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Averroës and the Inductive Turn: Revealing the Path to Modernity

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Abstract: This article examines a particularly influential development in medieval political philosophy. This development ensued during the liminal period of the late medieval era's transition to the modern era. In the Greco-Islamic tradition of this transition, the Arab philosopher and theologian Averroës (Ibn Rushd) wrote insightful commentaries on the works of logic in Aristotle's Organon. From his scholarly studies, Averroës developed a unique approach to advancing the use of inductive logic in dialectical syllogisms. Among his discoveries, Averroës had identified a rather vague reference in one of Aristotle's works that suggested the possibility of modifying the logically deductive structure of demonstrative syllogisms. After further reflection on Aristotle's reference, Averroës developed the possibility of an "inductive turn" to transform the syllogistic structure of deductive logic into the syllogistic structure of inductive logic. Averroës contended that an interchange of the major premise with the conclusion of a logically deductive structure of a demonstrative syllogism would result in the transformation of the logically deductive structure into a logically inductive structure and thus into a dialectical syllogism. By the end of the liminal period, Averroës's inductive turn had been influential with many scholars in the Latin West, including Christian theologian Thomas Aquinas, analytical philosopher John Buridan in his approaches to understanding science, and the acceptance of the hypothetico-deductive analyses of natural philosophy of Francis Bacon and Thomas Hobbes.

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Introduction

The eleventh to thirteenth centuries of the Common Era comprised a liminal period characterized by confusion and the unassimilable blending of indistinct political opinions and religious beliefs among medieval writers, who sowed "the seeds of historical confusion" at the dawn of the Medieval Era and the embryonic stage of modernity.[1] Marked by the Golden Age of Islam and the Renaissance, this period of liminality endured myriad challenges but also gradually identified rational solutions capable of unraveling the period's brackish state of muddled confusion.

As Islamic culture flourished, Arab scholars resided in diverse geographical locations, including Baghdad—the capital of the Abbasid Caliphate in the Middle East—and Córdoba, the capital of the Emirate and later Caliphate of Córdoba, in Andalusia on the Iberian Peninsula. The scholars combed through ancient Greek manuscripts that they had collected, preserved, and later translated into Arabic, Hebrew, or Latin. Among these manuscripts, scholars studied philosophic writings of Plato and Aristotle among others.

Of particular interest to the Islamic *falâsifa* were Aristotle's writings that focused on characteristic traits of logical reasoning. As they studied these writings, Islamic thinkers realized that further clarification and insight into Aristotle's arguments could enhance their own efforts to develop a logical framework for philosophical rationalism. Moreover, they realized that their findings might help clarify or identify explanations of natural phenomena, as well as explain and defend Islamic theological beliefs.

Arab scholars vigorously studied these ancient documents and subsequently published their own commentaries on Aristotle's works, offering additional theoretical and

practical insights. Their findings included solutions to theoretical problems that in turn offered advancements in contemporary problems associated with medicine, mathematics, astronomy, and philosophy. Islamic scholarship contributed to the proliferation of these new discoveries of significant import and historic influence that were also transmitted to Europe during the Renaissance. The wide dissemination of newfound knowledge, innovative observational hypotheses, and alternative theoretical frameworks continually prompted further transformations in the social and philosophical currents of medieval society.

During this liminal period, insights of Arab philosophical rationalism became increasingly embedded in a temporal arc that linked Greek philosophy to Islam. Moreover, the advanced philosophical rationalism of Arab scholarship served as the keystone that held together the arc of the Greco-Islamic tradition, which lay at the heart of this transitional period.

Greco-Islamic Tradition

The Greco-Islamic tradition largely embraced the recovery of most of Aristotle's corpus, especially his Organon, which consisted of works containing analytical tools and methods for scientific and philosophical investigation. Arab scholars' study of ancient Greek manuscripts led to the development of systematic methods of inferential reasoning to clarify a variety of philosophical issues, including those related to medicine, rhetoric, law, and theology. [2] During the liminal period, the positive impact of findings of Islamic scholars were recognized, including insights of Al-Kindi, Alfarabi, Avicenna, Al-Ghazali, and Averroës (Ibn Rushd).

