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# Avicenna's *Healing* and the Metaphysics of Truth

DANIEL D. DE HAAN\*

**ABSTRACT** In this essay, I present and explicate Avicenna's doctrine of truth in his *Metaphysics of the Healing*. I begin by discussing the way Avicenna introduces his doctrine of truth within his presentation of the first principles of metaphysics and their integration with his innovative appropriation of Aristotle's four senses of being. I then canvass the doctrines of truth found in Aristotle and al-Kindī and show how they influenced Avicenna's novel division of truth found in the first book of his *Metaphysics of the Healing*. In the final sections of the paper, I illustrate the ways Avicenna applies and amplifies his division of truth within the ontological, aitiological, theological, and epistemological parts of his metaphysics. I show that Avicenna developed a systematic and hierarchical doctrine of truth that culminates in God as the First Truth that causes all contingent truths to exist.

**KEYWORDS** Avicenna (Ibn Sīnā), truth, medieval philosophy, metaphysics, epistemology, being, transcendentals

In this study, I expound Avicenna's (Ibn Sīnā, 980–1037) doctrine of truth as it is presented in his *Metaphysics of the Healing* (*aš-Šifā'*, *al-Ilāhiyyāt*). My aim is to establish two theses. First, that Avicenna has a rich and systematic metaphysical doctrine of truth that is worked out within the epistemological, ontological, aitiological, and theological investigations of the *Ilāhiyyāt*. Second, that his doctrine of truth draws upon the accounts of truth he found in his predecessors, and that he amplifies these accounts in light of his own innovative account of the first principles of metaphysics, which he articulates at the outset of his *Ilāhiyyāt*. I show that these first principles, along with Avicenna's appropriation of Aristotle's four senses of being, provide the point of departure for his metaphysical doctrine of truth.

I begin by explaining the function Avicenna's metaphysical first principles play in his approach to first philosophy as a Peripatetic science (section 1). I then introduce two of Avicenna's philosophical predecessors' views on truth (Aristotle and al-Kindī) (section 2), prior to addressing how Avicenna's doctrine of truth drew upon these influences. Next, I treat Avicenna's account of epistemological and metaphysical truth as they pertain to his metaphysical principles (section 3). I then present his theoretical treatment of truth and its application within his

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metaphysical ventures into *ontology*, that is, the study of being in general (section 4), *aitiology*, that is, study of the ultimate causes of being (section 5), and *theology*, that is, the study of divine existence and essence (section 6).

Finally, I conclude with the practical side of truth by examining Avicenna's prescription for healing those who suffer from the malady of sophistry and deny the first principle of demonstration—the cornerstone for all knowledge of the truth (section 7).

#### I. TRUTH AND FIRST PRINCIPLES IN AVICENNA'S METAPHYSICS OF HEALING

The first book of Avicenna's *Ilāhiyyāt* presents the subject and the three kinds of first principles that belong to his metaphysical science.<sup>1</sup> Avicenna deploys these first principles throughout his investigations into the objects of inquiry that follow upon the subject of being qua being as various quasi-species of being in *Ilāhiyyāt* II–III, that is, the categories of substance and accidents, and as quasi-properties of being in books IV–VII, such as act and potency, universals, causality, and pseudo-ultimate causes, respectively. In *Ilāhiyyāt* VIII, Avicenna concludes his metaphysical science by turning to an investigation of the true ultimate causes and the existence and nature of the divine being, which is the source of all the creaturely emanations treated in book IX, and is that to which all beings return, the topic of book X.

Avicenna took a keen interest in Aristotle's account of the science of being qua being in *Metaphysics* Γ and E.<sup>2</sup> Aristotle introduces the subject of metaphysics in Γ 1, clarifies the primary notions of metaphysics that extend across the categories in Γ 2, namely, being and one, and defends the axiomatic first principles of demonstration in Γ 3–8. Similarly, in E 1, Aristotle begins with a presentation of the divisions of the theoretical sciences in order to set in relief what it means to contend that first philosophy is the universal science of causes, divine things, and being qua being. *Metaphysics* E 2 opens with a rehearsal of Aristotle's fourfold division of the many senses of being from *Metaphysics* Δ 7; namely, being as accidental, being as the truth of propositions, being as divided into the categories, and being as act and potency. In E 2–3 and E 4, Aristotle argues that metaphysics, as a science of being, addresses being neither as accidental nor as the truth of propositions, respectively; the task of Ζ, Η, and Θ is to treat the categories of being, especially substance, and being as act and potency.

*Metaphysics* Γ and E have three important commonalities. First, they both introduce the subject of metaphysics as a science of being qua being. Second, they both consider the nature of being and its many senses, but in Γ 2 the focus

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<sup>1</sup>Avicenna, *Ilāhiyyāt*, Book I, Chapters 1–8. All references are to Michael Marmura's English translation unless noted otherwise. Modifications to translations by Marmura and others are for the sake of consistency across works and to emphasize certain technical terms. I cite book, chapter, and the paragraph numbers from Marmura's translation of the *Ilāhiyyāt*; when it is apropos, I provide in parentheses page and line numbers to G. Anawati's Cairo edition of the Arabic and S. Van Riet's edition of the Medieval Latin translation known as the *Scientia divina*. Citations to other works of Avicenna will follow similar conventions, with book and chapter numbers followed by page numbers to the Arabic edition in parentheses.

<sup>2</sup>See Amos Bertolacci, *Reception*, chs. 4, 8, and 9.

is on the extension of being and one across the categories, whereas E 2 briefly distinguishes the four senses of being, one of which includes being's relation to being per se, that is, the categories of being. Third, both books conclude with discussions related to epistemological or logical topics, such as the defense of first principles of demonstration in Γ 3–8 and the truth of propositions in E 4.

The first book of Avicenna's *Ilāhiyyāt* presents a subtle integration of the numerous topics addressed by Aristotle in *Metaphysics* Γ and E. Let us draw attention to those features of his synthesis that are relevant to our concerns. Avicenna first establishes that the subject of metaphysics is being qua being (*Ilāhiyyāt* I.1–4).<sup>3</sup> He then introduces his own version of the primary common notions that permeate all of the categories, namely, being, one, thing, and necessary (*Ilāhiyyāt* I.5). Finally, he discusses the truth of propositions in connection with his defense of the axiomatic first principle of demonstration (*Ilāhiyyāt* I.8), but not without first providing a detailed analysis of the properties that belong to necessary existence and possible existence (*Ilāhiyyāt* I.6–7). In short, the first book of Avicenna's *Ilāhiyyāt* closely follows—with some novel amendments—the structure of books Γ and E of Aristotle's *Metaphysics*. What is the significance of these amendments?

To understand these modifications, we must first get clear about Avicenna's account of scientific principles. After introducing the subject of metaphysics in *Ilāhiyyāt* I.1–4, Avicenna provides a more systematic account of the principles of his metaphysical science in I.5–8 than Aristotle had done in the *Metaphysics*. Avicenna's account of metaphysical principles is developed out of his division of noetic acts into conceptualization (*taṣawwur*) and assent (*taṣdīq*), which was a standard refrain from medieval Arabic logic by the time of Avicenna. For Avicenna and many of his predecessors, both of these noetic acts admit of a further division into primary and acquired forms of conceptualization and assent.<sup>4</sup>

It has been established how mental [*dihnī*] instruction and learning takes place and that this takes place only through previous knowledge, *we must have first principles for conception and first principles for assent*. If every instruction and learning was through previous knowledge, and every existing knowledge is through instruction and learning, the state of affairs would regress *ad infinitum*, and there would be neither instruction nor learning. It is hence necessary that we have matters *believed to be true without mediation*, and matters that are *conceptualized without mediation*, and that these would be the first principles for both assent and conceptualization.<sup>5</sup>

It was on this basis that Avicenna set forth three kinds of scientific principles that belong to metaphysics: primary conceptualizations, primary assents proper to metaphysics, and primary assents common to all sciences. Avicenna's threefold division of scientific principles also resembles a common medieval interpretation of Aristotle's *Posterior Analytics* that took definitions, hypotheses, and axioms to be the

<sup>3</sup>Avicenna, *Ilāhiyyāt*, I.2.12 (Anawātī, 13/*Scientia divina*, 12:30–2).

<sup>4</sup>See Avicenna, *Salvation. Logic*, I.1 (Dānīshpazhūh, 7/Ahmed, 3). Cf. Harry Wolfson, "Taṣawwur and Taṣdīq," 479–80; Deborah Black, *Logic in Medieval Arabic Philosophy*, 72–74; Black, "Avicenna's Epistemology," 120–42; Jon McGinnis, *Avicenna*, 28–49; Riccardo Strobino, "Indemonstrability"; and Strobino, "Principles of Scientific Knowledge."

<sup>5</sup>Avicenna, *Healing. Logic. Book of Demonstration*, I.6 (77:1–5). Modified English translation from Marmura, "Avicenna on Meno's Paradox," 61, emphases added. Cf. Avicenna, *Salvation. Logic*, 102 (Dānīshpazhūh, 112–13/Ahmed, 87–88).

three kinds of first principles required for a Peripatetic demonstrative science. The former two principles come from Aristotle's account of a 'thesis' (θέσις, *wad'*) or a proper principle, which he divided into definitions and hypotheses. A 'definition' (ὁρισμός, *ḥadd*) states *what* something is. A 'hypothesis' (ὑπόθεσις, *aṣl mawḍū'*) is a basic proposition which asserts *that* something is thus and so. Definitions and hypotheses are called "proper" or "special" (ἴδια, *ḥaṣṣa*), because they are the first principles that are proper or specific to a particular science. In contrast to these proper principles or theses, there is what Aristotle calls an "axiom" (ἀξίωμα, *muta'ūraf*), which is a fundamental "principle" (ἀρχή, *'awwal / mabda'*). Axioms are principles that are "common" (κοινὰ, *'amma*) to every science, such as the first principles of demonstration. Since metaphysics is a universal science, it belongs to it to treat the axioms common to all sciences.<sup>6</sup>

This epistemological framework of scientific principles finds its way into the division of labor present in *Ilāhiyyāt* I.5–8, where Avicenna treats the primary notions formed through conceptualization in I.5, the primary assents proper to metaphysics in I.6–7, and the primary assent to the axiom or principle of demonstration in I.8. Avicenna begins *Ilāhiyyāt* I.5 with a presentation of the primary metaphysical notions "being" (*mawjūd, ens*), "thing" (*ṣay', res*), "necessary" (*ḍarūrī/wājib, necesse*), and "one" (*wāḥid, unum*).<sup>7</sup> In *Ilāhiyyāt* I.6–7, Avicenna directs our attention to a few fundamental, true, and properly metaphysical propositions, which he arrives at through an examination of the properties that belong to necessary and possible existence. For example, all possible existences are composed, and necessary existence in itself is simple.<sup>8</sup> *Ilāhiyyāt* I.8 concludes with a treatment of the axiomatic first principle of demonstration that there is no middle between affirmation and negation. Avicenna introduces this principle in the course of his analysis of the sense of being as truth, and it is followed by an account of the philosopher's duty to defend axioms against sophists and to cure the perplexed.

<sup>6</sup>See Aristotle, *Posterior Analytics*, I.2, 72a15–24; I.10, 76a33–77a4; Avicenna, *Healing. Logic. Book of Demonstration*, I.1 (53); I.6 (77); II.6 (155–56); Avicenna, *Salvation. Logic*, I.12.i (Dānishpazhūh, 126/Ahmed, 95–96); 128.i–129.i (Dānishpazhūh, 137–39/Ahmed, 105–106); Avicenna, *Pointers. Logic. Method* 9, Chapter 3, 152–53 (Dunyā, 476–77). See also Heidrun Eichner, "Arabic Tradition of the *Posterior Analytics*," 85; Arnzen Rüdiger, "Notes," 187–97; Dimitri Gutas, *Avicenna and the Aristotelian Tradition*, 213–20 (1st ed., 187–94); Bertolacci, *Reception*, Appendix E, 607–12; Strobino, "Indemonstrability"; and Strobino, "Principles of Scientific Knowledge."

<sup>7</sup>See *Ilāhiyyāt*, I.5.1–2 (Anawātī, 29/*Scientia divina*, 31–32:2–19). For studies on Avicenna's doctrine of primary notions, see Marmura, "Primary Concepts," 219–39; Robert Wisnovsky, "Thingness"; Wisnovsky, *Avicenna's Metaphysics in Context*; Thérèse-Anne Druart, "Shay' or Res"; Olga Lizzini, "Wuḡūd-Mawḡūd"; R. E. Houser, "Real Distinction"; Jan Aertsen, "Res as Transcendental"; Aertsen, "Avicenna and Primary Notions"; Bertolacci, "Necessary"; Bertolacci, "Essence and Existence"; Stephen Menn, "Fārābī in Avicenna's Metaphysics"; Menn, "Avicenna's Metaphysics"; Daniel De Haan, "Being and Thing"; and De Haan, "Analogy of Being in Avicenna."

