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A Short History of Certain Premises: The Treatment of the Principles of Demonstration in Islamic Logic

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Abstract

In Aristotelian classical philosophy, the formal and material processes of the human mind's modes in acquiring belief are examined in the science of logic. The art of demonstration (*ṣināʿat al-burhān*), which is the first of the five arts in logic, investigates how philosophical, universal, necessary, and certain beliefs regarding existence are acquired and transmitted. The foundation of the theories regarding the art of demonstration presented in the *Posterior Analytics* and its commentaries consists of the premises that form demonstrative syllogisms. These premises, which Aristotle treated in different contexts in the *Posterior Analytics*, were extensively discussed in the Islamic world. al-Fārābī was the first logician to list and name the premises of demonstration. These certain premises, which al-Fārābī sometimes referred to simply as "certain" (*yaqīnīyya*) in different contexts and sometimes divided into two in various ways, were later expanded to six by Ibn Sīnā under the name *yaqīniyyāt*, meaning "certainties". In the post-Avicennian period, Islamic logicians generally accepted Ibn Sīnā's theory of six certain premises, elaborated and reinterpreted some aspects of this theory, and ensured its widespread acceptance through the standardized presentation styles they established in handbooks. This article examines this trajectory of the certain premises, which are the principles of demonstration in the Islamic logic tradition.

Keywords: Islamic logic, *yaqīniyyāt*, certain premises, principles of demonstration, al-Fārābī, Ibn Sīnā, Post-Avicennian period.

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1. Introduction

According to Islamic logicians who reinterpreted Aristotle's logical works, human beings in societies where philosophy is present are divided into five classes in terms of their modes of reasoning and inferring. If we are to state it with the help of the theory put forth by al-Fārābī in the *Book of Letters* (*Kitāb al-Ḥurūf*), although basic needs and the inborn powers of desire and anger aimed at satisfying them lie at the foundation of daily life and social togetherness, the human being is a rational animal who continuously employs his intellect and thinks for his practical needs throughout all processes of survival, existence, and adaptation in society. On this ground, while human beings initially acquire beliefs in rhetorical and poetic modes, as some individuals with theoretical curiosity later emerge in societies, they begin to think and make inferences through sophistic and dialectical methods, which are initially the methods of corrupt and incomplete philosophies. If the process continues, this time thinking through the method of demonstration (*burhān*)—which is the method of certain, demonstrative/apodeictic philosophy (*al-falsafa al-yaqīnīyya*, *al-falsafa al-burhānīyya*), namely true philosophy (*al-falsafah fī al-ḥaqīqa*)—can also exist in societies. Especially for al-Fārābī, the art of demonstration set forth by Aristotle in the *Posterior Analytics* is the supreme philosophical method (al-Fārābī, 2024, pp. 239-240, 194-247). Ultimately, the art of demonstration emerged after the art of dialectic (*jadal*), and the art of dialectic played an important role in the formation of the principles of demonstration (DiPasquale, 2019, pp. 146-193; Ergün, 2026, pp. 633-656). In addition to this, in the remaining four books of logic, the universal rules of the modes of thinking of the other four classes of people are set forth. Although these arts can sometimes be used interwoven with one another and mixed, they are treated separately in five books in the science of logic, as al-Fārābī also states in the *Book of Dialectic* (*Kitāb al-Jadal*) (al-Fārābī, 2019b, pp. 58-67). At the foundation of all these five arts, there are the fundamental premises that constitute the principles of these theories. These arts are distinguished from one another by these premises and are built upon these premises. Among these arts, the art of demonstration—which constitutes the method of demonstrative philosophy—is also based on certain premises, which are its own principles. In this sense, to properly understand all of philosophy and logic in the classical world, it is necessary to know the certain premises that constitute the origin of all these.

