

AVICENNA, *ALIQUI*, AND THE THOMISTIC
DOCTRINE OF CREATION

At the outset of his consideration of creatures in the *Summa of Theology*, after having argued that God is their first efficient cause Aquinas asks “whether primary matter is created by God or is an independent co-ordinate principle.” The answer, of course, is that God is the cause of all things, including primary matter. To prove this conclusion, Aquinas turns historian and paints a memorable miniature of the history of metaphysics. He distinguishes four stages in the journey of philosophical thought from sensible and particular causes of creation in the everyday sense in which artists and craftsmen ‘create,’ toward an intelligible and universal cause who creates the world *ex nihilo* and can only be God. “The ancient philosophers a little at a time and as it were step by step entered into knowledge of the truth.” The pre-Socratic philosophers at first recognized only accidental changes which they held were caused by some sort of matter. Later pre-Socratics identified “*particular*” efficient causes of these accidental changes. The third stage was attained when Plato and Aristotle, “proceeding further through intellectual knowledge distinguished substantial form from matter,” thereby uncovering “*more universal*” causes. For all these philosophers matter was something “uncreated.” Only at the fourth and final stage did “some (*aliqui*)” un-named philosopher attain God as a so completely “*universal* cause of beings” that “it is necessary to posit that even prime matter is created.”¹

The logic of Aquinas’s history clearly leads to God as first cause, but he does not connect the names of Plato and Aristotle with that cause. This is puzzling, since in parallel passages Aquinas puts Plato and Aristotle at the last stage of this story: In *De potentia* 3.5, written in Rome (1265-6) just before *Summa I* (1265-1268), Aquinas had said that “later philosophers, such as Plato, Aristotle and their followers, arrived at consideration of universal being; and therefore they alone had posited some *universal cause* of things.” At *In VIII Phys.* lec. 2, written

¹Aquinas, *Summa theologiae* 1.44.2. It was widespread scholastic custom to use the plural term *aliqui* to refer to un-named authorities, whether many or one.

during the second Parisian regency (1268-9), Aquinas notes that the “final [group of philosophers], such as Plato and Aristotle, arrived at knowledge of the *principle of all being*.” And in *De substantiis separatis*, c. 9, written at Rome or Naples after mid-1271, Aquinas says: “But beyond the [third] mode of change it is necessary, following the teaching of Plato and Aristotle, to posit another, higher mode . . . according to which existence (*esse*) is given to the *whole universe of things by a first being*.”²

Just who the *aliqui* are and why, at least at first glance, Aquinas seems to tell two different tales, are important questions, for they involve the content of his metaphysical doctrine of creation, which he quite self-consciously presented in relation to his predecessors, “the philosophers.”

1. Neoscholastic Attempts to Identify the *aliqui*

The importance of this issue was not lost on 20th century neoscholastic interpreters of Aquinas.³ Cardinal Desirée Mercier of Louvain understood that dialectical exchanges with modernity required common ground, which he found in Aristotle, who had just been rehabilitated by 19th century Germanic scholarship. The Louvain historian Maurice de Wulf uncovered an Aristotelian “scholastic synthesis,” which it was hoped could provide a wedge for battering an opening into the European intellectual world at the beginning of the 20th century, in

²*In VIII Phys. Lec. 2* ed. Marietti sec. 975: Quorum primi consideraverunt causas solarum mutationum accidentalium, ponentes omne fieri esse alterari; sequentes vero pervenerunt ad cognitionem mutationum substantialium; postremi vero, ut Plato et Aristoteles, pervenerunt ad cognoscendum principium totius esse. Most commentators export this three-fold division into the three main texts considered here, which in fact contain four stages. The difference is easily explained. Here Aquinas notes accidental changes (stage 1), but not their efficient causes (stage 2). For the other two texts, see below. Dates follow G. Emery, “Brief Catalogue of the Works of St. Thomas Aquinas,” in J.-P. Torrell, *St. Thomas Aquinas* 333, 335, 350.

³*Neoscholastic* is not used here as a polemical, but as an historical term to describe the revival of the thought of Thomas Aquinas which began with *Aeterni patris* of Leo XIII (1879) and closed in the aftermath of Vatican Council II (ca. 1970). This term was chosen by the founders of journals such as *Scholastik*, *Revue neoscholastique de philosophie de Louvain*, *The Modern Schoolman*, *The New Scholasticism*, a choice that had a polemical edge, aimed at the kind of Enlightenment rationality which had for three centuries used *scholastic* as a term of ridicule.

order to gain a place for the thought of Thomas Aquinas, who had developed “peripateticism” into “a fixed and magnificent form.” So Aristotelian was their view of Aquinas that his primary accomplishment consisted in “overthrowing” the non-Aristotelian “theories hitherto held in honor in the schools,” especially those coming from Muslim thinkers: “We cannot emphasize too much the great care the Scholastics took to eradicate every *pantheistic* tendency from the tenets borrowed from the Arabian philosophers.”⁴ Little room for Avicennian influence on Aquinas here. Such interpreters often denigrated Aquinas’s excursions into intellectual history. For example, when faced with the inconsistency outlined above, in 1927 A.D. Sertillanges simply threw up his hands: “The generality of these historical classifications [in *Summa* 1.44.2] which in themselves interested our author *very little*, result in something quite vague.”⁵ The problem here is that if such vague classifications interested Aquinas so little, why did he return to them five times in five separate works? and why set out his own views in relation to them?

Most neoscholastic interpreters were inclined to take Aquinas’s little history lesson more seriously, owing to the influence of Étienne Gilson, who also strove for common ground with modernity, but different terrain from that staked out by the school of Louvain. Gilson was embraced by the non-Catholic philosophical world because he shared with them a reigning Cartesian value: what is most important in the life of the mind is individual initiative and creativity. If the Louvainian Thomas stood *primus inter pares* among a cohort of medieval Aristotelians, the doctrines of the Gilsonian Thomas were primarily his own creation.⁶ Guided by his extraordinary historical intuition, Gilson thought *aliqui* refers to Avicenna. His argument

⁴D. Mercier et al, *A Manual of Modern Scholastic Philosophy* (London: Kegan Paul, 1923) 2: 396-400. Pantheism is a fault scarcely attributable to Muslim thinkers; de Wulf seems to be thinking of the doctrine of mediate creation.

⁵S. Thomas d’Aquin, *Somme théologique: La création* (Paris: 1927) 237. Cf. M. Johnson, “Aquinas’s Changing Evaluation of Plato on Creation,” *ACPQ* 66 (1988) 85 n. 14: “The names of particular philosophers who posited the various causes Thomas employs in his teaching are *quite incidental* to his goal here,” a position which effectively undermines all of Aquinas’s historical claims.

⁶cf. Thomas Gilbey op, notes to St. Thomas Aquinas, *Summa theologiae, volume 8: creation, Variety and Evil (1a.44-49)* (London: Blackfriars, 1967) 13 n. p: “Aristotle does not teach the doctrine of creation, the metaphysics of which is the *original* work of St. Thomas: as Newman observes, it takes time for conclusions to be drawn from premises.” Aquinas, however, cannot be the “some,” because he never refers to himself as *aliqui* or *philosophus*.

for this conclusion, however, came as a straight deduction out of the controversial thesis of Christian Philosophy. “Avicenna,” he affirmed, “certainly conceived God in Biblical terms.”⁷ Avicenna, a Muslim, meditated upon *Exodus* 3:14, just as Gilson hypothesized Thomas Aquinas would do two centuries later? The problem here is that the argument goes in the wrong direction; and if the evidence proving Gilson’s thesis about Aquinas is scanty, even thinner is evidence to show that Avicenna had done the same thing.

Unwilling to follow Gilson’s conclusion but convinced that there must be “some” philosophers falling between Aristotle and Aquinas, scholars then looked elsewhere. The Dominican editors of the Ottawa *Summa* (1941) thought they were “Christian doctors, and perhaps Maimonides,”⁸ a conclusion A.C. Pegis defended in 1946, saying they were “Christian thinkers who listened more to *Genesis* than to Platonism or to Aristotelianism.”⁹ The problem here is that Thomas Aquinas would never call a “Christian doctor” a “philosopher.”

In support of the wider thesis that Aquinas’s metaphysical doctrine of being should be understood as a doctrine of participation inspired by Platonism, in 1961 Cornelio Fabro said that the *aliqui* were *Platonici*.¹⁰ The problem here is that the language and doctrines Aquinas attributes to the *aliqui* in *Summa* 1.44.2, which he treats as something very familiar, are nowhere to be found in the texts of Augustine which Aquinas had read, nor in *Platonici* such as Plotinus and Porphyry whom he never read.

In 1967 Thomas Gilbey correctly noted “the article [1.44.2] seems to be somewhat grudging about the metaphysical insight of Plato and Aristotle.” But when it came to identifying the *aliqui* he simply listed the choices on offer: “the Neo-Platonists *and* Avicenna *and* Maimonides.” To try to bring consistency to all the parallel texts, Gilbey then produced a muddle

⁷E. Gilson, *The Spirit of Mediaeval Philosophy* tr. A.H.C. Downes (New York: Scribner, 1936) 440 n. 4. These Gifford Lectures were delivered in 1931-2.

⁸*Summa theologiae* (Ottawa: 1941) 1: 281.

⁹A.C. Pegis, “A Note on St. Thomas, *Summa Theologica* I, 44, 1-2,” *Mediaeval Studies* 8 (1946) 162 n. 9.

