

CHAPTER 26

 THE LATIN ARISTOTLE

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 I. THE RISE OF SCHOLASTIC ARISTOTELIANISM

THERE is some temptation to say that the history of Aristotle in medieval Latin philosophy just is the history of medieval Latin philosophy. This would be to oversimplify matters. The fountainhead of Christian philosophy, Augustine (354–430 AD), betrays almost no familiarity with Aristotelian thought, and describes in the *Confessions* (IV.xvi.28) how he was underwhelmed by a reading of the *Categories* at the age of 20. Boethius (c. 476–c. 526) aspired to translate into Latin and comment upon the whole Aristotelian corpus, and reconcile it with Plato as well, but only a fraction of the project (the logic) was completed. It was this fragment that provided virtually the sole basis for the study of Aristotle in the Latin West until the later twelfth century, when substantially the whole Aristotelian corpus finally became available in Latin. Moreover, even once the influence of Aristotle was felt in its full force—and even more so before then—Platonism remained a strong influence on Latin philosophy. Although almost none of Plato’s own works were available until the fifteenth century (almost nothing but the *Timaeus* through 53B), a version of Platonism was transmitted through the Neoplatonism infusing Augustine’s thought, as well as through various Neoplatonic tracts that made their way into the Latin philosophical canon. (Of these the most notable were the *Liber de causis*, derived from Proclus, and the writings of pseudo-Dionysius. Indeed, for a time the *Liber de causis* was included among the works of Aristotle.)

There is, in short, a lot to be said about the ways in which medieval Latin philosophy is not Aristotelian. Still, it can scarcely be denied that the ideas of Aristotle are of unparalleled significance for Latin medieval thought. The most fundamental reason is that, for as long as there were schools of philosophy in the Latin Middle Ages, Aristotle’s works constituted the core of the philosophical curriculum. As

early as the Carolingian era, Alcuin of York (c. 735–804) built his logic textbook (*De dialectica*) on the *De interpretatione*, the *Categories*,¹ and Porphyry's introduction to Aristotelian logic, the *Isagoge*. These three works—as translated by Boethius—would become known as the *logica vetus*, and would dominate the study of logic until the twelfth century, when they were supplemented by three further Boethian translations that were recovered at this point: the *Sophistici elenchi* (*Sophistical Refutations*), the *Topics*, and the *Prior Analytics*. Although Boethius translated the *Posterior Analytics*, this work was lost, and so its influence would be felt only after the middle of the twelfth century, when it was retranslated by James of Venice.²

This so-called new logic, or *logica nova*, was slow to be embraced by twelfth-century philosophers. John of Salisbury (c.1115–80) famously complained of the *Posterior Analytics* that it has 'as many stumbling blocks as it has chapters'. Even so, the entire *organon* became firmly entrenched in the curriculum of the early universities. Rules set out for the University of Paris in 1215 required that lecturers in the arts be at least 21 years old, that they have attended lectures for at least six years before themselves undertaking to lecture, and that they lecture on the 'old and new dialectic' of Aristotle (as well as on the grammatical works of Priscian and Donatus).³ Although our evidence is thin regarding the curriculum in the early medieval university, it is clear that Aristotle's logic formed the undisputed foundation of an undergraduate education.

Matters were quite different for the remainder of the Aristotelian corpus. James of Venice had in fact translated many of the most important works before 1150, including the *Physics*, *De anima*, and the first four books of the *Metaphysics*. By the end of the twelfth century, almost the entire corpus was available in Latin. Around this time, too, we begin to find newly written commentaries on the broader Aristotelian corpus, at both Paris and Oxford, but this expansion of the philosophy curriculum was problematic for two reasons. First, there was no clear place in the arts curriculum for metaphysics, ethics, and much of natural philosophy. In order for Aristotle's principal works to be studied, the traditional curriculum of the *trivium* (dialectic; grammar; rhetoric) and *quadrivium* (astronomy; arithmetic; geometry; music) needed to be radically expanded. Second, the content of these works was highly controversial. A bad-tempered decree from Paris in 1210 demanded that the body of one master be exhumed and reburied in unconsecrated ground, that the works of another be burned, and that 'neither the books of Aristotle on natural philosophy nor their commentaries be read at Paris in public or secret'—under penalty of excommunication. This prohibition was repeated in the above-quoted rules of 1215, this time with the books on metaphysics included, and it seems to have endured for decades, at least in Paris. A letter from 1229 advertising a new university in Toulouse boasted that 'those who wish to scrutinize the bosom of nature to the inmost can hear here the books of Aristotle that were forbidden at Paris'—an offer whose allure obviously depended on the continued force of the decree of 1210.

Although we have little information about how that 1210 decree was eventually overridden, a series of letters from Pope Gregory IX in 1231 suggests something of the

situation. In a first letter, Gregory reaffirms the ban in Paris, ‘until these books shall have been examined and purged from all suspicion of errors’. A second letter then orders that those who had violated the ban should be absolved, and a third remarks:

But since, as we have learned, the books on nature which were prohibited at Paris in provincial council are said to contain both useful and useless matter, lest the useful be vitiated by the useless, we command your discretion... that, subtly and prudently examining the same books as is convenient, you entirely exclude what you shall find there erroneous or likely to give scandal or offense to readers, so that, what are suspect being removed, the rest may be studied without delay and without offense.

What all this suggests is that, on one hand, concern over the Aristotelian corpus was not confined to a few reactionary clerics in Paris, but extended all the way to Rome, and that on the other hand the current situation seemed untenable, inasmuch as the genie of Aristotelian metaphysics was already out of the bottle. It is not known what action, if any, was taken by the three ecclesiastical authorities to whom Gregory addressed this last letter. In any event, the curriculum was changing to such an extent that, in 1255, the full Aristotelian corpus was not only permitted to be taught in Paris, but positively required, with precise prescriptions for the minimum amount of time to be spent on each work (six weeks for *De sensu*, two for *De memoria*, and so forth).

The University of Oxford too seems to have embraced all of Aristotle’s writings by the middle of the thirteenth century, although we have even less information about developments there.⁴ The study of Aristotle at Oxford benefitted from the influence of Robert Grosseteste (c. 1168–1253), who taught both philosophy and theology there (before becoming bishop of Lincoln in 1235), served as chancellor, wrote seemingly the first and certainly the most influential Latin commentary on the *Posterior Analytics* (in the 1220s), and in the 1240s made the first full Latin translation of the *Nicomachean Ethics*. (His knowing Greek at all was quite remarkable in Western Europe at this time.)

Beyond Aristotle’s presence in the arts faculty curriculum, there is a further question of how scholars in other faculties made use of Aristotle’s work. This is a question that might be asked about the faculties of law, medicine, or theology, but it is the last of these that has been most extensively studied. The basic picture here is much the same as on the arts faculty, with the first indications of familiarity coming at the start of the thirteenth century, followed by hesitations, followed by full acceptance in the middle of the century. In Oxford, Grosseteste is the most prominent case of a theologian who studied Aristotle intensively, but this is not to say that Grosseteste’s own work is predominantly Aristotelian in character. On the contrary, his work has a strong Augustinian flavour, and he cautioned against ‘moderns who, with amazing blindness and presumption, try to make Aristotle the heretic into a catholic.... Let them not deceive themselves, then, ... and by turning Aristotle into a catholic make themselves into heretics.’⁵

Grosseteste’s counterpart at Paris was William of Auvergne (1180/90–1249), who likewise served as master of theology in the 1220s. As bishop of Paris from

1228 until his death, Auvergne exercised considerable authority over developments at the university. The first page of his *De anima* offers a clear picture of the delicate situation during these years. The preface begins with Auvergne's establishing that the study of the soul transcends natural science, given that the soul is an image of God. A few lines later he goes out of his way to note that he will later be criticizing Aristotle. Even so, he begins the first chapter by quoting Aristotle's definition of the soul. But Auvergne then feels compelled to remark, 'Let it not enter into your mind that I wish to use the words of Aristotle as if they can be relied on to prove the things I will be saying.' Instead, Auvergne stresses that in this work, as in all his others, he will be offering demonstrative proofs, not mere appeals to authority.⁶

By the middle of the century, there were far fewer hesitations about appealing to the authority of Aristotle. Albert the Great (c. 1200–1280) and Thomas Aquinas (1224/25–1274) would have applauded Auvergne's focus on proof rather than authority, but neither felt obliged to make special apologies for their use of Aristotle. On the contrary, even though they were theologians rather than philosophers, they each engaged in a massive programme to write commentaries on all of Aristotle's central philosophical texts.⁷ From this time forward, although Aristotle would continually have his critics (see below), the overwhelming Aristotelian influence on scholastic thought was never in doubt.