<sup>8</sup>"[N]othing other than the necessary existence, considered in itself, is stripped of associating with what is in potentiality and [what is within the realm of] possibility. It is the odd, and [every] other a composite, even" (*Ilāhiyyāt*, I.7.14 [Anawātī, 47/*Scientia divina*, 55:53–55]). See Marmura's alternative translations in *Ilāhiyyāt*, 38 and 388n2. Cf. Houser, "Real Distinction"; Houser, "Two Aristotelians"; Houser, "The Language of Being and the Nature of God in the Aristotelian Tradition"; and De Haan, "Where Does Avicenna Demonstrate the Existence of God?"

These correlations between the order and content of Aristotle's *Metaphysics* and Avicenna's *Ilāhiyyāt* can be schematized as follows:

Aristotle, <i>Metaphysics</i> :	Γ 1–8	E 1–4
Subject:	Γ 1 Being qua being	E 1 Being qua being
Primary notions:	Γ 2 Being and one	E 2 Being per se
Primary hypotheses:	Not Applicable	E 2 Being as act and potency
Axioms:	Γ 3–8 Principles of demonstration	E 4 Being as truth

Avicenna, *Healing. Metaphysics (Ilāhiyyāt)*: I.1–8

Subject:	I.1–4	Being qua being
Primary notions:	I.5	Being, thing, one, necessary, and their relation to being per se
Primary hypotheses:	I.6–7	Existence as necessary and possible
Axioms:	I.8	Being as truth and principle of demonstration

Let us draw attention to three significant points with respect to these Avicennian amendments to the Aristotelian framework. First, Avicenna integrates these three scientific principles into his own novel appropriation of the Aristotelian four senses of being. In the *Metaphysics*, Aristotle distinguishes four senses of being as being per accidens, being per se (which is distributed across all the categories), being as act and potency, and being as the truth of propositions.<sup>9</sup> In *Ilāhiyyāt* I.5–8, Avicenna incorporates three of Aristotle's meanings of being into the threefold division of scientific first principles as primary notions, primary hypotheses, and axioms. He accomplishes this original synthesis by illuminating deeper principles for uniting Aristotle's division of being into numerous senses.<sup>10</sup> For Avicenna, not only do being and one permeate all the categories, but so also do the primary notions 'thing' and 'necessary.' In short, Avicenna's first innovation is the addition of these two primary notions to Aristotle's sense of being that is related to the categories found in Γ 2 and E 2.

The second innovation concerns the Aristotelian sense of being as act and potency. Avicenna contends that a theoretical investigation of act and potency reveals the more fundamental division between necessity and possibility. He writes that, following the analysis of being and thing, we must turn to "the state of necessity [*wujūb*], that is, necessary existence [*wujūd al-darūri*] and its conditions, and the state of possibility [*imkān*] and its true-nature [*ḥaqīqa*]"—and this is in itself the theoretical examination [*nazar*] of potency and act."<sup>11</sup> This theoretical investigation of act and potency reveals a deeper modal order where we find the distinction between necessity and possibility. I noted already that Avicenna's analysis of the

<sup>9</sup>See Aristotle, *Metaphysics*, Δ.7, 1017a8–b9; Δ.29, 1024b18–1025a13; E.2, 1026a34–1026b3; Z.1, 1028A10–13; Θ.1, 1045b28–35; Θ.10, 1051a35–b2; K.8, 1065a 21–25; K.9, 1065b5–15; and N.2, 1089a1–31. Cf. Joseph Owens, *The Doctrine of Being in the Aristotelian Metaphysics*, 307–11, and 415–17.

<sup>10</sup>This is most clearly seen in *Ilāhiyyāt*, I.4.1 (Anawati, 25 / *Scientia divina*, 27–28:16–22) where Avicenna enumerates the topics to be addressed in his metaphysical science. The first four items to be treated are (1) the relation of being and thing to the categories, along with nonexistence ('*adam*'), (2) necessity and possibility, which he correlates with act and potency, (3) then the division between accidental and essential being, (4) followed by truth and falsity. This fourfold division clearly parallels Aristotle's four senses of being introduced in *Metaphysics* Δ.7 and elsewhere. See Bertolacci, "Structure of Metaphysical Science," 25177. Bertolacci does not mention this parallel in *Reception*, 162–72 and 364.

<sup>11</sup>*Ilāhiyyāt*, I.4.1, my translation (Anawati, 25 / *Scientia divina*, 27–8:16–22).

properties of these modal notions in *Ilāhiyyāt* I.6–7 provides him with the primary assents proper to metaphysics, such as that every possible existence is composite, and that necessary existence in itself is simple. Avicenna takes the division of existence into necessity and possibility to be more fundamental than Aristotle's division of being into act and potency.

Aristotle mentions the sense of being as act and potency in E 2, but it is not extensively treated in *Metaphysics* E or Γ. If Avicenna were to follow the structure of these two books of Aristotle's *Metaphysics*, then it seems he should postpone his treatment of necessity and possibility until after he has considered the principles of demonstration and the truth of propositions. But this is not what he does. Rather, he inserts his account of these primary metaphysical assents in *Ilāhiyyāt* I.6–7 between what would be Aristotle's treatment of the metaphysical notions being and one in Γ 2, and the first principles of demonstration in Γ 3–8. This amendment makes Avicenna's presentation of the first principles of metaphysics more complete than Aristotle's presentation in *Metaphysics* Γ, insofar as Aristotle does not inform us what the hypotheses proper to metaphysics are. This omission is curious, for, as we have seen, according to Aristotle's own division of scientific principles in *Posterior Analytics* I.10, metaphysics, like any science, requires hypotheses just as it requires primary notions, namely, being and one, and as the most common science, metaphysics must address the axiomatic first principles of demonstration. The inclusion of metaphysical hypotheses and their integration within Avicenna's doctrinal shift from being as act and potency to the more fundamental modal division of existence into necessity and possibility in *Ilāhiyyāt* I.6–7 constitutes the most radical modification Avicenna makes to Aristotle's account of the subject and principles of first philosophy in *Metaphysics* Γ and E.

A third innovation is found in *Ilāhiyyāt* I.8, where Avicenna attempts to synthesize Aristotle's defense of the first principles of demonstration from *Metaphysics* Γ 3–8 with the sense of being as the truth of propositions from E 4, and, as we will see later on, the metaphysical account of truth from *Metaphysics* α 1. Avicenna begins *Ilāhiyyāt* I.8 with an ambitious division of the hierarchy of truth within and between metaphysical truth and epistemological truth. Avicenna's treatment of epistemological truth integrates Aristotle's account of propositional truth with the defense of axioms, though Avicenna only addresses the axiom that there is no middle between affirmation and negation. We will return to the intricate details of Avicenna's division of truth after surveying the doctrines of two of his philosophical predecessors: Aristotle and al-Kindī.

## 2. TRUTH IN TWO OF AVICENNA'S PREDECESSORS

Avicenna's reception of Aristotle's *Metaphysics* is a complex story in its own right.<sup>12</sup> For our purposes, it will be sufficient to highlight a few significant doctrines from Aristotle's *Metaphysics* that informed Avicenna's doctrine of truth in the *Ilāhiyyāt*. Any attempt to reconcile Aristotle's various claims into a coherent doctrine falls outside the scope of this essay.<sup>13</sup> I aim to clarify how Avicenna read and drew upon

<sup>12</sup>See, Bertolacci, *Reception*.

<sup>13</sup>For recent studies on truth in Aristotle, see Paolo Crivelli, *Aristotle on Truth*; and Blake Hestir "Aristotle's Conception of Truth."

these diverse doctrines from Aristotle's *Metaphysics* to develop his own unified doctrine of truth.

Aristotle's *Metaphysics* A sets the itinerary of first philosophy as an aitiological inquiry of first causes and principles. This follows the manner of investigation found in his predecessor's philosophizing about being and truth,<sup>14</sup> where the study of first principles and the study of truth are two ways of setting up the subject of one and the same science.<sup>15</sup> *Metaphysics* α rehearses a number of theses found in Aristotle's other works,<sup>16</sup> but it also expands them by exploring the relationship between being and truth that is merely suggested in *Metaphysics* A.<sup>17</sup> Aristotle's treatment of truth in *Metaphysics* α 1 commences with an exuberant précis of the collaborative efforts of mankind to fulfill the natural desire to know. The difficulty with knowing the truth about ultimate causes is that humans are like cave dwellers whose intellects are natively oriented toward the more known with respect to us. The ultimate causes that are more known in themselves remain too luminous to be grasped adequately without the proper training—a formation provided by philosophy.

Aristotle contends that the scientific knowledge of truth pursued by philosophy is attained through a knowledge of causes, and it is in this respect that first philosophy is especially called the science of the truth, for first philosophy is the science and wisdom of first and ultimate causes. He also reminds his readers of a distinction made in the *Posterior Analytics* between inferior truths and the superior truths on which they depend; superior truths are truer than the effects they cause.<sup>18</sup> Consequently, "the principles of eternal things are of necessity always the most true; for they are true not merely sometimes."<sup>19</sup> Eternal beings are not caused, but they are the cause of being and truth for mutable beings. Aristotle concludes α 1 with a potent analogy: each thing is related to its being as it is related to its truth.

The vision of reality Aristotle presents in α 1 consists in a hierarchy of real or metaphysical truths distinguished according to degrees of causal dependency. This gradation of truths corresponds to a gradation of beings that spans from perishable beings and truths to eternal unchanging beings and necessary truths. This gradation of necessary beings is briefly expanded in *Metaphysics* Δ, following the fifth sense of necessary; that is, the kind of necessity found in scientific demonstrations where the premises are more necessary than the conclusions they cause.

<sup>14</sup>See Aristotle, *Metaphysics* A.3, 983b1–2.

<sup>15</sup>See Aristotle, *Metaphysics* A.7, 988a19–20.

<sup>16</sup>Cf. Aristotle, *Categories*, 4, 2a5–10; 12, 14b14–22; *On Interpretation*, 1, 16a10–17; 2, 16b1–5; 4, 16b27–17a8; *Posterior Analytics*, I.2, 71b10–72b3; *On the Soul*, I.1, 402a1–6; III.6, 430a28–b32; and *Nicomachean Ethics*, VI.2, 1139a20–b12.

<sup>17</sup>For detailed studies of Aristotle, *Metaphysics* α, see Lloyd Gerson, *Aristotle and Other Platonists*, 180–88; Gerson, "Metaphysics ii"; Owens, "Alpha Elatton," 158–61. For studies on interpretations of *Metaphysics* α by Yahyā Ibn 'Adī, Averroes and other medieval authors writing in Arabic, see Peter Adamson, "Ibn 'Adī and Averroes"; Cecilia Bonadeo, "Un commento ad *Alpha Elatton*"; and Bonadeo, "La tradizione araba."

<sup>18</sup>See Aristotle, *Posterior Analytics*, II.2, 71b10–72b3; *Metaphysics*, Θ.10, 1051b1–1052a12; and *Nicomachean Ethics*, VI.3, 1139b19–35.

<sup>19</sup>Aristotle, *Metaphysics*, α.1, 993b25–33.