¹⁰C. Fabro, *Participation et Causalité selon S. Thomas d’Aquin* (Louvain: 1961) 368 n. 13.

by restricting Aquinas's critique of Plato and Aristotle to "two *particular* explanations associated with their names," the "forms" and the "oblique circle." The problem here is that these are examples of formal and efficient causality, doctrines at the heart of Platonism and Aristotelianism.¹¹

Recently, M. Johnson and L. Dewan op have abandoned the quest for some intermediary between Aristotle and Aquinas, and have argued that "some" at stage four can include Plato and Aristotle, even though they are cited at stage three.¹² They go on to follow out the logic of their interpretation, concluding that Aquinas taught that Plato and Aristotle held that the world was *created* from nothing, since this is the doctrine set out at stage four. The problem with this view is that it simply denies, it does not explain, the chronological sequence Aquinas put into the text, where Plato and Aristotle came after and went further (*ulterius*) than the pre-Socratics, and likewise "some" philosopher came after and went further than Plato and Aristotle. Second, this interpretation simply deconstructs the way Aquinas himself describes the positions of the pre-Socratics, Plato, and Aristotle on the creation of matter, for Aquinas says explicitly that all these philosophers held matter to be "uncreated (*increatam*)." The reason Aquinas does so is to contrast the "some," who finally recognized that even matter is created, with all previous philosophers.

Jan Aertsen has recently revived Gilson's view, though far from confidently: "The *opinion* that Avicenna is meant [at *ST* 1.44.2] has *plausibility*, for there is at least one text in which Thomas says that 'some philosophers,' such as Avicenna, have recognized on the basis of demonstration that God is the Creator of things." The reason for Aertsen's diffidence becomes apparent as soon as we turn to that text. It does attribute to Avicenna demonstrations that God is

¹¹T. Gilbey, notes to St. Thomas Aquinas, *Summa theologiae, Volume 8: Creation, Variety and Evil (1a.44-49)* (London: Blackfriars, 1967) 13 n. p.

¹²M.F. Johnson, "Did St. Thomas Attribute a Doctrine of Creation to Aristotle?" *New Scholasticism* 63 (1989) 129-155; "Aquinas's Changing Evaluation of Plato on Creation," *American Catholic Philosophical Quarterly* 66 (1992) 81-88. L. Dewan, "St. Albert, Creation, and the Philosophers," *Laval théologique et philosophique* 40 (1984) 295-307; "Thomas Aquinas, Creation, and two Historians," *Laval théologique et philosophique* 50 (1994) 363-387.

both one and creator; but it is found, not in a magisterial response, nor even in a reply to some objection, but in an objection, and not one with which Aquinas agrees. Recognizing the problems such a proof text poses, Aertsen ends on a note reminiscent of Sertillanges: “The *philosophical* necessity of a science dealing with being as being is more important for Thomas, however, than the historical beginning of metaphysics.”¹³

The long and the short of this stroll amongst the neoscholastics is that the issue has not yet been resolved. I think *aliqui* refers to Avicenna; but the arguments put forward thus far are inconclusive. Proof should come from the texts of Aquinas when compared with Avicenna in his Latin translation. Aquinas repeats his little history of philosophy five times. In the *Summa contra gentiles* and his commentary on Aristotle’s *Physics* his references are *en passant*; but the presentations in *De potentia*, *Summa 1*, and *De substantiis separatis*, bear careful consideration. In all three texts Aquinas distinguishes roughly the same steps in the development of philosophy and draws the same basic conclusions; but he also makes refinements, especially in his arguments, which warrant taking up these three texts in chronological order. This approach will show that Avicenna’s was the defining role in the history of metaphysics as Aquinas understood it, and consequently that from the beginning Aquinas developed his doctrine of creation following Avicenna, who is indeed the *aliqui* mentioned in the *Summa*.

2. *De potentia*

Questions 1 and 2 of *De potentia* are concerned with divine power as it exists in God, and lead directly to Aquinas’s consideration “of creation, which is the first effect of divine power” in q. 3. The problematic for the doctrine of creation is set out in the objections and arguments *sed contra* of art. 1. There seventeen arguments against creation, all taken from Greek philosophy and beginning with Aristotle’s report that it was the “opinion of the philosophers that from nothing, nothing comes,” are ranged against two lonely authorities in support of creation: *Genesis* 1.1 and Avicenna. The Venerable Bede is cited for the traditional Christian gloss on

¹³J. Aertsen, *Medieval Philosophy and the Transcendentals* (Leiden: Brill, 1996) 155; cf. *Nature and Creature* (Leiden: Brill, 1988) 200.

Genesis: “to create is to make something from nothing (*ex nihilo*).”¹⁴ *From nothing*, however, can be understood in two ways. When taken *temporally*, it means that God’s creativity is so independent of pre-existing conditions that the universe came to exist at a first moment in time. This is the *religious* side of creation and was revealed in *Genesis*: “It should be held firmly that the world did not always exist, as the Catholic faith teaches.”¹⁵ *From nothing* can also be taken *ontologically*. This is the *philosophical* aspect of creation, here represented by Avicenna.¹⁶ Aquinas begins his treatment of creation with its metaphysical side (art. 1-8), before taking up the eternity of the world (art. 13-17). His metaphysical doctrine of creation incorporates two fundamental theses: God is a *creative* efficient cause, as distinct from creatures which are productive efficient causes (art. 1-4); and God is the fully *universal* cause of all creatures, as distinct from creatures which are particular causes (art. 5-6). These two basic claims will be repeated in the same order in the *Summa*.

A. God as Creative Cause: *De potentia* 3.1-4

In the response of art. 1 Aquinas concludes that “it should be held firmly that God both can and does make something from nothing.” For a metaphysical argument supporting this conclusion he turns to Avicenna. In the highly innovative chapter of his *Metaphysics* devoted to efficient causality, Avicenna had drawn a distinction between an agent which is “an agent through itself” and one which is “an agent through a power” it has, which “requires matter on which to act.” In *sed contra* 2 Aquinas puts these points in the form of an argument that accurately reflects Avicenna’s doctrine and language.

Avicenna says *an agent for whom to act is an accident requires matter on which to act*;
but for God to act is not an accident, but rather his action is his substance. Therefore, God

¹⁴*De pot* 3.1 *sed contra* 1. Cf. *Summa* 1.45.1 *sed contra*.

¹⁵*De pot.* 3.17c. Cf. *Summa* 1.46.2c.

¹⁶Aquinas’s definition of creation incorporates both sides of the doctrine: *Creatio nihil aliud realiter quam (1) relatio quaedam ad Deum [metaphysical side] (2) cum novitate essendi [religious side]*. *De pot.* 3.3c.

does not require matter on which to act and consequently can make something from nothing.”¹⁷

Aquinas’s argument in the response to prove that God creates the world from nothing is simply to draw out the logical consequences of Avicenna’s important distinction. The way every agent cause acts is based on the kind of actuality it has: “every agent acts as it is in act.”

Consequently, created agents are limited in their causality, both intrinsically because their actions are different from their substance, and extrinsically because the creature’s essence—its genus and species—limits its “actions and perfections.” Aquinas uses Avicennian language to make the point succinctly: “A particular thing (*res*) is in act in a particular way.” Such limitation require that “a natural agent act through motion, which requires matter that is the subject of change or motion, and for this reason it cannot make something from nothing.” For God the case is quite different. God is completely in act, both intrinsically and extrinsically. It follows that the kind of limits to which created agents are subject fall away in the case of God: “therefore by his own action he produces the whole subsisting being with nothing presupposed.” This argument assumes the existence of God and that there is no distinction within God among essence, power, and act. It is an argument which, on Aquinas’s own word, takes its principles from Avicenna. Indeed, it is fair to say that Aquinas’s initial approach to the problem of creation is to integrate Biblical revelation with Avicennian metaphysics, as witnessed by the *sed contra* and the *responsio* of art. 1.¹⁸

B. God as Universal Cause: *De potentia* 3.5-6

¹⁷*De pot.* 3.1 *sed contra* 2. [italics here and later signify parallel texts] *Agens cui accidit agere requirit materiam in quam agat. Sed Deo non accidit agere, immo sua actio est sua substantia. Ergo non requirit materiam in quam agat et ita potest ex nihilo aliquid facere. Cf. Avicenna, Met. 6.2, ed. Van Riet 306.12-13, 18-19: et dico quod omnis agens cui accidit esse agens indiget materia in quam agat. . . . Iam autem agens erit agens per seipsum, et iam erit agens per virtutem.*

¹⁸*De pot.* 3.1c.

In art. 5 Aquinas turns to the second thesis of his metaphysical doctrine of creation: God as fully *universal* cause. Proof he takes from the history of philosophy, as he had learned it from three master historians. They all found in Greek philosophy a tale of slow progress, but identified different heroes and different morals in the tale. Aristotle had found the “earliest philosophers” like those “who lisp” when beginning a language, unable to pronounce the words properly.¹⁹ But they did manage to make progress toward his own doctrine of the four causes, which made the hero of his tale none other than Aristotle himself. More humbly, Augustine pointed not to himself but to Plato and the Platonists as the heroes of the story. His was a tale of the tremendous change from pre-Socratic materialists “who, putting their minds to the service of the body, were of the opinion that the principles of nature are corporeal,” to the Platonists, “great men” who “acknowledge the true God as the author of things, the illuminator of truth, the giver of blessedness.”²⁰

Although he depended on Aristotle and Augustine for many details of content, Aquinas took his theme from a third master—Avicenna. As a prelude to his evaluation of the Platonic theory of ideas Avicenna had sketched his own brief history of philosophy:

I say that every art in its beginning is crude and immature, but it later matures and then *little by little* is refined and perfected. Such was philosophy among the *ancient* Greeks. First came the art of persuasion, that is, rhetoric; then, since deception came with it, dialectic; [then science] in one of its parts, namely, natural [science], which most of them pursued *first*; then *afterwards* they began to turn their minds to mathematical [science], and then to divine [science]. But when they moved from one [discipline] to another they became quite fagged out. And at first the *transition from the sensible to the intelligible* divided them.”²¹

¹⁹Lisping: Aristotle, *Met.* 1.10 (993a15). Slow progress: *Met.* 1.2 (982b12-16) tr. Moerbeke: Nam propter admirari homines et nunc et primum inceperunt philosophari, a principio quidem paratiora dubitabilium mirantes, deinde *paulatim* sic procedentes et de maioribus dubitantes, ut de lune passionibus. Augustine, *De civ. dei* 8.2-3.