Islamic logicians designated the premises of demonstration—which Aristotle addressed in various contexts in the *Posterior Analytics*—with the term *yaqīniyyāt* in the meaning of "certainties", "certain premises", "certain propositions" or "certain principles" according to context, categorized them into different classes, and provided distinct examples for them. al-Fārābī was the Islamic logician who used the term "certain" (*yaqīniyya*) for the premises of demonstration and authored an independent treatise on certainty (*Sharā'iṭ al-Yaqīn*) (al-Fārābī, 1990). The narrative of certain premises, which began to take shape in the Islamic world with al-Fārābī, was revisited by Ibn Sīnā in his various works, where he classified them into different classes. Ibn Sīnā's most detailed account of certain premises is found in *al-Ishārāt wa-l-Tanbīhāt (Pointers and Reminders)*. As is well known, in the post-Avicennian period, Islamic logicians focused on *al-Ishārāt wa-l-Tanbīhāt* rather than *al-Shifā'* and reinterpreted the theories within this work. Consequently, the premises of demonstrative syllogism in the post-Avicennian Islamic world were addressed on the basis of Ibn Sīnā's *al-Ishārāt wa-l-Tanbīhāt*. With a few exceptions such as Fakhr al-Dīn al-Rāzī, Islamic logicians generally accepted Ibn Sīnā's account of *yaqīniyyāt*, sought to make this theory more understandable, and made significant contributions to it. In the Islamic logical tradition, the Avicennian account of certain premises continued to be adopted and examined—particularly through handbooks—up until the 20th century. The purpose of this article is to outline the historical trajectory of certainties namely certain premises within the Islamic logical tradition.

2. The Aristotelian Foundations of Certain Premises

In classical logic, all beliefs are explained through the impossibility of circularity (*dawr*) and infinite regress (*tasalsul*). The impossibility of circularity and infinite regress entails the acceptance of first principles. Just as the remaining four of the five logical arts have their own principles, it is necessary to speak—first and foremost—of the principles of the demonstrative syllogism. Indeed, Aristotle (d. 322 BCE) begins the *Posterior Analytics* (*Kitāb al-Burhān* in Arabic) by stating that all intellectual learning and teaching rely on pre-existing knowledge. He notes that pre-knowledge is of two types—knowledge of essence (*quiddity*) and knowledge of existence—and illustrates this with examples from the sciences and rhetoric. Subsequently, in chapters two and three, he explains that demonstration operates in this manner: it relies on immediate, primary premises without a middle term. He adds that there are also secondary principles such as definitions, axioms, and hypotheses, which themselves rest upon these primary principles. Furthermore, Aristotle asserts that the views of two groups who deny the existence of first principles are erroneous, concluding that circularity in demonstration is impossible (Aristotle, 1999, pp. 425–440; 2005, pp. 9–14). Islamic logicians have likewise addressed this issue directly within the context of pre-existing knowledge and the

impossibility of circularity, following Aristotle's framework. For example, Naṣīr al-Dīn al-Ṭūsī (d. 672/1274) in *Asās al-Iqtibās* states—much like Aristotle—that all acquired intellectual learning and teaching occur through prior knowledge. He divides knowledge into conception (*taṣawwur*) and assent (*taṣdīq*), arguing that not every conception and assent can be acquired (*muktasab*); otherwise, circularity and infinite regress would ensue, both of which are impossible. Asserting that syllogisms must have first principles, he first expounds upon certainties—that is, *yaqīniyyāt*, the premises of demonstration—and subsequently addresses the principles of the remaining syllogistic arts (Naṣīr al-Dīn al-Ṭūsī, 2023, pp. 698–700). Similar explanations can also be found in Ibn al-Nafīs' (d. 687/1288) *Sharḥ al-Wurayqāt* (Ibn al-Nafīs, 2015, pp. 208–212).

In the *Posterior Analytics*, Aristotle states that we cannot acquire knowledge either exclusively through sense perception or completely without it. Rather, we attain knowledge only when we perceive particulars through the senses and grasp the universal in our intellect—since true knowing consists in knowing the universal. To illustrate this, he argues that even if we were on the Moon during an eclipse and directly perceived the event taking place, we would not thereby possess scientific knowledge of the eclipse. We know it only after perceiving the particular instance, repeating this observation, and grasping the eclipse universally in our mind in a way that reveals its cause (Aristotle, 1999, pp. 536–537). Furthermore, in various parts of the *Posterior Analytics*—most notably in Chapter 19 of Book II—the philosopher details the potential intellect, sensation, retention in memory, recollection, experience, induction, and the acquisition of first principles. He asserts that all knowledge obtained through demonstration, as well as all premises serving as principles in demonstrations, ultimately rest upon first principles that derive from the intellect (*nous*)—which is not termed knowledge itself, but rather the source of knowledge (Aristotle, 1999, pp. 616–620; Tekin, 2017, pp. 146–162). Aristotle addresses the continuum between sensation and the intellect by assigning weight to every stage of the progression from sense perception to mind. He evaluates knowledge as the product of a process that begins with perception and culminates in the intellect, ultimately linking the entire cognitive process and the acquisition of knowledge to the Divine (Aristotle, 1998, pp. 242–245). Moreover, he is known to have used the term *akribēs* (exactness/certainty) to convey the notion of *yaqīn* (Aristotle, 1997, p. 152; 1999, p. 532). Nevertheless, an explicit narrative of *yaqīniyyāt* systematically categorized in the manner of Islamic logicians does not exist in Aristotle's original works.