Accordingly, of some things which are necessary, the cause is something distinct from them; but of other things there is no cause distinct from them, but because of them other things are necessary. Hence, the necessary in the primary and the main sense is the simple; for this cannot be in many ways so as to be now in one way and now in another, for if the latter were the case it would have been in many ways. If, then, there are things which are eternal and immovable, there is nothing compulsory for them and nothing against their nature.<sup>20</sup>

Aristotle does not integrate truth into the above account of necessity as he does in *Metaphysics* α 1. As we will see, Avicenna endeavored to unite Aristotle's various ontological, aitiological, and quasi-theological points about being, truth, and necessary.<sup>21</sup>

In contrast to the metaphysical doctrine of truth presented in *Metaphysics* α, the rest of the *Metaphysics*, with the possible exception of Θ 10, appears to focus more on epistemological issues. In *Metaphysics* Γ 3–8, Aristotle provides an extensive treatment of the undeniable truths that constitute the principles of demonstration, such as contradiction and that between to be and not to be there is no middle. And in *Metaphysics* Γ 7, Aristotle presents his famous definition of truth and falsity.<sup>22</sup> Despite the length of Aristotle's excursus on truth in *Metaphysics* Γ 3–8, he does not attempt to integrate the metaphysical sense of truth with the epistemological sense of truth connected to the axiomatic principles of demonstration that govern all propositions.<sup>23</sup>

In *Metaphysics* Δ 7 and E 2, Aristotle introduces the aforementioned four senses of being. The first meaning of being as the accidental is investigated in E 2–3, where Aristotle shows that it is irrelevant to the necessary knowledge of being proper to the science of first philosophy. Aristotle treats the second and third meanings of being per se and being as act and potency in Z, H, and Θ. The fourth meaning of being as the truth of propositions is reiterated throughout the *Metaphysics*.<sup>24</sup> In E 4, Aristotle informs us that because being as truth is restricted to being in the intellect, it is only a derivative sense of being that cannot properly fall within the scientific scope of first philosophy.<sup>25</sup> No effort is made to reconcile this epistemological account of being as the truth of propositions with the more overtly metaphysical account found in *Metaphysics* α. Even in his final excursus on actual being and truth in Θ 10—which attempts to elucidate how true knowledge of composite entities differs

<sup>20</sup>Aristotle, *Metaphysics*, Δ.5, 1015b10–15. Wisnovsky devotes an entire chapter to the Arabic translation of Δ.5 and other Aristotelian sources for Avicenna's notion of the necessary in *Avicenna's Metaphysics in Context*, ch. 11, 197–217.

<sup>21</sup>Wisnovsky, *Avicenna's Metaphysics in Context*, 197–263; and McGinnis, *Avicenna*, 159–68, and 183–208.

<sup>22</sup>Aristotle, *Metaphysics*, Γ.7, 1011b26–27.

<sup>23</sup>In *Metaphysics*, Γ.4, 1008b32–9a5, Aristotle presents an argument for a maximal truth on the basis of degrees of truth, but Aristotle himself is unsure of the success of this argument for a maximal truth. Furthermore, the argument for maximal truth is too short and unclear to provide anything like an explicit treatment of how epistemological and metaphysical truths are connected.

<sup>24</sup>See Aristotle, *Metaphysics*, Δ.7, 1017a31–35; E.4, 1027b25–33; Θ.10, 1051b1–17; and K.8, 1065a22–25. For a discussion of the sense of being as truth, see Owens, *The Doctrine of Being in the Aristotelian Metaphysics*, 258–59; Menn, *The Aims and Arguments of Aristotle's Metaphysics*, 1γ1c, 53–60; and Menn, "Aristotle on the Many Senses of Being."

<sup>25</sup>See Kurt Pritzl, "Aristotle's Door"; Menn, *The Aim and the Argument of Aristotle's Metaphysics*, 1γ1c, 34–64; and Menn, "Aristotle on the Many Senses of Being."

from the unique kind of true knowledge of simple, unchanging, actual beings without potency—Aristotle neither ascribes any sort of metaphysical truth to these incomposite beings in act, nor attempts to clarify what the precise causal nexus is between real beings (composite and incomposite) and true knowledge of real beings.<sup>26</sup> In the end, the connections among Aristotle's various accounts of truth in the *Metaphysics* are ambiguous, and it remains unclear if any systematic account of truth can be offered that brings together the epistemological, ontological, aitiological, and theological strands of his metaphysics.

Between Aristotle and Avicenna lie numerous Aristotelian and Neoplatonic commentaries on and paraphrases of Aristotle's *Metaphysics*, as well as important meditations on truth and being among the theologians of *kalām*. We do not have the space to summarize the developments of these traditions. Nonetheless, we should not overlook the significance of the account of truth given by al-Kindī (c. 800–870 AD), in his *On First Philosophy*. Al-Kindī begins his treatise with a division of pursuits that share a common end, namely, truth.

[T]he human art which is highest in degree and most noble in rank is the art of philosophy, the definition of which is knowledge of the true nature of things, insofar as is possible for man. The aim of the philosopher is, as regards his knowledge, / to attain the truth, and as regards his action, to act truthfully; not that the activity is endless, for we abstain and the activity ceases, once we have reached the truth. We do not find the truth we are seeking without finding a cause; the cause of the existence and continuance of everything is the True One, in that each thing which has being has truth. The True One exists necessarily, and therefore beings exist.<sup>27</sup>

This passage owes much to *Metaphysics* α 1. Indeed, the whole orientation of al-Kindī's account of first philosophy seems to take *Metaphysics* α as its point of departure. This is not surprising, since α was regarded as the first book of Aristotle's *Metaphysics* in the early Arabic translations. Read in this way, Aristotle's *Metaphysics* would open with the statement that first philosophy is a science of truth, rather than with an introduction to the differences among experience, art, knowledge, wisdom, and the significance of having a science of the four causes.<sup>28</sup> Given this alternative introduction to Aristotelian first philosophy, it was reasonable for al-Kindī to cast Aristotle's science of truth in an unmistakably theological mold. Furthermore, if we consider the influence of the theological interpretations of the Aristotelian commentators on the subject of first philosophy, combined with the henology of Neoplatonism and the monotheism of Islam, al-Kindī had every reason to give first philosophy a decidedly theological characterization.

The noblest part of philosophy and the highest in rank is the First Philosophy, i.e. knowledge of the First Truth Who is the cause of all truth. Therefore it is necessary

<sup>26</sup>To be clear, *Metaphysics* E.4 and Θ.10 do contend that true knowledge depends on and requires conforming the intellect to the way reality is, but such contentions do not clarify if this form of dependency of true knowledge on reality also involves any form of metaphysical truth. For a discussion of these conflicts and their bearing on correspondence theories of truth, see Crivelli, *Aristotle on Truth*, 49–71; Hestir "Aristotle's Conception of Truth"; and Owens, *The Doctrine of Being in the Aristotelian Metaphysics*, ch. 15, 411–14.

<sup>27</sup>Al-Kindī, *On First Philosophy*, 55. See also, Al-Kindī, *The Philosophical Works of al-Kindī*, 10.

<sup>28</sup>For a recent assessment of Avicenna's access to Arabic translations of Aristotle's *Metaphysics* A, see Bertolacci, "On the Arabic Translations of Aristotle's *Metaphysics*," 257–69.

that the perfect and most noble philosopher will be the man who fully understands this most noble knowledge; for the knowledge of the cause is more noble than knowledge of the effect, since we have complete knowledge of every knowable only when we have obtained full knowledge of its cause.<sup>29</sup>

In a few brief statements al-Kindī has given definitive answers to many of the questions that Aristotle's doctrine of being and truth left unresolved. First philosophy is the highest philosophical science because it consists in theological knowledge of the Divine First Truth. The subject of first philosophy is therefore the Divine First Cause. First philosophy is then also a science of truth because it is a theological science of the divine being who is the First Truth. This theological account of truth is further identified with the aitiological character of metaphysics. Each thing has truth inasmuch as it has being, and since God is both the First Cause of all beings and the First Truth, he is also the cause of all truth. Finally, corresponding to this hierarchy of metaphysical senses of truth are the grades of epistemological truth, the highest being the first philosopher's knowledge of the Divine First Truth. In short, truth has epistemological, ontological, aitiological, and theological features within al-Kindī's metaphysics, and among these diverse senses of truth, the ultimate and primary sense is theological, for without the Divine First Truth there would be no truth.

### 3. AVICENNA'S DIVISION OF TRUTH

Avicenna addresses the nature of truth in *Ilāhiyyāt* I.8 following his account of the subject of metaphysics (*Ilāhiyyāt* I.1–4) and the presentation of the first principles of conceptualization and assent proper to metaphysics (*Ilāhiyyāt* I.5–7). Contrary to al-Kindī, Avicenna follows al-Fārābī and contends that being qua being is the subject of first philosophy, whereas the first causes and God are its ultimate objects of inquiry.<sup>30</sup> We have already examined Avicenna's novel integration of Aristotle's senses of being and the general structure of *Metaphysics* Γ and E into his presentation of primary notions, assents, and axioms in *Ilāhiyyāt* I.5–8. In this section, we shall see that *Ilāhiyyāt* I.8 not only contains Avicenna's defense of the

<sup>29</sup>Al-Kindī, *On First Philosophy*, 56. Alfred Ivry's translation provides an extensive commentary on the text of al-Kindī, as well as a comparison of al-Kindī's work with Aristotle's *Metaphysics* in both Greek and Arabic editions. See Ivry, "Commentary," 115–33. Commenting on al-Kindī's appropriation of certain lines from *Metaphysics* α in 97.12, Ivry notes that al-Kindī "needed little prompting for his view of creation as dependent ultimately on one source, which is the major theme of the treatise, though it was convenient for him to 'find' the doctrine in his Aristotelian model. Similarly, al-Kindī was quite familiar with the term *al-haqq*, the 'True One'/'The truth,' used as an epithet for and description of God in the *Qur'ān* (cf. e.g. Suras 20:114 and 18:44) and in philosophical sources" (Ivry, "Commentary," 120). See also Adamson, "Al-Kindī and the Reception of Greek Philosophy," 34–39; and Adamson, *Al-Kindī*. For more on the intellectual history of truth in Avicenna's predecessors, see Cristina D'Ancona, "Platonic and Neoplatonic Terminology for Being in Arabic Translation," 27–42.

<sup>30</sup>For a detailed comparison of al-Kindī, al-Fārābī, Avicenna, and others on the subject of metaphysics, see Bertolacci, *Reception*, 37–103. The recent studies of Menn reveal the complexity and sophistication of al-Fārābī's own approach to Aristotle's four senses of being and al-Fārābī's novel understanding of being as the truth of propositions. The similarities and dissimilarities between al-Fārābī and Avicenna on these fine-grained points concerning their metaphysical, epistemological, and logical accounts of truth merit studies of their own. See Menn, "Fārābī's *Kitāb al-Hurūf*"; Menn, "Avicenna's Metaphysics"; and Menn, "Fārābī in Avicenna's Metaphysics."

axiomatic first principle of demonstration, but also reveals the way he sought to integrate Aristotle's diverse accounts of truth.

Most of *Ilāhiyyāt* I.8 is dedicated to following Aristotle's directives in book Γ of the *Metaphysics*: it belongs to first philosophy, the science of universal causes and principles, to treat the axioms that are universal to all sciences.<sup>31</sup> Significantly, Avicenna's defense of the first axiomatic truth is prefaced by his systematic division of truth, which consists in his synthesis of *Metaphysics* α's hierarchy of metaphysical truths with the sense of being as the truth of propositions from Δ 7 and E 4. *Ilāhiyyāt* I.8 begins:

As regards truth, one understands by it existence in external things absolutely, and one understands by it permanent existence, and one understands by it the state of the statement or of the belief indicating the state of the external thing, whether it [i.e. the statement or belief] conforms with it [i.e. the external thing], such that we would say, "This is a true [*ḥaqq*] statement" and "This is a true [*ḥaqq*] belief."<sup>32</sup>

"Truth" (*ḥaqq*) is said in three ways; truth can mean existence in external things, permanent existence, and that a statement or belief conforms to reality. Note well that Avicenna starts with the metaphysical and shifts to the epistemological sense of truth, and that the first two metaphysical senses of truth closely resemble Aristotle's distinction between caused inferior truths and uncaused superior truths from *Metaphysics* α 1. For the third sense of truth proper to propositions and beliefs, Avicenna draws upon passages like *Metaphysics* Δ 7, E 4, and Θ 10.

Unlike Aristotle, Avicenna introduces these three analogically similar senses of truth together. Like Aristotle and al-Kindī, he distinguishes different degrees of truth within the first two senses of truth, and such truths are conceived as corresponding to the analogical modes of being found in reality.<sup>33</sup> All three philosophers maintain that inferior truths are causally dependent on superior truths. In Avicenna, however, the distinction between inferior and superior truths is worked out in light of the metaphysical division between necessary and possible existence that he just expounded in *Ilāhiyyāt* I.6–7. According to Avicenna, both corruptible beings with matter and some permanent immaterial beings are possible existences in themselves, because both kinds of possible existences receive the necessity of their existence from another; however, the necessary existence in itself is uncaused. Avicenna applies this distinction between necessary existence and possible existence from *Ilāhiyyāt* I.6–7 to the division of metaphysical truths in *Ilāhiyyāt* I.8.