²⁰Augustine, *De civitate dei* 8.5; CCSL 48: 221.35-222.42.

²¹Avicenna, *Met.* 7.2, ed. Van Riet 2: 358.91-99. Dico igitur quod omnis ars in exordio suo est cruda et immatura, sed maturatur postea et deinde *paulatim* decoratur et perficitur. Talis fuit philosophia *antiquitus* apud Graecos: primum quidem persuasibilis, scilicet rhetorica; deinde, quia incidit deceptio in eam fuit dialectica; in una ex partibus eius, scilicet naturali, quae apud plures eorum *prius* fuit usitata; postea vero coeperunt animadvertere disciplinalem et deinde divinam. Sed in hoc, dum *transirent* de aliis ad alias, nimium fatigati sunt. Primum autem in *transeundo de sensibili ad intelligibile* divisi sunt.

With one exception, Avicenna's chronology recapitulates the neoplatonic order of learning the sciences that had been devised at Alexandria, an order whose chief warrant was that it fit the human mode of learning. Avicenna himself followed it in his *Shifa'*. Aquinas took his last, passing remark for his own theme and began his history thus:

The *ancients* proceeded in their consideration of the nature of things following the *order of human cognition*. Thus, since human cognition begins with sense and then arrives at intellect, the *first* philosophers were concerned with *sensibles* and from these *little by little* arrived at *intelligibles*.²²

Since he has already argued that God is a *creative* cause in art. 1, Aquinas's history, like Avicenna's, is the story of progression from *sensible to intelligible*, that is, from particular traits in creatures and their particular causes, the kind initially known through the senses, to universal traits and their corresponding causes, which can only be understood through the intellect and which ends with God as *universal* cause. Its basic thrust comes Avicenna, though the four stages Aquinas distinguishes, stages repeated in the *Summa* and *De spiritualibus creaturis*, are his own.

(1) Both Augustine and Aristotle had said that the "first philosophers" were materialists who recognized only the existence of sensible bodies.²³ Aquinas makes use of Aristotle's ontology to explain their materialism. The earliest pre-Socratics focused on accidental forms because they are "intrinsically sensible." Since substance is the cause of accidents, they attained a limited notion of substance, namely, the matter in which accidental forms reside and from which larger bodies are made. Aquinas never gives examples about this stage, perhaps because his sources provided well-known examples, such as elements like the water and air posited by the Milesians or the atoms of Democritus. What he focuses on are two causal points: First, the earliest philosophers held that matter is a cause, but "there is no cause of matter" itself. Second,

²²Aquinas, *De pot.* 3.5, ed. Marietti: Respondeo. Dicendum quod *secundum ordinem cognitionis humanae* processerunt *antiqui* in consideratione naturae rerum. Unde cum cognitio humana a sensu incipiens in intellectum perveniat *priores* philosophi circa *sensibilia* fuerunt occupati *et ex his paulatim in intelligibilia* pervenerunt. Cf. *ST* 1.44.2c: Respondeo dicendum quod *antiqui* philosophi *paulatim* et quasi pedetentim intraverunt in *cognitionem* veritatis.

²³Aristotle, *Met.* 1: materialism: c.3 (983b7-8); limited to accidental changes: (983b9-10); recognized material and efficient causes: c. 7 (988a18-32). Augustine, *De civitate dei* 8.1-5.

they failed to attain any other sense of causality and “totally denied efficient causality.” Belief in an all-pervasive matter, then, was at once their greatest step forward and the highest obstacle standing in their way, for matter as they conceived it is neither created nor creator. Aquinas consistently renders the first stage in his history the same way, but not so the later stages. He now turns to “later philosophers” who made progress on two different fronts.²⁴

(2) One of these was the discovery of efficient causality. As examples he lists the “friendship” and “discord” of Empedocles and Anaxagoras’s “intellect,” which so disappointed Socrates in the *Phaedo*. These causes Aquinas understood to be *particular* agents producing particular accidents. “Certain thinkers posited some agent causes, not causes which universally confer being on things, but causes which change matter into having this or that form.” In such cases, “coagulation” and “separation” of the same material makes for different products, much as brick walls and vases and mud pies all can be made from clay and water.²⁵ The discovery of efficient causality was a great step toward a creative cause, but was only one step, since accidents cannot determine the nature of a substance and particular causes cannot produce universal effects like existence.

(3) Progress was also made on a second front, though not necessarily by the same philosophers. “Later philosophers began to consider *substantial forms*, up to a point; but they did not arrive at cognition of universals, since their whole attention was turned to *specific forms*.” If the very first philosophers had made an initial incursion into the substantial order by discovering matter, here is where Aquinas places the even more important discovery of substantial form. The picture is blurred, however, because in his haste to move on to universal causes, Aquinas conflates efficient causes of *accidental* forms and efficient causes of *substantial* forms. Admittedly, the pre-Socratics who discovered efficient causality had not made this distinction either; but Plato and Aristotle certainly had, as Aquinas will point out quite clearly in

²⁴Aristotle had sharply separated stages 1 and 2 at *Met.* 1.7 (988a32-4).

²⁵Love, hate, and intellect are repeated at *ST* 1.44.2, coagulation and separation there and in *De sub. Sep.* 9.

the *Summa*. For the moment, he concentrates on forms at the *specific* level, in order to distinguish their causes from a cause which produces a universal effect and therefore by right can be called a “universal cause.” The great obstacle, however, was that all the causes thus far recognized were *particular* causes, that is, the causes of an individual creature or at most of a specific type of creature. With his mind concentrated on this deficiency, Aquinas here skips over the contributions of Plato and Aristotle to the study of the specific essences of creatures and moves quickly to their even greater accomplishment.

(4) The breakthrough to a creative cause came when philosophers finally attained a fully universal trait, an effect shared by all creatures and not confined to definable and therefore necessarily limited traits—green or blue, large or small, antelope, mammal, or animal. This universal trait is *being*, a transcendental feature of things not limited to any specific category. Consequently, at the final stage of development “later philosophers, such as Plato, Aristotle, *and their followers*, arrived at the consideration of *universal being*, and therefore they alone posited some *universal cause of things*, from which all other things come into being.” Aquinas then lines up three philosophical arguments “demonstrating” that such a cause is truly universal. The first “seems to be the argument of Plato,” the second is “the argument of Aristotle,” the third “the argument of Avicenna,” who therefore is the “follower” of Plato and Aristotle just mentioned. The view that there is some one, universal cause from which all other things come and which is the source of their being, is one of those happy truths where, to Aquinas’s mind, faith and reason converge. Consequently, as he will do in the five ways of the *Summa*, Aquinas ends his response by finally pointing out that the universal cause uncovered by these three arguments is none other than God, the one creator of all things.

In addition to focusing on being, the three arguments have other features in common. All three make use of the notion of participation,²⁶ a broad concept Aquinas uses to describe a subject somehow having or ‘sharing in’ some trait. Aquinas is well aware of differences in the

²⁶Aquinas explicitly uses the term *participation* in the Aristotelian and Avicennian arguments; strange to our ears, he does not use the term about the Platonic argument.

way these three philosophers understood participation; indeed, the reason he goes through three different participation arguments seems to be to underscore those differences, and the different senses of creation they entail. All three arguments have one other feature in common, what might be called their causal principle: participation of any sort requires that what is participated in be an effect produced by some cause. This general causal principle can take many forms, depending upon the exact sort of participation at issue. Consequently, Aquinas opens each argument with a statement of the causal principle appropriate to the sense of participation found in that philosopher.

The *Platonic* argument begins with a statement of the causal principle which focuses on the formal trait held in common: “If something one is found commonly in many things, it is caused in them by some one cause.” Though he knew his views only secondhand, Aquinas’s defense of the Platonic form of this principle is fairly faithful: a common trait cannot derive from the diversity found in individuals which have the trait, but must have some common cause. “Prior to every multiplicity there is some unity, not just among numbers but also in natural things.” If the principle is admitted, then once *being* is recognized as a common trait, it follows that there must be some one cause of being, a cause which itself possesses the trait of being. Here the mode of causality is clearly *formal*. The advantage of such an argument is that it does not require peering inside the notion of being to understand it in more detail; *being* is just another common notion, broader than abstract notions confined within the categories. But there are two disadvantages to this argument: unlike Plato’s genuine doctrine, Aquinas’s rendering does not depend on the cause having the common trait to a pre-eminent or perfect degree; in addition, this argument goes no way toward showing that the cause so proven to exist is an *efficient* cause, as Aquinas has already argued in art. 1 a creative cause must be. Aquinas adds two more arguments to deal with these two problems.