3. al-Fārābī and the Preliminary Systematization of Certain Premises

al-Fārābī, who established the art of demonstration (*burhān*) in the Islamic world, sometimes speaks of a single premise for the demonstrative syllogism. He expresses this single premise using the word "certain" (*yaqīniyya*), as in *Iḥṣāʾ al-ʿUlūm*, or using the term "intelligibles" (*maʿqūlāt*), as in *al-Madīna al-Fāḍila* (al-Fārābī, 1931, p. 28; 2019a, pp. 159–160; Tekin, 2017, pp. 285–286; 2025, pp. 759–760). al-Fārābī also designates these first intelligibles as "human beings' natural primary premises" (*al-muqaddamāt al-uwal al-ṭabīʿiyya li-l-insān*) and "first principles" (*mabādiʾ uwal*). These are premises present in our nature from the very beginning. Although some people might assume that these arise from the senses because most of them have physical counterparts in the external world, this is not actually the case (al-Fārābī, 2012, pp. 5–6). In some of his works, al-Fārābī increases the number of premises to two. For instance, in *Kitāb al-Qiyās*, he makes a dual classification into "universal first intelligibles" (*maʿqūlāt kulliyya uwal*) and "sensibles" (*maḥsūsāt*). Here, the philosopher does not define the universal first intelligibles, but rather provides three examples: "Every three is odd number," "Every five is half of ten," and "Everything that is a part of a whole is smaller than that whole." Regarding sensibles, he offers no examples, but defines them as "singular propositions (*qaḍāyā shakhṣiyya*) perceived through one of the five senses" (al-Fārābī, 1986b, p. 19). Here, it is noteworthy that al-Fārābī identifies sensibles (*maḥsūsāt*) as singular propositions. It is a well-established principle that singular propositions are not utilized in demonstration (*burhān*) or philosophy. In our view, what is meant here is that although sensibles are singular, they correspond to the initial stage in the acquisition of universals.

A further twofold classification by al-Fārābī in his *Kitāb al-Burhān* appears somewhat different. According to this, universal premises through which necessary certainty (*yaqīn ḍarūrī*) is attained without syllogism are divided into "two classes" (*ṣinfān*): "those acquired naturally" (*al-ḥāṣil bi-l-ṭibāʿ*) and "those acquired through experience" (*al-ḥāṣil bi-l-tajriba*). al-Fārābī also refers to these two types of premises as the "principles of certainty" (*awāʾil al-yaqīn*) and offers some explanations regarding them, though he provides no examples here. Naturally acquired premises are those that are present in our innate disposition from the very beginning. We acquire them through sense perception, yet in a manner that encompasses what we do not perceive through the senses. Consequently, they are universal premises that are derived from the perception of singulars, but are not themselves sensible. As for those acquired through experience, they are universal premises in which certainty is formed within us by virtue of an intention to

perceive their particulars (*al-ihsās bi-juzʾiyyātihā*) to a greater or lesser degree. Experience is the step-by-step investigation of the particulars of universal premises. These are, in fact, universal premises formed through repeated sense perception. Experience provides certainty, whereas induction does not (al-Fārābī, 2012, pp. 5–6). Even though he places great value on sense perception and experience, he primarily stresses intelligibles, as reason is the key distinction that separates humans from other animals (al-Fārābī, 1986a, p. 19).