The necessary existence would be thus the permanently true in itself, while the possible existence would be true through another and false in itself. Hence, all things other than one necessary existence are, in themselves, false.<sup>34</sup>

<sup>31</sup>See Aristotle, *Metaphysics* Γ.3, 1005a19–b18; Avicenna, *Ilāhiyyāt*, I.8.2 (Anawati, 49/*Scientia divina*, 56:80–2); and I.8.13–16 (Anawati, 53–54/*Scientia divina*, 63–64:90–117). For an analysis of Avicenna's quotations from *Metaphysics* α, B, Γ, E within the treatment of axioms in *Ilāhiyyāt*, I.8, see Bertolacci, *Reception*, 360, and 390–93.

<sup>32</sup>*Ilāhiyyāt*, I.8.1, translation modified (Anawati, 48/*Scientia divina*, 55:58–61). Bertolacci correlates the third sense of truth, that is, truth as related to statements and beliefs, with Aristotle, *Metaphysics* E.4, 1027b18–28.

<sup>33</sup>For Avicenna, truth, like being, can be predicated analogically. See De Haan, "Analogy of Being in Avicenna."

<sup>34</sup>*Ilāhiyyāt*, I.8.1, translation modified (Anawati, 48/*Scientia divina*, 55:61–64).

Avicenna's metaphysical division between necessary existence and possible existence places in relief the radical metaphysical dependency of inferior truths on superior truths. With the exception of the necessary existence in itself, which alone is truth in itself, all possible existences are only necessary existence through another, and so true through another. Similarly, just as possible existences considered in themselves are nonexistence without their causes, so also such existentially neutral possible existences, when considered in themselves, are false. On the basis of such incisive metaphysical distinctions, Avicenna is able to draw one additional conclusion: every entity other than the one necessary existence in itself is false in itself.

In short, on the basis of the properties of necessary and possible existence established in *Ilāhiyyāt* I.6–7, Avicenna needs only a few additional qualifications in I.8 to establish that truth is impossible apart from necessary existence. Said otherwise, in Avicenna's metaphysics the conditions of truth are inextricably tied up with the conditions of existence, and any being that receives the necessity of its existence from another must also receive its truth from another. Without necessary existence, there is no truth, only falsity. Given necessary existence in itself, possible existences can be necessary existences through another and so also can be necessary truths through another. In rooting the truth of all things in necessary existence, Avicenna thereby grounds a metaphysics that can meet the epistemic standards required for an Aristotelian science. Scientific knowledge is causal knowledge of necessary truths, and within Avicenna's metaphysics of truth, the epistemologically necessary truths of science simply conform to the metaphysically necessary truth of things, which are themselves causally dependent upon the divine First Truth that is necessary existence in itself. I return to this last point in my treatment of Avicenna's aitiological consideration of truth and his theological identification of the First Truth with God.

After clarifying the two senses of truth that are found in reality, Avicenna returns to the sense of truth that is a conformity of intellect and being.

As for the *true* [*ḥaqq*] by way of conformity it is similar to the *veridical* [*ṣādiq*], except that [as I distinguish them], [a statement or belief] is *veridical* when its relation to something is considered, and [a statement or belief] is *true* when the relation of something to it is considered.<sup>35</sup>

Avicenna distinguishes between 'true' (*ḥaqq*) and 'veridical' (*ṣādiq*) statements and beliefs. If a 'statement' (*qawl*) or 'belief' (*i'tiqād*) of an 'assent' (*taṣdīq*) is considered inasmuch as it is related to reality, this statement-to-reality isomorphism is called 'veridical.' Insofar as we consider reality as related to the statement or belief about reality, this reality-to-statement conformity is called 'true.'<sup>36</sup> The 'true' is primarily

<sup>35</sup> *Ilāhiyyāt*, I.8.1, translation modified and emphasis added (Anawati, 48). The Latin translation is worth quoting: "Veritas autem quae adaequatur rei, illa est certa, sed est certa, ut puto, respectu suae comparationis ad rem, et est veritas respectu comparationis rei ad ipsam" (*Scientia divina*, I.8, 54–55:64–67).

<sup>36</sup> *Healing. Logic. Isagoge*, I.3 (17); and *Ilāhiyyāt*, I.8.1–2 (Anawati, 48). Avicenna also employs the terms 'verification' (*taṣḥīḥ*) and 'verified' or 'correct' (*ṣaḥḥa*) in ways that are similar to the sense of truth as veridical. See *Ilāhiyyāt*, I.1.9 (Anawati, 5); I.5.11 (Anawati, 31); I.6.2 (Anawati, 37); III.9.14–16 (Anawati, 149–50); III.9.20–21 (Anawati, 151); and VI.3.30 (Anawati, 278). Taking note of al-Fārābī's use of the term *taṣḥīḥ* as "the verification or validation of truth and the prevention of error," Black

identified with the way reality grounds beliefs, whereas the 'veridical' refers to the way statements and beliefs depend upon reality as a truthmaker. This is why, for Avicenna, the primary sense of truth is not epistemological, but metaphysical, since the locus of truth is first found in things. It is the truth of things that is the foundation for veridical cognition. But what is this sense of truth in external reality? We have seen that all truth is existentially dependent upon the necessity of its existence, either in itself or through another, but this only gives us the ultimate existential ground of all truths in the one necessary existence in itself, not the quidditative determination of truth found in reality. In other words, we have seen that the truth of possibles *as existing* ultimately depends on the truth of necessary existence in itself, but what is the quidditative ground of truth in possible existences?

To understand Avicenna's answer to this question, we must return to the primary notion *thing* from *Ilāhiyyāt* I.5. Thing is one of the primary analogical notions impressed in the soul along with being and necessary. These notions are coextensive with each other, but they do not have the same meaning; they each refer to one and the same whole or entity, but by their distinct significations they each point to a distinct aspect, characteristic, or intrinsic principle of that entity. Whereas 'being' (*mawjūd*) directs our attention to the entity as having an established existence or realized subsistence, and 'necessary' (*wājib*) indicates the invariance of an entity's existence, 'thing' (*šay'*) signifies that which has a "thingness" (*šay'īyya*),<sup>37</sup> which Avicenna also calls a thing's 'quiddity' or 'whatness' (*māhiyya*), and its 'essence' (*dāt*). A thing's whatness is a possible existence in itself and is existentially neutral in itself.<sup>38</sup> The whatness or essence of every thing is a really distinct metaphysical principle from the established existence and invariant existence designated by being and necessary, respectively. Nonetheless, there is no caused established existence in isolation from the quiddity of some thing. Every *thing* is without exception a *being* and *necessary*, for every *thing's* quiddity is invariantly established in its existence. In brief, each of these three primary notions are extensionally the same, but intensionally different.<sup>39</sup>

In addition to signifying that which has whatness or thingness, the primary notion thing also signifies that which is had by every thing qua thing, namely, its 'truthness' or 'true-nature' (*ḥaqīqa, certitudo*), which is that "by virtue of which it

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notes, "The basic meaning of *tashīh* is 'to make sound/healthy.' It can be applied both to the process of confirming and validating true beliefs, and to the correction and rectification of beliefs that are found to be unsound" (Black, *Logic in Medieval Arabic Philosophy*, 58n21). See also Black, "Fārābī's Epistemology"; and Gutas, *Avicenna and the Aristotelian Tradition*, 213–20 (1st ed. 187–94).

<sup>37</sup>See *Ilāhiyyāt*, I.5.10 (Anawati, 31 / *Scientia divina*, 35:62–65); I.5.17 (Anawati, 33 / *Scientia divina*, 38:21); and VI.5.7–30 (Anawati, 292–93 / *Scientia divina*, 336–38:84–118). In *Ilāhiyyāt*, I.5 and elsewhere, the term 'thingness' (*šay'īyya*) was translated into Latin as *similitudinem*, but the Latin translation of *Ilāhiyyāt*, VI.5 systematically mistranslates 'thingness' (*šay'īyya*) as *causalitatem*. For a detailed study of this mistranslation, see Wisnovsky, "Thingness."

<sup>38</sup>See *Ilāhiyyāt*, I.6.4–6 (Anawati, 38–39 / *Scientia divina*, 4–6:38–71); *Ilāhiyyāt*, I.7.14 (Anawati, 47 / *Scientia divina*, 54–55:44–55); *Ilāhiyyāt*, V.1.4 (Anawati, 196 / *Scientia divina*, 228–29:24–42); and *Ilāhiyyāt*, V.2.2 (Anawati, 207 / *Scientia divina*, 239:68–71).

<sup>39</sup>See Bertolacci, "Essence and Existence"; Menn, "Avicenna's Metaphysics"; and De Haan, "Being and Thing."

is what it is.”<sup>40</sup> Avicenna notes that a triangle has a true-nature insofar as it is a triangle, and whiteness has a true-nature inasmuch as it is whiteness. This truth determination or principle of metaphysical truth is proper to all things and is extensionally the same as its “whatness” or “quiddity” (*māhiyya*, *quidditas*).<sup>41</sup> Just as every thing has a “whatness” (*māhiyya*) which answers to “what” (*mā*) it is; this same intrinsic principle is also called its ‘true-nature’ (*ḥaqīqa*) which answers to the “truth” (*ḥaqq*) of the thing. The whatness and truthness of a thing are not two distinct metaphysical principles; they are the same metaphysical principle of the whole thing considered in two different respects. Truthness, like whatness, is thereby identified with that existentially neutral principle in all things that is isomorphic across all of its modes of existence, whether in concrete reality or intentionally in the mind.<sup>42</sup> The “true-nature” (*ḥaqīqa*) of a “thing” (*šay*) is the metaphysical truthmaker that grounds “true” (*ḥaqq*) statements and beliefs. Hence, it is not the *existence* that is efficiently caused by another, but the *true-nature* of a being that unveils the truth of things to all knowers. But the true-nature of a thing is not merely a truthmaker, it is also the truthmeasure of our knowledge of reality. Contrary to Protagoras’s dictum that man is the measure of all things, Avicenna holds: “It is more fitting . . . that knowledge and sensation should be measured by what is known and sensed, and that the [latter] should be the basis [of knowledge] for [man].”<sup>43</sup> And this basis of knowledge is the true-nature that is part of the very furniture of reality.

One might wonder what this peculiar doctrine of metaphysical whatness and truthness contributes to Avicenna’s metaphysics. In the next section, I briefly consider Avicenna’s utilization of this doctrine of truth in his treatment of the problems of universals and the one and the many. Thus far, I have examined Avicenna’s metaphysical hierarchy of truth, and his epistemological distinction between true and veridical propositions. Avicenna rounds out his division of truth in *Ilāhiyyāt* I.8 by setting forth a hierarchy of epistemological truths.

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<sup>40</sup> *Ilāhiyyāt*, I.5.9 (Anawati, 31/*Scientia divina*, 34–35:55–57). The Arabic term *ḥaqīqa* is difficult to translate into English, especially if one wishes to keep distinct Avicenna’s colloquial uses of the term, such as *fi-ḥaqīqa*, to mean ‘actually’ or ‘in reality’ or ‘in truth’ from his technical philosophical use of the term, which frequently denotes another term for ‘essence.’ Marmura typically translates *ḥaqīqa* as ‘reality,’ ‘nature,’ or ‘true nature.’ These translations capture the ontological sense of Avicenna’s use of the term, but all of them, except ‘true nature,’ fail to capture that *ḥaqīqa* is the abstract form of the concrete noun for ‘the true’ (*al-ḥaqq*). Simply translating the term as ‘true’ or ‘truth’ fails to capture the ontological sense of Avicenna’s use of the term. The term *ḥaqīqa* was translated into Latin as *certitudo*, which also misses the ontological significance of the word. ‘Truthness’ and ‘true-nature’ are awkward and cumbersome, but they at least make clear the signification of truth and suggest its connection to some sort of ontological reality. I will, with some variation, render Avicenna’s philosophical use of the term *ḥaqīqa* as ‘truth,’ ‘truthness,’ and ‘true-nature.’ ‘Truthmaker’ might be an adequate translation, especially since Avicenna’s notion of *ḥaqīqa* takes real or metaphysical truth to ground the truth of propositions in a way that is similar to some accounts of truthmakers in contemporary analytic philosophy. There are, however, a number of different controversial accounts of truthmakers, and to use the term without additional qualifications would either needlessly complicate our interpretation of Avicenna’s notion of *ḥaqīqa* or would anachronistically associate and confine our reading of Avicenna to a contemporary philosophical debate. For a discussion of different views on truthmakers, including a grounding account, see Jonathan Schaffer, “Truthmaker Commitments”; and Hestir “Aristotle’s Conception of Truth.”

<sup>41</sup> *Ilāhiyyāt*, I.5.9–11 (Anawati, 31–32/*Scientia divina*, 34–36:55–83).