Aquinas's philosophical writings display all the major modes of commentary on Aristotle's work. First, there is the freestanding essay form, as in his brief, early *De principiis naturae*, which seeks to summarise the fundamental doctrines of the *Physics*. Then there is the literal commentary, which is the form of all of his proper commentaries. This includes both a *divisio textus*, in which he offers an outline of the logical structure of the treatise, and what amounts to a kind of paraphrase, in which he runs through the text line by line, quoting what is clear and (usually) rephrasing what is not. (At times the paraphrase breaks into a more-or-less extended disquisition into the implications of this or that passage, and it is really only here where one is on firm ground in reading the commentaries as an expression of Aquinas's own thought.) The third main genre of commentary is the question-commentary, which amounts to a collection of disputed questions on the subject matter of a text. Aquinas' *Quaestiones de anima* are perhaps not in any sense a commentary on the *De anima*, but among later authors—with the literal commentaries of Albert and Thomas already in hand—it became very common to use the *quaestio* format of objections and replies as the vehicle for an extended study of an Aristotelian text.

The commentary project of Albert and Thomas reflects various aspects of Aristotle's influence on Latin philosophy in the mid-thirteenth century. First, it undoubtedly indicates their sense that Aristotle should be the foundation of philosophy, and that a solid understanding of philosophy should be the ground for theology. Second, it reflects the extreme obscurity of Latin translations of Aristotle. The standard translation practice of the age was literal to the extreme, so that, as much as possible, a single word in Greek was replaced by a single word in Latin, and ideally by the same word in every instance.⁸ Although the fidelity of this approach

has its advantages, especially for an audience that was almost universally ignorant of Greek, it obviously makes for the most appalling Latin. Hence the student—if not the teacher himself—absolutely needed a commentary of some kind. Third, it reflects their dissatisfaction with existing commentaries. The works of Aristotle did not come to the West in isolation. The same currents that brought Aristotle to Western Europe also brought Latin translations of Avicenna and Averroes. (Many other Islamic works became available at this time, too; the Greek commentaries, however, would be put into Latin only gradually as the Middle Ages progressed.) Work on Aristotle from the first half of the thirteenth century is, initially, heavily dependent on Avicenna's version of Aristotelianism. Then, beginning around 1230, the commentaries of Averroes become dominant.⁹ Within a few decades, controversies arose over certain aspects of Averroes's interpretation of Aristotle—above all, over his defence of the unicity of both agent and possible intellect—controversies that continued more or less throughout the Middle Ages. But even before certain of Averroes' views became notorious, the need was plainly felt to give a Christian account of Aristotle's rich but challenging texts. This is the context for the familiar story about Albert and Thomas: each devoted a significant part of his career to showing how Aristotle could be assimilated into medieval Christianity in such a way that the faith was enriched rather than threatened.

II. THE DEVELOPMENT AND DECLINE OF SCHOLASTIC ARISTOTELIANISM

Summarising these initial stages of development, and pushing ahead into the Renaissance, one might divide the history of Aristotelianism in the Latin West as follows:

- (1) Study of the logical works alone (500–1200);
- (2) Expansion of the canon (1200–1255);
- (3) Classical articulation (1255–1308);
- (4) Innovation and experimentation (1308–...);
- (5) Humanistic scholarship (1497–1637);
- (6) Eclipse by the corpuscularian philosophy (1637–1700).

Any attempt at exact dates of course involves a certain amount of whimsy, but these divisions might be justified as follows. The first period begins with Boethius' translation and commentary project, and ends where the universities begin in Paris and Oxford. The second period ends where we have firm evidence that the full Aristotelian corpus was in place at Paris, which coincides with Thomas Aquinas' earliest work, bringing us into the third period. That period ends with the death of

John Duns Scotus, leading into a long period of innovation and experimentation that begins with figures like Peter Auriol (c. 1280–1322) and William Ockham (c. 1288–1347). At this point the chronology begins to run into difficulties, for whereas scholars have studied in great detail the shards of evidence from the early thirteenth century, they have largely neglected the massive amounts of material on later medieval scholasticism. It is perfectly clear that the fourteenth century witnesses a series of brilliant scholars who radically rethink the conclusions of the classical period. This list begins with Ockham, of course, and also Auriol, but should also include the Oxford Calculators (1320s–1340s), John Buridan (c. 1300–c. 1361), and also Nicole Oresme (c. 1322–1382), Marsilius of Inghen (c. 1330–1396), John Wyclif (c. 1330–1384), and Paul of Venice (c. 1369–1429)—to say nothing of controversial anti-Aristotelians like Nicholas of Autrecourt (c. 1298–1369) and John of Mirecourt (fl. c. 1345). We are only now coming to grips with the texts of all these authors,¹⁰ but subsequent generations of medievalists are sure to regard this period as one of the highpoints of scholasticism. Beyond these figures, however, we run into some difficulty, because there has been very little work done on the first half of the fifteenth century. It takes a mix of optimism and charity, then, to see the period of innovation and experimentation as extending that far. There is, however, good reason to want to push ahead. For as the centre of philosophy gradually migrated from Paris and Oxford down to Padua, we find a kind of Aristotelianism that is, if anything, more adventuresome and lively than that of any period before it. Here too our knowledge of these texts—especially among English-language scholars—is quite limited. Still, we know enough about Italian Renaissance figures like Pietro Pomponazzi (1462–1525) and Agostino Nifo (1470–1538) to see that Aristotelianism was alive and still innovative into the turn of the sixteenth century.

So where does the fourth period stop—or is scholastic Aristotelianism perhaps *still* alive and well, somewhere in the corridors of the Vatican? One might well want to see the period extend all the way to the end of the sixteenth century, in the work of Spanish scholastics such as Domingo de Soto (1494–1560), Franciscus Toledo (1532–1596), or Francisco Suárez (1548–1617)—or the great Paduan Jacob Zabarella (1533–1589). In terms of sheer quantity, too, there continued to be massive amounts of work done along Aristotelian lines well into the seventeenth century. According to Charles Schmitt, the authoritative expert on this period, ‘there are more philosophical manuscripts from the fifteenth century alone than from the previous two hundred years combined’ and ‘more writings devoted to his [Aristotle’s] works dating from the sixteenth century than from the entire period from Boethius to Pomponazzi.’¹¹ Hence the usual caricature of Renaissance philosophy, that it substituted Plato for Aristotle, can scarcely be maintained.