When the classifications in *Kitāb al-Qiyās* (*Prior Analytics*) and *Kitāb al-Burhān* (*Posterior Analytics*) are evaluated together, it can be interpreted that al-Fārābī actually speaks of three classes of premises that constitute demonstrative syllogism. Although he states that sensible premises are singular, we can argue that through the senses, we can obtain universal premises regarding sensible entities. In this case, we can say that premises obtained through experience are formed by the repetition of perception. As for natural intelligible premises, it can be claimed that they involve the assistance of sense and experience, yet, as in metaphysics, they lack a direct sensible counterpart. Therefore, we can say that sense perception plays an essential role in acquiring the premises of demonstration here. Within the scope of the science of logic, this explanation seems sufficient. However, if we wish to seek the origins of these premises—which we treat in logic—within philosophy, we must then speak of the Active Intellect. When this inquiry is pursued further, according to al-Fārābī, the ultimate source of the primary premises of demonstrative syllogism is the First Intellect—namely, God. al-Fārābī addresses the question concerning the ultimate source of demonstrative premises not in *Kitāb al-Burhān*, but rather in *al-Madīna al-Fāḍila* (*Virtuous City*) (al-Fārābī, 2012, pp. 5-6; 2019a, pp. 160-162; Tekin, 2017, pp. 242-243). According to the Second Teacher, the first principles of all philosophical disciplines—be they theoretical or practical, and not restricted to natural science or metaphysics—are innately present within us (al-Fārābī, 2019a, p. 162; 1993, p. 51). These principles are actualized in our intellect through sense perception, experience, the emanation of the Active Intellect, and ultimately by virtue of God. In conclusion, it can be stated that in al-Fārābī's theory of demonstration, there are three types of certain premises: sensible premises, empirical premises, and primary intelligibles. It is clear that al-Fārābī explicitly examined certain premises on the basis of sense perception and intellect. These formulations by al-Fārābī subsequently laid the groundwork for Ibn Sīnā's elaboration of certain premises.

4. The Culmination of Certain Premises in Ibn Sīnā

Ibn Sīnā re-examined and elaborated upon Aristotle's accounts from Chapter 19 of Book II of the *Posterior Analytics*, in Chapter 10 of Book IV of *al-Shifāʾ: al-Burhān* (Ibn Sīnā, 2006, pp. 263–266). He mentions these accounts within the context of certainties (*yaqīniyyāt*) in *Kitāb al-Najāt*. Here, Ibn Sīnā examines sensation (*ḥiss*), imagination (*khayāl*), recollection (*dhikr*), intuition (*ḥads*), experience (*tajriba*), and the rational faculty (*quwwa ʿaqliyya*) under the heading of primaries (*awwaliyyāt*)[1] when addressing immediate assents (Ibn Sīnā, 1985, pp. 101–102). Benefiting from Aristotle's relevant views and the three classes of premises articulated by al-Fārābī, he developed the theory of certainties, and ultimately gave it a complete and definitive form in *al-Ishārāt* through classifications, concepts, definitions, and examples (Ibn Sīnā, 2005, pp. 50–52).

Ibn Sīnā enumerates and classifies the certainties into four in *ʿUyūn al-Ḥikma* as sensibles (*maḥsūsāt*), empiricals (*mujarrabāt*), primaries (*awwaliyyāt*), and widely transmitted premises (*mutawātirāt*); again into four in *Kitāb al-Najāt* as primaries, experientials (*tajrībiyyāt*), widely transmitted premises, and sensibles; into five in *al-Shifāʾ: al-Burhān* as sensibles, empiricals, widely transmitted premises, primaries, and the premises whose syllogisms are innate (*muqaddamāt fiṭriyyat al-qiyāsāt*); and again into five in *Dānishnāma-yi ʿAlāʾī* as primaries, sensibles, experientials, widely transmitted premises, and premises upon which the built syllogism is always present in the intellect. In these works, minor differences exist between the naming and exemplification (Ibn Sīnā, 2010, p. 77; 1985, pp. 97–102; 2006, pp. 14, 17; 2013, pp. 96–100). The work in which he brought his narrative of certainties to perfection is *al-Ishārāt wa-l-Tanbīhāt*, where he lists certainties, namely *yaqīniyyāt* under the title of "propositions whose acceptance is necessary" (*al-wājib qabūluhā*). Here, he divides them into six classes: primaries (*awwaliyyāt*), observationals (*mushāhadāt*), empiricals (*mujarrabāt*) and along with empiricals, namely: intuitives (*ḥadsiyyāt*), widely transmitted propositions (*mutawātirāt*), and propositions whose syllogisms are with them (*al-qadāyā allatī maʿahā qiyāsātuhā*) (Ibn Sīnā, 2005, pp. 51–52).[2]

[1] I use "primaries" as the equivalent of *awwaliyyāt*, noting that depending on the context, this term refers to primary assents, primary premises, or primary propositions. Due to the absence of standard English equivalents for many of these concepts, I found it necessary to adopt similar rendering choices for other terms where appropriate.