Ibn Khaldûn, a fourteenth century Islamic scholar of history and civilization,

reflected on the intellectual significance of the rapidly developing Greco-Islamic tradition. In 1377, he published his major work of historiography, *Kitâb al-Muqaddimah*. In this introduction, Ibn Khaldûn provided his own philosophical framework on the science of historical progress, which emphasized the importance of a sedentary culture for the development of other sciences, including those of logic, philosophy, and speculative theology.[3] Moreover, he also acknowledged the intellectual competence of many of the pioneering Islamic scholars of the twelfth-century:

"Muslim scientists [who] assiduously studied the (Greek sciences). They became skilled in the various branches. The (progress they made in the) study of those sciences could not have been better. They contradicted the First Teacher (Aristotle) on many points. They considered him the decisive authority as to whether an opinion should be rejected or accepted, because he possessed the greatest fame. They wrote systematic works on the subject. They surpassed their predecessors in the intellectual sciences."[4]

Ibn Khaldûn declared that certain Arab scholars, including Alfarabi, Avicenna, al-Ghazali, and Averroës (Ibn Rushd), whom he praised, were "among the greatest Muslim (philosophers)."[5] He stated that the contributions of these philosophers were crucial to the improvement of philosophical rationalism, which was needed in order to understand better the teachings of the Qur'an in various social contexts.

Ibn Khaldûn also maintained that the highest degree of reasoning involves "the ability to think which provides the knowledge, or hypothetical knowledge, of an object beyond sense perception without any practical activity."[6] To this end of engaging in arguments founded upon hypothetical premises, he believed that

"Aristotle . . . [had] improved the methods of logic and systematized its problems and details." Thus, he declared that "[Aristotle] assigned to logic its proper place as the first philosophical discipline and also as the [proper] introduction to philosophy."[7] Consequently, Ibn Khaldûn referred to Aristotle as "the First Teacher" and the collection of Aristotle's work on logic as the "the text (*Organon*)"[8]; all of which, further strengthened the temporal arc of the Greco-Islamic tradition.

Moreover, the content of the keystone of the Greco-Islamic tradition's temporal arc also emerged at the intersection of Greek philosophy and Islam. The keystone ultimately revealed itself in Aristotle's works on logic and in the philosophical commentaries of Averroës on these works. Averroës's research and scholarship on Aristotle's *Organon* yielded major contributions that promoted the diffusion of Aristotle's works and thought in the Latin West. The fusion of Aristotle's insights into philosophical rationalism and Averroës's commentaries on logical practices formed the keystone that led to the unexpected advent of an inductive turn.

Demonstrative Inferential Reasoning

To understand thoroughly the inferential foundations of logic in Aristotle's philosophical rationalism, Averroës analyzed the philosopher's arguments. To this end, the commentator studied selected works in Aristotle's *Organon*—*Propositions*, *Prior Analytics*, *Posterior Analytics*, and *Topics*—and, as well, in Aristotle's *Metaphysics*.[9]

In these works, Aristotle discussed the characteristic traits of the logical structure of syllogisms of demonstrative and dialectical inferential reasoning. In his analysis of syllogistic structures that yield true knowledge, Aristotle stated, "By 'a demonstration' I mean a

scientific syllogism, and by 'a scientific syllogism' I mean a syllogism in virtue of which, by possessing [universal principles], we [deductively] know [something]… Now there may be a syllogism even without these [universal principles], but such a syllogism will not be a demonstration, for [without universal principles] it will not produce knowledge."[10]

Aristotle argued that the logical validity of demonstrative syllogisms surpasses that of dialectical syllogisms: "It is also evident that, if the premises from which the [demonstrative] syllogism proceeds are universal, also the [deduced] conclusion of such a demonstration and, we may add, of an unqualified demonstration is of necessity eternal."[11] However, in contrast with dialectical syllogisms, he observed that conclusions deduced according "reasons from generally accepted opinions as premises. . . . Generally accepted opinions are opinions which are accepted by all people, or by most, or by the wise, and if by the wise, then by all of them, or by most, or by those who are most known and held in esteem."[12] Even so, he continued, a set of hypothetical premises of a dialectical syllogism, again unlike the demonstrative syllogism, "is really not a syllogism at all, since it appears to prove something but does not."[13] Thus, Aristotle declared that the objective of a logically-structured demonstrative syllogism is to conclude with an apodictic conclusion that may serve as an eternally universal principle.