Still, despite the quantity of Aristotelian scholarship during the Renaissance and the clear merit of some of this work, one might still want to argue that the period of innovation and experimentation begins to run out in the early sixteenth century. One familiar reason for this suggestion is the rise of humanism. We can date the beginnings of the humanistic study of Aristotle with more precision than such matters usually allow. During the last decade of the fifteenth century, Aldo Manuzio

led a team of scholars in printing the first edition of Aristotle's Greek text. In 1497, as that five-volume folio *editio princeps* was nearing completion in Venice, a special chair was instituted at Padua for the study of Aristotle in Greek.¹² As these events suggest, humanism should by no means be regarded as antithetical to scholastic Aristotelianism, but instead to have shaped the character of such inquiry. Renaissance scholarship gave rise to a whole new wave of editions and translations, not just of Aristotle but of the ancient commentary tradition. Hence whereas earlier scholastics, largely ignorant of Greek, were scarcely in a position even to seek historical accuracy, scholars in the sixteenth century were increasingly expected to know both the texts and the commentaries in their original languages. This changed the way scholars thought about the study of philosophy. Whereas Aquinas could remark in passing, as if it were obvious, that 'the study of philosophy is not about knowing what individuals thought, but about the way things are,' it would seem at least to some sixteenth-century scholastics that the study of philosophy precisely is about what Aristotle and other ancients actually thought. So Zabarella, in an oration delivered on the occasion of his assuming a chair of natural philosophy at Padua in 1568, remarked that 'so long as I am an interpreter of Aristotle, I can neither follow nor defend any other opinion than that of Aristotle, although in actual fact I may think otherwise.' As for his students, they should listen to Aristotle with the thought 'not that the things they hear and are taught should absolutely be believed, but only that this is what human reason and the weakness of natural light could find and uncover.'¹³

Of course, careful textual scholarship can exist side by side—as it does today—with creative philosophical speculation. And it seems unlikely that humanistic scholarship all by itself would have managed to suppress the vitality of scholasticism if there were not a second influence at work, the Reformation. When Martin Luther was excommunicated in 1520, events were set in motion that would shape the future of Western philosophy as well as Christianity. Whereas in 1500 it seemed tolerable for Pomponazzi to articulate an Aristotelianism that cast doubt on both the soul's immortality and the occurrence of miracles, the best-known Aristotelians of the later sixteenth century adhere to a much more conservative line. This is most clearly the case for Jesuits such as Suárez and Toletus. From its foundation in 1540, the Jesuit Order expressly set itself up as a defender of the traditional theology and philosophy of the Church, against any sort of innovation. The original *Constitutions* mandate the teaching of 'those books that are found to contain more solid and safe doctrine, and those that are suspect, or whose authors are suspect, will not be taken up' (IV.14.1). Rules promulgated for the Jesuit Roman College in 1562 listed twenty-seven specific doctrines that must be held in philosophy and theology, and followed them up with these guidelines:

- New opinions, especially in weighty matters, should not be introduced without the advice and express licence of superiors.
- It is not allowed to hold views against the most received and solemn opinions and, as it were, the axioms of nearly all the philosophers and medical scholars, such as

- natural bodies consist of matter and form, and these are the principles of natural things;
- there are four elements;
- there are four primary qualities;
- there are four kinds of causes;

and others like these, although they have nothing to do with the faith. Indeed one should teach against any common opinion rarely, and not without great cause.¹⁴

These four ‘quasi axiomata’ listed here would of course become the principal targets of the seventeenth-century movement against Aristotelianism. By this point in the history of scholasticism, one can feel the pressure of new ideas building palpably, just waiting to burst through.

The beginnings of the end of the scholastic era might be tied to the work of Descartes, whose first published work, the programmatic *Discourse on the Method of Rightly Conducting One’s Reason and Seeking the Truth in the Sciences*, was published in 1637. One might prefer to focus on other works—such as Francis Bacon’s *Novum Organum* (1620) or Galileo’s *Dialogues Concerning the Two Chief World Systems* (1632)—but the general trend is familiar in any case: as the seventeenth century progressed, defenders of Aristotle became increasingly discredited, so that by the end of the seventeenth century only the most reactionary figures were still teaching and writing in the scholastic style. This is not to say that Aristotle himself was wholly discredited, inasmuch as authors during this period standardly distinguished between the great Aristotle and his scholastic corrupters. Thus Descartes remarks in the preface to the French edition of the *Principles of Philosophy* (1647) that whereas Aristotle (like Plato) ‘had a great deal of intelligence and much wisdom ...’ (CSM I 181), ‘the majority of those aspiring to be philosophers in the last few centuries have blindly followed Aristotle. Indeed they have often corrupted the sense of his writings and attributed to him various opinions which he would not recognize to be his, were he now to return to this world’ (CSM I 182).¹⁵

Harsh criticism of Aristotelianism—and indeed of Aristotle too—was hardly new in the seventeenth century. Even at the height of the classical period of scholasticism, Aristotelianism had critics who were both fierce (such as Peter John Olivi [1248–1298]) and influential (such as Bonaventure [c. 1217–1274]). Olivi ridiculed his contemporaries for following Aristotle so slavishly: ‘without reason he is believed, as the god of this age’.¹⁶ Although later Renaissance critics of Aristotelianism—such as Marsilio Ficino, Gianfrancesco Pico, and Michel de Montaigne—are perhaps better known, the truth is that Aristotle had always had his critics, in every generation of medieval scholars. What is distinctive about the seventeenth century, then, is not that Aristotelianism came under attack, but that philosophers succeeded in formulating a credible alternative. In its first incarnations—in the strictly mechanistic approach of Gassendi, Descartes, Hobbes, and others—this so-called modern philosophy often looks more like a return to the ancient teachings of Democritus or Epicurus. Such a return was not itself a particularly novel idea. Nicholas of Autrecourt and John of Mirecourt had attempted to revive atomism back in the

mid-fourteenth century, but their views were quickly censured by Church authorities, effectively blocking this line of inquiry for nearly 300 years. Once these ideas were finally able to be discussed in the open, however, the dead, oppressive weight of scholasticism was cast off—not overnight, by any means, but inevitably and finally.¹⁷ Scholastic Aristotelianism was never refuted, just abandoned by the way, leaving future generations to build on the initially crude mechanistic approach in all the brilliant variety that characterizes later seventeenth and eighteenth-century philosophy.

III. THE DISTINCTIVE CHARACTER OF SCHOLASTIC ARISTOTELIANISM

If I seem to have dwelled overlong on the historical trajectory of the Latin Aristotle, that is perhaps because such historical landmarks are relatively easy to set out. Much harder is to say something in general about the character of scholastic Aristotelianism. Even if one sets aside all considerations of fidelity to source, as I shall, still the range of topics is so vast that it is hard to know where to begin. Moreover, and just as significantly, although the question is often asked *What did the scholastics think about this?*—as if on a given topic there is just *a* scholastic thought—there is of course a vast and often bewildering variety of opinions on any substantive topic. Hence any adequate characterization of Latin Aristotelianism would have to range widely not only over topics but also over authors. The task begins to look, as I remarked at the start, like nothing less than a history of the whole of medieval philosophy.

Yet even if the stress ought to remain firmly on the variety of scholastic views—and this is the topic to which I will return shortly—there are perhaps some generalizations about the period worth offering. First and foremost, medieval interpreters of Aristotle always presupposed that they were dealing with a coherent and systematic body of work. They assumed it was *coherent*, first and so they almost never took seriously the thought that Aristotle might have contradicted himself from one text to another. And since they recognized no contradictions, they had no reason to consider that Aristotle might have changed his mind, and so had no reason to postulate any sort of developmental hypothesis. Instead, they read the texts as a seamless, integrated body of work, each part of which contributed to a larger, more-or-less complete philosophical theory. In this way, too, scholastic authors read Aristotle as offering a thoroughly *systematic* philosophy, in which the logical works lay at the foundation, then the *Physics* and associated physical treatises, then the *De anima* as the foundational biological treatise, giving rise to the more specialized biological

works, and so on. (One can find this ordering articulated in whole or in part in the prologues to many scholastic commentaries, and it remains with us today, preserved in the sequence of texts canonized by the 1831 Bekker edition.)