[2] For alternative English equivalents of the concepts here, see Ibn Sīnā, *Remarks and Admonitions Part One: Logic*, trans. Shams Constantine Inati (Wetteren: Universa Press, 1984), pp. 118–121. For the English renderings of these concepts, see also Street,

Primaries are propositions that pure intellect—upon conceiving their terms in their full essence—requires by virtue of its nature and essence, without any external cause. Some of these are evident to everyone, while others remain hidden to some people. No example of this is provided in *al-Ishārāt*. The examples in *ʿUyūn al-Ḥikma* are the propositions: "The whole is greater than the part" and "Things equal to one thing are equal." A definition is not provided for observationals (*mushāhadāt*), which are substituted for the sensibles (*maḥsūsāt*) in other works; instead, it is stated that observationals are like their two classes, namely the sensibles (*maḥsūsāt*) and the considerational propositions (*qadāyā iʿtibāriyya*). While the sensibles are propositions whose assent we acquire through sense perception—as in our judging the existence of the Sun and its being illuminating—considerational propositions are propositions we acquire through the observation of faculties other than sense perception, such as our knowledge that we possess thought, fear, and anger, as well as our awareness of ourselves and our own actions. Empiricals are judgments and propositions obtained following our repeated observations. Experience is accompanied by a hidden syllogism affording certainty to the effect that what recurs cannot be accidental. However, investigating the source of this certainty is not the duty of the logician (Ibn Sīnā, 2005, pp. 50–51). While Ibn Sīnā gives as an example of this in *al-Ishārāt* the painfulness of striking with wood, in *ʿUyūn al- Ḥikma* he gives as examples the propositions "The Sun rises and sets" and "Scammony purges yellow bile" (Ibn Sīnā, 2010, p. 77). Following the empiricals, he addresses three classes of propositions that are with the empiricals (*wa-mā maʿahā*) and follow their path: intuitives, widely transmitted propositions (*qadāyā mutawātira*), and the propositions whose syllogisms are with them. Intuitives are propositions whose principle of judgment is a strong intuition of the soul. Intuition removes doubts concerning these propositions, but it does not become a proof for those who deny it. In intuition, too, there is a power of syllogism similar to that in the empiricals. An example of this is the proposition: "The Moon receives its light from the Sun due to the forms that shape the light within it." Widely transmitted propositions are also like these. Widely transmitted propositions are those to which the soul adheres with complete tranquility on account of the testimonies/reports being so numerous as to remove the doubt that they might have occurred by way of chance or collusion. Limiting the testimonies to a specific number is not appropriate. What is to be relied upon is an amount through which certainty comes about in the testimonies. One who denies those widely transmitted propositions cannot be convinced. An example of this is believing in the existence of Mecca, Galen, Euclid, and the like. Propositions whose syllogisms are with them are propositions such that whenever their two terms occur to the mind, their middle term inevitably and involuntarily occurs to the mind as well. An example of this is the proposition: "Two is half of four" (Ibn Sīnā, 2005, pp. 51-52).