Averroës employed Aristotle's understanding of the superior validity and reliability of the sound premises of demonstrative logic in the development of his own philosophical rationalism. He also recognized that the conclusions of demonstrative syllogistic reasoning can only be deduced from universal principles. In the *Decisive Treatise*, Averroës

contemplated Aristotle's insights by also arguing that if philosophic understanding is to occur, "dialectical, rhetorical, and sophistical syllogistic reasoning" will not be as useful as "demonstrative syllogistic reasoning."[14]

Furthermore, Averroës regarded demonstrative syllogistic reasoning as a "science of interpretation" and compared its methodological rigor to that of mathematics, which builds deductively on prior mathematical syllogisms to reach true conclusions: "It is evident, moreover, that this goal is completed for us with respect to existing things only when they are investigated successively by one person after another and when, in doing so, the one coming after makes use of the one having preceded—along the lines of what occurs in the mathematical sciences."[15]

In addition, Averroës also acknowledged that dialectical syllogistic reasoning may rely on specious premises that are presumed to be authoritatively true, regardless of whether or not the focus is on religion or any other matter, but then still uses specious means to convince others of the veracity of the flawed premises. Such reliance on specious presumptions often involves appeals to emotion, resulting in subjectively based deductive inferences. Alternatively, Averroës stipulated that demonstrative syllogisms can only rely on authoritatively acceptable premises and then deduce conclusions that logically follow from them. In this way, the subjectivity that often leads to the acceptance of specious premises rooted in religious or moral frameworks can be avoided, allowing inquirers to use demonstrative reasoning to accept conclusions with apodictic certainty. Thus, as with Aristotle, a demonstrative syllogism "fulfills the conditions for validity," regardless of the provenance of the argument itself.

Averroës further argued that,

just as in mathematics, geometry, and astronomy—where individuals must rely on others' previous conclusions to reach new insights—no single person can fully master the art of wisdom, which, he claimed, encompasses all other arts.[16] However, Averroës also stipulated that reliance on the insights of demonstrative arguments of predecessors regardless of their "national" origins is not only rationally acceptable but logically necessary. The result of Averroës's "science of interpretation," then, suggests that any conclusion of demonstrative syllogistic reasoning "is only of the truth."[17] Nevertheless, both Aristotle and Averroës had not completely rejected the value of inductive inferential reasoning of dialectical syllogisms. Traces of an inductive turn away from reliance solely on demonstrative inferential reasoning had also appeared in the writings of Aristotle and Averroës.

The Inductive Turn

Aristotle contended that the premises of a dialectical syllogism tend the product of vagaries of public opinions that rarely rely on universal principles for their premises. When doing so, the premises are expected to be of uncertain soundness. Subsequently, then, dialectical reasoning may be expected to provide conclusions that lack the veracity of universal principles. Only demonstrative syllogisms may yield apodictic conclusions derived from "each principle in virtue of that principle itself."[18] Emphasizing the preeminence of demonstrative reasoning based on universal principles, Aristotle observed that "all teaching and all learning through discourse proceed from previous knowledge. And it is likewise with reasonings, whether these be through a syllogism or induction."[19] In fact, as an example, due to the immaterial nature of mathematical reasoning, he

stated that only mathematical statements can meet the highest expectations of inductive enferences.[20] However, observed Aristotle, "The accuracy which exists in mathematical statements should not to be demanded in everything but only in whatever has no matter. Accordingly, that matter of proceeding in such cases is not that of physics."[21]

Aristotle observed that sensory perception is a necessary condition for inferential reasoning from premises containing hypothetical assertions in both demonstrative syllogisms and dialectical syllogisms. Ironically, although a demonstrative syllogism relies on a universal principle as a major premise, it still requires another premise from which to deduce an apodictic conclusion. Thus, Aristotle brought attention to the fact that the existence of "universals [themselves] cannot be investigated except through induction . . . and it is impossible to learn by induction without having the power of sensation."[22]

Supposing a prelude emerges in an attempt to identify premises that may lead to universal principles, Aristotle argued that only sensory experience can provide the basis from which to derive hypothetical generalizations to serve as premises in a syllogism. Moreover, unless knowledge of universal principles is innately present in all humans, Aristotle maintained that only sense perception enables the inductive process by which universal principles are identified: "universals cannot be investigated except through induction… and it is impossible to learn by induction without having the power of sensation. For of individuals [there can be only] sensation, and no knowledge of them can be acquired; and neither can we demonstrate conclusions from universals without induction, nor can we acquire universals through induction without

sensation.[23]

Furthermore, unless knowledge of universal principles is a naturally innate characteristic of all human beings, Aristotle states that only through sense perception may the inductive process be used to identify universal principles: "universals cannot be investigated except through induction, . . . and it is impossible to learn by induction without having the power of sensation. For of individuals [there can be only] sensation, and no *knowledge* of them can be acquired; and neither can we demonstrate conclusions from universals without induction, nor can we acquire universals through induction without sensation."[24]