Scholastic systematizing goes beyond the natural thought that Aristotle's works can be put into some kind of coherent arrangement. What they further believed—and indeed seem to have taken much farther than Aristotle himself—was that the lessons from any one part of the corpus could be extended systematically to cover the whole. Here are two examples. First, whereas readers today tend to treat the *Categories* as a curious early work of uncertain relation to Aristotle's mature thought, the scholastics regarded it as foundational for the whole corpus (even if they disagreed about whether it should be read as mainly metaphysical or linguistic). Hence they applied the category scheme to every corner of philosophical and theological thought, so that an adequate explanation of any phenomenon would standardly begin with a discussion of what category the thing (or term) fell into. This sort of approach has as its apotheosis Suárez's long series of *Metaphysical Disputations*, more than a third of which (Questions 32–53, running to 702 pages in the standard edition) is devoted to a painstaking analysis of the ten categories.¹⁸ Accordingly, perhaps the greatest philosophical quarrel of the later Middle Ages, the dispute over nominalism, was mainly centred not on the problem of universals, but on the reality of the various accidental categories, with the nominalists (following Ockham) endorsing the reality only of substance and quality, and realists endorsing at least quantity as well, and sometimes all nine accidental categories.¹⁹

Second, the account of *scientia* found in the *Posterior Analytics* was taken as definitive and binding in all areas of inquiry. Anything that would count as a science, then—including not just metaphysics and the various areas of natural philosophy, but also theology—had to satisfy the constraints Aristotle set up there. For a proposition to be the object of *scientia*, it had to be necessary and universal, known on the basis of an affirmative demonstration in the first syllogistic figure, the premises of which are necessary and explanatory of the conclusion. Hence, famously, and quite unlike Aristotle's own usual practice, scholastic philosophers actually cast their arguments in syllogistic form, quite self-consciously adhering to Aristotle's analysis of the different valid moods. They are constantly aware of whether their arguments are *propter quid* or merely *quia*, and they have a general sense of what the first principles are in any given domain. This is not to say that anyone actually succeeded in constructing a formalized derivation along Aristotelian lines in any substantive domain, but it is perhaps the most awesome feature of scholastic authors that they worked so hard, and got so far, on this project. (For a particularly vivid instance, see the first thirteen questions of Aquinas's *Summa theologiae*, where the existence and nature of God is demonstrated from first principles—or at least very nearly so.²⁰) Moreover, this constant sensitivity to the formal demands of Aristotelian demonstration led them to stress the distinction between demonstrative and merely dialectical argument, and so scholastic authors were expert in the nuances of dialectical argument as set out in the *Topics*.

An important feature of scholastic epistemology that became associated with the *Posterior Analytics* framework but yet has no obvious basis there is the recurrent stress on certainty as a requirement for *scientia*. Grosseteste's commentary does not even discuss certainty, but beginning with Albert the Great this plays a central role in scholastic discussions. At the very start of Albert's commentary, he cites a comment by Ptolemy that

a human being ought to fill his soul not with what is [merely] plausible (*probabile*) and credible (*opinabile*), because they do not yield a stable (*stantem*) disposition in the soul, but with things that are demonstrable and certain, which render the intellect certain and stable, because such things are themselves certain and eternally stable.

He then concludes that 'this is the end and the most perfect and the sole unconditionally desirable thing among the logical sciences'.²¹ Subsequent discussions of *scientia* almost always give a central place to certainty, which then gets contrasted with the less-than-certain results obtainable through the merely plausible arguments of dialectic.

Ironically, this focus on certainty is one feature of scholastic thought that gets preserved—indeed, accentuated—in the iconic anti-Aristotelian texts of Descartes, and has come down to us as the dubious notion that *knowledge* requires certainty. Scholastic authors (and Descartes too, for that matter) thought no such thing. Their project was to describe a kind of epistemic ideal. They took the *Posterior Analytics* not to describe the conditions under which one would be justified in asserting a claim, but to set out a programme for obtaining the best possible understanding of any given domain. By their very nature, ideals are not usually obtainable, and one should not suppose that failure to achieve the ideal is tantamount to complete failure. Scholastic authors standardly distinguished between various grades of *scientia* that fall short of the perfect demonstrative kind, and so many forms of evidence that fail to be perfectly demonstrative might yet be perfectly adequate to ground knowledge in our sense of the term.

The foregoing remarks were an extension of the claim that scholastic philosophy can be characterized by a tendency to treat Aristotle's work as thoroughly coherent and systematic. This is surely the most striking common feature of scholastic Aristotelianism. If the scholastics share any other common tendency, it is perhaps the tendency toward reification—that is, toward understanding Aristotle's talk of form, matter, actuality, potentiality, substance, essence, and so on as picking out *res* or entities. Of course, this is also an area where scholastic authors disagreed fiercely, but even the most parsimonious of scholastics, like Ockham, seem to share a basic inclination—accepted without argument—toward treating Aristotle's conceptual framework as entailing certain ontological commitments. To again take an example from the *Posterior Analytics*, it was accepted without question by scholastic Aristotelians that the essence of a thing corresponds to some real, causally efficacious feature of that thing—either its substantial form, or its substantial form plus its common matter. *Scientia*, then, in its ideal form, requires not

just the articulation of an abstract essence-specifying definition, but the grasp of a thing's substantial form. That form is a concrete thing rather than, for instance, an abstract function, inasmuch as it is causally responsible for the various intrinsic accidental features of the substance. (It should be said, too, that all the major scholastics were in agreement in treating forms as particulars rather than universals.) Suárez is simply reiterating an argument that had been made over and over by previous scholastics when he writes:

The aggregation of multiple faculties or accidental forms in a simple substantial subject is not enough for the constitution of a natural thing A form is required that, as it were, rules over all those faculties and accidents, and is the source of all actions and natural motions of such a being, and in which the whole variety of accidents and powers has its root and unity.²²

Accordingly, when seventeenth-century authors attacked the scholastic doctrine of substantial form, they were attacking not the sort of metaphysical essentialism that would be Quine's later target, but rather a chemical–biological postulate that was fundamentally opposed to any thoroughgoing mechanistic natural philosophy.

When forms are understood in this way, it immediately becomes important to understand just how many forms there are in a given substance. Hence the most contentious issues of late scholasticism revolved around questions of counting forms:

- Is the human intellect a substantial form (i.e., the rational soul), or is it a power of the rational soul, or is it a separate intelligence? (Ockham said the first; Aquinas the second; Averroists the third.)
- Do human beings have other substantial forms? (Scotus and Ockham said yes; Aquinas and Buridan said no.)
- Do the distinct parts of the body have their own distinct substantial forms? (Suárez argued yes for plants, but no for human beings.)
- Do the elemental forms of earth, air, fire, water remain when mixed? (Nearly everyone said no.)

Other sorts of questions arise for accidental forms:

- Are there distinct forms corresponding to each of the accidental categories? (Most said no.)
- Are qualities distinct forms? (Nearly everyone said yes.)
- Are quantities distinct forms? (Ockham said no; most said yes.)
- Is motion a distinct form? (Ockham said no; Buridan said yes.)