In *al-Ishārāt*, Ibn Sīnā determined the certain propositions as six classes, defined them, and sought to make them understandable with examples. Since it is a concise book, details regarding these premises were not included in *al-Ishārāt*. For this, *al-Shifāʾ: al-Burhān* must be taken into consideration. Five of these are described briefly in *al-Burhān* I.4 (Ibn Sīnā, 2006, pp. 14–15, 17), but many detailed matters are located in other parts of the work. For example, it is seen that many matters directly related to certain propositions are discussed at length here, such as that the sensible obtained from the singular will not yield knowledge because it is not universal, but that the sensing of the singular is necessary in the process continuing with imagination in the obtaining of the universal; that the being singular of Zayd and the being singular of the Sun are different; that the sensing of the singular existence of the Sun, which is single in the universe, and the obtaining of its universal knowledge cannot be the same; the relations between sense, experience, and induction and their functions in the obtaining of the universal; the being absolute and proper—that is, being without a middle term and with a middle term—of certain propositions, and how a proposition, despite having a middle term, is to be used as being without a middle term in instruction. Furthermore, Ibn Sīnā sets forth, especially in *al-Shifāʾ: al-Burhān*, that the transition of sense-data into premises is possible by virtue of these natural, necessary, universal, first intelligibles called primary principles, which are given to the human material intellect by the Active Intellect and are the true principles of philosophical sciences—consequently, that the intelligibles are primary, while the sensibles are in the position of instruments for the intelligibles (Ibn Sīnā, 2006, pp. 192, 265–266)—and again, that along with sense, experience, intuition, hearing, and syllogisms are instruments, but that the cause of the occurrence of all six premises in the soul is the Active Intellect and ultimately the First Intellect (Ibn Sīnā, 2006, pp. 40–45, 53–63, 91–94, 165–169, 263–266). Therefore, it is important to evaluate the concise narrative in *al-Ishārāt*, especially together with *al-Burhān*.

5. Examples of Contributions Made to the Theory of Certain Premises in the Post-Avicennan Period

2024, pp. 78-81.

Ibn Sīnā's theory of certainties gained acceptance in the Islamic world immediately after him and was reinterpreted and addressed until modern times. Here, we can examine some of these that stand out.

al-Ghazālī (d. 505/1111) states in the *Miʿyār* that demonstrative syllogism is composed of beliefs that are certain and real materials about which there is no doubt, that these beliefs are among the certain premises that are necessary to accept and true premises from which certain demonstrations are composed, and that these are of five classes; while directly giving the names of four of them as primaries, sensibles, empiricals, and widely transmitted premises, he treats intuitives under empiricals, and does not name innate propositions (*fiṭriyyāt*) but expresses them through their definition (el-Gazzâlî, 2013, pp. 252–262). In the *Miḥakk*, on the other hand, he lists these as primaries, internal/hidden observationals (*mushāhadāt bāṭina*), external/apparent sensibles (*maḥsūsāt ẓāhira*), empiricals, and things known through wide transmission (*al-maʿlūmāt bi-'t-tawātur*). Here, al-Ghazālī names the considerational propositions as "internal observationals" (*mushāhadāt bāṭina*), does not count the innates, names the sensibles as "external/apparent sensibles", explains some of those he examined under the name of empiricals in the *Miʿyār* separately as "internal/hidden observationals", and does not include intuitives (al-Ghazālī, 1994, pp. 102–105).

Sahlān al-Sāwī (d. 540/1145) accepted these six premises in *al-Baṣāʾir* and re-expressed them in a manner similar to that in *al-Ishārāt*, making contributions, for example, by defining observational ones as propositions that the intellect assents to by means of the senses, and by providing some explanations regarding the reasons why empirical, intuitive, and widely transmitted ones cannot be proof for others (Sahlān al-Sāwī, 1383, pp. 372–376).

al-Suhrawardī (d. 587/1191) accepted the six premises in *al-Talwīḥāt* and explained them as in *al-Ishārāt*, examined again six of these in *Kitāb al-Mashāriʿ*, particularly pointed out the differences and similarities between them, made explanations regarding how a single proposition can be included under primaries, observations, or intuitives from different aspects, clarified the universality of observations, addressed four of these in *Ḥikmat al-Ishrāq*, interpreted empiricals and widely transmitted ones as two classes of intuitives, and thereby contributed to the understanding of the theory (al-Suhrawardī, 1388, pp. 75–76; 2010, pp. 24–25; 2025, pp. 168–171).