In his *Short Commentary on Aristotle's Topics*, Averroës agreed with Aristotle's recognition of the value of inductive inferential reasoning of dialectical syllogisms in particular situations where demonstrative arguments have yet to occur; in one situation, "induction is needed to reach the essential predicate [of already accepted universal principles]. Now these are known as experiential premises."[25] Yet, Averroës also maintained that a conclusion consisting of a universal principle via induction may be acceptable to dialecticians simply because "it asserts that a judgment applies to all [of something] because it applies to most of it, for it is generally accepted that the lesser follows the greater." Nevertheless, he also suggested that the lack of reliability of particular premises may still allow for the possibility that an inference via induction may be logically invalid due to unsound premises or the premises that have been empirically falsified.

In addition, Averroës discovered an important role that dialectical reasoning may experience in the form of inductive logic to understand and explain nature itself. He suggested that an occasion of an inductive turn in the structure of a dialectical syllogism may

redirect the inferential reasoning of the syllogism's conclusion. Indeed, the conclusion via inferential reasoning may set in motion dramatic consequences of historic import. For this to take place, the major premise and the conclusion of a deductive syllogism must be interchanged; that is, their positions within the syllogism are reversed.[26] Thus, presuming the soundness of the premises with the validity of the conclusion in the deductive syllogism, noted Averroës, the interchange of positions of the major premise and conclusion will have created an inductive turn and thereby transformed the syllogism into a hypothetical-deductive method of inferential reasoning.

The appeal and thus value of the inductive turn occurs when it is used to reinforce conclusions of previously accepted deductive syllogisms; nevertheless, Averroës cautions that, by induction alone, inductive generalizations may yet hold less validity: "[W]hen the induction is used all by itself to explain an unknown problem, it is not very persuasive."[27] However, the interchange of the major premise and the conclusion thus transforms an accepted syllogism into an inductive argument with a legitimate inference. The inductive turn, then, places the valuation of inductive inferential reasoning nearly on an equal footing with that of demonstrative inferential reasoning.

The Path of Averroës's Inductive Turn

Out of the temporal arc of the Greco-Islamic tradition, Averroës activated an inductive turn whose path invigorated the transition of the late medieval era into the early modern era. During the liminal period, the path of Averroës's inductive turn was instrumental in facilitating the transmission of Aristotle's works with his ideas of philosophical rationalism to the Latin West. Averroës's commentaries on Aristotle's

logical works and rational philosophy were soon the subjects of prominent western thinkers, including theologian Thomas Aquinas and philosopher John Buridan.[28]

For both Aquinas and Buridan, the organic link between the Arab recovery and preservation of ancient Greek texts inspired the production of European philosophical and theological treatises that incorporated insights from numerous commentaries on Aristotle's Organon, especially those of al-Kindi, Alfarabi, Avicenna, and Averroës.[29] Moreover, as Ibn Khaldûn had observed, it was the highly respected and valued writings of Averroës—as the keystone of the temporal arc of the Greco-Islamic tradition—that were effectively endorsed by Aquinas and Buridan, both of whom highlighted the prominent influence of Averroës's path in their own theological and philosophical writings.

In his *Commentary on the Posterior Analytics of Aristotle*, Thomas Aquinas reinforced the extraordinary importance of Aristotle's discussion of the necessity of acquiring knowledge of universal principles through the application of inductive inferential reasoning. Having relied on Averroës's commentaries on Aristotle, Aquinas recognized that Aristotle's arguments had undermined the essentialism of Plato's forms as universals.[30] In support of Aristotle's claim, Aquinas drew attention to both Aristotle and Averroës: "since we take a knowledge of universals from singulars, [the Philosopher] concludes that it is obviously necessary to acquire the first universal principles by [following Averroës path of] induction. For that is the way, i.e., by way of induction, that the sense introduces the universal into the mind, inasmuch as all the singulars are considered."[31]

On 18 July 1323, in recognition of Thomas Aquinas's comprehensive theological

work, The Summa Theologica, Pope John XXII canonized Aquinas as a saint of the Catholic Church. The Pope also required that Masters of Arts recipients at the University of Paris were to swear that they will teach "the system of Aristotle and his commentator Averroës as well as other ancient commentators on the *Organon* of Aristotle, unless they were contrary to the Christian faith."[32]

