable only when carried out in a way suited to the

goal of human procreation.[4] This is a claim that strikes most neutral observers today as absurd, or perhaps just bewildering. It clearly rules out any form of birth control, as well as all sexual behavior that is not ultimately aimed at procreation—kissing, among other things. If the idea were that kissing and the like are immoral because they are somehow less *natural* than the one preferred sexual act, then the doctrine really would be absurd. Aquinas's position becomes at least intelligible, however, in light of a view we encountered back in §1.4, that deliberate human actions are never morally neutral: either they are aimed at an appropriate end, and hence are good, or they are bad.[5] Actions that do not contribute to the good, even those that might seem morally neutral, are bad all the same because they are a waste of time. Sexual behavior, for Aquinas, is often like that. Teenagers kissing in the back of a car, or lovers using birth control, may not be hurting other people. Still, they are hurting themselves, according to Aquinas, inasmuch as they are wasting time on pursuits that do not contribute to their own good.

The Passions

These last considerations highlight an important way in which (II) must be qualified. Despite what he might seem to be saying, Aquinas is very far from taking the view that all our inclinations fall neatly into step with what we ought to do. Would that things were so! Actually, things were so, in the Garden of Eden. Yet as a result of that Original Sin, we have been punished (as a species) with death, ignorance, and constant, insuppressible sensual urges. Because of these constant urges, we all experience inclinations for things that are not good—that is, that are not good for us. We are tempted by gluttony and promiscuity, and to do the right thing in these cases we obviously cannot just go along with our desires. Frequently, we have to resist our desires. Even the best of us, according to Aquinas, cannot entirely control these impulses—save through the grace of God. This is one reason why perfect goodness requires supernaturally infused virtues.[6]

A full treatment of Aquinas's ethics would need to consider in detail his theory of grace and the theological virtues of faith, hope, and charity. Here we will simply illustrate the limits of human virtue, and the role thought to be played by grace, through a famous event that allegedly occurred during Aquinas's yearlong confinement in the family castle (see §1.1):

> While Thomas was alone in the room in which he slept, in his family's custody, his brothers sent to him a beautiful girl, adorned in the manner of a prostitute. She was to induce him to sin through look, touch, charms, and in whatever other ways she could. Now our unconquered hero had already taken as his pride the wisdom of God, and was imbued with the love of that. When he saw the girl, he felt arising within himself the inducements of the flesh, something he had always held subject to reason, but which the plan of divine providence now allowed so that his triumph would arise all the more gloriously, out of struggle. Lifting a burning stick from the fireplace into the air, he indignantly expelled the girl from his room. His spirit inflamed, he went to the corner of the room and made the sign of the cross on the wall with the end of the stick. Prostrated on the floor, he prayed to God with tears to be bound in perpetual virginity, and for this to be allowed to be preserved in him uncorrupted during moments of struggle. After making these tearful prayers, he suddenly fell asleep, and there came to him two angels sent from heaven. They assured him that he had been heard by God and that he had obtained triumph over such a difficult struggle. Girding his loins all around, they said: "Behold, we bind you on behalf of God, as you have begged, with a bind of chastity. This bind can be dissolved by no other strife, and cannot be had by the merit of human virtue. It is granted to you by a divine gift of largess."[7]

Aquinas never mentions this in his writings. Yet whether or not any of it represents a real event, his biographer's account reflects Aquinas's conception of the relationship between sensual desire, human virtue, and grace. Even the best of us will inevitably face the temptations of desire from time to time, and no human virtue can ensure victory unless reinforced by the gift of grace.

Grace does not eliminate all sensual desire but instead puts it perfectly under the control of reason. The goal is not elimination, because sensual desires have their uses. It is a good thing that we become hungry and thirsty and have the urge to procreate. Indeed, sensual desires are the primary means by which other animals pursue their good. In a human being, in contrast, these desires ought to be dominated by reason, as was the case in the Garden of Eden. Aquinas describes our fallen condition by saying that we are subject to two laws, the law of nature and also the *law of sin* (or the law of desire) (*ST* 1a2ae 91.6). In a sense it is strange to think of the latter as a law at all, given that it is certainly not something we should let guide our actions. Still, it is a law inasmuch as it too is a reflection of the eternal law. God intends us to be subject to these desires, because justice calls for us to be punished in this way. So our various longings for sensual pleasure are part of how the world is supposed to be. (Aquinas finds homosexuality so appallingly contrary to nature because he thinks it contrary even to the law of sin. He supposes—wrongly, we now know—that no other animals exhibit homosexual inclinations.)

Aquinas's account of these two laws—the law of nature and the law of sin—makes it plain that he has no sympathy for the very widespread

modern idea that pleasure is itself an end. We saw this in the previous chapter, in the context of his Aristotelian teleology (§8.4, "What Happiness Is Not"); here we are seeing it again, in the context of the passions. One often hears the remark that if something (like kissing in the backseat of a car) feels so good and hurts no one, then it cannot be bad. Aquinas would regard this line of thought as deeply mistaken and dangerous to our well-being. Even if, in some sense, all aspects of human nature are good—since they are all a part of God's eternal providence—it does not follow that we should put equal trust in all of our beliefs and desires. Just as we should use reason to judge what the senses show us, so we should use our rational desires to judge our purely sensual desires. In some cases, it is important to follow those desires. Yet in many cases the pleasures of food, drink, drugs, and sex are a trap that must be avoided, lest we waste our time on activities that make no contribution to an excellent *human* life. Our principal ethical challenge is to see those desires for what they are and to resist them.

These two laws make things harder not only for all of us as moral agents but also for Aquinas as a moral theorist. As we have seen, his derivation of the natural law is ultimately grounded in facts about our natural inclinations. Given that we desire to live in society, for instance, it goes against the natural law "to offend others with whom one needs to associate" (*ST* 1a2ae 94.2c). Yet could we not use this same sort of procedure to mount an argument for gluttony as what fulfills our sensual desire for food? Aquinas needs some principled way of distinguishing the good inclinations that ground natural law from the bad inclinations—our sensual appetites—that ground the law of sin. It is not obvious how he can do this. One move he clearly cannot make is to hold that only our good inclinations are natural and that our sensual desires are unnaturally imposed by divine fiat. Aquinas in fact thinks that the punishment of Original Sin has had the effect of reducing us to our natural state. It was Adam and Eve who were living in a supernaturally enhanced state[8]; our punishment is that we have to live in our mediocre natural condition. A different move, which Aquinas often suggests, is that our good inclinations are in accord with reason and our sensual desires are good only to the extent that they are regulated by reason. Earlier, we saw him argue that "the good of a human being *qua* human being is that his reason has completely cognized the truth and that his lower appetites are regulated as reason's rule requires" (*QDVC* 9c). If what is good for us is to use reason well, and if reason recommends some inclinations and not others, then this will give Aquinas the difference he needs. Yet this move is problematic too, because it is unclear what grounds Aquinas has for saying that some inclinations are more in accord with reason than others. The rational evaluation of an inclination can proceed only if we hold fixed some goal that the agent desires. Thus, given the desire for self-preservation, gluttony is bad. But why not argue on the contrary that, given the desire for sensual pleasure, excessive concern with self-preservation is bad. (Call this the smoker's plea.) Reason will not allow us to judge between competing inclinations unless we have some independent way of judging that certain inclinations are *better* than others.

The easy way out, at this point, would be to insist that certain inclinations are better just because they are the ones intended by God. If Aquinas wishes to persist in a philosophical account of these matters, however, he must stay at the level of human nature. Moreover, the philosophical level would seem to be the deeper level of explanation, inasmuch as God's ends are served by our acting in accord with our own natures (see §5.2). This leaves, evidently, only one way of proceeding: Aquinas must fall back on the proper function argument as a way of picking out those goods that are truly worthy of pursuit. He will then be able to distinguish our different inclinations based on the extent to which they are rational or sensual. Our desires for self-preservation, sexual intercourse, and children must give way to our higher inclinations for knowledge and companionship. The latter will be higher inasmuch as they are distinctively rational, and so distinctively human. Actions that fulfill our lower desires will accord with the natural law just so long as they do not clash with other inclinations. In cases of conflict, the higher inclinations have priority.[9]

Giving priority to our rational inclinations will not solve all of the potential problems in this domain. It will not, for instance, defeat what we have labeled the smoker's plea, inasmuch as it gives us no obvious way of ranking the desire for self-preservation ahead of the desire for sensual pleasure. Indeed, this ranking does not even show us why sensual pleasure should be subordinated to the desire for raising children, a fundamental assumption in Aquinas's sexual ethics. (To see why he would make this assumption, we would need to return to the teleological framework of the previous chapter.) Still, this ordering principle does provide an effective general argument for why the pleasures of sex, drugs, and so on, are not worthy of pursuit and hence are positively immoral to pursue, according to Aquinas's rigorous standards. For it seems clear that all such pleasures, pursued immoderately, impede a life of knowledge, friendship, and other such rational activities. Moreover, this line of thought suggests how we might arrive at a more sensitive and nuanced appraisal of the place of sexuality and other sensual pleasures in human life. For, contrary to Aquinas's own theory—and the whole tenor of his life—it seems highly plausible to think that sexuality and other such pleasures can actually contribute to our flourishing as rational beings. Pleasures of this sort, when pursued in moderation, can serve to sustain and deepen the ties between human beings, joining us emotionally and even intellectually

through the shared experience of pleasure and joy. Again, then, we can see how Aquinas's general ethical framework can be made to yield quite different normative conclusions, depending on the assumptions we make regarding how certain sorts of behaviors contribute to the ends that we all hold dear.