These are just some of the most prominent instances of the general scholastic tendency to conceive philosophical disputes in terms of the reality of forms. Such disputes make sense, of course, only given the shared background assumption that forms are real, irreducible entities with causal powers of their own. Hence, although some seventeenth-century authors thought Aristotelian hylomorphism was best defended by rendering it platitudinous—'ho can doubt,' says the *Port Royal Logic*,²³

that everything is composed of matter and a certain form of this matter?’—the usual seventeenth-century critique of Aristotelianism was to insist that forms as conceived by the scholastics had to go.

IV. DISAGREEMENTS WITHIN SCHOLASTIC ARISTOTELIANISM

The disputes over form sampled above were primarily intended to illustrate the underlying scholastic commitment to realism. But they also, of course, illustrate the extent of scholastic disagreements. And though there are things to be said about the distinctive character of scholastic Aristotelianism, those points of agreement look thin and tenuous next to the deep disagreements that divided these authors on nearly every point. As noted earlier, it is easy to overlook these differences and speak in general terms about what the scholastics thought about this or that. The reason that even specialists are sometimes tempted to talk this way is that these authors, for 400 years or more, shared the common Aristotelian vocabulary of substance, form, matter, potentiality, actuality, soul, science, demonstration, species, difference, generation, corruption, virtue, habit, substance, quality, quantity, relation, and so on. Moreover, not only did they employ a common linguistic framework, but they also endorsed a rather lengthy set of Aristotelian principles, such as these:

- A corporeal substance is a composite of form and matter
- Accidental forms inhere in their substance as in a subject
- The soul is the first actuality of a potentially living body
- The intellect begins as a blank slate
- All knowledge comes through the senses
- The generation of one thing is the corruption of another
- Matter endures through substantial change
- There are four basic elements: earth, air, fire, water

and so on.

When one sees all these authors using the same terms, and endorsing the same principles, it is natural to think that, at some level of generality, one can speak in general of *scholastic doctrines*. This is, however, simply not the case. With respect to any substantive philosophical claim, one can find the most basic sorts of disagreements even among the most important scholastic figures. The most fundamental reason this is so is that these figures, while sharing a common set of philosophical terms, did not agree on the meanings of those terms. For example, anyone who considered himself an Aristotelian agreed that matter endures through substantial

change. But differences in the understanding of what matter is led to radical differences in how this claim was interpreted, with the result that two philosophers could agree on the *dictum* but yet be in complete disagreement on its actual content. Thomas Aquinas, to take one extreme, held that prime matter is pure potentiality. So while he endorses the general claim that ‘it is part of the nature of change for *the same thing* to stand differently, now and earlier’ (*Summa theol.* 1a 45.2 ad 2), he goes on to explain that this analysis holds for substantial change in only a qualified way: ‘sometimes there is the same entity *only in potentiality*, as in substantial change, the subject of which is matter.’ Although the proper understanding of Aquinas’s view is subject to dispute, it is clear enough that the italicized phrase puts a rather severe qualification on the Aristotelian dictum. Others went in radically different directions. Averroists like John of Jandun (c.1285/9–1328), for instance, under the influence of Averroes’ *De substantia orbis*, understood prime matter to endure through change as informed by ‘indeterminate dimensions.’²⁴ This amounted to treating the endurance of prime matter as a thesis about the conservation of extension or body through all change, something that Aquinas denied. So although Jandun endorsed what seem to be the same *dicta* regarding prime matter, he uses them to advance claims of an entirely different kind. Others would go in still different ways, using the Aristotelian doctrine to make still other kinds of points.

It is perhaps not terribly surprising to see scholastic authors disagreeing about the nature of Aristotelian matter, since the topic remains notoriously controversial today. Similar disagreements arise, though, in every area of scholastic thought. Here are two more examples. First, consider the relationship of body and soul. What more quintessentially Aristotelian doctrine is there than that of the soul’s standing as the form of the body? Scholastic authors embraced this doctrine, of course. Yet it was at the same time a notoriously difficult doctrine for Christians to embrace, since they were also committed to the idea that the human soul is a spiritual and immortal substance. Spiritual and immortal, and a substance, and at the same time the form of a body? Scholastics before Aquinas tended to insist on the spiritual substance side, at the expense of any serious attempt to embrace hylomorphism.²⁵ Still, it seemed to Aquinas himself, at the start of his career, that the Aristotelian approach was firmly entrenched; he refers to ‘the view of Aristotle, *which all the moderns follow*, that the soul is united to body just as form to matter’ (*III Sent.* 5.3.2c). Aquinas’s own account of these matters is distinguished by its aggressive attempt at having the best of both worlds: a rigorously hylomorphic conception of the body as informed by the rational soul, together with an orthodox Christian account of the soul as a spiritual and immortal substance. The history of later scholastic discussions of this topic is a history of doubts about whether this could really be made to work. The range of alternatives canvassed would defy even a very prolonged summary. In broadest outlines, there was a choice between Aquinas’ unitarian strategy of recognizing just a single substantial form (the rational soul) for human beings as with all substances, and the pluralists strategy of postulating two or more forms: minimally, a bodily form for the matter (the *forma corporeitatis*) and then a rational soul to inform the body. This dispute initially

pitted Aquinas (the first to maintain this position with any clarity) against Henry of Ghent (d. 1293), Scotus, and Ockham, and continued to divide scholastics into the seventeenth century.

The plurality of forms dispute is another illustration of how fundamental disagreements among ‘Aristotelian’ scholastics reduced the apparently common points of agreement to little more than a matter of shared catchphrases. Everyone agreed that the rational soul is the form of the body. But given their disagreements over the meaning of ‘soul’, ‘form’ and ‘body’, philosophers were very often just as far apart on their understanding of these matters as were philosophers in ancient Greece, or in Anglophone philosophy today. Thus, for Aquinas, the *body* that the rational soul informs is actually prime matter, whereas for pluralists it is a composite of matter and one or more prior substantial forms. For Aquinas, a *form* (that is, a substantial form) is responsible for the composite’s existence in such a way that no part of that composite can exist without the form. For the pluralists, in contrast, the body might exist both before and after its union with the rational soul. Finally, a *soul*, for Aquinas, explains all of the intrinsic features of a living thing, even those not immediately associated with life (e.g., shape and size), whereas for the pluralists the soul accounts for only certain features of the living substance. Still, one might think, there is some kind of underlying agreement among all parties here, inasmuch as they all basically endorse Aristotelian hylomorphism. This is just what I am denying. The disagreements just sketched lie at the heart of what they took the doctrine of hylomorphism to be. Show me some deeper substantive theses of hylomorphism, and I will show you how they fought over those, too.

What unanimity there was among the scholastics was a product of ecclesiastical fiat. Olivi, one of Aquinas’s very most sceptical critics, argued circa 1280 that the rational soul could not be the form of the body at all. He called it ‘not only contrary to reason but also dangerous to the faith’ to hold that ‘the [soul’s] intellective and free part is the form of the body per se and considered as such’ (II *Sent.* q. 51; ed. Jansen, II.104).²⁶ At the Council of Vienne, in 1312, this was judged to go too far. Pope Clement V declared it a heresy to hold that ‘the rational or intellective soul is not per se and essentially the form of the human body’, and subsequent scholars were accordingly compelled—literally on pain of death—to toe the Aristotelian line in this regard. (Consider how much had changed in the century since the *anti*-Aristotelian decree of 1210.) Accordingly, one can always find the shared catchphrases mentioned earlier, catchphrases that were obligatory into the seventeenth century, at least among Catholics, in light of the Fifth Lateran Council’s having expressly reaffirmed the Council of Vienne, using exactly the same words, in 1513. But though the Church could require philosophers to use certain patterns of words, it was quite unable to control how those words were understood.