Although Fakhr al-Dīn al-Rāzī thinks that most of Ibn Sīnā's explanations regarding *yaqīnīyāt*—that is, certainties—are inadequate, he contributed to the theory in some aspects. In this sense, *Sharḥ al-Ishārāt* needs to be taken into account. Here, Fakhr al-Dīn al-Rāzī states that in primaries there is a primary predication, that the predication in the mind relies on the predication in the external world, and therefore that the cause of predication in primaries is the reality of the subject and the predicate; says that in observations, singular sensations are the cause for preparing the soul to accept the universal belief (*ʿaqd*) from the Effusive Soul (*al-Nafs al-Fayyāḍ*), and that the sense can only help in forming a belief that corresponds to the external world if it is supported by the intellect; and puts forward the view that what apprehends considerational propositions is the rational faculty (*quwwa nāṭiqa*). In the text, important explanations are provided to the effect that a hidden syllogism is added to experience stating that repetition cannot be coincidental, that experience can yield certainty under certain conditions, and that if it yields certainty outside these conditions, this stems not from experience itself but from the Active Intellect. Fakhr al-Dīn al-Rāzī again in this work clarifies the similarities and differences between the sensed, the inducted, and the experienced, as well as between mind, understanding, and intuition. Especially, the explanation he makes regarding the difference between experience and intuition stands out. According to this, while the thing to be known in experience—as in the example of scammony—relies on human action, in intuition—as in the example of the Moon receiving its light from the Sun—it does not rely on human action. In addition, it can be said that Fakhr al-Dīn al-Rāzī contributed to the theory in *Sharḥ al-Ishārāt* also by re-expressing Ibn Sīnā's views to the effect that empiricals, intuitives, and widely transmitted reports cannot be proof for those who deny them (Fakhr al-Dīn al-Rāzī, 1386, pp. 257–258, 261–267).

It is also seen that in the Islamic world, some criticisms toward Ibn Sīnā's theory of certain premises are mentioned. The person who mentions these criticisms in detail is Fakhr al-Dīn al-Rāzī. He, while treating and interpreting the certain premises in *Sharḥ al-Ishārāt* in a manner compatible with Ibn Sīnā's point of view, in *Lubāb al-Ishārāt* narrates the primary propositions and the propositions whose syllogism is with itself again as in Ibn Sīnā, depicts the remaining four briefly first, and afterwards mentions the aspects regarding them that he sees as weak (Fakhr al-Dīn al-Rāzī, 1986, pp. 53–55).

The work in which Fakhr al-Dīn al-Rāzī expounds the criticisms toward certain premises in the most detailed manner is *Sharḥ ʿUyūn al-Ḥikma*. Here, it is seen that the other two are also added to Ibn Sīnā's explanations regarding four of the certain premises in *ʿUyūn al-Ḥikma* (Fakhr al-Dīn al-Rāzī, 1373, pp. 198–214). Fakhr al-Dīn al-Rāzī gathers the six propositions under three classes: those

obtained purely from the intellect, from the sense, and from the combination of the intellect and the sense. Here, first, the primaries obtained purely from the intellect are explained, and afterward three questions, that is, objections regarding the primaries are expressed. The first objection is to the effect that if the primaries are among the requirements of the intellect as mentioned, they ought to be continuously present in the intellect. Fakhr al-Dīn al-Rāzī opposed this objection by stating that the nature of the intellect does not necessitate their presence absolutely, and that they will exist in the intellect only when the whatness of their subjects and predicates are apprehended. The second question/objection is directed toward the differences between primaries, generally accepted/popular premises (*mashhūrāt*), and estimatives (*wahmiyyāt*) in Ibn Sīnā. Fakhr al-Dīn al-Rāzī found Ibn Sīnā's explanations regarding these differences weak and expounded them in detail. First, he focused on the difference between primaries and generally accepted premises. Fakhr al-Dīn al-Rāzī first says that for someone who does not claim that generally accepted premises reach the level of primaries, there is no need to demonstrate this difference; and if such a claim is in question, in this case he points out that Ibn Sīnā's explanations regarding this difference are weak in five respects, and attempts to explain them one by one. When he addressed the difference between primaries and estimatives, he also made a preliminary explanation. According to this, for a person who does not think that these two are of equal power, there is no need for such an explanation. If it is thought that the power of the two is equal, this is impossible. Fakhr al-Dīn al-Rāzī finds the example given here by Ibn Sīnā appropriate. The proposition in the example falls under the self-evident ones (*badīhiyyāt*) and is therefore not equal to the primaries. It is seen that he thinks like Ibn Sīnā on this matter as well, but finds Ibn Sīnā's explanations weak in three aspects and explains them. At the end of his explanations regarding these differences, Fakhr al-Dīn al-Rāzī expresses his opinion about the debate by stating, "If we were to accept that there is equality between self-evident (i.e., primary) propositions and generally accepted and estimative propositions, we would be forced to accept sophistry in a way that we could not escape from it" (Fakhr al-Dīn al-Rāzī, 1373, p. 201). The third question/objection is about the three examples given for the primaries. These are the propositions: "Affirmation and negation cannot exist together and cannot be removed together," "The whole is greater than the part," and "Things equal to the same thing are equal to each other." Fakhr al-Dīn al-Rāzī accepted only the first of the three examples, namely the principle of non-contradiction, and noted that the other two arise from the first proposition; that is, they have a middle term, and therefore cannot be primary (Fakhr al-Dīn al-Rāzī, 1373, pp. 199-203).