The beginnings of an *Aristotelian* argument Aquinas found in Bk. 2 of his *Metaphysics*, in an example which shows that the cause of participated effects must itself possess the attribute

to a premier degree.²⁷ Cool metal and cool water become hot in the presence of what is maximally hot: fire. The heat which is essential to fire then comes to be present by participation in the hot pan and boiling water. The fire causes a new accidental form—heat—to come to exist at different intensities in the metal pan and the water. Consequently, Aquinas begins his rendering of Aristotle’s participation argument with a statement of the causal principle which focuses on the different ways participants share a common trait, because these differences require that the cause possess that trait to the maximal degree. “When something is found to be participated in by many things in different ways, from that in which it is found *perfectly* it must be attributed to all those in which it is found imperfectly.” This stronger version of the causal principle captures Plato’s genuine thought, though Aquinas attributes it to Aristotle. Recognition that creatures are less than perfect *beings*—one more, another less a being—leads directly to the required conclusion that one must “posit one being (*ens*), which is a completely perfect and utterly true being.” As before, the mode of causality at issue here is *formal* causality. Aquinas adopted this mode of argument, and in the *Summa* it became his fourth way to prove the existence of God. Here it is used to prove, not that God exists, but that there must be some one cause of the universal trait of being, which cause is itself being to the highest degree. Though this argument is stronger than the Platonic argument, it is not without problems. As before, it does not require that one peer into the meaning of the term being or true or one or good, to use it to argue for the existence of a supreme being; nor does it conclude that the supreme being must be an *efficient* cause, any more than the first one did. To resolve these two difficulties, Aquinas turns to Avicenna, who took the tradition of Plato and Aristotle to its highest point.

The *Avicennian* argument begins with the causal principle, put in yet a third way: “that which is through another is reduced as to its cause to that which is through itself.” Here something which possesses a certain trait only “through” the operation of “another,” its external cause, is contrasted with what does not depend upon such an external cause, because it possesses

²⁷Aristotle, *Met.* 2.1 (993b22-30).

that trait due to its own nature. This appeal to an external cause introduces the notion of *efficient* causality, which was absent from the Platonic and Aristotelian arguments just given. The logical movement of the two prior arguments might lead one to expect that the Avicennian argument would move from things whose existence is caused by another to their cause which exists through itself. Aquinas's actual reasoning, however, moves in the opposite direction. It begins with a clever twist Avicenna himself had given to Aristotle's example of fire causing heat. The prime instance of heat is not some Platonic exemplar but fire, one of the four elements, and all heat is caused by some particular bit of fire existing as an element in some particular hot thing in the physical universe. But consider a hypothetical situation: suppose there were one Platonic form of heat existing separately from particulars in the world of becoming. If so, then "that would have to be the cause of all hot things, which would be hot by participation."²⁸ The Avicennian hypothetical changes the Aristotelian example in two ways: it takes the exemplar out of the physical world, and it makes the exemplar an *efficient* cause. The reason for this thought experiment becomes immediately clear in what follows, for Aquinas simply substitutes *being* for *heat*. He then rapidly sketches four points, beginning not with things which exist through another, but at the opposite extreme.

One must posit a being which *is its own existence*. Now this is proven in this way, because there must exist a first being which is pure act, in which there is *no composition*. Hence, *by* this one being all others must exist, *whatever are not their own existence*, but have existence through participation. This is the argument of Avicenna.²⁹

Here Aquinas finally peers within the meaning of the term *being* and discerns two sorts of things.

First he considers what in ontological terms "is its own existence." 1) Such a being is one in

²⁸Aquinas, *De pot.* 3.5c: illud quod est per alterum reducitur sicut in causam ad illud quod est per se. Unde si esset unus calor per se existens, oporteret ipsum esse causam omnium calidorum, quae per modum participationis calorem habent. Avicenna, *Met.* 6.2, 306.19-22: qui est per seipsum agens est sicut calor si esset existens exspoliatus et ageret, et tunc id quod proveniret ex eo, proveniret ob hoc quod est calor tantum, agens vero per virtutem est sicut ignis qui est agens per calorem suum.

²⁹Aquinas, *De pot.* 3.5c: Est autem ponere aliquod ens quod est *ipsum suum esse*, quod ex hoc probatur, quia oportet esse aliquod primum ens quod sit actus purus in quo *nulla sit compositio*. Unde oportet quod *ab* uno illo ente omnia alia sint, quaecumque *non sunt suum esse*, sed habent esse per modum participationis. Haec est ratio Avicennae.

number, separate from other beings. The need to assert that such a unique being exists is not any more obvious than the need to assert a separate Platonic form of heat, so Aquinas quickly adds a second point to clarify and defend this claim: 2) such a being is internally incomplex, it is only “existence.” This ontological simplicity is couched in terms of the distinction between *esse* and *essentia* in the constitution of a being (*ens*), the meaningfulness of which is assumed, not proven. Aquinas then presents two contrasting theses about creatures: 3) They are made to exist “by (*ab*)” the first being. The preposition signifies that the first being is the *efficient* cause of creatures, the efficient cause of their existence (*esse*). This point is clarified by adding that 4) creatures are ontological composites of essence and existence because they “are not their own existence (*esse*).” The picture Aquinas here rapidly sketches is clear. His reasoning seems to be an argument which assumes the existence of a first being, then shows it to be a universal cause, on the grounds that every other being must have its existence caused by the first being, operating as an efficient cause. This is the Avicennian sense of participation, “to have existence by participation.”

The reason Aquinas reverses the march of his reasoning in the “argument of Avicenna,” when compared with the prior Platonic and Aristotelian arguments, is that he has a particular text of Avicenna in mind. He has taken these four points from a longer and more complicated passage of Avicenna:

(1) Necessary existence (*esse*) is *one* in name, though not as a species under a genus, and one in number, though not as an individual under a species, but is a notion whose name signifies only that whose being is common with nothing else. We shall add an explanation later. (2) Therefore it is *not multiple*. These are the properties of necessary existence. Of possible existence its property is clear from what has been said, namely, that (3) it necessarily *requires another which makes it exist in act*. For whatever is possible existence in itself is either always possible existence or at some point it happens to be necessary through something other than itself. Now this happens to it always or at some particular time. And that to which this happens at some time must have matter whose existence precedes it in time. But that to which this happens always, (4) *its quiddity is not simple, because what it has in itself [its essence] is other than what it has from another [its existence]*. And from both of these [principles] it happens to be that which it is. Therefore, nothing is completely freed from potency and possibility in itself,

except necessary existence.³⁰

Comparison of these two texts shows that Aquinas makes use of Avicennian materials in his usual way. He reduces Avicenna's language of necessity and possibility to the language of being, essence, and existence. This reductionism is not unjustified, for Avicenna himself had done the same thing, when he defined necessity in terms of existence: *necesse est vehementiam essendi*.³¹ Aquinas also follows his usual procedure of simplifying the linguistically convoluted Latin translation of Avicenna, reducing the doctrine to its essentials and taking the main points of the Avicennian passage to use for his own needs. In this passage Avicenna summarized the results of a long dialectical argument for his fundamental metaphysical principles: God is one and ontologically simple, creatures are caused and ontologically complex. It is Aquinas who says that, given the two theses about God, one can "demonstrate" that "all things are created by God," but it was Avicenna who devised each step of this argument. .

The notion of creation gradually grows richer as one moves through Aquinas's response in *De potentia* 3.5. A creator is a kind of maker, but the earliest philosophers saw only the material out of which accidental traits are made. At stage two they discerned the everyday sense of creator—the efficient cause of such accidents. At the next stage philosophers began to distinguish the creators of substances from the makers of accidents; such creators are efficient causes eliciting substantial form from the potentiality of matter. Finally, at stage four philosophers recognized a creator who makes all beings, their universal cause. As Aquinas read

³⁰Avicenna, *Met.* 1.7, 1: 54.38-55.55. Sed quia necesse esse *unum est* in nomine, non sicut species sub genere, et unum est numero, non sicut individua sub specie, sed est intentio quae designat illud tantum suo nomine, in cuius esse nihil aliud sibi communicat. Super hoc autem alias adhuc addemus explanationem. Ideo *non est multiplex*. Hae igitur sunt proprietates quibus appropriatur necesse esse. Eius autem quod est possibile esse, iam manifesta est ex hoc proprietas, scilicet quia ipsum necessario *eget alio quod faciat illud esse in effectu*; quicquid enim est possibile esse, respectu sui, semper est possibile esse, sed fortassis accidet ei necessario esse per aliud a se. Istud autem vel accidet ei semper, vel aliquando. Id autem cui aliquando accidet, debet habere materiam cuius esse praecedat illud tempore, sicut iam ostendemus. Sed id cui semper accidet, eius quidditas non est simplex: quod enim habet respectu sui ipsius *aliud est ab eo quod habet ab alio a se*, et *ex his duobus* acquiritur ei *esse id quod est*. Et ideo nihil est quod omnino sit exspoliatum ab omni eo quod est in potentia et possibilitate respectu sui ipsius, nisi necesse esse.

³¹Avicenna, *Met.* 1.5; 1: 41.80.

them, Plato, Aristotle, and Avicenna all recognized God as universal cause. Does this mean that all held God to be a creative cause, as well? Some modern interpreters have reduced the notion of creative cause to that of universal cause,³² but they are not the same and Aquinas knew they are not the same. For to be a universal cause means simply that God plays a causal role in everything which is, it does not mean that God creates “from nothing.” The Platonic and Aristotelian arguments Aquinas presents in *De potentia* are consistent with two quite different views of creation: God making use of matter as an eternal co-principle in causing every being, and God creating even matter “from nothing.” In short, the Platonic and Aristotelian arguments conclude to the existence of a creative God without proving in what sense he is creative. Aquinas seems to have realized that these arguments leave the issue of creation unresolved, and therefore added the Avicennian argument which clarifies the even stronger sense in which God is a creator, that is, the efficient cause not of essence but of *esse*, apart from which a creature would be absolutely nothing. In the *Summa*, his main task was then to refine his account in the direction of further clarifying the differences between Plato and Aristotle, on the one side, and Avicenna on the other.