This possibility of change to our moral principles, as well as the obvious reality that we disagree fiercely over certain principles, will hold only at a certain level of detail, on Aquinas's account. At the most general level, there is no chance of change and little room for disagreement. These most general precepts—such as (I) above, and also the precept that *one should act in accord with reason*—are unchangeable and known by all. It is simply not possible, then, for human beings to become completely detached from all normative rules of conduct. Yet as soon as one descends to any more interesting and substantive precepts, ignorance is possible. "With respect to the other, secondary precepts, the law of nature can be deleted from the hearts of men, either because of bad arguments, . . . or else because of bad constitutions and corrupt dispositions" (*ST* 1a2ae 94.6). According to Aquinas's favorite example, there were once German tribes who thought that theft was not immoral. The example shows that such ignorance is possible even in the most central ethical cases. Aquinas thinks that such cases are unusual, however, and occur only when our natural judgment has been badly corrupted by either our own passions or the influence of others.

It is, of course, part of God's plan that we each have a fairly good sense of right and wrong. It seems fairly clear, however, that we have not been given a good sense of *why* things are that way. Although the basic precepts of the natural law are known to all, the theory behind the natural law, as grounded on our natural inclinations for certain basic goods, is obscure to almost everyone. Hence, we all feel certain that theft is wrong, but we have no clear sense of *why* that is so. Thus, philosophers argue heatedly about ethical theory, and even about the proper account of Aquinas's ethical theory. (Even the summary account we are offering in this chapter is controversial among Aquinas scholars.) The theory of natural law can therefore be viewed as having two aspects. It offers an interesting account of the foundations of morality that are available to anyone interested in philosophy, and it offers an account of how the basic moral principles are grasped by everyone, even those who are utterly uninterested in philosophy.

9.3 Virtue

The theory of natural law offers what looks to be a fully developed ethical account, explaining both the foundations of ethics and our knowledge of it. Actions are right or wrong inasmuch as they are more or less conducive to our ultimate interests—that is, those interests that promote our flourishing as rational beings. The natural law is thus in accord with our inclinations, and it is also intellectually grasped, at least in general terms, inasmuch as we all have such moral principles imprinted on our hearts. What need does Aquinas have, then, for a virtue theory?

The Need for Virtue

To answer this question, it is of course helpful to begin with some sense of what kind of thing the moral virtues are. Aquinas largely accepts our intuitive idea of what a virtue is: that it is a fixed disposition to do the morally correct thing. More precisely, following the first article of his *Disputed Questions on the Virtues in General*:

> III. A virtue is a *habitus* that informs a reason-governed power in such a way as to perfect the activity of that power.

We have three comments about this definition. First, a *habitus* just is a kind of disposition, one that is acquired rather than natural. (Think of the acquired skill of hitting a backhand shot in tennis, as opposed to the innate reflex of ducking out of the way when the ball comes right at you.) In terms of Aquinas's standard explanatory framework, a *habitus* brings its possessor partway toward actuality, in such a way that what formerly had the bare potential to act in a certain way now has the pronounced ability to do it well.[10] Second, the moral virtues always inform a power that is either rational itself or under reason's control; only in such powers do we find the sort of capacity for alternatives that Aquinas associates with moral responsibility (see §5.3).[11] Those powers within us that are not subject to the influence of reason, such as the stomach and the eyes, cannot be perfected by virtue. Accordingly, human beings are the only animals that can be virtuous. Third, the virtues *perfect* our rational powers, which is to say that these powers will issue in just the right sort of action, all the time, if and only if they possess and make use of the relevant virtues. This is, of course, a very strong claim to make about virtue, and shortly we will see why Aquinas insists on it. But let it suffice for now to say that if the virtues did not perfect our rational powers, they would not truly be *virtues*.

With all this in mind, we can again consider the question of why Aquinas needs a theory of the virtues at all. Here is what he says:

[W]e need virtuous dispositions for three things:

1. For uniformity of action. For what rests on the action alone changes easily if it has not been stabilized by a dispositional inclination.
2. To perform a perfect action readily. For unless there is a disposition somehow inclining the rational power in one direction, then whenever we have to take action, we will always have to take up first an inquiry into the action. This is clear in the case of someone who wants to reflect on something and hasn't yet acquired the dispositional knowledge, and in the case of someone who wants to act virtuously and lacks the virtuous disposition. . . .
3. To complete our perfect action pleasurably, something that occurs through a disposition. Because it works in the manner of a kind of nature, it makes the action proper to it natural, in effect, and therefore pleasurable, since appropriateness causes pleasure. Accordingly, the Philosopher, in *Ethics* II, holds that pleasure in one's action is a sign of a disposition. (*QDVC* 1c)

One way to understand this passage is as a description of three commonsense *desiderata* for any sort of action. Of course, whenever we do something, we would like to do it uniformly, readily, and pleasurably. This will therefore be so for moral action, *a fortiori*. The passage can also be understood as making a deeper and more controversial claim about moral behavior, that these three qualities are actually constitutive parts of morally good behavior. Consider, first, the value of *pleasure*. It is, of course, a good thing to take pleasure in moral action, if only because that makes it more likely that one will engage in such action more often. Aquinas wants, however, to make a further claim: that taking pleasure in the action is part of what gives the action moral worth. This is a view that Kant notoriously denied when he argued that only those actions done from duty, rather than from inclination, have absolute moral worth. Kant's shopkeeper who treats his customers honestly deserves moral praise if he acts for the sake of doing the right thing. The fact that he takes pleasure in doing so makes the action no better, and if he were to take no pleasure in his honesty, that would make the action no worse.[12] Aquinas takes a very different view. It is, for him, a good thing to struggle against temptation and ultimately resist it. It is far better, however, not to experience temptation at all, and so to choose the good without discord but instead with pleasure. (This is the difference between being *continent* and being *temperate*.) In the first case, one sees the moral law and wills to do it, resisting the entrenched dispositions that pull in another direction. In the second case, all of one's dispositions are virtuous, and the choice seems perfectly natural and effortless. The first agent exhibits a good will, as Kant would have it. But the second agent is virtuous in all respects and is accordingly more praiseworthy.

Consider now the advantage of performing an action *readily*. Of course, it is an advantage to know what to do in advance, without needing to deliberate anew. Yet the point is not simply that it is more efficient to have a standing policy in place. Even when the virtuous person has time on her hands, it will often be a constitutive part of her virtue that she sees what she ought to do, in a given circumstance. For the utilitarian (at least, for the act utilitarian), actions can be justified only by an impartial consideration of the consequences on that particular occasion. The result, as Bernard Williams has famously remarked, can be "one thought too many." I should rescue my wife from drowning, rather than a stranger, just because she is my wife. The availability of a utilitarian justification for that choice is beside the point.[13] Aquinas similarly thinks that the morally good agent will not need to think through all aspects of a situation—and should not need to do so. The framework of the natural law is available to ground the rightness or wrongness of certain sorts of actions, but in standard cases it can remain in the background, leaving the virtues to guide an agent toward the good.

Finally, consider the advantage of *uniformity in action*. Obviously, a morally good agent will consistently get things right. Uniformity in that sense is a *desideratum*. Aquinas is after something more—not just consistently getting things right, but consistently acting according to a stable policy that closely tracks the good, both over the course of many actions and in the midst of carrying out a single action. Why do we need the virtues for that? After all, the natural law should give us that sort of stable policy, so that acting in accord with the law will yield a course of action that is uniform and that tracks the good. Yet even if it were possible to formulate the natural law for all of the many complicated cases that might arise, this will not yield uniformity unless the agent is disposed to follow that law. There is, however, no guarantee of this. We routinely know what we ought to do and fail to act on that knowledge, because we allow other aspects of the situation to overshadow the moral dimension. We know shoplifting is wrong, but we also enjoy spending time with our friends, in a common cause, and we enjoy the thrill of taking risks—to say nothing of the pleasure of getting something for free. The virtuous agent is able to keep foremost in mind the moral aspects of a situation, so that what she knows about right and wrong can uniformly guide her actions. She will not be as susceptible to temptation as the rest of us are, and consequently she will not suffer from what philosophers now call weakness of will.