<sup>42</sup> See Black, “Mental Existence”; and Black, “Fictional Beings.”

<sup>43</sup> *Ilāhiyyāt*, III.6.17 (Anawati, 132/*Scientia divina*, 148:70–73).

The statements most worthy of being [called] *true* [*ḥaqqan*] are those whose *veridicality* [*ṣidqahu*] is permanent [*dā'imān*], and the *most true* among these are those whose *veridicality* [*ṣidqahu*] is primary, and not due to a cause. And the most primary of all *veridical* statements [*al-'aḡāwīl al-ṣādiqa*], to which everything in analysis reduces (so that it is predicated either potentially or actually of all things demonstrated or made evident through it), is—as we have shown in the *Book of Demonstrations*—[as follows]: “There is no intermediary between affirmation and negation.” This property [*ḥāṣṣa*] is not an accident to one [particular] thing but is one of the accidents [*'awāriḍ*] to being inasmuch as it is being, because of its pervasiveness in all being.<sup>44</sup>

Among epistemological truths, permanent truths rank higher in the hierarchy of true or veridical statements, and among permanent epistemological truths, the most superior are the primary and uncaused truths. Finally, among permanent uncaused truths, the most fundamental and universal is the axiomatic principle of demonstration: “there is no intermediary between affirmation and negation.” This principle of demonstration is universally applicable to all beings inasmuch as they are beings, and since nothing is not, this axiom admits of no exceptions. Immediately following this presentation of the principle of demonstration within the hierarchy of epistemological truths, Avicenna turns to the practical side of truth and the defense of the axioms of being and understanding. I return to his defense of axioms in section 7.

Avicenna's theoretical division of truth consists in a novel integration of distinct and seemingly unrelated ideas about truth taken from Aristotle's *Metaphysics* that goes well beyond the synthesis suggested by al-Kindi's remarks from *On First Philosophy*. Unlike Aristotle, Avicenna places his account of the axiomatic principle of demonstration within his systematic division of truth. This allows Avicenna to situate Aristotle's sense of being as true more precisely within the epistemological, ontological, aitiological, and theological landscape of truth. Among truths, ontological truth is prior to and provides the truthmaker for epistemological truth; however, because ontological truth depends on aitiological factors, the primary sense of truth is ultimately causally grounded in theological truth. As we will see, Avicenna's concise division of truth in *Ilāhiyyāt* I.8 provides an agenda for the way truth will figure into his metaphysical ventures into ontology, aitiology, and theology. Let us examine the way his ontological account of truth aids his approach to the problem of universals.

#### 4. ONTOLOGICAL TRUTH AND THE PROBLEM OF UNIVERSALS

Avicenna's doctrine of the primary notion thing as that which has whatness or truthness is inextricably bound up with his doctrine of being and existential necessity. This peculiar metaphysical doctrine of the truth-nature of a thing provides him with a striking answer to the vexing epistemological and metaphysical problems encountered in the problems of universals and the one and the many.<sup>45</sup>

<sup>44</sup>*Ilāhiyyāt*, I.8.2, translation modified and emphasis added (Anawati, 48/*Scientia divina*, 56:67–76).

<sup>45</sup>See Marmura, “Avicenna on Universals”; Marmura, “Quiddity and Universality in Avicenna”; Owens, “Common Nature”; Black, “Mental Existence: Black, “Fictional Beings”; and Menn, “Avicenna's Metaphysics.”



This is because Avicenna's distinction between being (*maʾwūd*) and thing (*šayʿ*) allows him to redistribute some of the work performed by Aristotelian essences over to his novel doctrine of existence (*wujūd*). For Avicenna, unity, plurality, universality, particularity, priority, and posteriority are no longer conceived of as quidditative features entailed by essences; rather, these are all regarded as concomitants of an essence's mode of existence.<sup>46</sup> This shift to existence grounds Avicenna's contention that any whatness or essence can be attended to in three ways. Considered in itself, a whatness is existentially neutral and so it is quantifiably neutral as well. But a whatness or true-nature can also be considered either as it exists individually in a concrete particular or as it exists intentionally in the mind as a universal or particular. Avicenna's solution to the problem of universals complements his response to the problem of the one and many. For example, the whatness of horseness as considered in itself is only horseness. Horseness in itself is a true-nature that is neither one nor many, neither universal nor particular; rather, these are all concomitants that follow upon the mode of existence that any true-nature acquires inasmuch as it exists intentionally in the soul or in the concrete independent from any soul.<sup>47</sup>

Animal in itself is a meaning, regardless of whether it exists in external reality or is conceived in the soul. In itself it is neither general nor particular. If it were in itself general, so that animality by reason of being animality is general, it would follow necessarily that there would be no individual animal; rather, every animal would be general. If, moreover, animal by virtue of being animal were individual, it would then be impossible for it to be anything but one individual, that individual required by animality, and it would be impossible for any other individual to be an animal.<sup>48</sup>

The true-nature or essence remains isomorphic in every instance despite its diverse modes of existence as universal or particular, one or many.<sup>49</sup> This distinction between true-nature and the conditions of its existence fits nicely within Avicenna's account of truth as the conformity of knowledge with reality, for it is the same truth-nature or essence that is found in the knower and in the reality that is known.<sup>50</sup>

The problems of universals and the one and the many are but a few instances of the way Avicenna's metaphysical account of truthness aids his approach to ontological difficulties.<sup>51</sup> In the remaining sections of this essay, I take up Avicenna's

<sup>46</sup>See *Ilāhiyyāt*, V.1.4 (Anawati, 196/*Scientia divina*, 228–29:24–42).

<sup>47</sup>See *Ilāhiyyāt*, V.1.4 (Anawati, 196/*Scientia divina*, 228–29:24–42).

<sup>48</sup>Avicenna, *Healing. Logic. Isagoge*, I.12 (65–66:10–11), trans. Marmura, "Avicenna on Universals," 47.

<sup>49</sup>"[For] even though [whiteness] is not separable from matter, it exists in its whiteness in matter as something else, considered in itself, having its own truthness, even though it happens that this truthness is conjoined in existence with something else" (*Ilāhiyyāt*, V.1.20 [Anawati, 202/*Scientia divina*, 234:54–57]). "For, in itself and in its truthness, it is without the condition of another thing, even though it may be with a thousand conditions that associate with it externally" (*Ilāhiyyāt*, V.1.26 [Anawati, 204/*Scientia divina*, 236–37:7–8]). See also, Avicenna, *Healing. Logic. Isagoge*, I.2 (15); *Ilāhiyyāt*, I.5.11 (Anawati, 31/*Scientia divina*, 35:66–68); V.1–2; Marmura, "Primary Concepts"; Black, "Mental Existence"; Black, "Fictional Beings"; De Haan, "Being and Thing"; and Druart, "Avicennian Troubles."

<sup>50</sup>My presentation of Avicenna on the problem of universals and the nature of truth has omitted any consideration of his account of the agent intellect as the giver of forms and the disputes about what abstraction means within Avicenna's psychology. For a discussion, see Dag Hasse, "Avicenna on Abstraction"; and Black, "Avicenna on Abstraction and Emanation."

<sup>51</sup>Avicenna also holds that the science of metaphysics verifies the principles of the lower sciences. "You have also heard that there is a philosophy of truth and a first philosophy, and that it provides

aitiological treatment of existence and truth, his theological identification of God as the First Truth, and finally, his development of Aristotle's own cures for healing those afflicted with intellectual skepticism and perplexity about the truth.

### 5. AITIOLOGICAL TRUTH

The relationship between epistemological, ontological, and aitiological truth receives an additional clarification at the conclusion of Avicenna's extended account of the efficient causality of existence in *Ilāhiyyāt* VI.3. Thus far, we have seen that Avicenna distinguishes two metaphysical principles of determination that are intrinsic to every possible being, namely, its existential determination and the determination of its whatness or true-nature. We have also seen that Avicenna integrates Aristotle's and al-Kindī's accounts of the causal hierarchy of truths into his metaphysical division between entities that are possible existences in themselves and the necessary existence in itself. In *Ilāhiyyāt* VI.3, Avicenna elaborates in more detail the aitiological connection between existence and truthness in causes and effects.

The chapter commences with Avicenna's objection to the common belief that "the agent that enacts an existence like itself is worthier and stronger than another in [terms of] the nature it bestows." Avicenna maintains that this is neither evident nor true in all cases. In fact, it seems to be found only in those cases of causality where what an agent "bestows is existence itself and truthness. For then the giver is more worthy of what it bestows than the recipient of what is bestowed."<sup>52</sup> Most of *Ilāhiyyāt* VI.3 is dedicated to presenting illustrations and arguments to clarify the exceptions to this principle of causality. What is of interest to us comes at the end of the chapter where Avicenna elucidates the cases where an agent bestows "existence" (*wujūd*) and "truthness" (*ḥaqīqa*).

Avicenna advances a number of important qualifications concerning existential causality. First, when it comes to the causality of existence, the effect is not equal to the cause with respect to its existence. Second, unlike many other kinds of causality, efficient causes of existence do not vary in degrees of strength and weakness. "It only varies in terms of a number of [modes]—namely, priority and posteriority, absence of need and need, and necessity and possibility."<sup>53</sup> Avicenna argues that necessity, priority, and absence of need all belong to the cause of existence considered as cause, whereas the effect is in itself possible, is posterior to, and is in need of the cause of its existence. For these reasons, Avicenna contends:

[T]he cause is more worthy of existence than the effect. The cause is thus more true than the effect. And because [it is the case that,] when absolute existence has rendered the existence of something, [the latter] becomes true [*ḥaqqiyyan*], it is clear that the principle that bestows the truth [*li-lḥaqqiyyati*] in which things participate has the greater claim to truth [*bi-lḥaqqiyya*]. Hence, if it is verified [*ṣahḥa*] that there is here a first principle—namely, the one that gives the truth [*al-ḥaqqiyyata*] to others—it

the verification (*taṣḥīḥ*) of the 'principles' (*mabādī*) of the other sciences" (*Ilāhiyyāt*, I.1.5, trans. from Bertolacci, *Reception*, 267 [Anawati, 5/*Scientia divina*, 3:44–46]). For an extended discussion, see Bertolacci, *Reception*, ch. 7, 265–302.

<sup>52</sup>*Ilāhiyyāt*, VI.3.1 (Anawati, 268/*Scientia divina*, 307:28–33). See Bertolacci, *Reception*, 330.

<sup>53</sup>*Ilāhiyyāt*, VI.3.27 (Anawati, 276–77/*Scientia divina*, 317–18:69–73).

becomes verified [*ṣahḥa*] that [this principle] is the Truth in Himself [*al-ḥaqq bi-dātihī*], and it becomes verified [*ṣahḥa*] that knowledge of Him is knowledge of truth absolutely [*bi-l-ḥaqq muṭlaqan*]. If knowledge of Him takes place, then this would be absolute, true [*al-ḥaqq*] knowledge in the manner in which it is said of knowledge that is true [*ḥaqq*], namely, in relation to the object known.<sup>54</sup>

This rich passage presents a sort of Avicennian reprise of the salient Aristotelian theses on causality and the analogy of truth and being found in *Metaphysics* α 1. The basic Aristotelian theses are repeated, but not without being assimilated into the framework of Avicenna's own metaphysics of efficient causality of existence. Note well Avicenna's rehearsal of the distinction between metaphysical truth and epistemological truth in this passage. Whereas epistemic truth concerns the correctness of our beliefs and statements about reality, metaphysical truth has to do with the very reality of the thing in itself—the latter conditions the former. Let us examine the details of this account of metaphysical truth before considering how it conditions epistemological truths.

Avicenna clearly draws upon the doctrines of ontological and aitiological truth from Aristotle's *Metaphysics* α and al-Kindī's *On First Philosophy*. To be rendered an existing thing is also to be bestowed with that quidditative determination Avicenna calls its "true-nature" (*ḥaqīqa*). In other words, at the order of *effects*, existence and truth are necessarily confluent. But this correspondence between existence and truth is also found in the *cause* of existence and truth, and since this cause of existence has a greater claim to existence, it also has a greater claim to truth. Indeed, the effect merely participates in the truth of the cause. Now if this cause is a first principle—for Avicenna has not yet demonstrated that there is a first principle of existence and truth—then this first principle will be truth in itself. In short, Avicenna concludes his exposition of the efficient causality of existence and its connections with truth by orienting his aitiology in a patently theological direction. But before we turn to the theological fruition of his aitiological doctrine of existence and truth, we should examine the way these metaphysical connections within the causes and effects of existence and truth condition the gradations of epistemological truth.