3. *Summa theologiae*

As he did in *De potentia*, Aquinas divides his treatment of creation *ex nihilo* into two parts, and again the metaphysical doctrine (1.44-5) precedes the religious doctrine that the world had a beginning in time (q. 46). In keeping with his design to write the *Summa* “for beginners,”

³²M. Johnson and L. Dewan hold that a universal cause simply is a creative cause. Since Aquinas said Plato and Aristotle held God to be a universal cause, it follows that God must also be a creative cause. Dewan, “Thomas Aquinas” 372: “Still, [Aquinas] sees Aristotle and even Plato as rising to the cause of *existence*, taken in all of its *universality*. Johnson, “Plato” 86-7: “Plato taught that the very being of *all* things depends upon a single first being. And again, to speak in this way is to speak of *creation*.” (emphasis mine) This reductionism flies in the face of Aquinas’s practice of separating consideration of God as creative cause (*De pot.* 3.1, *Summa* 1.44.1) from God as universal cause (*De pot.* 3.5, *Summa* 1.44.2). He treats the issues separately because he thought Plato and Aristotle held God to be a universal cause—no being (*ens*) is unaffected by divine causality—but they did not say God was a creative cause, bestowing existence *ex nihilo*. Cf. *Summa* 1.46.2 ad 2m, where Aquinas notes that Avicenna uses the term “creation,” but makes no mention of Plato and Aristotle.

he shortens, simplifies, and reorganizes his treatment of the metaphysical side of creation. Most of what he said about it in *De potentia*, q. 3 makes its way into q. 45,³³ with the important exception of 3.5, whose content he expands and puts into the very first question about creation in the *Summa* (q. 44). Each of its four articles concerns one of the four Aristotelian causes, so that Aquinas's fundamental thesis is that God is the cause of creatures in every sense of the term, efficient, formal, and final cause of creatures, and the cause of matter, though not a material cause. The parallel with the "five ways" is quite intentional, so that each article in q. 44 about God as creator corresponds with the "way" which had proven the existence of God using that same kind of causality. But Aquinas did not abandon the basic argumentative strategy of the *De potentia*, to show first that God is a *creative* cause, then that God is a fully *universal* cause of all creatures. Consequently, he begins with God as efficient cause in order to show that God is a creative cause (a. 1), then turns to God as the cause even of prime matter to show that God is a fully universal cause (a. 2), before ending with God as formal (a. 3) and final (a. 4) cause of creatures. On this new approach, Avicenna's influence is even more decisive than in the *De potentia*, at the same time that Aquinas chose to drop explicit mention of his name.

a. God as Creative Cause (1.44.1)

Aquinas states the question of a.1 in two different ways. One emphasizes God as *creative* cause: "Is it necessary that every being (*ens*) is *created* by God?" while the other emphasizes God as *efficient* cause: "Is God the efficient cause of all beings?" He can do so because a creative cause is a kind of efficient cause, the efficient cause of the *existence* (*esse*) of creatures: "every being, which exists in any way at all, exists from God." By itself, the notion of efficient causality does not lead inevitably to the ontology of essence and existence (*esse*); so

³³Parallel texts: *ST* 1.45.1, *DP* 3.1; *ST* 1.45.2, *DP* 3.1-2; *ST* 1.45.3, *DP* 3.3; *ST* 1.45.4, *DP* 3.3 ad 2m; *ST* 1.45.5, *DP* 3.4; *ST* 1.45.8, *DP* 3.8. In keeping with his program of intermixing philosophical and religious topics in the *Summa*, Aquinas inserts two religious issues into this sequence: *ST* 1.45.6, *DP* 9.5; *ST* 1.45.7, *DP* 9.9.

Aquinas proceeds the other way round, arguing from that ontology to the conclusion that all creatures require God as efficient cause of their existence. Comparing the argument Aquinas uses here with those of *De potentia* 3.1 and 5 is a textbook case in how he composed the *Summa*. For what he does is drop the Avicennian argument he used in 3.1, based on whether action is accidental to substance, and turn to the Avicennian argument he used in 3.5, based on essence and existence in God and creatures, which is even more useful because one of Avicenna's four theses—that all beings are created by God—is precisely the conclusion Aquinas needs here. As we have seen, in *De potentia* 3.5 Aquinas enunciated three participation arguments on behalf of God's universal causality: Platonic, Aristotelian, and Avicennian. In the response of *Summa* 1.44.1 Aquinas clearly opts for the Avicennian argument over the other two, by presenting that same argument as *his own*; and he ends the *responsio* by alluding to the Platonic and Aristotelian doctrines of participation, by way of comparison with “participation in existence.” When the *Summa* is read in isolation, the point of this comparison may not be completely clear; but when read against the backdrop of *De potentia* 3.5, the point comes home forcefully. As helpful as Platonic and Aristotelian notions of participation are, only the Avicennian argument proves that God is a creative cause in the full sense of the term.

The argument in the *Summa* is fundamentally the same as the *ratio Avicennae* of *De potentia*. Aquinas begins as before with the causal principle, though stated in yet a different way: “If some trait is present in something *by participation*, it is necessary that it is *caused* in it by that to which it applies essentially, as iron becomes fiery hot from fire.” The sense of participation intended here is not Platonic or Aristotelian, but Avicennian, for creatures “participate in existence (*participant esse*).” They are *not* their own existence in the way God is his own existence, because they have another, distinct intrinsic principle making them ontologically composite: their essence. Aquinas illustrates the causal principle with the Aristotelian example of fire as the cause of all heat because supremely hot, and then turns to the two Avicennian theses about God he had used in *De potentia*. God is ontologically *simple* because “existence subsisting on its own” and *one* because fulfilling the definition of

transcendental unity (*ens indivisum*) to the maximal degree.³⁴ Divine unity is illustrated by a hypothetical example of the kind Avicenna had devised: if there were a Platonic form of “subsistent whiteness” it would be one and other things would be white only by participating in it. By analogy, since God is subsistent existence, all other beings have to “participate in existence.” Participating in existence involves the two Avicennian theses about creatures Aquinas had used in *De potentia*: “everything other than God is *not* its own existence” but an ontological composition of existence and essence, and, because creatures are composites of essence and existence, their existence “must be *caused* by one first being which is completely perfect.”³⁵ This first being operates as an efficient cause, which is precisely the conclusion Aquinas is seeking in this article.

This argument in the *Summa* is quite the same as the “argument of Avicenna” in *De potentia* 3.5. God. Consequently, there is the strongest possible reason to think that Aquinas has taken this argument and these conclusions from Avicenna. He himself has said so, not in the *Summa*, but in the *De potentia*. This is true even though Avicenna’s claims were all principles for which he had argued dialectically, since the argument for the existence of God was yet to come in his *Metaphysics*. In the *Summa* Aquinas has already demonstrated the existence of God, along with divine simplicity and unity, and consequently presents his conclusions as demonstrated.

The only fundamental difference between the two arguments as Aquinas uses them concerns the conclusions they are supposed to prove. The conclusion of *De potentia* 3.5 was that

³⁴Cf. *Summa* 1.3.4; 1.11.3-4.

³⁵*Summa* 1.44.1: [parallels with Avicenna *Met.* 1.7 in italics, with *De pot.* 3.5c in bold] Si enim aliquid invenitur in aliquo per participationem, necesse est quod **causetur in ipso ab eo cui essentialiter convenit**; sicut ferrum fit ignitum ab igne. Ostensum est autem supra cum de divina *simplicitate* ageretur quod **Deus est ipsum esse per se subsistens**. Et iterum ostensum est quod esse subsistens non potest esse nisi *unum*; sicut **si albedo esset subsistens**, non posset esse nisi una, cum albedines multiplicentur secundum recipientia. Relinquitur ergo quod omnia alia a Deo **non sint suum esse**, sed participant esse. Necesse est igitur omnia quae diversificantur secundum diversam participationem essendi, ut sint perfectius vel minus perfecte, **causari ab uno primo ente** quod perfectissime est. Unde et **Plato** dixit quod necesse est ante omnem multitudinem ponere unitatem. Et **Aristoteles** dicit quod id quod est maxime ens, et maxime verum, est causa omnis entis et omnis veri, sicut id quod maxime calidum est, est causa omnis caliditatis.

God is a *universal* cause, while the conclusion of *Summa* 1.44.1 is the God is a *creative* cause. Aquinas seems to have realized that the Avicennian argument that God is a universal cause also proves that he is a creative cause, but the same cannot be said of the Platonic and Aristotelian arguments for universality, which do not prove that God is also a creative cause in the full meaning of the term. Consequently, in the *Summa* he only follows the way of Avicenna in proving that God is a creative cause, a hint that Avicenna will also have a prominent role to play in his argument that God is universal cause in the next article of the *Summa*.

b. God as Universal Cause (1.44.2)

Following his causal analysis, Aquinas next turns to the material cause and asks “whether primary matter is created by God or is an independent co-ordinate principle.”³⁶ His response does not involve a detailed analysis of the notion of prime matter, because the universality of God’s causation is the real issue. If even primary matter is created, so the argument goes, then God must be an absolutely *universal* cause of creatures. To prove that God is such a cause, Aquinas repeats the history of philosophy he had outlined in *De potentia*, maintaining the four stages found there, but with some important refinements. The dominant Avicennian theme—the movement from sensible to intelligible—remains the same.

His treatment of the first stage is quite the same. “At the beginning” pre-Socratic philosophers “stayed sort of gross (*quasi grossiores existentes*)” because they recognized only the existence of “sensible bodies.” Those who admitted motion discerned only accidental changes in matter, and consequently recognized only one kind of cause—the matter out of which bodies are made. Their main thesis concerning creation was that matter was “uncreated (*increatam*).”

At the second stage came the discovery of efficient causality, illustrated as before by the mind of Anaxagoras and Empedocles’ love and hate, but with an improvement in the telling.

³⁶Aquinas, *Summa theologiae* 1.44.2 (ed. Leonina): Utrum materia prima sit creata a Deo, vel sit principium ex aequo coordinatum ei.

Here Aquinas clearly separates finding accidental efficient causes at the second stage from uncovering substance at the third.