Against these last two *desiderata*, uniformity and readiness, the act utilitarian might insist on the merits of a flexible, case-by-case approach. On this line of thought, the formation of a virtue would look like a kind of ethical shortcut—useful as a rough and ready guide but unsuitable for the

cases that matter most. In other words, if we have access to the moral laws themselves, then why should we trust our entrenched habits of thought and desire? Aquinas can happily allow that we can and often should do both of these things—both let ourselves be guided by our virtues and investigate the underlying natural law. Moreover, in cases of conflict he would presumably want us to revise our dispositions to fit the dictates of natural law. He would surely be resistant, however, to the idea that the virtues are mere shortcuts. Even if it were possible to arrive at an appropriate formulation of the natural law for each and every new situation, we have seen that Aquinas thinks the morally good person should not have to do that, at least not normally, because she will already have the right sorts of dispositions for dealing with a very wide range of cases. Moreover, acting on the basis of such dispositions will actually be an improvement over the case-by-case method, because it will provide the best guarantee that the agent will act in accord with the moral law. A mere intellectual grasp of the good is no guarantee of that.

The Perfection of Virtue

Aquinas goes so far as to say that the virtues *guarantee* right action. He would not accept the utilitarian worry that the virtues will occasionally stand in the way of right action, because he takes the virtues to get things right on every occasion:

> Two things are required for an act's perfection: first, the act must be right; second, the [underlying] disposition must be incapable of being the source of a contrary act. For that which is the source of good and bad acts cannot, of itself, be the perfect source of a good act. Therefore, because the disposition is what perfects the power, it must be the source of a good act in such a way that it can in no way be the source of a bad one. (*QDVC* 2c)

Accordingly, there can *never* be a case where an agent would be better off employing a more flexible approach and relying less on her ingrained dispositions. Aquinas is committed to the claim that:

> IV. No action that is caused by virtue can be immoral.

How can Aquinas accept such an implausible-looking claim? As he indicates in the passage just quoted, (IV) is motivated by a claim made in (III), that the virtues "perfect" their powers. So if a virtue were anything short of infallible, it could not be said to yield perfection and so could not rightly be called a virtue. Now, of course, Aquinas can use the term 'virtue' in this way if he likes. In that case, we face the question of

whether anyone has ever had anything remotely like a virtue. Here Aquinas is happy to grant that human beings, naturally speaking, are unable to acquire perfect virtue. For this, we require the supernaturally infused theological virtues of faith, hope, and charity. Still, he thinks there are some human beings who have been granted this sort of supernaturally perfect virtue. Moreover, he wants to allow that human beings—on their own—can acquire virtues that are as perfect as naturally feasible.[14] So he has to face the question of how anyone can plausibly be said to have virtues that come anywhere close to being perfectly reliable in all circumstances.

It is hard to accept that anyone could be so perfectly virtuous, not just because of what constant experience teaches us about ourselves and others, but also because of the range and complexity of what falls within the scope of any one virtue. Aquinas himself puts this point vividly when he explains why we cannot form virtuous dispositions all at once, in the way we acquire knowledge simply by hearing a sound argument. Good actions yield virtues, he explains, not in the way that a demonstrative proof yields knowledge, but in the way that probabilistic arguments build up conviction over time:

> Accordingly, in the realm of practical activities too, a single act is not enough to cause virtue. Instead, many are needed. The reason is that in this case the soul's activities are not efficacious as they are in the case of demonstrations, because practical activities are contingent and [merely] probable. (*QDVC* 9 ad 11)

Acquiring a virtue is not like learning the answer to a math problem. The right action in one circumstance contributes to the development of a virtue, but it contributes only one small piece, relevant to a narrow set of circumstances. Full possession of a virtue consists in being disposed to behave properly over a wide and diverse range of cases—a range so wide and diverse that one might wonder whether anyone could ever actually have such a virtue. Here lies the problem for (IV).

One way of handling this difficulty would be to describe the virtues in a more fine-grained way, so that the single broad virtue of justice, for instance, might be divided into various micro-virtues, such as the virtue of honesty and the virtue of generosity. On this approach, even if it were impossible to find someone wholly and truly just in all respects, we might still be able to find someone wholly and truly honest. And if this were not enough, we might get even more fine-grained and distinguish the different respects in which one might or might not be honest. Eventually—or so the idea is—we would arrive at a level of detail at which it is plausible to speak of an agent's being perfectly virtuous.

It is clear that this is not Aquinas's approach. Instead of going in a more fine-grained direction, he goes in the opposite direction: he argues that in fact all the virtues are interconnected, so that one cannot have one of them without having all of them. This is a venerable philosophical view, with roots in both ancient Greek and early Christian thought, but in the present context it seems to make matters only worse for Aquinas. For now he is committed to the view not only that the just person will be perfectly just, but that the just person will have all the other virtues too, which is to say that she will be perfectly moral in every respect. How could anyone—short of receiving divine grace—come anywhere close to this sort of moral perfection?

Prudence

Aquinas's solution is to give an account on which one virtue, prudence, is responsible for fine-tuning the other virtues. The just person has a certain broad disposition, roughly described as an equal regard for others, but this disposition will not reliably yield the right results unless it is exercised by an agent who also has the intellectual virtue of prudence. Prudence is the skill at practical reasoning that allows one to see what ought to be done in a particular circumstance. As Aquinas describes it, prudence takes the general orientation provided by the other virtues, as dictated by right reason, and arrives at what ought to be done in a given case.

Prudence perfects all the moral virtues in the appetitive part, each of which produces an inclination in appetite to some kind of human good. For instance, justice produces an inclination toward the good of equality in things relevant to common life, temperance toward the good of restraint in one's sensual desires, and so on for each virtue. However, each of these goods can be brought about in various ways—and not in the same way in all cases. Therefore, to establish the *right* way, human beings need prudence of judgment (*QDVC* 6c; cf. *ST* 2a2ae 47.4c).

So the other virtues require prudence if they are to be employed with any success. Prudence in turn requires the other virtues, because they supply the ends at which the prudent person aims. Prudence aimed at the wrong end—becoming as rich as possible, for instance—is not a virtue at all, which is to say that it would not even truly be prudence. Therefore, the virtues are mutually entailing: having one requires having them all.[15]

If we adopt the fine-tuning model, as opposed to the fine-grained model, then certain things follow. First, we need to reread the above passage where Aquinas explains why a virtue cannot be acquired all at once, in the way that mathematical knowledge can. The point will be not that a virtue like justice is too complex and multifaceted to be acquired in a single take, but that the sorts of actions that inculcate the virtue of justice are too embedded in particular circumstances to give rise to something as general as the virtue of justice. We arrive at the general virtue of justice through being habituated by particular actions, over and over, in much the way that we arrive at universal concepts through abstracting from particular observations, time after time. This understanding of the virtues as something quite general makes them considerably less obscure—and their acquisition a less daunting prospect.

Yet now, as a second consequence of embracing the fine-tuning model, we face a considerable puzzle regarding prudence, the virtue that plays the crucial role of fine-tuning the other virtues. Immediately after the above passage describing how "prudence perfects all the moral virtues," Aquinas continues as follows:

> Thus rightness and full goodness in all the other virtues come from prudence, which is why the Philosopher says that the mean in moral virtue is determined by right reason. Because all appetitive dispositions take on the nature of a virtue from this rightness and full goodness, it follows that prudence is a cause of all the virtues of the appetitive part. (*QDVC* 6c)

Given this central role for prudence, the stakes are obviously high. If Aquinas lacks a plausible account of prudence, he lacks a plausible virtue theory entirely. Moreover, it is hard to see how he will be able to say anything plausible about prudence, given the constraints of his account. For though we can understand how an agent might be *somewhat* prudent, able to fine-tune her moral virtues over a certain range of familiar circumstances, it is very hard to see how anyone could be *completely* prudent, if that requires the ability to fine-tune the moral virtues in all circumstances. Yet this is what Aquinas's theory seems to require, since he holds that the virtues never make a mistake.