Since it is not yet known whether God exists at this stage in his metaphysical science, Avicenna specifies the conditional character of such epistemological truths. If it is known to be verified or true that there is a first principle, then it will also be verified or true that this first principle is Truth in Himself, and so knowledge of Him is knowledge of truth absolutely. Hence, if such knowledge of Him takes place, then this knowledge would be absolute and true knowledge in the sense of truth that conforms to the reality known. Just as we saw in al-Kindī, Avicenna contends that corresponding to the orders of metaphysical truth there is a hierarchy within epistemological truth, and knowledge of the highest metaphysical truth, namely, God as Truth in Himself, is called "absolute true knowledge." This reiterates what Avicenna stated in *Ilāhiyyāt* I.2 regarding the purpose and names

<sup>54</sup> *Ilāhiyyāt*, VI.3.30, translation modified (Anawati, 278/*Scientia divina*, 319:11–20). For Bertolacci's emendations to the Cairo edition, see *Reception*, 520.

of metaphysics: God is the ultimate object of inquiry and not the subject of first philosophy.<sup>55</sup>

In this section, we have seen that Avicenna concludes his lengthy exposition on efficient causality of existence in *Ilāhiyyāt* VI.3 with a brief explanation of the correspondence between efficient causality of existence and truth for all beings. In the next section, we shall see how this ontological and aitiological insight into the causality of truth and existence provides a middle term that allows Avicenna to connect truth and causality to the divine being following his demonstration that God does exist.

## 6. THEOLOGICAL TRUTH

*Ilāhiyyāt* VIII.1–3 unites the aitiological and theological vectors of Avicenna's metaphysical science. These chapters present Avicenna's detailed arguments that aim to establish that all four causal orders are finite, that there are first causes in each order of causality, and finally, that the first efficient cause of existence is the peerless necessary existence in itself, which is the divine first cause of existence of all other ultimate first causes. Once Avicenna has demonstrated *that* God exists, he then spends the remainder of book eight establishing the nature of *what* God is. These chapters on the divine attributes present a predominantly apophatic metaphysical theology.<sup>56</sup> Within the sixth chapter, Avicenna establishes that God is the First Truth. Let us see how Avicenna arrives at this conclusion.

*Ilāhiyyāt* VIII.4 addresses in detail the simplicity, unity and other attributes of the divine necessary existence in itself. Of interest to us is Avicenna's denial that God's whatness or true-nature is composed with his necessary existence.

The Necessary Existence cannot be of a characterization that entails composition so that there would be some whatness (that whatness being necessary in [its] existence) such that that whatness would have a meaning other than its true-nature (that meaning being necessary existence). For example, if that whatness consists in the fact of being a human, then the fact of being human would be other than the fact of being necessary existence. For then there would either be a true-nature for our saying "necessary existence," or there would not. It is impossible for this meaning not to have a true-nature when it is the principle of every true-nature; indeed, it confirms [every other] true-nature and validates it.<sup>57</sup>

Avicenna is notorious for denying that God has a whatness, but this contention should be understood in light of the nuanced points he makes in this important

<sup>55</sup>[This science] is first philosophy, because it is knowledge of the first thing in existence (namely, the First Cause). . . . It is also wisdom, which is the best knowledge of the best thing known. For, it is the best knowledge (that is, [knowledge that yields] certainty) of the best thing known (that is, God, exalted be He, and the causes after Him). . . . Moreover, it is knowledge of God and has the definition of divine science" (*Ilāhiyyāt*, I.2.18 [Anawati, 15/*Scientia divina*, 15–16:88–96]). See Bertolacci, *Reception*, Appendix D.

<sup>56</sup>For studies on Avicenna's treatment of the divine attributes of the necessary existence in itself, see Adamson, "From the Necessary Existent to God"; and Rahim Acar, *Talking About God and Talking About Creation*.

<sup>57</sup>*Ilāhiyyāt*, VIII.4.7, translation modified (Anawati, 345/*Scientia divina*, 399–400:00–7). This passage provides a theological confirmation of Avicenna's earlier account of the primary hypotheses and his identification of necessary existence in itself with its true-nature. See *Ilāhiyyāt*, I.7.6 (Anawati, 45: 9–11/*Scientia divina*, 51–52:92–95).

passage that identifies God's true-nature with God's necessary existence. Avicenna provides two reasons for why he makes this identification: first, God's necessary existence cannot be composed of whatness or true-nature; second, true-nature cannot be denied of God because God is the cause of all created true-natures. The first reason draws on Avicenna's ontological account of created possible existences. Every created thing is in itself a whatness or true-nature other than its necessary existence; composition of whatness and existence is ubiquitous to created things. Within the ontological framework that is more known to us, whatness always requires composition with necessary existence caused by another. God certainly cannot have an existentially caused whatness or true-nature, for Avicenna has just shown, in *Ilāhiyyāt* VIII.1–4, that the divine necessary existence in itself cannot be caused or composed. However, Avicenna also rejects the possibility of simply denying that God has any true-nature, because the divine necessary existence in itself is the principle and cause of all created true-natures. Avicenna adopts a third way and contends that God's true-nature means uncaused and uncomposed necessary existence in itself without any limiting determinations. He then goes on to deploy a series of arguments to show that the true-nature or truthness of the divine necessary existence cannot be other than its whatness. In the case of God, both whatness and true-nature must mean necessary existence, without entailing any composition whatsoever of necessary existence in itself. "Hence, there is no whatness for the necessary existence other than its being necessary existence."<sup>58</sup> Consequently, when Avicenna says God has no whatness, we must distinguish between the meaning of whatness or true-nature that implies composition with necessary existence, and the meaning of whatness or true-nature that is identical with necessary existence in itself.<sup>59</sup> As we will see, Avicenna's view that necessary existence is the true-nature that is the principle of all other true-natures and validates or bestows veracity upon them is connected to his doctrine that God is the First Truth in *Ilāhiyyāt* VIII.6.

In *Ilāhiyyāt* VIII.5, Avicenna continues to argue that God, the first efficient cause of existence, is the simple and peerless necessary existence in itself, which has no genus, whatness, definition, quality, quantity, where, when, and no contrary. These rehearsals of the thesis that God has no quiddity or whatness do not contradict *Ilāhiyyāt* VIII.4's claim that God's necessary existence is identical to God's true-nature or whatness. Rather, Avicenna is clarifying further the ways God's true-nature or essence is *not* composed or caused in the way that the whatness of a created possible is caused and composed with its necessary existence. Avicenna contends,

if you ascertain the truth about Him, [you will find] that, after [the fact] of His existential-thatness [*amniyya*], He is only described by means of negating all similarities of Him and affirming to Him all relations. For all things are from Him, and He shares nothing in common with what [proceeds] from Him. He is the principle of all things and He is not any of the things that are posterior to Him.<sup>60</sup>

<sup>58</sup> *Ilāhiyyāt*, VIII.4.9 (Anawati, 346/*Scientia divina*, 401:31–32).

<sup>59</sup> Even though neither Adamson nor Acar address the peculiarities of the identity of God's true-nature (*ḥaqīqa*) with necessary existence in their treatments of Avicenna's claim that God does not have a whatness, I believe the account I have provided here complements and amplifies their interpretations. See Adamson, "From the Necessary Existent to God," 172–77, 182; and Acar, *Talking About God and Talking About Creation*, 81–85. See also Bertolacci, "Essence and Existence," 275–77; and E. M. Macierowski, "Does God have a quiddity according to Avicenna?"

<sup>60</sup> *Ilāhiyyāt*, VIII.5.14 (Anawati, 354/*Scientia divina*, 411:39–48).

These negations bring chapter five to a close and set the apophatic tone of chapter six, wherein Avicenna takes up his treatment of divine perfections, which begins with an examination of divine existence as perfection, pure good, and First Truth.

Avicenna commences *Ilāhiyyāt* VIII.6 with an argument to show that God has every perfection “because not only does He have the existence that belongs only to Him, but every [other] existence also is an overflow of His existence and belongs to Him and emanates from Him.”<sup>61</sup> Avicenna then turns to the nature of divine goodness and argues for an essential interconnected correspondence between existence, perfection, and goodness in general. “The good in general is that which everything desires, and that which everything desires is existence or the perfection of existence from a category of existence. . . . Thus, what in reality is being desired is existence. Existence is thus a pure good and a pure perfection.”<sup>62</sup> This identification of existence with perfection and goodness provides Avicenna with the middle terms needed to argue that God is also good and that “the Necessary Existence must in Himself be the furnisher of all existence and every perfection of existence.”<sup>63</sup> Avicenna’s concise treatment of the Necessary Existence as perfection and good is immediately followed by an even shorter, but no less significant, examination of God as Truth in Himself.

[1] All that is a necessary existence is truth [*ḥaqq*]. [This is] because the true-nature [*ḥaqqīyya*] of each thing is a property of its existence that is established for it. Hence, there is nothing more “true” [*aḥaqq*] than the Necessary Existence.

[2] “Truth” [*ḥaqq*] is also said of the veridical [*ṣādiqan*] belief in the existence [of something]. Hence nothing is more worthy of this truth (*al-ḥaqqīqa*) than [the object] of veridical [*ṣādiqan*] belief who, in addition to [being the object of] the veridical [*ṣidqihī*] [belief], has permanence—with His permanence being due to Himself, not to another.

[3] [As for] the rest of things, their whatnesses, as you have known, do not deserve existence; rather, in themselves and with the severing of their relation to the Necessary Existence, they deserve non-existence. For this reason, they are all in themselves false [*bāṭila*], true [*ḥaqqā*] [only] through Him and, with respect to the facet [of existence] that follows Him, realized. For this reason, “all things perish save His countenance” [*Qur’an* 55:26]. Hence, He is the most entitled to be [the] Truth [*ḥaqqan*].<sup>64</sup>

This passage from *Ilāhiyyāt* VIII.6 represents the convergence of Avicenna’s prior epistemological, ontological, and aitiological accounts of truth with his theological identification of truth with the divine being. While it might appear tedious to repeat many of the same points found in early passages from the *Ilāhiyyāt*, what makes the reprise of these points in *Ilāhiyyāt* VIII.6 different is that Avicenna has just established God’s existence in VIII.3. With God’s existence on the table,

<sup>61</sup> *Ilāhiyyāt*, VIII.6.1 (Anawati, 355/*Scientia divina*, 412:59–61).

<sup>62</sup> *Ilāhiyyāt*, VIII.6.2 (Anawati, 355/*Scientia divina*, 412:62–67).

<sup>63</sup> *Ilāhiyyāt*, VIII.6.4, translation modified (Anawati, 356/*Scientia divina*, 413:79–81). It is noteworthy that Avicenna’s approach to divine existence and attributes here in *Ilāhiyyāt*, VIII had a significant influence on Thomas Aquinas’s *Summa Theologiae*, Ia, questions 2–6, which also proceeds from God’s existence, to divine simplicity, divine perfection, the goodness in general, and finally to the goodness of God. See Houser, “Two Aristotelians.”

<sup>64</sup> *Ilāhiyyāt*, VIII.6.4–5 (Anawati, 356/*Scientia divina*, 413:83–94). Alexander Treiger has shown that this passage exhibits one of Avicenna’s threefold divisions of analogy *simpliciter*, namely, analogy by way of degree of deservingness. See Treiger, “Transcendental Modulation,” 357–58n94.

Avicenna can now resolve a number of his earlier conditional statements about the nature of truth and its causal connection to divine truth.

This passage from *Ilāhiyyāt* VIII.6 can be divided into three parts. In the first and third parts, Avicenna treats truth in reality, and in the second, he addresses epistemological truth. In the first part, Avicenna rehearses the doctrine established in *Ilāhiyyāt* VI.3, namely, that metaphysical truth corresponds to existence. Here he emphasizes the correspondence between gradations of truth and gradations of existential necessity. Since the divine necessary existence in itself is existentially necessary in the most proper sense and without qualification, then God is also the most true.

In the second part, Avicenna recapitulates his hierarchy of epistemological truths that parallels the degrees of metaphysical truth. Just as truth is said of existing things, so also is truth said of veridical beliefs concerning the existence of things. Now, among entities whose existence is unchanging, there is no veridical belief more worthy of epistemic truth than knowledge of a being that is unchanging and permanent existence in itself. And, since Avicenna has now demonstrated the existence of God as necessary existence in itself, he no longer needs to present these epistemic parallels as hypotheticals. To know God's existence as absolute truth in itself is to have obtained the highest epistemological truth, and this highest truth is only obtained as the most perfect object of inquiry within the highest philosophical science, namely, the divine science that is metaphysics.