Aquinas seems to have realized that the main deficiency in *De potentia* concerned the third stage, the movement from accident to substance. He had omitted the accomplishments of Plato and Aristotle at this point in his history. So in the *Summa* he points out how it was Plato and Aristotle who, “proceeding further through intellectual knowledge, distinguished substantial form from the matter which they held to be uncreated.” They turned from accidents to those principles of substance which can be understood but not perceived. Aquinas uses the technical vocabulary of Aristotle to explain their achievement with precision. Accidental form makes a creature “such a being (*tale ens*),” while substantial form makes a creature “this being (*hoc ens*),” an individual substance with a specific essence. In substantial change, a substantial form is elicited from the potentiality of some pre-existing matter by some particular efficient cause. If ‘creation’ for the pre-Socratics was limited to accidental change, ‘creation’ for Plato and Aristotle involved substantial change. Though they had not reached a notion of creation *ex nihilo*, what they did accomplish was a marked improvement in understanding material, formal, and efficient causality, by uncovering “more universal causes” of individual substantial changes.

37

The *matter* they posited—Plato’s receptacle and Aristotle’s prime matter—could not be identified with a particular body, a specific type of body, or even with the elements, because it was conceived as a substrate lacking the positive but limited traits present in bodies like water or air. Only matter as they conceived it could be found on both sides of a substantial change. For this reason, matter is a principle contained within particular beings but is not a particular being in its own right. Aquinas says quite explicitly that Plato and Aristotle thought such matter “uncreated (*increatam*).”

³⁷*Ulterius vero procedentes distinxerunt per intellectum inter formam substantialem et materiam quam ponebant increatam: et perceperunt transmutationem fieri in corporibus secundum formas essentielles; quorum transmutationum quasdam causas universaliores ponebant, ut obliquum circulum secundum Aristotelem vel ideas secundum Platonem.*

From the beginning of his writing career, Aquinas knew about the three primordial causes of Plato's *Timaeus*—demiurge, forms, and material receptacle: “ ‘For Plato thought there were three principles.’ One should understand that in this Plato erred, because he posited exemplar forms subsisting on their own outside the divine intellect, and that neither these forms *nor matter* have being from God.”³⁸ Aristotle's great break-through was to realize that the image of the demiurge looking to the forms and putting them in matter, which presupposes the independent existence of both forms and matter, is just that—merely an image. For Aristotle matter only exists as a principle within beings, never as a being in its own right, separated from form. Aquinas understood this, and said that Aristotle also required “uncreated” matter, in addition to God. Aquinas rejected the interpretation that Aristotle thought God only a final cause; and said God is also an efficient cause.³⁹ But what kind of efficient cause? The problematic for answering this question Aquinas inherited from Averroes: as efficient cause, God is either merely a cause of motion or a cause of the being of things.⁴⁰ The answer is that “Aristotle never intended that God should be the cause of the motion of the heavens alone, but that he should also be the cause of its substance, giving being (*esse*) to it.” This important text could not be clearer. God is not merely cause of motion but is also cause of being. But what does it mean for Aristotle to say God is the ‘cause of *being*’ for a heavenly body. Aquinas here gives his gloss: it means ‘God is the cause of its *substance*.’ The heavenly bodies have limited powers simply because they are bodies. To be eternal they require God, an “agent of infinite power” to bestow on them the forms “by which they have eternity of motion and eternity of being.”⁴¹ Consequently, God is the “maker of the

³⁸*In 2 Sent.* 1. exp. textus; ed. Mandonnet 2: 43. “Plato namque tria initia existimavit: sciendum quod in hoc Plato erravit, quia posuit formas exemplares per se subsistentes extra intellectum divinum et neque ipsas neque materiam ab Deo habere. Cf. *ST* 1.15.3 ad 3m et 4m.

³⁹*In 1 de caelo.* Lec. 8, no. 9, ed. Marietti 43. Est autem attendendum quod Aristoteles hic ponit Deum esse factorem caelestium corporum, et non solum causam per modum finis, ut quidam dixerunt.

⁴⁰*In 8 Phys.*, sec. 996.

⁴¹*In 2 Sent.* D. 1.1.5 ad 1m in contr; ed. Mandonnet 2: 38. sicut dicit Commentator in libro De substantia orbis, Aristoteles numquam intendit quod Deus esset causa motus caeli tantum, sed etiam quod esset causa *substantiae* eius *dans sibi esse*. Cum enim sit finitae virtutis, eo quod corpus est, indiget aliquo agente infinitae virtutis, a quo et perpetuitatem motus habeat et perpetuitatem essendi, sicut motum et esse.

heavenly bodies (*factorem caelestium corporum*).”

While an efficient cause, and even an efficient cause of being, such a “maker” is not a creator for the simple reason that making always presupposes matter from which something is made. Thus, neither Plato nor Aristotle, as Aquinas understood them, had said God is a *creative* cause. Even though more universal in scope than the water or air of the pre-Socratics, the main obstacle in the slow climb toward a universal and creative cause remained the fact that they held matter to be uncreated and eternal.

The Platonic and Aristotelian accounts of formal and efficient causality opened the way toward a creative and universal cause, even if they did not achieve it. As *formal* causes, Plato’s “ideas” were “more universal” in two ways. First, the range of their causal influence extends to each and every individual which participates in their essence. Secondly, they are ontologically separate from their effects, existing in a world of forms removed from the particular creatures which make up the world of becoming. A Platonic form is one cause standing over *many* effects, and as such a considerable step toward a truly universal cause. But it is not an efficient cause.

Aquinas takes the “oblique circle” from the Aristotelian account of generation and destruction. The material cause of generation is matter understood as potentiality—“what can be and not be”—and its end Aristotle reduced to the form of the thing generated, an intrinsic form, unlike Plato’s ideas. The “oblique circle” is the ecliptic or great circle of the zodiac, the path of the annual movement of the sun which causes the season of the year and is a kind of *efficient* cause of the cycle of birth and death in nature.⁴² The sun’s motion through the zodiac is “more universal” in the same two ways Plato’s forms were. The seasons universally affect all life on earth; and the sun’s motion is ontologically separate from its effects on earth. It is the one separate cause of many effects, and in addition it is an efficient cause.

Platonic “ideas” and Aristotle’s “oblique circle,” however, did not take philosophy all the way to the last stage, for two simple reasons: they are not the kind of creative causes Aquinas

⁴²Aristotle, *On Generation and Corruption* 2.9-10.

envisioned in art. 1 and they are not absolutely universal causes. In short, they are not God. Now the “good” of Plato’s *Republic*, the demiurge of his *Timaeus*, and the highest of Aristotle’s separate substances, which are like God, are noticeably absent from Aquinas’s discussion of the third stage here. And in parallel texts, Aquinas does not hesitate to say that Plato and Aristotle attained God as universal cause. But he does not do so here, for reasons he lays out in the critique of Greek philosophy appended to his presentation of the first two stages.

The problem is not that Plato and Aristotle stopped short of drawing the logical consequences their principles would allow, the problem is that their principles simply could not take them all the way to a fully creative and fully universal cause. New principles were required.

To see why, Aquinas admonishes his reader:

“But one must consider that by form matter is contracted to a determinate species, and likewise by an accident coming to it a substance of some species is contracted to a determinate mode of being, as man is contracted by white. *Therefore*, both [the pre-Socratics and Plato and Aristotle] considered things under some *particular* consideration, either as this being or as such a being. And consequently they assigned to things *particular* agent causes.⁴³

Aquinas here notes two points about the way forms—whether accidental or substantial—act as causes of essences. First, as such a cause form is a principle of *limitation* confining the creature within the defining limits of its essence: it “contracts” the thing. Second, what form limits is the potentiality of matter, its correlative principle, which means that an efficient cause bestowing form on matter must work with pre-existing matter. On this basis, Aquinas characterizes the problem as one of *particularity*. While Greek philosophers were well equipped to handle essences from the narrowest species to the widest genera, when they came to being (and the other transcendentals) Plato and Aristotle tried to deal with them as they dealt with other essences, with decidedly mixed results. They certainly understood that being and unity are the

⁴³ST 1.44.2c. Sed considerandum est quod materia per formam contrahitur ad determinatam speciem, sicut substantia alicuius speciei per accidens ei adveniens contrahitur ad determinatum modum essendi, ut homo contrahitur per album. Utrique igitur consideraverunt eas sub *particulari quadam consideratione*; vel in quantum est hoc ens vel in quantum est tale ens. Et sic rebus *causas agentes particulares* assignaverunt.

widest of notions, and apply even to God. But their final word was a confession of ignorance. Aristotle had famously said that “being is not a genus,”⁴⁴ that is, being is not another essential notion wider than categorical notions. What then is it? To this question the Greeks had no answer. And there is a further consequence. Since efficient causes for Plato and Aristotle were no more than agents supplying essences, they must be limited by what they bestow—particular essences. It follows that such agents are *particular* agents and cannot be *universal* agents causing that most universal of effects—being. The notion of a universal efficient cause of being, a cause of something more universal than any essence, was simply beyond the range of Platonic and Aristotelian philosophy. Consequently, while they could very well account for what it means for an individual creature to be a creature of a certain *kind*, even Plato and Aristotle could not understand what it means for it to be a *creature*. Aquinas’s portrait of Plato and Aristotle in the *Summa* carefully avoids any mention of God. This is not because they were utterly without an idea of a creating God, but simply underscores Aquinas’s judgment that they failed to attain the full notion of God as creative *and* universal cause.