In fact, however, the theory does not require so much. To say that the virtues never make a mistake—claim (IV)—is to say, not that they are omnipotent, but that they are infallible. According to the passage quoted earlier, a virtuous disposition "must be the source of a good act in such a way that it can in no way be the source of a bad one" (*QDVC* 2c). This is compatible with the idea that a virtuous person might be virtuous in quite a limited domain. Outside her familiar range, she might altogether lack the sort of prudent judgment that the moral virtues require for their "rightness and full goodness." Indeed, even the most virtuous person is subject to fairly dramatic limitations in that regard. Who among us can go from the nursery, to the farm, to the factory, to the front lines of war, knowing the morally correct thing to do in each context? So the fine-tuning model, by making moral excellence depend on prudence, explains how the virtues can be perfectly reliable and yet significantly limited.

Still, this reply goes only so far and is in fact not quite what Aquinas wants to say. It helps solve the puzzle of how the virtues can never go wrong, but by setting limits to such infallibility, it tells us nothing about how prudence manages to be infallible within its familiar territory. And since the fine-tuning model puts so much weight on prudence as that which "perfects all the moral virtues," Aquinas can hardly be said to have a virtue theory if he cannot tell us more about how prudence works. Now, the natural place to look for this further story is in the details of how a prudent person acquires the sort of knowledge that allows her to employ her moral virtues. For we normally assume that prudence consists simply in a certain sort of knowledge, knowledge having practical implications. We assume that the prudent person is the one who *knows*, in a given situation, what sorts of actions will yield the sorts of ends that the virtuous person seeks. Augustine exemplified this idea with the remark: "Prudence is the knowledge of what to seek and what to avoid" (*On 83 Questions* Q. 61).

Though Aquinas quotes this remark with approval (*ST* 2a2ae 47.1sc), his own view is in fact rather different. Prudence for him is not a body of practical knowledge, but a capacity to put that knowledge into action. One indication of this point is that Aquinas regards prudence not as a collection of associated dispositions—as if it were so many pieces of practical knowledge assembled at one's fingertips—but as a *single* disposition. The prudent person has the virtue of prudence, just as she has the virtue of justice or of bravery. Furthermore, he holds that prudence is lost not by being forgotten, in the way that knowledge is, but by being corrupted by passion. For the virtuous person to forget some of her practical knowledge would be an impediment to her prudence but would not constitute its loss. This is because prudence involves more than just knowledge. It is, rather, a kind of bridge between knowing and doing; its role is to connect knowledge with desire and action.[16]

What exactly does this mean? Aquinas's account takes form in his replies to two of the objections he considers when discussing prudence. A first objection maintains that prudence cannot be a virtue, because (quoting Aristotle) practical knowledge is of "little or no value" for virtue (*Nicomachean Ethics* II 4, 1105b2). In his reply, Aquinas accepts this claim:

> Practical knowledge includes universal judgments about what one should do (for instance, that fornication is bad, that one should not steal, etc.). Still, even with this knowledge, it happens that reason's judgment is intercepted on the way to a particular act, with the result that reason does not judge rightly. This is why practical knowledge is said to be of little value for virtue: because, even with it, it happens that people sin against virtue. (*QDVC* 6 ad 1)

The universal judgments he describes are those we possess in virtue of the natural law. But here we see that knowledge of such principles is not a central component of prudence, which is to say that it is not a central component of intellectual virtue. Thus, he remarks, "[p]rudence involves more than practical knowledge," and he goes on to explain:

> Prudence includes judging rightly about particular acts insofar as one should perform them now. Any sin corrupts that judgment. Therefore, as long as one has prudence, one does not sin. That is why prudence contributes not a little, but a great deal to virtue. In fact, as was said, it is a cause of virtue itself. (*QDVC* 6 ad 1)

Prudence is required for the other virtues to hit their mark, as we have seen, and in this sense it is a "cause" of the other virtues. Yet how is such prudence not the same as practical knowledge? Aquinas had remarked that the judgment of reason is sometimes "intercepted on the way to a particular act"—hijacked by the passions, as it were. This was why practical knowledge alone is of little value. Prudence is what guarantees that reason arrives at its final destination: the particular act that is right to perform now. Yet what sort of role is this? In the classic practical syllogism, one reasons that:

> I should not steal.
> This is stealing.
> Therefore, I should not do this.

If the primary task of prudence is not to furnish the initial premise, then what substantive work does it do? Surely it does more than register the truth of the second premise or point out that the conclusion follows.

Aquinas's reply to the next objection goes further. The objection had claimed that one can be virtuous without prudence inasmuch as one can always get advice from others. Elsewhere he replies to a similar objection by pointing out that one must at least be prudent enough to ask for that sort of help and to know how to discern good advice from bad (*ST* 2a2ae 47.14 ad 2). Here he replies in a very different way:

> One person can take general advice from another about what to do. However, only the rightness of prudence enables one to sustain one's judgment rightly throughout the act itself, against all passions. Without this, there can be no virtue. (*QDVC* 6 ad 2)

Prudence's task is not the strictly cognitive task of knowing the right thing to do. The prudent agent not only has that practical knowledge but

is also able to focus on that knowledge at the right time, for as long as necessary. Here again, Aquinas's virtue theory meets up with his natural law theory. To a considerable extent, as we saw in the previous section, we all know what the right thing to do is. The reason we nevertheless go wrong so often is that we fail to make use of that knowledge as we should. We let our knowledge be hijacked by our passions, which call to mind other pleasant truths that, in turn, lead our wills astray.

This is not to remove prudence from intellect. Prudence is an intellectual disposition, but it is a disposition quite unlike knowledge. As Aquinas goes on to explain in the next article, knowledge is not a virtue in the truest sense, because it has no appetitive component. If knowledge made one positively *desire* to grasp the true, then this would make it a genuine virtue. Yet this is not the case: "[H]aving knowledge does not make one *want* to consider the truth; it just makes one *able* to do so" (*QDVC* 7c). We all know, in some sense of 'know', the difference between right and wrong. But we do not all desire to embrace this knowledge and let it guide our lives. The disposition of prudence guarantees that our intellect will attend to the relevant information we possess. Guided by the virtue of justice, the prudent person will fasten on those aspects of the situation that bear on treating others fairly and equally. Guided by the virtue of temperance, the prudent person will dwell on resisting temptation. In these cases, Aquinas describes the intellect as "following the will." The underlying disposition "more truly has the nature of a virtue inasmuch as it gives a person not just the ability or the knowledge to act rightly, but also the will to do so" (*QDVC* 7c). Prudence does this, not because it is a virtue of the will, but because it holds intellect steadfast in its orientation, allowing the will to act in accord with right reason so as best to pursue the ends that the virtuous person desires by a kind of second nature.

Prudence turns out to have an interesting and complex relationship to the other three cardinal virtues (justice, courage, and temperance). Moral knowledge gets pushed to the side, overshadowed by an account of how we manage to make use of what we already know. This shows something very interesting about the relationship between Aquinas's virtue theory and his natural law theory. Moral knowledge (what the natural law gives us) is pushed to the side, not because it is unimportant, but because it is not the basis of moral evaluation. No one is more virtuous because she understands more of the natural law or sees more deeply into its far-reaching consequences. We *all* grasp the natural law, more or less, and we are all perfectly capable of applying it to particular circumstances. The good person is not good because she can do that better than the rest of us—she is not some kind of moral sage. Instead, the good person knows what she is looking for and is steadfast in focusing on that. The rest of us have too much on our minds, and too many desires, and we make hard what is really quite simple. The overall tenor of the theory is therefore very far from the sort of intellectualism with which Aquinas is often associated. Although it is true that wrongdoing is always the result of ignorance, it is also true that such ignorance is the product of a failure at some other level. God gives each of us plenty of information about right and wrong, not just in Church teachings and holy texts, but written into our very hearts and minds. When we go wrong, it is because we ignore all of this.

9.4 Conclusions

Even more so than with the rest of his philosophical thought, the interest of Aquinas's moral theory lies in the details. He offers no dramatic and memorable theses, but only a careful and patient analysis of ethics in all of its intricacy. Rather than supposing that earlier theories of ethics got things wrong, Aquinas's tendency is to suppose that these theories were partially right and need only to be synthesized into a more comprehensive theory that does justice to the full complexity of moral behavior. Here as always, then, we can see on display his marvelously systematic mind, coupled with his constant insistence on the importance of argumentation.

Notes

1. "The theologian considers sin principally as an offense against God, whereas the moral philosopher considers it as contrary to reason" (*ST* 1a2ae 71.6 ad 5).

2. "Synderesis . . . is in a certain way innate to our mind from the light of agent intellect, just as is the dispositional grasp of speculative principles, such as that every whole is greater than its part" (II *Sent.* 24.2.3c).

3. "It is clear that the rearing of human beings requires not only the care of a mother, who nourishes them, but much more the care of a father, who instructs and defends them, and advances them in goods both internal and external. Hence promiscuous intercourse is contrary to human nature; instead, the man must be united to a determinate woman, with whom he remains not for a brief time but for a long time, or even for a whole lifetime" (*ST* 2a2ae 154.2c).