Finally, Avicenna concludes this passage by returning to *Ilāhiyyāt* I.8's correlation of falsity with possible existence and truth with necessary existence. Since he has established the existence of God as necessary existence in itself, Avicenna can finally identify God as that which is most truly Truth in Himself. This latter identification entails another. Since possible existences only exist through the efficient causality of the Necessary Existence, and since truth is found in each thing according to its manner of existence, we must also recognize that just as the existence of all possibles is from God so also is their truth from God. In other words, all of creation is to be identified with the existentially neutral quiddities of possible existences that are false in themselves, but true through the causality of God. Avicenna confirms these final theses with a quotation from the *Qur'ān* that he interprets in light of his theological understanding of the Aristotelian doctrine of truth. Apart from the face of God all things perish; creatures only exist as true through the divine being who alone is necessary existence and pure truth in Himself.<sup>65</sup>

In this passage on divine truth from *Ilāhiyyāt* VIII.6, Avicenna shows how God's existence as truth confirms and elucidates the interconnections among truths as epistemological, ontological, aitiological, and theological, and thereby finally establishes the last piece needed to complete his systematic doctrine of metaphysical truth in the *Ilāhiyyāt*.

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<sup>65</sup>In *Ilāhiyyāt*, VIII.7, Avicenna takes up questions concerning divine ideas and God's knowledge of creatures. It is beyond the aims of this study to show how such theological topics are connected to the nature of truth in Avicenna.

7. THE AXIOMS OF METAPHYSICS AND  
TRUTH AS A HEALING

Thus far, we have considered numerous details of Avicenna's theoretical doctrine of truth as it relates to his metaphysical principles, ontology, aiology, and theology. But this study on truth would not be complete without taking up his practical treatment of the first and most fundamental epistemological truth. Even though the primary treatment of the principle of demonstration belongs to logic,<sup>66</sup> Avicenna takes seriously the duties of the first philosopher, and first among them is the metaphysician's prerogative to defend the axiomatic principle of demonstration against the objections of the sophists and the confusions of the perplexed.<sup>67</sup> It is for this reason that Avicenna concludes the first book of the *Ilāhiyyāt* as a philosophical healer who both diagnoses and treats even the most disordered cases of sophistry.

In *Ilāhiyyāt* I.8, Avicenna marshals forth an infantry of rational arguments in the service of clarifying and defending the axiomatic principle that "between affirmation and negation there is no middle" for the perplexed and against the sophists. The perplexed are not approached in the same way as those obdurate sophists. The confused are diagnosed with a different malady and so require a different cure; however, one should only treat the perplexed who seek a guide,<sup>68</sup> a prescription Maimonides would later take to heart. But what should be done with those intransigent skeptics who refuse to confess the truth of the principle of demonstration and resolutely maintain that "human" and "non-human" are one and the same? Avicenna suggests a remedy that goes beyond Aristotle's prescription to reason with the sophist till they confess the truth or bring them to silence—Aristotle's famous *reductio ad vegetabilia*.<sup>69</sup> The only way to truly heal those who stubbornly deny the principle of demonstration is to "let them suffer into the truth."<sup>70</sup>

As for the obdurate, he must be subjected to the conflagration of fire, since "fire" and "not fire" are one. Pain must be inflicted on him through beating, since "pain" and "no pain" are one. And he must be denied food and drink, since eating and drinking and the abstention from both are one [and the same].<sup>71</sup>

Why does Avicenna prescribe this extreme remedy? What sense can we make of Avicenna's use of physical compulsion where rational arguments fail to convince? Aristotle's *reductio ad vegetabilia* merely seeks to keep sophists from perverting others with irrationality by forcing such skeptics into silence through rational argumentation. While this treatment does prevent the sophist from infecting others, Aristotle's remedy only provides a sort of temporary philosophical quarantine. Avicenna is not satisfied with leaving his substantially rational patients reduced accidentally to a mere vegetative animation; his aim, at the very least,

<sup>66</sup>See Avicenna, *Healing. Logic. Book of Demonstration*, I.12 and II.1.

<sup>67</sup>*Ilāhiyyāt*, I.8.2 (Anawati, 48–49/*Scientia divina*, 56:70–82); and I.8.13 (Anawati, 53–54/*Scientia divina*, 63:90–97). See Houser, "First Principle of Demonstration."

<sup>68</sup>*Ilāhiyyāt*, I.8.2–16 (Anawati, 49–54/*Scientia divina*, 56–64:76–117).

<sup>69</sup>See Aristotle, *Metaphysics* Γ.4, 1005b34–1009a6, esp. 1006a12–16 and 1008b8–12.

<sup>70</sup>For detailed analyses of Avicenna's defense of the principle of demonstration, see Houser, "Suffer into the Truth"; and Bertolacci, *Reception*, 220–25; 235–36; 390–93; 409–17.

<sup>71</sup>*Ilāhiyyāt*, I.8.12 (Anawati, 53/*Scientia divina*, 62:85–89).



is to restore the sophist to sentience by employing a physical impetus. Plants do not holler or yelp when burnt, but animals do. In many cases, Avicenna's remedy will not only recover the vegetatively reduced skeptic to a sentient state, it might even get the skeptic to entreat for the pain to stop, thereby exhibiting a rational acknowledgment that "pain" and "no pain" are not the same. To ask for the pain to stop is to request "no pain," in contradistinction to "pain." Patients who are able to confess the first truth—even if it is only a performative confession—exhibit the first signs of a potential recuperation from the illness of irrationality. Though severe, Avicenna believes his remedy proposes a true cure inasmuch as it compels anyone sick with an irrationally induced vegetative condition to become sentient, if not rational, once again. In this way, Avicenna's treatment does provide his sophisticated patient with a true healing.

### 8. CONCLUSION

This study has established that, in the *Ilāhiyyāt*, Avicenna appropriated a number of insights from his predecessors' accounts of truth that he situated within his own systematic doctrine of truth that is central to the first principles and ontological, aitiological, and theological vectors of his metaphysics. Two conclusions from this study stand out, and both invite additional questions for future research. First, Avicenna's doctrine of truth was not created out of nothing. Rather, he clearly drew upon the accounts of truth found in his predecessors, like Aristotle and al-Kindī, and incorporated their insights into his own metaphysical treatment of truth and its division in *Ilāhiyyāt* I.8. More needs to be said about the way Aristotle and al-Kindī, as well as al-Fārābī and other philosophers and theologians, influenced Avicenna's doctrine of truth. I hope this study has opened doors and set a trajectory for these investigations.

The second conclusion established by this study is that Avicenna carefully developed his initial division of truth into a systematic exploration of the way epistemological truth depends on ontological truth, which depends on aitiological truth, and finally, the way all truths depend on theological truth, that is, on God as the divine truth itself. In short, the kernel of the whole was anticipated in the opening sentences of I.8. In this study, I have limited my investigation of truth to the *Ilāhiyyāt* of Avicenna's *Šifā'*, but I have left untouched questions concerning whether this doctrine from the *Ilāhiyyāt* is consistent with his account of truth in the logical and psychological works of the *Šifā'*, not to mention his many other philosophical works such as the *Najāt* or *Išārāt*. I leave these questions to be explored in the future.

Truth is central to Avicenna's *Ilāhiyyāt*. In this study, I established that Avicenna secures the centrality of truth in his metaphysics by transforming and aligning Aristotle's sense of being as the truth of propositions with a metaphysical doctrine of truth that corresponds to the different modes of necessary existence. In Avicenna's *existential necessitarian* metaphysics, this entails that since every being is either necessary existence through another or necessary existence in itself, so also is every being either true through another or true in itself. Consequently, truth is as pervasive in reality as being, thing, one, and necessary. This is why, as we have shown, truth is found at every major juncture in Avicenna's metaphysical science:

the first principles of metaphysics and the initial distinction between metaphysical and epistemological truth, the analysis of the truth of propositions grounded in the first principle of demonstration, the transcendental account of truth that is proportional to every being as such, the relation of truth to necessary and possible existence, the truth common to universals and particulars, the aitiological account of the hierarchy of being that is sewn together by the causality of existence and truth, and finally, the radical contingency of all created truths—ontological and epistemological—and their aitiological dependence on the first divine cause, which is Necessary Existence and Truth in Himself.

Finally, the centrality of truth in the *Ilāhiyyāt* is perhaps most clearly established in the way Avicenna coordinates the ultimate aims of first philosophy with the ultimate trajectory of truth, which is twofold. From the metaphysical side of truth, the highest truth is identified with God, who is Truth in Himself. From the epistemological side of truth, the highest knowledge to be obtained is theological knowledge of God's existence as Truth in Himself.<sup>72</sup>

BIBLIOGRAPHY AND ABBREVIATIONS

- Acar, Rahim. *Talking About God and Talking About Creation: Avicenna's and Thomas Aquinas' Positions*. Leiden: Brill, 2005. [*Talking About God and Talking About Creation*]
- Adamson, Peter. *Al-Kindī*. Oxford: Oxford University Press, 2007.
- . "Al-Kindī and the Reception of Greek Philosophy," In *The Cambridge Companion to Arabic Philosophy*, edited by Peter Adamson and Richard C. Taylor, 32–51. Cambridge: Cambridge University Press, 2005.
- . "From the Necessary Existent to God." In Adamson, *Interpreting Avicenna*, 170–89.
- , ed. *Interpreting Avicenna: Critical Essays*. Cambridge: Cambridge University Press, 2013. [*Interpreting Avicenna*]
- . "Yāhyā Ibn 'Adī and Averroes on *Metaphysics* Alpha Elatton." *Documenti e Studi sulla Tradizione Filosofica Medievale* 21 (2010): 343–74. ["Ibn 'Adī and Averroes"]
- Aertsen, Jan. "Avicenna's Doctrine of the Primary Notions and its Impact on Medieval Philosophy." In *Islamic Thought in the Middle Ages: Studies in Text, Transmission and Translation: in Honour of Hans Daiber*, edited by Anna Akasoy and Wim Raven, 21–42. Leiden-Boston: Brill, 2008. ["Avicenna and Primary Notions"]
- . "'Res' as Transcendental: Its Introduction and Significance." In *Le problème des transcendantaux du XIVe au XVIIe siècle*, edited by G. Federici Vescovini, 139–56. Paris: 2002. ["Res as Transcendental"]
- Al-Kindī. *Al-Kindī's Metaphysics: A Translation of Ya'qūb Ibn Ishāq al-Kindī's Treatise On First Philosophy*. Translated with commentary by Alfred L. Ivry. Albany: State University of New York Press, 1974. [*On First Philosophy*]
- . *The Philosophical Works of al-Kindī*. Translated and edited by Peter Adamson and Peter E. Pormann. Karachi: Oxford University Press, 2012.
- Aristotle. *Complete Works of Aristotle: The Revised Oxford Translation*. Edited by Jonathan Barnes. 2 vols. Princeton: Princeton University Press, 1984.
- . *Metaphysics*. Translated by Hippocrates G. Apostle. Grinnell: The Peripatetic Press, 1979.