Influenced by Aristotle's arguments and Averroës's modifications, John Buridan also extolled the virtues of induction and experiential premises. In the *Summulae de Dialectica*, Buridan acknowledged the investigative value of inductive inferential reasoning. However, he was aware that, given the socially prevailing bias of demonstrative inferential reasoning as superior to that of induction, as he had observed that "some people, wanting to do theology, denied that we could have knowledge about natural and moral [phenomena]."[33] In response, Buridan emphasized Aristotle's assertion that demonstrative reasoning, appropriate for mathematics and other non-material fields, is unsuitable for investigative methods in "natural science." He also recognized that Averroës's path of induction referred approvingly to Aristotle's qualification "that one need not demand the kind of belief in natural demonstrations [found] in mathematics."[34] Consequently, Buridan announced, "[w]e shall therefore declare that there are many diverse kinds of certainty and evidentness."[35]

Buridan also argued that Aristotle's discussions in the *Posterior Analytics* and the *Metaphysics* of the difference between demonstrative syllogisms and dialectical syllogisms may not be as great as the Philosopher seems to indicate. Aristotle's claim regarding the necessity of induction for investigating universals led Buridan to

categorize demonstrative syllogisms with universal premises alongside inductive hypotheticals: "I reply that although a syllogism is composed of several expressions, it is nevertheless a single hypothetical proposition, connecting the conclusion with the premises through the conjunction 'therefore.'"[36]

Buridan had also interpreted arguments in Aristotle's works as claiming that "the principles of art and science are known to us by experience, i.e., experiential induction from the several sensations stored in the memory."[37] Nevertheless, Buridan then credited the Commentator for this insight: "Averroës speaks about this beautifully, in bk. 2 of the *Physics*, when he says that a universal principle that was doubtful earlier is concluded by induction without surveying all the singulars, and that this is how induction comes within the scope of demonstrative science." When these arguments reinforce the essential predicates of knowledge already gained through sensory apprehension, the inductive method is thereby lent greater credibility with regard to experiential premises.

In his *Quaestiones in Aristotelis Metaphysicam*, John Buridan also positively acknowledged Aristotle's assertion in the *Metaphysics* and Averroës's path of induction on the possibility of assenting to truth claims with inductive arguments.[38] Thus, Buridan built his philosophy on Aristotle's discussions of demonstrative and dialectical syllogisms and inductive inferential reasoning as well as on Averroës's explications and modifications of Aristotle's discussions on logic. Consequently, as a result, Buridan elevated the status of hypothetical arguments as virtually identical to that of deductive reasoning. Furthermore, he underscored the importance of human sensory experience, as discussed by Aristotle and

Averroës, by highlighting the crucial role of empirical evidence in supporting hypothetical claims and inferential conclusions about the principles and causes of natural phenomena, as well as the existence of universal principles.

As a consequent of the impact of the writings of Thomas Aquinas and John Buridan, "Christianity went through a paradigm change in the twelfth to thirteenth centuries: the Augustinian paradigm was replaced by the Thomist paradigm. This meant that a Christian theology formulated by St. Augustine in the light of neo-Platonic thought gave way to a Christian theology formulated by Thomas Aquinas in the light of Aristotelian thought."[39] The expanding influence of philosophical rationalism, derived from the contributions of Aristotle, Averroës, Aquinas, and Buridan, helped lay the theoretical groundwork for the political philosophy underlying modern liberal-democratic regimes.[40]

Epilogue

Étienne Gilson, historian of philosophy, had a message for the intelligentsia of the twentieth century of the modern era who may have been suffering from a case of hubristic amnesia. He observed that contemporary scientific discoveries and technological achievements often cause us to forget the many historical events, philosophies, insights, and practices that continue to shape our destinies. One such set of events existed during a centuries-long emergence of a philosophical rationalism that contributed to the intellectual cleansing of the liminal period of transition from the late medieval era to the early modern era.

Thus, Gilson reminded philosophers, theologians, scientists, scholars, and thinkers: "The fact remains, however, that there has been another rationalism, much older

than that of the Renaissance [of the fourteenth century], and wholly unrelated to any scientific discovery. It was a purely philosophical rationalism, born in Spain, in the mind of an Arabian philosopher, as a conscious reaction against the theologism of Arabian divines."[41] In effect, Gilson suggested that—out of the parameters of ancient Greek natural philosophy—another rationalism emerged and left metatheoretical traces that eventually contributed to the development of modern science and the contemporary rationalism of political philosophy. The writings of this Arabian philosopher, Averroës, remain extant and are still studied for their knowledge, insights, and recommendations.