4. "Just as the use of food can be without sin, if carried out in the proper way and order, as befits the body's health, so too the use of intercourse can be without all sin, if carried out in the proper way and order, as appropriate to the end of human generation" (*ST* 2a2ae 153.2c).

5. "It belongs to reason to order. So if an act proceeding from deliberative reason is not ordered to an appropriate end, then for that reason it is in conflict with reason, and as a result has the character of something bad" (*ST* 1a2ae 18.9c).

6. "Infused virtue makes it the case that such passions, even if they are sensed, are in no way dominant. For infused virtue makes it the case that one in no way

obeys concupiscent desires for sin, and it does this infallibly for as long as it remains" (*QDVC* 10 ad 14).

7. *Ystoria sancti Thome de Aquino de Guillaume de Tocco (1323)*, ed. C. le Brun-Gouanvic (Toronto: Pontifical Institute of Mediaeval Studies, 1996), ch. 11.

8. "Original justice, in which the first human being was established, was accidental to the nature of the species—not as the sort of accident caused by the principles of the species [see §3.4], but as a kind of gift divinely given to the whole nature" (*ST* 1a 100.1c).

9. In the face of the objection that "even what belongs to the inclination of the concupiscible appetite will have to pertain to the natural law" (*ST* 1a2ae 94.2 obj. 2), Aquinas replies: "All such inclinations belonging to *any* part of human nature, including the concupiscible and irascible appetites, pertain to the natural law *inasmuch as they are ruled by reason*" (ad 2). Compare the discussion of why pleasure is not an ultimate end at §8.4.

10. "Sometimes the intellect stands midway between potentiality and actuality, and then the intellect is said to have a *habitus*" (*ST* 1a 79.6 ad 3); "a *habitus* and a power differ in this, that through a power we are able to do something, whereas through a *habitus* it is not that we are made able to do something, but that we are made ready (*habilis*) or unready to do well or badly that which we can do" (*SCG* IV.77.4/4114).

11. "It is distinctive of a rational power that it is capable of opposites and that it has control over its own acts" (*QDVC* 1 ad 12).

12. Immanuel Kant, *Groundwork of the Metaphysics of Morals*, tr. Mary Gregor (Cambridge: Cambridge University Press, 1998), ch. 1.

13. Bernard Williams, "Persons, Character, and Morality," in *Moral Luck* (Cambridge: Cambridge University Press, 1981), p. 18.

14. "A second grade of virtue belongs to those that attain right reason but do not attain God himself through charity. Such people are perfect in a way, relative to what the human good is, but they are not entirely perfect, because they do not attain to the first rule, which is the ultimate end" (*QDVCard* 2c).

15. For this argument that the virtues are mutually entailing, see *ST* 1a2ae 57.4c, 65.1c, and *QDVCard* 2. The strategy is inspired by Aristotle, *Nicomachean Ethics* VI.13.

16. "Forgetting concerns cognition only. . . . But prudence does not consist in cognition alone, but also in appetite. For its principal act is to command, which is to apply dispositional cognition to having an appetite and taking action. Hence prudence is not directly lost by forgetting; instead, it is corrupted by the passions. . . . Still, forgetting can impede prudence, inasmuch as it sets out to command on the basis of some cognition, which can be lost by forgetting" (ST 2a2ae 47.16c).

Suggested Readings

Aquinas's most extensive discussion of ethics occurs in the vast second part of the *Summa theologiae*. The first part of the second part (1a2ae) describes the theory in general terms, and the second part of the second part (2a2ae) works through particular virtues and vices in detail. One particularly important section is the *Treatise on Law* (*ST* 1a2ae 90–108), which is Aquinas's only sustained discussion of his natural law theory. Much of §9.1 and §9.2 is based on that material. Another important source for Aquinas's ethics is his *Disputed Questions on the Virtues*. We drew on this material throughout §9.3.

For a more detailed account of Aquinas's natural law theory, see:

John Finnis, *Aquinas: Moral, Political, and Legal Theory* (Oxford: Oxford University Press, 1998),

which interprets the theory in a rather different way than we have here. On medieval virtue theories, see:

Bonnie Kent, *Virtues of the Will: The Transformation of Ethics in the Late Thirteenth Century* (Washington, D.C.: Catholic University of America Press, 1995).

Some important papers on Aquinas's ethics are collected in:

Scott MacDonald and Eleonore Stump, eds., *Aquinas's Moral Theory: Essays in Honor of Norman Kretzmann* (Ithaca, N.Y.: Cornell University Press, 1998).

A useful collection of commentaries on all parts of Aquinas's ethics, philosophical and theological, can be found in:

Stephen J. Pope, ed., *The Ethics of Aquinas* (Washington, D.C.: Georgetown University Press, 2002).

For an interesting critical discussion of the biological assumptions that Aquinas makes regarding sexuality, see:

Gerald J. Massey, "Medieval Sociobiology: Thomas Aquinas's Theory of Sexual Morality," *Philosophical Topics* 27 (1999): 69–86.

Glossary

accident: *See* **change, accidental; form, accidental.**

actuality: A basic concept in Aquinas's explanatory framework, the correlative of potentiality. Things are actual in virtue of having existence, and as a result of possessing a form (§2.1).

analogy: *See* **predication, analogical.**

appetite: Aquinas's general term for desires and inclinations of all kinds. Within a human being, he distinguishes the rational appetite of will (§4.3) from the lower sensory appetites for food, drink, and so on (§9.2).

blessedness (*beatitudo*): A direct intellectual vision of God, attained only by the blessed in heaven—the ultimate end of human life (§8.5).

cause (§2.1)

efficient: The agent that brings about any substantial or accidental change, by giving matter a certain sort of form—for instance, the builder of a house.

final: The function or purpose of a thing; what a thing is for—for instance, scissors are for cutting; the heart is for pumping blood.

formal: See form.

material: See matter.

change

accidental: The gain or loss of an accidental form (§2.1).

substantial: The gain or loss of a substantial form, also known as generation or corruption (§2.1).

conservation: God's continuously sustaining the world's existence, after its creation (§5.3).

corruption: *See* **change, substantial.**

creation: To bring something into existence out of nothing (*ex nihilo*) (§5.1).

destruction: *See* **change, substantial.**

differentia (*pl.* differentiae): That which, when added to a genus, serves to mark off a distinct species and hence define a natural kind—for instance, a human being is an animal (genus) that is rational (differentia) (§3.4).

emergent system: A system of complexity sufficient to exhibit properties and dispositions that cannot be derived in any direct way from the properties manifested by the individual components of the system (§6.4).

equivocation: *See* **predication, equivocal.**

essence: That which makes a thing be a member of a species, held in common by all members of that species (§3.1).

eternal law: God's plan for the universe, in place and unchanged for all eternity (§9.2).

form: That which, by its presence, makes what exists in potentiality exist in actuality—for instance, the design of a house; the soul of an animal. Rather than simply being the shape of a thing, form is functionally characterized (§2.1).

- **accidental form:** That which makes what potentially has some accident have that accident in actuality (§2.1); that which by its nature exists in another (§3.1)—for example, the whiteness of a house.
- **substantial form:** That which makes what is potentially a substance exist in actuality as a substance (§2.1); what determines a thing's intrinsic accidental properties (§3.4)—for example, the soul of an animal.

generation: *See* **change, substantial.**

happiness: The end of human life—not pleasure or honor (§8.4) but a life of rational activity (§8.5) and ultimately the beatific vision (§8.6).

hedonism: The view, rejected by Aquinas, that pleasure is our ultimate goal (§8.4).

hylomorphism: A method of explanation associated with Aristotle, framed in terms of matter (hylē) and form (morphē) (§6.3).

intellect: A cognitive power for understanding the nature of things, in abstraction from particular cases (§7.3); *see also* **understanding.**

- **agent intellect:** The active power that abstracts away from the particular material conditions of phantasms, uncovering the universal form (§7.3).
- **possible intellect:** The power that first receives and then reasons with the universal forms abstracted from phantasms (§7.3).

matter: The part of a material substance that is potentially such a substance—for instance, the bricks are the matter of a house; the body is the matter of an animal (§2.1).