Aquinas’s critique leads directly to the fourth and highest stage reached by philosophy. Since he has already put Plato and Aristotle at the third stage, Aquinas turns to one of their unnamed successors:

And further some *raised themselves up* to consider *being as being*. Now they considered the cause of things, not merely as they are *these* [substances] or *such* [substances determined by accidents] but in so far as they are beings. Therefore, that which is the cause of things in so far as they are beings must be the cause of things, not merely as they are *such* due to accidental forms, nor as they are *these* due to substantial forms, but also in *all* that pertains to their being *in any way whatsoever*.⁴⁵

The parallel with *De potentia* 3,5, whose history culminated in Avicenna; the way Aquinas

⁴⁴Aristotle, *Met.* 3.3 (998b21).

⁴⁵*ST* 1.44.2c. *Et ulterius* aliqui erexerunt se ad considerandum ens in quantum est ens et consideraverunt causam rerum non solum secundum quod sunt *haec* vel *talia*, sed secundum quod sunt entia. Hoc igitur quod est causa rerum in quantum sent entia oportet esse causam rerum, non solum secundum quod sunt talia per formas accidentales, nec secundum quod sunt haec per formas substantiales, sed etiam secundum *omne* quod pertinet ad esse illorum *quocumque modo*.

adopted the “argument of Avicenna” in the previous article—*Summa* 1.44.1; and the critique of Greek philosophy Aquinas has just given, all these point to Avicenna as the *aliqui*. Two points in this passage corroborate this conclusion. The first is the image of the long upward climb to metaphysics; the second is metaphysics conceived as a universal discipline.

The image of the history of philosophy as an upward march from sensible to intelligible, from particular to universal, comes straight from Avicenna, as we have seen. So too does the idea that this history reflects the neoplatonic *cursus scientiarum*, which Aquinas embraced.⁴⁶ The full program, of course, is not elaborated in this image of the journey, but its upward sweep is here. Aquinas did not learn the details of this pedagogical program from Aristotle or pagan neoplatonists or Dionysius, but in the logic, physics, and metaphysics of Avicenna’s *Shifa’*. In his commentary on the *De trinitate* of Boethius, Aquinas had used Avicenna’s introduction to the *Shifa’* to explain the the three theoretical sciences contained in this program—physics, mathematics, and metaphysics.⁴⁷

Even more important evidence pointing to Avicenna as the *aliqui* is the claim Aquinas makes about the science of *being as being*. This famous formula might be thought to place

⁴⁶Aquinas, *In librum de causis* lec. 1; ed. Saffrey 2. *In VI Eth.* lec. 7; ed. Leonina 47.2: 359.

⁴⁷Aquinas, *Expositio super librum Boethii de trinitate*, ed. B. Decker (Leiden: Brill, 1965) 164-166. Avicenna, *Logica* 1.1 (Venice: 1508) 2ra-b. Distinction between theory and practice: Avicenna: *Res autem quae sunt aut habent esse non ex nostro arbitrio vel opere, vel habent esse ex nostro arbitrio et opere. . . Finis ergo speculativae est apprehensio sententiae quae non est opus, practicae vero finis est cognitio sententiae quae est in opere.* Aquinas: *oportet practicarum scientiarum materiam esse res illas quae a nostro opere fieri possunt, ut sic earum cognitio in operationem quasi in finem ordinari possit. Speculativarum vero scientiarum materiam oportet esse res quae a nostro opere non fiunt.* Subjects of “*scientia naturalis*” and mathematics: Avicenna: *Res autem quae comiscuntur motui . . . aut sic sunt quod nec esse nec intelligi possunt absque materia propria, sicut forma humana aut asinina; aut sic quod possunt intelligi absque materia sed non esse, sicut quadratura.* Aquinas: *quae dependent a materia secundum esse, quia quaedam dependent a materia secundum esse et intellectum, sicut illa, in quorum diffinitione ponitur materia sensibilis; unde sine materia sensibili intelligi non possunt, ut in diffinitione hominis oportet accipere carnem et ossa.* Quaedam vero sunt, quae *quamvis dependeant a materia secundum esse, non tamen secundum intellectum, quia in earum diffinitionibus non ponitur materia sensibilis, sicut linea et numerus.* The double subject of “*scientia divina*” or metaphysics: Avicenna: *Rerum autem quae possunt denudari a motu . . . ut est veritas necessaria, ut deus et intelligentia, aut veritas earum non est necessaria sed sunt sic quod non est hoc eis impossibile, sicut est dispositio identitatis et unitas et causalitas et numerus qui est multitudo.* Aquinas: *Quaedam vero speculabilia sunt, quae non dependent a materia secundum esse, quia sine materia esse possunt, sive numquam sint in materia, sicut deus et angelus, sive in quibusdam sint in materia et in quibusdam non, ut substantia, qualitas, ens, potentia, actus, unum et multa et huiusmodi*

Aristotle at the last stage, but it does not. Aristotle's formula had been subject to a variety of interpretations over the centuries, as Aquinas well knew, so he makes his own understanding of it perfectly clear. His criticism of Plato and Aristotle is that their outlook had not been fully universal in scope, they had *not* arrived at a "cause of things" which affects "*all* that belongs to their being in *any way whatsoever*." This criticism is well-founded. Plato had lopped off the whole realm of becoming from the range of things which can be known, relegating cognition of changing things to the level of opinion. And Aristotle had followed Plato's reductionism in his own way, when explaining how metaphysics "treats universally of being as being" by limiting itself to the prime instance of being, namely, substance. The human body, urine, and food are all "healthy," but only one—the body—possesses the very nature of health; and the medical art existing in the physician is the only thing truly medical, tools and drugs are "medical" only as used by him. By analogy, the only proper sense of being is substance, so that the universal study of being is the study of substance, as Averroes, his most faithful disciple, recognized.⁴⁸ One can scout the pages of Aristotle's *Metaphysics* for a study of the nine accidents; but that study is not there. Avicenna, on the other hand, devoted the whole of Bk. 3 of his *Metaphysics* to accidents, and Bk. 4 to the reciprocal relations of substances and accidents. Likewise, it was Avicenna, not Aristotle, who had seen that existence (*esse*) is an ontological principle distinct from essence (*res*) in a way which makes *esse* the most universal of traits and the cause of *esse* the most universal of causes. Avicenna's metaphysics fits Aquinas's idea of a completely universal science in a way which Plato's and Aristotle's did not, for the simple reason that he had Avicenna's metaphysics in mind when writing these lines.

At the final stage, then, "some" philosopher, who is Avicenna, had developed a metaphysics which comes in the order of learning after the lower studies; a metaphysics which studies everything which in any way is—accidents as well as substances, things material and those separated from matter; and above all a metaphysics which draws the conclusion that everything,

⁴⁸Aristotle, *Met.* 4.2 (1003a33-b19). Averroes, *In Met. IV*, t.c. 2 (Venice: 1462) 65 I.

even “primary matter, is *created* by the universal cause of things,” namely, God. This conclusion, already attained by Avicenna, clearly contradicts the view of matter as “uncreated” which Aquinas attributes to the pre-Socratics, Plato, and Aristotle, in this very text.

4. *De substantiis separatis*, c. 9

In this treatise on the angels written for his friend and *socius* Reginald of Piperno, Aquinas inserts his little history as part of an overall argument in defense of the Platonic-Aristotelian tradition, against that stemming from Avicenna and followed by the Franciscans. The tradition he espouses held that what Christian tradition called angels are substances completely separated from matter, while Franciscans followed the thesis of universal hylomorphism, that all creatures, even angels, contain some sort of matter in their nature. Aquinas’s history shows that it took some time for Greek philosophers to develop a true notion of immaterial beings, the implication being that the views of those Masters of theology in the 1270s who insisted that angels had to be composed of matter were retrograde and unsophisticated, rather like the materialistic views of the pre-Socratics. C. 9 is devoted to refuting what is perhaps the strongest argument in favor of the Franciscan line, namely that Christians cannot follow the Platonic-Aristotelian tradition because truly “immaterial substances” would have to be “eternal (*sempiternas*)” and therefore could “not have a cause of their being (*esse*).” Aquinas’s answer is that there is a sense in which something can originate from God, yet that sort of creation need not involve matter. Angels, in short, can be both created and immaterial. To show how this could be so Aquinas appeals to the historical development of the notion of creation: “for little by little human capabilities seem to have progressed in understanding the origin of things.”⁴⁹

This telling is the fullest version of the tale and contains the clearest distinction of the four stages of philosophy. The first philosophers thought that “the origin of things consisted only

⁴⁹*De sub. sep.* 9, ed. Leonina (1968) 40D: 57.75-77.

in exterior changes,” that is, accidental changes; later “others, proceeding a little further” toward understanding the origin of substances, thought that “the origin of things consists solely in the coagulation and separation” of their parts, a kind of efficient causality; and then “later philosophers proceeded further, by analyzing sensible substances into essential parts, which are matter and form.” Aquinas ends with his fullest presentation of the fourth and last stage:

But beyond this mode of [substantial] becoming it is necessary, following the teaching of Plato and Aristotle, to posit another, higher one. For, since it is necessary that the first principle be *completely simple*, it is necessary that it not be posited to exist as participating in existence, but as manifesting existence itself. Since subsistent existence can only be *one*, as was said above, it is necessary that all other things below it must exist as participating in existence. Therefore, in all becomings of this sort there must be a certain common analysis according to which each and every one of them is analyzed intellectually into *what it is* and into its *existence*. Therefore, in addition to the mode of becoming in which something becomes when form comes to matter, one must first understand another origin of things, according to which existence is attributed to the whole universe of things, *by the first being which is its own existence*.⁵⁰

This argument is by now familiar, since it is the same Avicennian argument Aquinas had presented as the *ratio Avicennae* in *De potentia* 3.5 and as his own argument for God as creative cause in *Summa* 1.44.1. Here Aquinas presents the same four Avicennian theses—a first principle which is simple and one, creatures that are ontologically complex and therefore caused—and in the same order as before. He emphasizes that the sense of creation or “origin” here described was discovered later (*ultra*) than substantial change and the other senses of origin or creation, but it comes before then in understanding (*praeintelligere*) the metaphysical sense of origin or creation. These features of Aquinas’s description of the fourth stage are sufficient to show that Avicenna’s metaphysics has not

⁵⁰*De sub. sep.* 9; 40D: 57.102-118: Sed ultra hunc modum fiendi necesse est secundum sententiam Platonis et Aristotelis ponere alium altiore. Cum enim necesse sit primum principium *simplicissimum* esse, necesse est quod non hoc modo esse ponatur quasi esse participans, sed quasi ipsum esse existens. Quia vero esse subsistens non potest esse nisi *unum*, sicut supra habitum est, necesse est omnia alia quae sub ipso sunt, sic esse quasi *esse participantia*. Oportet igitur communem quamdam resolutionem in omnibus huiusmodi fieri, secundum quod unumquodque eorum intellectu resolvitur in *id quod est* et in *suum esse*. Oportet igitur supra modum fiendi quo aliquid fit, forma materiae adveniente praeintelligere aliam rerum originem, secundum quod esse attribuitur toti universitati rerum *a primo ente quod est suum esse*.

lost its influence on his thought. But there is more; for there are three new points Aquinas makes, points present in the Avicennian text but ones Aquinas had not made use of previously. His use of Avicenna's *Met.* 1.7 shows that the influence of Avicenna on his own thought, far from waning, had grown even stronger.