My second example concerns scholastic discussions of accidents, where a strikingly similar story can be told. The catchphrase here is that accidents are things distinct from substances. This issue attracted little critical attention during the classical period—Aquinas did not even bother to write a commentary on the *Categories*, the fundamental text—but it was the defining dispute of both later

scholasticism and the seventeenth century. Ockham set things in motion by arguing that only accidents in the category of quality are real, and that all other accidents can be reduced to either substance or quality.²⁷ A generation later, John of Mirecourt would go one step farther and propose eliminating quality as well, leaving an ontology that consisted only of substances. Again, this was judged to go too far. In 1347, the University of Paris condemned the following view:

That it is plausible, in the natural light [of reason], that there are *no* accidents, but that *every thing* is a substance, and that if not for faith this view should be held and can plausibly be held.

As with the Council of Vienne's statement about the soul, one naturally wonders why Church authorities would feel the need to weigh in on such murky philosophical questions. In each case, the answer is that they thought these philosophical doctrines were required to support Christian doctrines—here, the Eucharistic doctrine that the qualities of the host survive transubstantiation. So whereas in the early thirteenth century it was quite unclear whether Aristotelianism could be made compatible with Church teachings, by the fourteenth century those teachings were positively thought to rest on a certain reading of Aristotle's metaphysics. In this regard, the great figures of classical scholasticism were more effective advocates of Aristotle than they could possibly have imagined.

The language of the 1347 condemnation goes a step farther than the Council of Vienne. That earlier prohibition had spoken only of what scholars must teach as true. This left it open for a careful philosopher like Buridan to distinguish between what he holds as true on the basis of faith, and what can be shown by natural reason. (To natural reason, Buridan says, the materialism of Alexander of Aphrodisias is entirely defensible.)²⁸ The condemnation of 1347 leaves no such room for philosophical speculation, proscribing even the claim that the rejection of real accidents is philosophically plausible. Hence, after 1347, although philosophers could go as far as Ockham and reject the accidental categories outside of quality, they could not do away with real accidents altogether. From this point until the seventeenth century, Christian authors felt obligated to postulate quality as an irreducible ontological category. This included the four primary qualities (hot, cold, wet, dry), and also the proper sensible qualities (colour, sound, taste, and odour), and perhaps various sorts of states and dispositions as well. When Francis Bacon remarks that 'ipsissimus calor, sive quid ipsum caloris, sit motus et nihil aliud' ('heat its very self, or what heat is, is motion and nothing else', *Novum organum* II.20) he was challenging the central orthodoxy of scholastic natural philosophy. And although Bacon could get away with this in protestant England in 1620, a group of three young scholars who attempted a similar attack on this and other Aristotelian dogmas four years later in Paris were expelled from the city along with a warning to all, on pain of death, against holding or teaching any maxims contrary to the ancient authors and the theologians.²⁹ Describing these events a generation later, Jean de Launoy described this as one of the high points in the long and ongoing *fortuna* of Aristotle at Paris.³⁰ From our vantage point, of course, it serves only as a peculiar coda to Aristotle's long tenure as the Philosopher.

V. CONCLUSION

Although scholastic philosophy is thoroughly and deeply Aristotelian, it is nevertheless a field of richly original and diverse doctrines. The tendency to treat scholasticism as if it has a core of common teachings is a natural misconception, one that will be dispelled only by further study and growing familiarity with the great philosophical landmarks of the period. Among classical scholars, it is perhaps common to think of medieval Aristotelianism as something of an embarrassment to the master himself, in the way that scholastic Latin is an embarrassment to the legacy of Cicero. To the medievalist, in contrast, the scholastic era takes on the aspect of a vast and fertile landscape for the nurture of various concepts set out in an obscure albeit provocative style by a talented forerunner.

NOTES

1. Strictly speaking, Alcuin relied upon a gloss of the *Categories* written by Themistius, but ascribed (in Alcuin's day) to Augustine. This is one of many cases where misascriptions gave an initial authority to works that might otherwise have been less influential. Other examples include the *Liber de causis*, as already mentioned, and the works of pseudo-Dionysius, which were claimed to be written by a disciple of Saint Paul. For information on pseudo-Aristotle in the Middle Ages, see Steven Williams, 'Defining the Corpus Aristotelicum: Scholastic Awareness of Aristotelian Spuria in the High Middle Ages,' *Journal of the Warburg and Courtauld Institutes* 58 (1995) 29–51; Charles B. Schmitt, 'Pseudo-Aristotle in the Latin Middle Ages,' in J. Kraye et al. (eds.) *Pseudo-Aristotle in the Middle Ages: The Theology and Other Texts* (London: Warburg Institute, 1986), 3–14. Although Thomas Aquinas is regularly credited with discovering that the *Liber de causis* derives from Proclus, Williams shows that he was in fact not the first to recognize this.
2. For further information on the introduction of Aristotle into the Latin West, see C. H. Lohr, 'The Medieval Interpretation of Aristotle,' in N. Kretzmann et al. (eds.) *The Cambridge History of Later Medieval Philosophy* (Cambridge: Cambridge University Press, 1982) 80–98; David Luscombe, *Medieval Thought* (Oxford: Oxford University Press, 1997). For Boethius, see James Shiel, 'Boethius' Commentaries on Aristotle,' in R. Sorabji (ed.) *Aristotle Transformed: The Ancient Commentators and their Influence* (Ithaca, N.Y.: Cornell University Press, 1990) 349–72; and Sten Ebbesen, 'Boethius as an Aristotelian Commentator,' in *ibid.*, 373–91. For more detailed information on the earlier Middle Ages, see John Marenbon, 'Medieval Latin Commentaries and Glosses on Aristotelian Logical Texts, before ca. 1150 A.D.' in C. Burnett (ed.) *Glosses and Commentaries on Aristotelian Logical Texts: The Syriac, Arabic, and Medieval Latin Traditions* (London: Warburg Institute, 1993) 77–127; and Charles Burnett, 'The Introduction of Aristotle's Natural Philosophy into Great Britain: A Preliminary Survey of the Manuscript Evidence,' in J. Marenbon (ed.) *Aristotle in Britain during the Middle Ages* (Brepols, 1996), 21–50. On the seemingly important role of medical scholars at Salerno in the transmission of Aristotle's text, see Danielle Jacquart, 'Aristotelian thought in Salerno,' in P. Dronke (ed.) *A History of Twelfth-Century Philosophy*