- **common (nonsignate):** The matter of a thing conceived abstractly, as shared by all members of the species—for instance, flesh and bones in general (§3.2).
- **prime:** Completely unformed matter, bare potentiality; that which underlies all material transformations (§2.2).
- **signate (individual):** The determinate matter of a certain individual—for instance, *this* flesh and *these* bones (§3.2).

mental word (*verbum*): What is formed in the final operation of intellect, when a concept is fully grasped and ready to be articulated by language. A mental word is not a word of English or any other natural language, but an item in the language of thought (§7.3).

natural law: The imprint of the eternal law upon the human mind, in virtue of which all human beings have an innate ability to grasp moral truths (§9.2).

phantasms: Sensory representations as they are found within the internal senses of the brain (§7.3).

potentiality: A basic concept in Aquinas's explanatory framework, the correlative of actuality. Things are in potentiality inasmuch as they have the capacity to become actual. In the case of material things, potentiality is the product of matter (§2.1).

predication (§4.4)

- **analogical:** The predicate is applied neither equivocally nor univocally across several applications but is nevertheless used literally—for instance, *Albert's diet is healthy* and *Albert's complexion is healthy.*
- **equivocal:** The predicate has entirely distinct meanings across several applications—for instance, *The town has just one bank* and *The river has two banks.*
- **univocal:** The predicate has the same account or meaning across several applications—for instance, *The penny is round* and *The circus ring is round.*

proprium (*pl.* propria): Accidents that are not part of a thing's essence but are the necessary consequences of that essence—for instance, the ability to speak a language is a proprium of human beings (§3.4).

providence: God's ordering and governing all of nature (§5.3).

prudence: The virtue of practical reason that allows one to see what ought to be done in a particular circumstance (§9.3).

quiddity: The essence of a thing (§3.1).

reasoning: *See* **understanding.**

senses (§7.2)

- **external:** Sight, hearing, smell, taste, touch.
- **internal:** Common sense; imagination (phantasia); estimative (cogitative) power; memory.

sensible objects (§7.2)

- **common:** Perceivable by more than one sense—for instance, shape, size, and motion.
- **proper:** Qualities that are the object of just one sensory power—color, sound, odor, flavor, temperature.

soul: That which makes a thing be actually alive; the substantial form of a living thing (§6.3).

species (sensible and intelligible): Aquinas's most general term for any sort of cognitive representation, within either sense or intellect (§7.1).

subsistence: Independent existence—in Aquinas's terms, to exist *per se* (§6.7).

substance: A thing that subsists and is the subject of accidents (§3.1).

composite substances: Material substances, living and nonliving, which are composites of form and matter (§3.2).

simple substances: Immaterial minds, sometimes referred to as separate substances, to signify that they are forms separate from all matter. No two simple substances share the same species (§3.3, §5.2). Sometimes God is counted as a simple substance, although strictly speaking, God is not a substance at all (§3.3).

synderesis: Our innate capacity for grasping ethical first principles (§9.2).

***tabula rasa*:** The possible intellect's initial status as a "blank slate," lacking any sort of innate knowledge.

teleological: Explanations given in terms of a thing's end state or function (§2.1).

temperance: The virtue of having one's sensual desires function in accord with right reason (§9.3).

understanding: The operation of intellect (§7.3).

simple understanding: The grasp of indivisible, noncomplex ideas.

composition and division: The assembly of complex propositions built up out of simple ideas.

reasoning: Inference from one proposition to another.

univocity: *See* **predication, univocal.**

virtue: A disposition that informs a reason-governed power in such a way as to perfect the activity of that power (§9.3).

will: The capacity of a soul for rationally desiring the good (§4.3).

Catalog of Works

List of Abbreviations

CT: Compendium theologiae
De 43 art: Responsiones de 43 articulis
DEE: De ente et essentia
DPN: De principiis naturae
DUI: De unitate intellectus
InDA: Sentencia libri De anima
InDC: In libros De caelo et mundo expositio
InDH: Expositio libri Boetii De hebdomadibus
InDT: Super Boetium De trinitate
InJoh: Super Evangelium S. Ioannis lectura
InMat: Super Evangelium S. Matthaei lectura
InMet: In duodecim libros Metaphysicorum expositio
InNE: Sententia libri Ethicorum
InPA: Expositio libri Posteriorum
InPH: Expositio libri Peryermenias
InPh: In octo libros Physicorum expositio
QDA: Quaestiones disputatae de anima
QDP: Quaestiones disputatae de potentia Dei
QDSC: Quaestio disputata de spiritualibus creaturis
QDV: Quaestiones disputatae de veritate
QDVC: Quaestiones disputatae de virtutibus in communi
QDVCard: Quaestiones disputatae de virtutibus cardinalibus
QQ: Quaestiones quodlibetales
SCG: Summa contra gentiles
SENT: In quatuor libros Sententiarum
ST: Summa theologiae

List of Works

The vastness of Aquinas's written output makes it particularly useful to have a catalog of his various works, including both Latin texts and the best English translations.

With respect to texts, there have been many editions over the centuries. In 1880, Pope Leo XIII commissioned a new critical edition of Aquinas's complete works:

S. Thomae Aquinatis Doctoris Angelici Opera Omnia (Rome: Commissio Leonina, 1882–).

Although this so-called Leonine Edition is still not complete, the most recent volumes have set a new standard for historical and editorial quality and have enormously increased our understanding of Aquinas's life and work. In those cases where the Leonine Edition is not yet available, there are various other printed editions, all of which offer a reasonably accurate text but lack the elaborate notes on sources supplied by recent Leonine volumes. Of these other editions, the Marietti series is the most widely available (and can be purchased through Italian booksellers). Marietti also offers relatively inexpensive editions of some Leonine volumes.

Of course, most students today come into contact with Aquinas through translations rather than through the original Latin text. (It should be said, however, that Aquinas's Latin is strikingly clear and easy to read, and within the grasp of anyone with a year of college Latin.) Perhaps surprisingly, large parts of Aquinas's corpus have never been translated. The central philosophical texts, however, are all available in English, sometimes in more than one version. It is important to keep in mind that translations vary enormously in quality: some are elegant but loose, others accurate but stilted, and some lack all virtue.

Here we list those writings that are most important for Aquinas's philosophy, arranged chronologically. Where one clearly preferable translation or edition is available, we list only it.

On the Principles of Nature (De principiis naturae)

This short treatise was written at the very start of Aquinas's career, before he became a master of theology. It offers a succinct account of explanation in the Aristotelian tradition, closely following Aristotle's *Physics*. See Chapter 2 for discussion.

Ed: Leonine, vol. 43.

Tr: *The Principles of Nature*, in *Selected Writings of St. Thomas Aquinas*, tr. Robert P. Goodwin (Indianapolis: Bobbs-Merrill/Library of Liberal Arts, 1965).
Tr: *Selected Philosophical Writings*, tr. Timothy McDermott (Oxford: Oxford University Press, 1993).
Tr: *Selected Writings*, tr. Ralph McInerny (Harmondsworth: Penguin, 1998).

On Being and Essence (De ente et essentia)

This famous short treatise was written near the start of Aquinas's career (1252–1256), at the request of colleagues who were confused about basic principles of metaphysics. See Chapter 3 for discussion.

Ed: Leonine, vol. 43.
Tr: *On Being and Essence*, tr. Armand Maurer, 2d rev. ed. (Toronto: Pontifical Institute of Mediaeval Studies, 1968).
Tr: *On Being and Essence*, tr. Peter King (Indianapolis: Hackett, forthcoming).

Commentary on Lombard's Sentences

This was Aquinas's first major work; it is nearly as long as the *Summa theologiae*. It was begun in 1252, with his first lectures at Paris, and was still under revision when he became a master in 1256. Despite its relatively early date, it contains most of Aquinas's mature ideas, though they are often expressed in interestingly different ways. Aquinas was over forty years old when he finally completed it, so it is hardly a work of juvenilia.

The *Commentary* largely takes the form of disputed questions. It is divided into four books, with each book divided into distinctions and then questions and articles (and sometimes subarticles).

Ed: *Scriptum super libros Sententiarum*, ed. Pierre Mandonnet and Maria F. Moos (Paris: P. Léthielleux, 1929–1947). Complete through book IV distinction 22.
Ed: *Opera omnia* (Parma: Fiaccadori, 1852–1873), vols. 6–7.
Tr: None.

Disputed Questions on Truth (De veritate)

This large work—consisting of 253 articles grouped into 29 questions—covers a range of topics so diverse as to defy summary. (The title of the work indicates nothing more than the topic of the first question.) It dates

from Aquinas's first term as regent master at Paris (1256–1259). Of particular philosophical interest is the initial discussion of truth and the closing discussion of appetite, will, passion, and grace (QQ21–29).

Ed: Leonine, vol. 22.
Tr: *Truth*, tr. Robert W. Mulligan et al. (Chicago: Henry Regnery, 1952–1954; reprint, Indianapolis: Hackett, 1994).

Quodlibetal Questions (Quaestiones quodlibetales)

Of these twelve questions (each divided into numerous articles), Aquinas debated VII–XI during his first term as master in Paris (1256–1259), and the remainder during his second term (1268–1272). The order of topics is almost entirely random, and the articles are usually shorter and less complex than in his other disputed questions.