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- Arnzen, Rüdiger. "Notes," in Averroes, *On Aristotle's Metaphysics: An annotated translation of the so-called "Epitome,"* edited, translated, and notes by Rüdiger Arnzen, 183–338. Berlin: De Gruyter, 2010.
- Avicenna/Ibn Sīnā. *Avicenna's Deliverance. Logic.* Translated with notes by Asad Q. Ahmed. Karachi: Oxford University Press, 2011. [*Salvation. Logic*]
- . *Al-Ishārāt wa-t-Tambihāt li-Abī 'Alī ibn Sīnā, ma'a Ṣarḥ Naṣīr ad-Dīn aṭ-Ṭūsī.* Edited by Sulṣymān Dunyā. 4 vols. Cairo: Dār al-ma'ārif, 1971. [Dunyā]
- . *Kitāb an-Najāṭ.* Edited by M. T. Dānishpazhūh. Intishārāt-i Dānishgāh-i Tihṙān, 1985. [Dānishpazhūh]
- . *The Metaphysics of the Healing.* Translated and edited by Michael E. Marmura. Provo: Brigham Young University Press, 2005. [*Ilāhiyyāt*]
- . *Remarks and Admonitions. Part one: Logic.* Translated by Shams Constantine Inati. Toronto: PIMS, 1984. [*Pointers. Logic*]
- . *Al-Shifā': Al-Ilāhiyyāt.* Edited by G. Anawati, et al. 2 vols. Cairo: al-Maṭba'a l-Amīriyya, 1960. [Anawati]
- . *Al-Shifā', al-Mantiq, al-Burhān.* Edited by A. E. 'Afīfī, et al. Cairo: al-Maṭba'a l-Amīriyya, 1956. [*Healing. Logic. Book of Demonstration*]
- . *Al-Shifā', al-Mantiq, Al-Madhal.* Edited by G. Anawati, et al. Cairo: al-Maṭba'a l-Amīriyya, 1952. [*Healing. Logic. Isagoge*]
- Avicenna Latinus. *Liber de philosophia prima sive Scientia divina.* Edited by S. Van Riet. 3 vols. Leiden and Louvain, 1977–1983. [*Scientia divina*].
- Bertolacci, Amos. "On the Arabic Translations of Aristotle's *Metaphysics*." *Arabic Sciences and Philosophy* 15 (2005): 241–75.
- . "The Distinction of Essence and Existence in Avicenna's *Metaphysics*: The Text and Its Context." In Reisman and Opwis, *Islamic Philosophy*, 257–88. ["Essence and Existence"]
- . "Necessary" as Primary Concept in Avicenna's *Metaphysics*," In *Conoscenza e contingenza*, edited by Stefano Perfetti, 31–50. Pisa: Edizioni ETS, 2008. ["Necessary"]
- . *The Reception of Aristotle's Metaphysics in Avicenna's Kitāb al-Shifā': A Milestone of Western Metaphysical Thought.* Leiden-Boston: Brill, 2006. [*Reception*]
- . "The Structure of Metaphysical Science in the *Ilāhiyyāt (Divine Science)* of Avicenna's *Kitāb al-Šifā' (Book of the Cure)*." *Documenti e Studi sulla Tradizione Filosofica Medievale* 13 (2002): 1–69. ["Structure of Metaphysical Science"]
- Black, Deborah. "Avicenna on the Ontological and Epistemic Status of Fictional Beings." *Documenti e studi sulla tradizione filosofica medievale* 8 (1997): 425–53. ["Fictional Beings"]
- . "Certitude, Justification, and the Principles of Knowledge in Avicenna's Epistemology." In Adamson, *Interpreting Avicenna*, 120–42. ["Avicenna's Epistemology"]
- . "How do we Acquire Concepts? Avicenna on Abstraction and Emanation." In Hause, *Debates in Medieval Philosophy*, 126–44. ["Avicenna on Abstraction and Emanation"]
- . "Knowledge (*'ilm*) and Certitude (*yaqīn*) in Al-Fārābī's Epistemology." *Arabic Sciences and Philosophy* 16 (2006): 11–45. ["Fārābī's Epistemology"]
- . *Logic and Aristotle's 'Rhetoric' and 'Poetics' in Medieval Arabic Philosophy.* Leiden: Brill, 1990. [*Logic in Medieval Arabic Philosophy*]
- . "Mental Existence in Thomas Aquinas and Avicenna." *Medieval Studies* 61 (1991): 45–79. ["Mental Existence"]
- Bonadeo, Cecilia. "Un commento ad *Alpha Elatton* «sicut litterae sonant» nella Baḡdād del X." *Medioevo* 28 (2003): 69–96. ["Un commento ad *Alpha Elatton*"]
- . "La tradizione araba dei primi due libri della *Metafisica* di Aristotele: Libri a–A." In *Aristotele e Alessandro di Afrodisia nella tradizione araba*, edited by Cristina D'Ancona and Giuseppe Serra, 75–112. Padova: Il Poligrafo, 2002. ["La tradizione araba"]
- Crivelli, Paolo. *Aristotle on Truth.* Cambridge: Cambridge University Press, 2004.
- D'Ancona, Cristina. "Platonic and Neoplatonic Terminology for Being in Arabic Translation." *Studia graeco-arabica* 1 (2011): 23–45.
- De Haan, Daniel. "The Doctrine of the Analogy of Being in Avicenna's *Metaphysics of the Healing*." *The Review of Metaphysics* 69 (2015): 261–86. ["Analogy of Being in Avicenna"]
- . "A Mereological Construal of the Primary Notions *Being* and *Thing* in Avicenna and Aquinas." *American Catholic Philosophical Quarterly* 88 (2014): 335–60. ["Being and Thing"]
- . "Where Does Avicenna Demonstrate the Existence of God?" *Arabic Sciences and Philosophy* 26 (2016): 97–128.
- Druart, Thérèse-Anne. "Avicennian Troubles: The Mysteries of the Heptagonal House and of the Phoenix." *Tópicos* 42 (2012): 51–73. ["Avicennian Troubles"]

- . “‘Shay’ or ‘Res’ as Concomitant of ‘Being’ in Avicenna.” *Documenti e Studi sulla Tradizione Filosofica Medievale* 12 (2001): 125–42. [“Shay’ or Res”]
- Eichner, Heidrun. “Al-Fārābī and Ibn Sīnā on ‘Universal Science’ and the System of Sciences: Evidence of the Arabic Tradition of the *Posterior Analytics*.” *Documenti e Studi sulla Tradizione Filosofica Medievale* 21 (2010): 71–95. [“Arabic Tradition of the *Posterior Analytics*”]
- Gutas, Dimitri. *Avicenna and the Aristotelian Tradition: Introduction to Reading Avicenna’s Philosophical Works*, 2nd rev. ed. Leiden: Brill, 2014. [*Avicenna and the Aristotelian Tradition*]
- Gerson, Lloyd. *Aristotle and Other Platonists*. Ithaca: Cornell University Press, 2005.
- . “Causality, Univocity, and First Philosophy in *Metaphysics* ii.” *Ancient Philosophy* 11 (1991): 331–49. [“*Metaphysics* ii”]
- Hasse, Dag. “Avicenna on Abstraction.” In Hause, *Debates in Medieval Philosophy*, 102–25.
- Hause, Jeffery, ed. *Debates in Medieval Philosophy: Essential Readings and Contemporary Responses*. New York: Routledge, 2014. [*Debates in Medieval Philosophy*]
- Hestir, Blake. “Aristotle’s Conception of Truth: An Alternative View.” *Journal of the History of Philosophy* 51 (2013): 193–222. [“Aristotle’s Conception of Truth”]
- Houser, R. E. “Aristotle and Two Medieval Aristotelians on the Nature of God.” *International Philosophical Quarterly* 51 (2011): 355–75. [“Two Aristotelians”]
- . “The Language of Being and the Nature of God in the Aristotelian Tradition.” *Proceedings of the American Catholic Philosophical Association* 84 (2011): 113–32.
- . “Let Them Suffer into the Truth: Avicenna’s Remedy for Those Denying the Axioms of Thought.” *American Catholic Philosophical Quarterly* 73 (1999): 107–33. [“Suffer into the Truth”]
- . “The Place of the First Principle of Demonstration in Avicennian Metaphysics” In *Proceedings of the Patristic, Medieval and Renaissance (PMR) Conference*, vol. 6. 117–34. Villanova: Augustinian Historical Institute, 1981. [“First Principle of Demonstration”]
- . “The Real Distinction and the Principles of Metaphysics: Avicenna and Aquinas.” In *Laudemus viros gloriosos: Essays in Honor of Armand Augustine Maurer C. S. B.*, edited by R. E. Houser, 75–108. South Bend: Notre Dame University Press, 2007. [“Real Distinction”]
- Ivry, Alfred L. “Commentary,” in Al-Kindī, *On First Philosophy*, 115–88.
- Lizzini, Olga. “*Wuğūd-Mawğūd*/Existence-Existent in Avicenna: A Key Ontological Notion in Arabic Philosophy.” *Quaestio* 3 (2003): 111–38. [“*Wuğūd-Mawğūd*”]
- Macierowski, E. M. “Does God have a quiddity according to Avicenna?” *The Thomist* 52 (1988): 79–87.
- Marmura, Michael. “Avicenna’s Chapter on Universals in the *Isagoge* of his *Shifā’*.” In *Islam: Past Influence and Present Challenge*, edited by Alford T. Welch and Pierre Cachia, 34–56. Albany: State University of New York Press, 1979. [“Avicenna on Universals”]
- . “Avicenna on Meno’s Paradox: On ‘Apprehending’ Unknown Things through Known Things.” *Mediaeval Studies* 71 (2009): 47–62. [“Avicenna on Meno’s Paradox”]
- . “Avicenna on Primary Concepts in the *Metaphysics* of his *al-Shifā’*.” In *Logos Islamikos: Studia Islamica in honorem Georgii Michaelis Wickens*, edited by Savory Roger and Agius Dionisius, 219–39. Toronto: PIMS, 1984. [“Primary Concepts”]
- . “Quiddity and Universality in Avicenna.” In *Neoplatonism and Islamic Thought*, edited by Parviz Morewedge, 77–88. Albany: State University of New York Press, 1992.
- McGinnis, Jon. *Avicenna*. Oxford: Oxford University Press, 2010.
- Menn, Stephen. *The Aim and the Argument of Aristotle’s Metaphysics* (unpublished manuscript, September 21, 2015), Portable Document Format. <https://www.philosophie.hu-berlin.de/de/lehrbereiche/antike/mitarbeiter/menn/ig1neu.pdf>
- . “Aristotle on the Many Senses of Being” (unpublished manuscript, September 21, 2015), Portable Document Format. <https://www.philosophie.hu-berlin.de/institut/lehrbereiche/antike/mitarbeiter/menn/mennprinceton2008.pdf>
- . “Avicenna’s Metaphysics.” In Adamson, *Interpreting Avicenna*, 143–69.
- . “Fārābī’s *Kitāb al-Ḥurūf* and his Analysis of the Senses of Being.” *Arabic Sciences and Philosophy* 18 (2008): 59–97. [“Fārābī’s *Kitāb al-Ḥurūf*”]
- . “Fārābī in the Reception of Avicenna’s Metaphysics: Averroes against Avicenna on Being and Unity.” In *The Arabic, Hebrew and Latin Reception of Avicenna’s Metaphysics*, edited by Amos Bertolacci and Dag Hasse, 51–96. Berlin: De Gruyter, 2011. [“Fārābī in Avicenna’s Metaphysics”]
- Owens, Joseph. “Common Nature: A Point of Comparison Between Thomistic and Scotistic Metaphysics.” *Mediaeval Studies* 19 (1957): 1–14. [“Common Nature”]
- . *The Doctrine of Being in the Aristotelian Metaphysics*. 3rd rev. ed. Toronto: PIMS, 1978.
- . “The Present Status of Alpha Elatton in the Aristotelian Metaphysics.” *Archiv für Geschichte der Philosophie* 2 (1984): 148–69. [“Alpha Elatton”]

- Pritzl, Kurt. "Aristotle's Door." In *Truth: Studies of a Robust Presence*, edited by Kurt Pritzl, 15–39. Washington, D.C.: The Catholic University of America Press, 2010.
- Reisman, David and Felicitas Opwis, eds. *Islamic Philosophy, Science, and Religion: Studies in Honor of Dimitri Gutas*. Leiden-Boston: Brill, 2012. [*Islamic Philosophy*]
- Schaffer, Jonathan. "Truthmaker Commitments." *Philosophical Studies* 141 (2008): 7–19.
- Strobino, Riccardo. "Avicenna on the Indemonstrability of Definition." *Documenti e Studi sulla Tradizione Filosofica Medievale* 21 (2010): 113–63. ["Indemonstrability"]
- . "Principles of Scientific Knowledge and the Psychology of (their) Intellection in Avicenna's *Kitāb al-Burhān*." In *Raison et démonstration: Les commentaires médiévaux sur les Seconds Analytiques*, edited by Joël Biard, 31–45. Turnhout: Brepols, 2015. [*Principles of Scientific Knowledge*]
- Treiger, Alexander. "Avicenna's Notion of Transcendental Modulation of Existence (*tashīk al-wujūd, analogia entis*) and Its Greek and Arabic Sources." In Reisman and Opwis, *Islamic Philosophy*, 327–63. ["Transcendental Modulation"]
- Wolfson, Harry A. "The Terms *Taṣawwur* and *Taṣdīq* in Arabic Philosophy and their Greek and Latin and Hebrew Equivalents." In Harry A. Wolfson, *Studies in the History of Philosophy and Religion*, vol. 1, 478–92. Cambridge: Harvard University Press, 1973. ["*Taṣawwur* and *Taṣdīq*"]
- Wisnovsky, Robert. *Avicenna's Metaphysics in Context*. Ithaca: Cornell University Press, 2003.
- . "Notes on Avicenna's Concept of Thingness (*shay'yya*)." *Arabic Sciences and Philosophy* 10 (2000): 181–221. ["Thingness"]