First, Avicenna had sharply distinguished creatures which are eternal—the universe and the intelligences—from creatures subject to generation and corruption. In *De potentia* and the *Summa* Aquinas had made no use of this distinction. But since his subject here is angels, Aquinas follows the Avicennian distinction, contrasting the kind of creation found at step three, substantial change where “something changes when form comes to matter,” from “another origin of things,” understood at the fourth stage in terms of “attributing existence” to the essences of things. Angels are subject to the last, for this is what makes them creatures, though they are not subject to substantial change.

Second, in both *De potentia* and the *Summa*, Aquinas described the ontology of creatures incompletely. They are beings “by participation” because “they are not their own existence.” Avicenna had been more complete, at least about intelligences. He said “that to which existence applies always, its quiddity is not simple: for what it has in relation to itself [its essence] is other than what it has from another than itself [its existence].” The two components he refers to here are not completely clear, so he added, by way of clarification: “and from these two is acquired for it to be that which it is (*esse id quod est*).” Aquinas found here the ingredients for a convenient formula for the two metaphysical principles of creatures: *esse* and *id quod est*. In *De substantiis separatis* he uses these terms to explain more explicitly than heretofore the two principles involved in metaphysical creation: “according to which each of them is intellectually analyzed into ‘that which it is (*id quod est*)’ and into its own ‘existence (*esse*)’.” In *De substantiis separatis*, then, Aquinas makes even more use of this text from Avicenna than previously.

Perhaps the most arresting point Aquinas makes, however, is the only one which

has no parallel in Avicenna's text: "*certain common analysis* according to which each and every one of them is analyzed intellectually into what it is and into its existence." Aquinas's claim here concerns how knowledge of essence and existence is attained. The analysis (*resolutio*) consists in analyzing a being (*ens*) into its principles—essence and existence. It is *common* in two ways. First, such analysis produces a common or universal result: all creatures, even angels, are composed in this way, because this is what makes them creatures, speaking metaphysically. Second, such analysis is common because the truth it uncovers is among the *principles* governing metaphysics and in this sense is common to its conclusions. This was certainly the view of Avicenna, for the text Aquinas here uses for the third time is the summary of his dialectical argument for the proper *hypotheses* of metaphysics (*Met.* 1, 6-7), and which he sharply distinguished from the fundamental *concepts* of metaphysics (presented at *Met.* 1.5) and the general *axioms* governing all thought (presented at *Met.* 1.8). Aquinas's reference to "a certain common analysis," then, shows he fully understood Avicenna's mode of argument, that he applauded him, and that he adopted these two claims not just as philosophical theses, but as the very principles of his own metaphysics. The distinction between essence and existence, for Aquinas as well as for Avicenna, is a principle accepted after dialectical argument at the outset of metaphysics, as opposed to being a conclusion attained through demonstrative argument within the body of the science.

Why, then, one might ask, does Avicenna's name not appear, at least alongside the names of Plato and Aristotle? The reason is a function of the kind of treatise *De substantiis separatis* is. One can peruse all the texts of Plato and Aristotle available to Aquinas and never find the doctrines here set out. But he is appealing, not to individual philosophers, but to a whole philosophical tradition, begun by Plato and Aristotle and within which he clearly situated Avicenna and himself. Consequently, *secundum sententiam Platonis et Aristotelis* does not mean that Aquinas is attributing to them specific doctrines concerning essence and existence, doctrines they did not hold and

which that he knew they did not hold. The phrase should be rendered more broadly, as the whole “tradition of Plato and Aristotle.” In this work written at the end of his life, Aquinas still sets up the problem of the angels in the same way he did in his youthful *De ente et essentia*: choosing Plato and Aristotle over Avicenna and the Franciscan Masters.

C. 9 does not end with the paraphrase of Avicenna which Aquinas uses to defend the Platonic-Aristotelian tradition. Immediately afterward he turns to three versions of the causal principle, which had formed part of the arguments attributed to Plato, Aristotle, and Avicenna in *De potentia* 3.5c. Here he takes three different versions of the principle, which form the basis for three additional arguments—one broadly Platonic in inspiration, the second Avicennian, and the third Aristotelian—designed to bolster the conclusion initially drawn in his paraphrase of the text of Avicenna. These three arguments are intended to show it is not just an individual philosopher, but a whole tradition holds that God exercises a kind of creative (or originating) causality which does not involve matter and allows for the existence of purely spiritual angels. .

The Platonic version of the principle of causality is slightly different from that used in *De potentia*. It runs: “in every order of causes it is necessary that a universal cause stand over a particular [cause], for particular causes do not act except through the power of universal causes.” Consequently, since the kinds of causes which work through motion, that is, the causes isolated at the first three stages in the history of philosophy, are *particular* causes, there must also “exist some mode of becoming or origination of things, where existence flows forth without any change or motion” from the first, *universal* cause.

Then comes the Avicennian version of the causal principle, put the same way as in *De potentia*: “It is necessary that what is through accident (*per accidens*) be reduced to what is through itself (*per se*).” The argument, however, is new. The *per se* effect resulting from causes which work through “change or motion” are individuals, “being taken in common (*ens communiter sumptum*)” is only a *per accidens* effect of such

causes: in producing an individual such causes *also* produce an existent, much as Aristotle had noted that when a dog is generated *per se* an animal is produced along with it (*per accidens*), since a dog is by nature also an animal. It follows that there must be some sort of origin “according to which existence taken commonly (*esse communiter sumptum*) is attributed to things directly (*per se*).” This is creation in its metaphysical sense: if essential attributes—dog, animal, brown—must have *per se* causes when they have *per accidens* causes, the same holds true for existence, whose *per accidens* cause is every created cause, but whose *per se* cause is God.

Finally comes the Aristotelian version of the argument, which is quite the same as in *De potentia*. The principle is: “If one considers the order of things, one always finds that which is the maximum to be the cause of those things which come after it, such as fire, which is the hottest thing, is the cause of heat in the other elements.” It follows that there must exist a “first being” which is “the cause of being in all things.”⁵¹

The cumulative effect of all four arguments is to put a whole tradition behind the position Aquinas has taken. The fact that Avicennian reasoning contributes two of the four arguments listed shows the relative importance of his thought over the mind of Br. Thomas, influence that over the years had waxed, not waned.

* * *

In conclusion, these three parallel texts—*De potentia* 3.1 and 5, *Summa* 1.44.1 and 2, and *De substantiis separatis*, c. 9—where Aquinas offers a sketch of the development of philosophy, show that he maintains the following theses central to his metaphysics, all of which, without exception, he has drawn from and given credit to, not Aristotle, not Augustine, not Dionysius, not the *Liber de causis*, and above all not himself, but Avicenna. (1) Metaphysics is the final step in a pedagogical program which begins with

⁵¹*De sub. sep.* 9; 40D: 57.119-58.156.

logic and runs through mathematics and physics. (2) The historical development of philosophical thought has followed this program of studies as well as the ontology of creatures: first discerning the distinction between substance and accident, proceeding to the distinction between substantial form and matter, and culminating with the distinction between essence and existence. (3) Metaphysics, as first developed by Avicenna and embraced by Aquinas, is a truly universal discipline, because it has the most universal of subjects—being as being, which he understood to mean being conceived in its universality: *ens commune*. (4) Because fully universal, metaphysics includes demonstrative consideration of the full range of being, of accidents in addition to substance, and of God in addition to creatures. (5) In creatures there is a distinction between essence and existence, while in God there is not. (6) These two theses are so fundamental to metaphysics that they constitute its fundamental proper principles. (7) Consequently and finally, Avicenna was correct in distinguishing physics from metaphysics, not just in terms of their subjects, but even more importantly in terms of their principles; for the fundamental principles of physics are the causes, while the fundamental principles of metaphysics are essence and existence. Aristotle had famously said that absent proof of the existence of substances separate from matter metaphysics would collapse into physics. This was a problem for him because he thought they had the same fundamental principles—the four causes. First Avicenna and then Aquinas avoided this dilemma through holding that the principles of physics are *not* the same as the principle of metaphysics. Aquinas set out the principles of physics in *De principiis naturae*, and he set out the principles—not the unproven theses or the demonstrated conclusions—but the fundamental principles of metaphysics, while clearly under the inspiration of Avicenna, in the much misunderstood early work: *De ente et essentia*.

R.E. Houser

Center for Thomistic Studies, University of St. Thomas, Houston, TX

houser@stthom.edu