Ed: Leonine, vol. 25.
Tr: *Quodlibets*, tr. Eileen Sweeney and Sandra Edwards (Washington, D.C.: Catholic University of America Press, forthcoming).

Commentary on Boethius's De trinitate

Despite the title, this work is barely a commentary at all, but an extremely interesting series of questions on knowledge, faith, the individuation of bodies, and the differences between sciences. It was composed during Aquinas's first term as master at Paris.

Ed: Leonine, vol. 50.
Tr: *Faith, Reason, and Theology: Questions I–IV of His Commentary on the* De Trinitate *of Boethius*, tr. Armand Maurer (Toronto: Pontifical Institute of Mediaeval Studies, 1987).
Tr: *The Division and Methods of the Sciences: Questions V and VI of His Commentary on the* De Trinitate *of Boethius*, tr. Armand Maurer (Toronto: Pontifical Institute of Mediaeval Studies, 1986).

Commentary on Boethius's De hebdomadibus

The date of this brief work is unknown, although it is thought to be later than his commentary on the *De trinitate*. It is a straightforward commentary on Boethius's difficult treatise on how beings participate in goodness.

Ed: Leonine, vol. 50.

Tr: *An Exposition of the* On the Hebdomads *of* Boethius, tr. Janice L. Schultz and Edward A. Synan, with facing Latin text (Washington, D.C.: Catholic University of America Press, 2001).

A Survey [of Theology] Directed Against Unbelievers (Summa contra gentiles)

Aquinas began this work at the end of his first term as master in Paris. It was not completed until 1264 or 1265. For many years it was thought that the *Summa contra gentiles*—or, as it is called in some manuscripts, *A Book on the Truth of the Catholic Faith Against the Errors of the Infidels*—was commissioned as a kind of handbook for Christian missionaries attempting to convert Muslims. In recent years this legend has been discredited, and the work has been viewed simply as Aquinas's first systematic attempt to defend a Christian philosophy and theology through reason alone (in Books I–III) or, where necessary, through reason plus revealed doctrine (in Book IV). The *Summa contra gentiles* is a particularly rich source for Aquinas's natural theology (Book I) and his account of creation (Book II). See Chapters 4 and 5 for discussion.

Ed: Leonine, vols. 13–15.
Ed: *Liber de veritate Catholicae fidei contra errores infidelium, seu Summa contra gentiles*, ed. Ceslaus Pera et al. (Rome: Marietti, 1961–1967).
Tr: *Summa contra gentiles*, tr. Anton C. Pegis et al. (Notre Dame, Ind.: University of Notre Dame Press, 1975). The Marietti edition numbers paragraphs differently from the scheme used in Pegis et al. We give both citations.

Compendium of Theology

A concise (though not exactly brief) summary of Aquinas's philosophical and theological views. It seems to have been begun in Rome, after the *Summa contra gentiles*, and to have been taken up again in Naples at the end of Aquinas's life. It was never finished. There is little here that Aquinas does not spell out at greater length elsewhere, but this work is nevertheless often worth consulting for its clarity and simplicity.

Ed: Leonine, vol. 42.
Tr: *A Summary of Philosophy*, tr. Richard J. Regan (Indianapolis: Hackett, 2003).

Commentary on Pseudo-Dionysius's Divine Names

Aquinas was enormously influenced by the Neoplatonic treatises supposedly authored by Dionysius the Areopagite, disciple of St. Paul. This commentary brings to the fore the sometimes subtle Neoplatonic influences on Aquinas's thought. Its date is certain, but it is generally thought to have been written in Italy during the 1260s.

Ed: *In librum Beati Dionysii De divinis nominibus Expositio* (Rome: Marietti, 1950).
Tr: None.

Disputed Questions on God's Power (De potentia Dei)

This extensive set of questions was disputed in Rome, before Aquinas began the *Summa theologiae*. The first six questions concern God's power and relationship to creatures; the last four questions concern God's essence and the trinity of divine persons.

Ed: *Quaestiones disputatae*, ed. Raymund M. Spiazzi (Rome: Marietti, 1964–1965).
Tr: *On the Power of God*, tr. Laurence Shapcote (London: Burns, Oates & Washbourne, 1932–1934).

Disputed Question on the Soul (De anima)

This is Aquinas's most extensive and detailed treatment of the soul, its relationship to the body, and its functioning apart from the body. It was disputed in Rome, probably during the academic year 1265–1266. See Chapter 6 for discussion.

Ed: Leonine, vol. 24 pt. 1.
Tr: *Questions on the Soul*, tr. James H. Robb (Milwaukee: Marquette University Press, 1984).

On Kingship (De regno ad regem Cypri)

This short, unfinished treatise is thought to have been written around 1267. It is one of the relatively few places where Aquinas devotes himself to political questions; even so, the result is not a work of political theory but a moral essay written for the king of Cyprus. Aquinas wrote only the first book and part of the second; the rest was added by a former student, Tolomeo of Lucca.

Ed: Leonine, vol. 42.
Tr: *Aquinas: Selected Political Writings*, tr. J. G. Dawson, ed. A. P. d'Entrèves (Oxford: Blackwell, 1948; reprint, Totowa, N.J.: Barnes & Noble, 1981).
Tr: *Political Writings*, tr. R. W. Dyson (Cambridge: Cambridge University Press, 2002).

Disputed Question on Spiritual Creatures (De spiritualibus creaturis)

This relatively brief question was disputed in Rome, probably in 1267–1268. The topic extends to human beings, as well as angels, and in fact most of the eleven articles focus on the human case, making this an extremely valuable source for Aquinas's thinking about soul and intellect.

Ed: Leonine, vol. 24 pt. 2.
Tr: *On Spiritual Creatures*, tr. Mary C. Fitzpatrick and John J. Wellmuth (Milwaukee: Marquette University Press, 1949).

A Survey of Theology (Summa theologiae)

Aquinas's longest and best-known work, it is divided into four parts:

1a. The first part (*prima pars*): God and creation
1a2ae. The first part of the second part (*prima secundae*): human actions in general
2a2ae. The second part of the second part (*secunda secundae*): human actions in particular
3a. The third part (*tertia pars*): Christ, the sacraments

Aquinas died before completing the third part; he was halfway through the treatment of the sacraments. His followers took whole articles from the *Sentences Commentary* to produce

3a supp. The supplement: sacraments; immortal life

The material in the first part is concise and masterful, but most of this can be found in other works, at greater length. The material in the second part is Aquinas's richest treatment of ethics by far and contains much that has no parallel elsewhere in his writings.

Although the *Summa* is composed in the manner of a scholastic disputation (with objections and counterobjections [the *sed contra*], then a main reply and replies to the initial objections), it is not a direct result of classroom lectures.

Ed: Leonine, vols. 4–12. This edition, although it provides the best available text, does not meet the standards of more recent volumes, and a new Leonine edition is planned.
Ed: *Summa theologiae*, ed. Institutum Studiorum Medievalium (Ottawa: Studium Dominicain, 1941–1945). This edition reprints an older edition and indicates some (but not all!) variations from the Leonine edition. It has extensive notes on sources that partially compensate for the inferior text.
Ed: *Summa theologiae*, ed. Pietro Caramello (Rome: Marietti, 1950–1953). This edition reprints the Leonine edition, with limited notes.
Tr: *Summa theologiae*, tr. Laurence Shapcote (New York: Benzinger, 1947–1948). Also known as the English Dominican Fathers translation, this was originally published in 1212–1236 and is now available on the Internet. It is reliable but often stilted.
Tr: *Summa theologiae*, with various translators, 61 vols. (London: Blackfriars, 1964–1980). These volumes are useful because they contain the Latin on facing pages, but each volume is translated by a different author, and the quality is erratic.

Many partial translations are available, most notably:

Anton C. Pegis, *Basic Writings of Saint Thomas Aquinas* (New York: Random House, 1945). A slightly revised and improved version of Shapcote, containing all of 1a and much of 1a2ae, along with the extensive notes of the Ottawa edition.
Summa theologiae: A Concise Translation, tr. Timothy McDermott (London: Christian Classics, 1989). A peculiar, but perhaps useful, condensation of the whole.
Treatise on Human Nature [1a 75–89], tr. Robert Pasnau (Indianapolis: Hackett, 2002).
Treatise on Happiness [1a2ae 1–21], tr. John A. Oesterle (Notre Dame, Ind.: University of Notre Dame Press, 1983).
Treatise on the Virtues [1a2ae 49–67], tr. John A. Oesterle (Notre Dame, Ind.: University of Notre Dame Press, 1984).
Treatise on Law [1a2ae 90–97], tr. Robert J. Henle (Notre Dame, Ind.: University of Notre Dame Press, 1993).
Treatise on Law, tr. Richard Regan (Indianapolis: Hackett, 2000).