- (Cambridge: Cambridge University Press, 1988) 407–28. For a complete guide to medieval translations of Greek philosophical texts into Latin, Arabic, and Hebrew, see Appendix B to the new *Cambridge History of Medieval Philosophy*, tr. R. Pasnau (Cambridge: Cambridge University Press, 2010).
3. This and the other documents discussed below are usefully collected and translated in Lynn Thorndike, *University Records and Life in the Middle Ages* (New York: Columbia University Press, 1944). For good overviews of the rise of Aristotelianism in the medieval university, see Luca Bianchi, *Censure et liberté intellectuelle à l'Université de Paris (XIII^e-XIV^e siècles)* (Paris: Les Belles Lettres, 1999) 89–127; Fernand van Steenberghen, *Aristotle in the West: The Origins of Latin Aristotelianism*, tr. L. Johnston (Louvain: Nauwelaerts, 1970); Mark D. Jordan, 'Aristotelianism, Medieval', in E. Craig (ed.), *Routledge Encyclopedia of Philosophy* (London: Routledge, 1998); Gordon Leff, 'The Trivium and the Three Philosophies', in Hilde de Ridder-Symoens (ed.), *A History of the University in Europe: Volume 1, Universities in the Middle Ages* (Cambridge: Cambridge University Press, 1992) 307–36.
 4. For details, see D.A. Callus, 'Introduction of Aristotelian Learning to Oxford', *Proceedings of the British Academy* 29 (1943) 229–81, and J.A. Weisheipl, 'Science in the Thirteenth Century', in *The History of the University of Oxford: Volume 1. The Early Oxford Schools*, ed. J.I. Catto (Oxford: Oxford University Press, 1984) 435–69.
 5. As quoted in van Steenberghen, *Aristotle in the West*, p. 134. For Aristotle in the faculty of theology, see Monika Asztalos, 'The Faculty of Theology', in Hilde de Ridder-Symoens (ed.) *A History of the University in Europe: Volume 1, Universities in the Middle Ages* (Cambridge: Cambridge University Press, 1992) 409–41.
 6. William of Auvergne, *Tractatus de anima*, in *Opera Omnia* (Paris, 1674; repr. Frankfurt a.M.: Minerva, 1963); tr. R.J. Teske, *The Soul* (Milwaukee, Wisc.: Marquette University Press, 2000).
 7. Most of Aquinas's commentaries have been translated into English. Almost nothing by Albert has been translated into English, however, and even the Latin texts can be difficult to obtain, since the critical edition is still largely incomplete. In discussing early Latin commentaries, one might also mention Adam of Buckfield (fl. 1238–1278), an arts master at Oxford who wrote a great many Aristotelian commentaries in the 1240s, prior to the efforts of Albert and Thomas (see Weisheipl, 'Science in the Thirteenth Century', pp. 462–63). Little of Adam's work has been edited and none translated into English (although we have many surviving manuscripts, attesting to its influence).
 8. For a detailed discussion of translations and translators, including examples of Greek into Latin, see Bernard G. Dod, 'Aristoteles latinus', in Kretzmann et al., *op. cit.*, 45–79. See also Jozef Brams, *La riscoperta di Aristotele in Occidente* (Milan: Jaca, 2003). Many of the Latin translations are available through the ongoing series *Aristoteles latinus* (1957–). The indispensable source for information on scholastic Aristotelian commentaries is Charles H. Lohr, 'Medieval Latin Aristotle Commentaries', *Traditio* vols. 23–30 (1967–1974); *Latin Aristotle Commentaries: II, Renaissance Authors* (Florence: Olschki, 1988). The projected volume on medieval authors [up to 1500] is still available only through the installments published by *Traditio*, although an updated bibliographical guide is now available: Lohr, *Latin Aristotle Commentaries: V. Bibliography of Secondary Literature* (Florence: SISMEL, 2005).
 9. For details, see R. de Vaux, *Notes et textes sur l'Avicennisme Latin aux confins des XIII^e-XIII^e siècles* (Paris, 1934); R. de Vaux, 'La première entrée d'Averroës chez les Latins', *Revue des sciences philosophiques et théologiques* 22 (1933) 193–245; René Gauthier,

- 'Notes sur les débuts (1225–1240) du premier 'averroïsme', in *Revue des Sciences Philosophiques et Théologiques* 66 (1982) 321–374. For an English translation of an early anonymous Latin Aristotelian treatise on the soul (c. 1225), heavily influenced by Avicenna but also with shades of Averroes, see R. Pasnau, *Cambridge Translations of Medieval Philosophical Texts. Volume 3: Mind and Knowledge* (New York: Cambridge University Press, 2002), ch. 1.
10. Brief but useful summaries of all these figures can be found in J. Gracia and T. Noone, *A Companion to Philosophy in the Middle Ages* (Oxford: Blackwell, 2003), and in Appendix C to the new *Cambridge History of Medieval Philosophy*. An indication of just how slow scholars have been to assimilate this material is that even the principal philosophical works of the brilliant Buridan—his question-commentaries on the *Physics*, *Metaphysics*, and *De anima*—are still not available in a critical edition, let alone in translation. For the Oxford Calculators, also known as the Mertonians, see J. A. Weisheipl, 'Ockham and the Mertonians', in Catto, *The History of the University of Oxford I*: 607–58, and Edith Sylla, 'The Oxford Calculators', in Kretzmann et al., *Cambridge History of Later Medieval Philosophy*, 540–63.
 11. 'Towards a History of Renaissance Philosophy', in C. Webster (ed.) *Reappraisals in Renaissance Thought* (London: Variorum, 1989), 9.
 12. *Opera* (Venice: Aldus Manutius, 1495–1498). This was in fact the first printing of any extended prose work in the Greek alphabet. See Martin Lowry, *The World of Aldus Manutius: Business and Scholarship in Renaissance Venice* (Ithaca, N.Y.: Cornell University Press, 1979). On the earliest efforts to teach Aristotle in Greek, see Charles B. Schmitt, 'Aristotelian Textual Studies at Padua: The Case of Francesco Cavalli', *The Aristotelian Tradition and Renaissance Universities* (London: Variorum, 1984), 288–90, and also, in that same volume, 'Thomas Linacre and Italy', 54–55. These and other papers by Schmitt collected in three Variorum volumes serve as an excellent guide to Renaissance Aristotelianism. For a condensed survey, see Schmitt's *Aristotle and the Renaissance* (Cambridge, Mass.: Harvard University Press, 1983). See also Edward Mahoney and James South, 'Aristotelianism, Renaissance,' in E. Craig (ed.), *Routledge Encyclopedia of Philosophy* (London: Routledge, 1998), Brian Copenhaver and Charles B. Schmitt, *Renaissance Philosophy* (Oxford: Oxford University Press, 1992), ch. 2; Eckhard Kessler, 'The Transformation of Aristotelianism during the Renaissance,' in J. Henry and S. Hutton (eds.) *New Perspectives on Renaissance Thought: Essays in the History of Science, Education, and Philosophy in Memory of Charles B. Schmitt* (London: Duckworth, 1990), 137–47; Edward Mahoney, 'Aristotle and Late Medieval and Renaissance Philosophies,' in R. Pozzo (ed.) *The Impact of Aristotelianism on Modern Philosophy* (Washington, DC: Catholic University of America Press, 2004).
 13. Thomas Aquinas, *In Aristotelis libros De caelo et mundo*, ed. R.M. Spiazzi (Rome: Marietti, 1952) I.22.228. For Zabarella, see Dominique Bouillon, 'Un discours inédit de Iacopo Zabarella préliminaire à l'exposition de la 'Physique' d'Aristote (Padoue 1568)', *Atti e memorie dell'Accademia galileiana di scienze lettere ed arti in Padova* 111 (1998/99) 124. See also Antonino Poppi, 'Zabarella, or Aristotelianism as a Rigorous Science,' in R. Pozzo (ed.) *The Impact of Aristotelianism on Modern Philosophy* (Washington: Catholic University of America Press, 2004), 35–63.
 14. *Monumenta paedagogica Societatis Iesu quae primam Rationem studiorum anno 1586 editam praecessere*, ed. C. Gomez Rodeles (Madrid: A. Avrial, 1901), 490–91; Ignatius of Loyola, *The Constitutions of the Society of Jesus*, tr. G.E. Ganss (St. Louis: Institute of Jesuit Sources, 1970). For further discussion of Jesuit attitudes, see Charles Lohr, 'Jesuit Aristotelianism and Sixteenth-Century Metaphysics,' in *Paradosis: Studies in Memory of*