Endnotes

1. Bjørn Thomassen, "The Uses and Meanings of Liminality," *International Political Anthropology*, vol. 2, no. 1 (2009): 5.

2. Robert M. Haddad, "Philosophical Theology and Science in Medieval Christianity and Islam: A Comparative Perspective," *Journal of The Historical Society* 8, no. 3 (August 6, 2008).

3. Ibn Khaldûn, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal; abridged and ed. by N.J. Dawood (London: Routledge and Kegan Paul, 1967), 374.

4. Ibid.

5. Ibid.

6. Ibid., 334.

7. Ibid., 383.

8. Ibid.

9. Quotations (with original emphases) from works in Aristotle's *Organon* and his *Metaphysics* are found in *Aristotle: Selected Works*, trans. Hippocrates G. Apostle and Lloyd P. Gerson (Grinnell, Iowa: Peripatetic Press, 1983). Also, references to "the philosopher" and "the commentator" refer to Aristotle and Averroës, respectively,

following this use by Thomas Aquinas.

10. Aristotle, *Prior Analytics*, 71b18-25.

11. Ibid., 75b21-23.

12. Idem, *Topics*, 100a30-100b24.

13. Ibid., 101a3-4.

14. Averroës, *Decisive Treatise* in *Decisive Treatise and Epistle Dedicatory*, trans. Charles E. Butterworth (Provo, Utah: Brigham Young University Press, 2002), 3.

15. Ibid., 5.

16. Ibid., 4.

17. Ibid., 9.

18. Aristotle, *Topics*, 100b21.

19. Idem, Posterior Analytics, 71a1-6.

20. Idem, *Metaphysics*, 995a-15-19.

21. Ibid.

22. Idem., *Posterior Analytics*, 81a38-81b2-3, 6-7.

23. Idem., *Metaphysics*, 980b30-981a3.

24. Idem., *Posterior Analytics*, 81b1-10 (emphasis original).

25. Averroës, *Short Commentary on Aristotle's "Topics,"* in *Averroës' Three Short Commentaries on Aristotle's "Topics," "Rhetoric," and "Poetics,* trans. Charles E. Butterworth (Albany: State University of New York Press, 1977), 50.

26. Ibid., 48.

27. Ibid., 49.

28. John Buridan, and Thomas Aquinas are certainly not exclusive to this liminal period, but are indicative of a very few of the principal writers, including Peter Abelard, Petrus Aureolus, Giles of Rome, Albertus Magnus, Maimonides, William of Ockham, and Duns Scotus, among others.

29. Basit B. Koshul, "The Islamic Impact on Western Civilization Reconsidered," *American Journal of Islamic Social Sciences* 12, no. 1 (Spring 1995): 49.

30. Thomas Aquinas, *Commentary On the Posterior Analytics of Aristotle*, translated by Fabian R. Larcher, O.P. (Albany: Magi Books, 1970), book I, lecture 30, http://dhspriory.org/thomas/english/PostAnalytica.htm#220.

31. Ibid., book II, lecture 20.
32. John Paul Meenan, "Thomas Aquinas: The Common and Universal Doctor," *Catholic Insight* (January 28, 2025), https://catholicinsight.com/2025/01/28/the-enduring-value-of-thomas-aquinas/.
33. John Buridan, *Summulae de Dialectica*, trans. by Gyula Klima (New Haven: Yale University Press, 2001), 5.1.3, p. 708.
34. Ibid., 708-09.
35.Ibid., 709.
36. Ibid., 308.
37. Ibid., 396.
38. Idem, *Quaestiones in Aristotelis Metaphysicam: Kommentar zur Aristotelischen Metaphysik*, bk. 2, q. 1, translated by Gyula Klima, in *Medieval Philosophy: Essential Readings with Commentary*, ed. Gyula Klima (Malden, MA: Blackwell Publishing, 2007), 144.
39. Ibid., 145-46.
40. For an earlier version of this discussion, see John R. Pottenger, *Philosophical Foundations of the Religious Axis: Religion, Politics, and American Political Architecture* (London: Palgrave Macmillan, 2020), 85-92.
41. Etienne Gilson, *Reason and Revelation in the Middle Ages* (New York: Charles Scribner's Sons, 1952), 37.

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