The Aristotelian Commentaries

These commentaries present something of a puzzle to readers interested in Aquinas's philosophy, because they consist largely in a very close paraphrase of Aristotle's text, along with supplemental remarks intended to clarify the structure of the argument and the meaning of obscure passages. Can such writings be taken as evidence of Aquinas's own views, or are they merely paraphrases of what someone else thought? If the commentaries occasionally rejected Aristotle's views, then we might have more confidence that what is not rejected is being implicitly endorsed. But in fact the commentaries virtually never disagree with anything Aristotle said. Does this mean that Aquinas thought it was all true? Or are we meant to understand that, *of course*, these are mere commentaries, not original treatises?

The difficulty with the latter view—and what makes the commentaries far more interesting than they might seem—is that they are full of passages, often times quite extended, where Aquinas amplifies Aristotle's views in ways that perfectly accord with (and often clarify) what Aquinas says in his own theological writings. For this reason, most scholars use these commentaries as evidence of Aquinas's own views. They must be used carefully, however, with an eye to the difference between places where Aquinas is merely paraphrasing Aristotle and places where he is expanding on Aristotle in his own terms. Unfortunately, older editions and most translations obscure the difference.

On the Soul (De anima)

This is Aquinas's first Aristotelian commentary, dating from 1267–1268. It contains more of Aquinas's own thought than any of the other commentaries.

Ed: Leonine, vol. 45 pt. 1.
Tr: *Commentary on Aristotle's* De anima, tr. Robert Pasnau (New Haven, Conn.: Yale University Press, 1999).

On Sense and On the Sensed Object (De sensu et sensato and De memoria)

Written at the end of his Roman period or the beginning of his second term in Paris.

Ed: Leonine, vol. 45 pt. 2.
Tr: *On Memory and Recollection*, tr. John Burchill (Dover, Mass.: Dominican House of Philosophy, 1963).

Physics

This commentary seems to date from 1268–1269.

Ed: Leonine, vol. 2.
Tr: *Commentary on Aristotle's Physics*, tr. Richard J. Blackwell et al. (New Haven, Conn.: Yale University Press, 1963).

Meteorology (Meteora)

This commentary was written in Paris before 1270. It stops at II.5 (363a20).

Ed: Leonine, vol. 3.
Tr: *Exposition of Aristotle's Treatise on Meteorology*, tr. Pierre Conway and Fabian R. Larcher (Columbus, Ohio: College of St. Mary of the Springs, 1964).

On Interpretation (Peryermenias; De interpretatione)

Written in 1271, this commentary stops at II.2 (19b26).

Ed: Leonine, vol. 1, pt. 1. A new edition was published in 1989, superseding an earlier edition.
Tr: *Aristotle on Interpretation: Commentary by St. Thomas and Cajetan*, tr. John Oesterle (Milwaukee: Marquette University Press, 1962).

Posterior Analytics

Dating from 1271–1272, this commentary was completed in Naples.

Ed: Leonine, vol. 1, pt. 2. A new edition was published in 1989, superseding an earlier edition.
Tr: *Commentary on the Posterior Analytics of Aristotle*, tr. Fabian R. Larcher (Albany, N.Y.: Magi Books, 1970).

Nicomachean Ethics

Composed in Paris, 1271–1272, this commentary is discussed in Chapter 8.

Ed: Leonine, vol. 47.

Tr: *Commentary on the Nicomachean Ethics*, tr. C. I. Litzinger (Chicago: Henry Regnery, 1964; reprint, South Bend, Ind.: Dumb Ox Books, 1993).

Politics

This commentary seems to date from the second term in Paris (1269–1272), and stops at III.6 (1280a7).

Ed: Leonine, vol. 48.
Tr: None.

Metaphysics

This long and important commentary seems to have been begun in Paris and may have been completed in Naples. It does not include books XIII–XIV (M–N).

Ed: Leonine, vol. 46 (forthcoming).
Tr: *Commentary on the Metaphysics of Aristotle*, tr. John P. Rowan (Chicago: Henry Regnery, 1964).

On the Heavens (De caelo et mundo)

Begun in Naples, 1272–1273, this commentary stops near the start of book III (302b29).

Ed: Leonine, vol. 3.
Tr: *Exposition of Aristotle's Treatise* On the Heavens, tr. Fabian R. Larcher and Pierre H. Conway (Columbus, Ohio: College of St. Mary of the Springs, 1964).

On Generation and Corruption

The last of the commentaries, this one dates from 1272–1273 and stops at I.5 (322a33).

Ed: Leonine, vol. 3.
Tr: *Exposition of Aristotle's Treatise* On Generation and Corruption, book I, cc. 1–5, tr. Pierre Conway and Fabian R. Larcher (Columbus, Ohio: College of St. Mary of the Springs, 1964).

On Evil (De malo)

This extensive set of questions seems to have been debated over the middle two years of Aquinas's second term in Paris (1269–1271). Although the title refers only to the first of sixteen questions, the remaining questions are organized around this theme, dealing in particular with free will and sin.

Ed: Leonine, vol. 23.
Tr: *On Evil*, tr. John A. Oesterle and Jean T. Oesterle (Notre Dame, Ind.: University of Notre Dame Press, 1995).
Tr: *On Evil*, tr. Richard Regan (New York: Oxford University Press, 2003).

On the Unity of the Intellect (De unitate intellectus contra Averroistas)

This fierce treatise, attacking those who posited just a single intellect shared by all human beings, dates from the end of 1270. It contains an extensive discussion of Aristotle and his commentators, as well as a very clear statement of some of Aquinas's central views regarding mind and soul.

Ed: Leonine, vol. 43.
Tr: *On the Unity of the Intellect Against the Averroists*, tr. Beatrice H. Zedler (Milwaukee: Marquette University Press, 1968).
Tr: *Aquinas Against the Averroists: On There Being Only One Intellect*, tr. Ralph McInerny, with facing Latin (West Lafayette, Ind.: Purdue University Press, 1993).

On the Eternity of the World (De aeternitate mundi)

This treatise was probably composed in 1271. It shows Aquinas under attack on his right flank, struggling against conservatives who were critical of the new Aristotelianism. Here he argues against those who thought the eternity of the world could be proved impossible (see §5.1, "The Beginning of the Universe"). This treatise contains interesting remarks on the relationship between faith and reason.

Ed: Leonine, vol. 43.
Tr: *Selected Writings*, tr. Ralph McInerny (Harmondsworth: Penguin, 1998).

Disputed Questions on the Virtues (De virtutibus)

This set of disputed questions, dating from 1271–1272, is sometimes divided into five separate works:

a. The virtues in general (*de virtutibus in communi*)
b. Charity (*de caritate*)
c. Fraternal correction (*de correctione fraterna*)
d. Hope (*de spe*)
e. The cardinal virtues (*de virtutibus cardinalibus*)

The second part of the *Summa theologiae* should be read in conjunction with these questions. See Chapter 9 for discussion.

Ed: *Quaestiones disputatae*, ed. Raymund M. Spiazzi (Rome: Marietti, 1964–1965).
Tr (b): *On Charity*, tr. Lottie Kendzierski (Milwaukee: Marquette University Press, 1960).
Tr (a, e): *Disputed Questions on Virtue: Quaestio disputata de virtutibus in communi; Quaestio disputata de virtutibus cardinalibus*, tr. Ralph McInerny (South Bend, Ind.: St. Augustine's Press, 1998).
Tr (a–e): *Disputed Questions on the Virtues*, tr. Jeffrey Hause (Indianapolis: Hackett, forthcoming).

On Separate Substances (De substantiis separatis)

This interesting unfinished work dates from 1271 or later. Its official topic is angels, but it ranges widely over questions regarding mind and metaphysics.

Ed: Leonine, vol. 40.
Tr: *Treatise on Separate Substances*, tr. Francis J. Lescoe (West Hartford, Conn.: Saint Joseph College, 1959).

Commentary on The Book of Causes (Liber de causis)

Composed in the first half of 1272, this commentary concerns a Neoplatonic work once ascribed to Aristotle. Aquinas was the first to establish that the author was Islamic and borrowing from Proclus. The commentary provides a useful perspective on the Platonic elements in Aquinas's work.

Ed: *Super librum de causis expositio*, ed. Henri D. Saffrey (Paris: Vrin, 2002).

Tr: *Commentary on the Book of Causes*, tr. Vincent A. Guagliardo, Charles R. Hess, and Richard C. Taylor (Washington, D.C.: Catholic University of America Press, 1996).