- Edwin A. Quain* (New York: Fordham University Press, 1976) 203–20 and Roger Ariew, ‘Descartes and Scholasticism: The Intellectual Background to Descartes’ Thought’, in J. Cottingham (ed.) *The Cambridge Companion to Descartes* (Cambridge: Cambridge University Press, 1992) 58–90. It should be stressed that the Jesuits were reacting not only to the threat of Protestantism, but also to the far more relaxed Aristotelianism prevalent in Italy. See, especially, J.H. Randall, *The School of Padua and the Emergence of Modern Science* (Padua: Editrice Antenore, 1961). As for Protestant philosophy, it was by no means inevitably anti-Aristotelian. See, e.g., Peter Petersen, *Geschichte der aristotelischen Philosophie im protestantischen Deutschland* (Leipzig: Meiner, 1921); Ulrich Gottfried Leinsle, *Das Ding und die Methode: methodische Konstitution und Gegenstand der frühen protestantischen Metaphysik* (Augsburg: MaroVerlag, 1985); and the work of Christia Mercer cited in the following note.
15. For the fate of Aristotle in the seventeenth century, see Tom Sorrell (ed.), *The Rise of Modern Philosophy: The Tension between the New and Traditional Philosophies from Machiavelli to Leibniz* (Oxford: Clarendon Press, 1993), especially the contribution by Christia Mercer. See also Mercer’s ‘Mechanizing Aristotle: Leibniz and Reformed Philosophy’, in M.A. Stewart (ed.) *Studies in Seventeenth-Century Philosophy* (Clarendon: Oxford, 1997), 117–52, which is especially good on seventeenth-century attempts to reclaim Aristotle for the side of the mechanistic philosophy. Much of her earlier research is brought together in her wide-ranging *Leibniz’s Metaphysics: Its Origins and Development* (Cambridge: Cambridge University Press, 2001).
 16. Olivi, *Quaestiones in secundum librum Sententiarum* (Bibliotheca Franciscana Scholastica 4–6), ed. B. Jansen (Quaracchi: Collegium S. Bonaventurae, 1922–26) q. 58 ad 14 (II.482). See David Burr, ‘Peter John Olivi and the Philosophers’, *Franciscan Studies* 31 (1971) 41–71; Edward Mahoney, ‘Aristotle as ‘The Worst Natural Philosophy’ (*pessimus naturalis*) and ‘The Worst Metaphysician’ (*pessimus metaphysicus*): His Reputation among Some Franciscan Philosophers (Bonaventure, Francis of Meyronnes, Antonius Andreas, and Joannes Canonicus) and Later Reactions’ in O. Pluta (ed.) *Die Philosophie im 14. und 15. Jahrhundert* (Amsterdam: Gruener, 1988) 261–73.
 17. It is only from our distant vantage-point that the process seems to have gone quickly and smoothly. It would not have seemed that way to figures like Giordano Bruno (1548–1600) or Tommaso Campanella (1568–1639), who struggled in vain to formulate a credible alternative to Aristotelianism, and were viciously persecuted for their efforts. The first generation of modern atomists (Nicholas Hill [c. 1570–c. 1610], David Gorlaeus [1591–1612], Daniel Sennert [1572–1637], and Sebastian Basso [c. 1580–after 1625]) managed to escape persecution, but also had relatively little influence on the course of events. Even in the later seventeenth century, when we think of philosophy as dominated by a handful of now-famous figures, much of what was published and taught continued to be Aristotelian in some broad sense. I am indebted to correspondence with Christia Mercer, for her insistence on the complexity of this story.
 18. Francisco Suárez, *Disputationes metaphysicae* (Paris, 1866; repr. Hildesheim: Olms, 1965).
 19. For this perspective on later medieval dispute over nominalism, see William J. Courtenay, ‘The Reception of Ockham’s Thought at the University of Paris’, in Z. Kaluza and P. Vignaux (eds.) *Preuve et raisons à l’Université de Paris: logique, ontologie et théologie au XIVe siècle* (Paris: Vrin, 1984), 43–64; Courtenay, ‘The Reception of Ockham’s Thought in Fourteenth-Century England’, in A. Hudson and M. Wilks (eds.) *From Ockham to Wyclif* (Oxford: Blackwell, 1987), 89–107. I discuss scholastic treatments of the category scheme in some detail in *Metaphysical Themes 1274–1671* (Oxford: Oxford University Press, 2011).

20. See the analysis in Robert Pasnau and Christopher Shields, *The Philosophy of Aquinas* (Boulder: Westview, 2004), ch. 4.
21. Albert the Great, *Analytica Posteriora* Bk. I tr. I ch. 1, in P. Jammy (ed.) *Opera Omnia* (Lyon, 1651), vol. 1, pp. 513–14.
22. Suárez, *Disputationes metaphysicae* XV.1.7; tr. J. Kronen and J. Reedy, *On the Formal Cause of Substance: Metaphysical Disputation XV* (Milwaukee, Wisc.: Marquette University Press, 2000). ~~I discuss scholastic theories of substantial form in detail in 'Form, Substance, and Mechanism,' *Philosophical Review* 113 (2004) 31–88.~~ I discuss scholastic theories of substantial form in detail in *Metaphysical Themes* chs. 24–25.
23. Antoine Arnauld and Pierre Nicole, *Logic or the Art of Thinking*, tr. J.V. Buroker (Cambridge: Cambridge University Press, 1996), p. 19.
24. John of Jandun, *Quaestiones super De substantia orbis*, in *Ioannis de Iandvno in libros Aristotelis De coelo et mvndo quae extant qvaestiones svbtillissimae qvibvs nvper consvlto adiecimvs Averrois sermonem De substantia orbis cum eiusdem Ioannis commentario ac quaestionibus* (Venice ap. Iuntas, 1552), Q6. Compare Averroes' *De substantia orbis: Critical Edition of the Hebrew Text with English Translation and Commentary*, ed. A. Hyman (Cambridge, Mass: Medieval Academy of America, 1986), ch. 1.
25. Étienne Gilson remarks: '[T]he definition of the soul as a spiritual substance... was the unanimous opinion of all [scholastic authors prior to Aquinas]... [N]ot one of them would uphold the view that the very essence of this substance was to be the form of the body' (*A History of Christian Philosophy in the Middle Ages* [New York: Random House, 1955], 361). Still well worth reading is A.C. Pegis, *St. Thomas and the Problem of the Soul in the Thirteenth Century* (Toronto: Pontifical Institute of Mediaeval Studies, 1934). More recently, see Richard Dales, *The Problem of the Rational Soul in the Thirteenth Century* (Leiden: Brill, 1995). For Aquinas, see Pasnau, *Thomas Aquinas on Human Nature: A Philosophical Study of ST 1a 75–89* (New York: Cambridge University Press), chs. 1–5.
26. For details see Robert Pasnau, 'Olivi on the Metaphysics of Soul', *Medieval Philosophy and Theology* 6 (1997) 109–32.
27. See Marilyn Adams, *William Ockham* (Notre Dame, Ind.: University of Notre Dame Press, 1987), chs. 5–9. Although Ockham started the controversy, Olivi deserves credit for having taken the same line some forty years earlier (see, e.g., *II Sent.* q. 28 [ed. Jansen, I.483–84]).
28. See Jack Zupko, 'On Buridan's Alleged Alexandrianism: Heterodoxy and Natural Philosophy in Fourteenth-Century Paris,' *Vivarium* 42 (2004) 42–57.
29. See Daniel Garber, 'Defending Aristotle/Defending Society in the Early 17th Century Paris' in W. Detel and C. Zittel (eds.) *Wissensideale und Wissenskulturen in der freuhen Neuzeit: Ideals and Cultures of Knowledge in Early Modern Europe* (Frankfurt: Akademie Verlag, 2002), 135–60.
30. Jean de Launoy, *De varia Aristotelis in academia Parisiensi fortuna* (Paris, 1662), 3rd ed., 201.

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