Fakhr al-Dīn al-Rāzī states that sensibles are obtained from sense perception, and he lists and clarifies the objections regarding sensibles. These objections are that sense is fallible, that it gives singular judgments, that it can only perceive what is currently present, that it cannot notice the attribution of one thing to another, that these cannot directly provide benefit in definition and demonstration, that the primary judge who can distinguish truth from falsehood and obtain the universal, the continuous, and the relation can only be the intellect, and that sense is merely an instrument, a servant, and a preparer for the intellect to receive universal forms from the Separate Intellects (Fakhr al-Dīn al-Rāzī, 1373, pp. 203-204).

As for those obtained from the combination of sense and the intellect, they are the empiricals, the intuitives, the propositions whose syllogisms are with them, and the widely transmitted propositions. Fakhr al-Dīn al-Rāzī also gives wide coverage to the objections directed at these. Accordingly, the empiricals and the intuitives are based on *tard* and *'aks*, which means the co-existence and co-destruction of cause and effect, and which expresses conjecture. Moreover, since they have a middle term and are in need of demonstration, they cannot be among the principles of demonstration. Propositions whose syllogisms are with them are not actually with a middle term. For this reason, they should not be regarded as a separate principle and must be counted among the primaries. As for the widely transmitted propositions, Ibn Sīnā does not conduct sufficient investigation regarding them. A third condition must be added to the two conditions mentioned by Ibn Sīnā for the widely transmitted propositions. However, it still cannot be ensured that these conditions are fulfilled. Many objections can be raised against the widely transmitted propositions. To escape from these, attention must be paid to these subtle objections. Since the senses cannot be trusted in the widely transmitted propositions either, the ultimate judge is the intellect. That the intellect is the ultimate judge means that they possess a middle term; and that which is in need of demonstration cannot be among its principles (Fakhr al-Dīn al-Rāzī, 1373, pp. 204-214).

Fakhr al-Dīn al-Rāzī accepts the primaries out of the six propositions; he does not count the sensibles among the principles because they are not universal, the propositions whose syllogisms are with them because they ought to be counted among the primaries, and the empiricals, the intuitives, and the widely transmitted propositions because they are generally in need of demonstration. Although he states that the primaries ought to be a single proposition, his expressions to the effect that the propositions whose syllogisms are with them must also be counted among the primaries are in need of explanation. In my view, there is an

inconsistency in these expressions of his. Both logicians accept sense perception. However, while Ibn Sīnā regards the sensibles as universal even if their origin is particular/singular, Fakhr al-Dīn al-Rāzī states that Ibn Sīnā's intention is the sensation of the particular/singular. Even though Ibn Sīnā states that the intuitives and the widely transmitted propositions are in need of a syllogism such as the empiricals, and furthermore that they cannot be proof for another, Fakhr al-Dīn al-Rāzī criticizes these three classes of premises because they have a middle term. Actually, Ibn Sīnā, in *al-Burhān*, divides the principles of demonstration into two: absolute and proper principles, and states that the proper principles are taken without a middle term in the relevant science, whereas when demonstrated in a higher science, their middle term can be demonstrated with another principle that is likewise without a middle term, and notes that propositions with a middle term can be used in teaching as being without a middle term (Ibn Sīnā, 2006, pp. 57-59). For this reason, it ought to be said that Ibn Sīnā makes the principles of demonstration precise by increasing them to six, while Fakhr al-Dīn al-Rāzī voices objections against these, agrees with some of the criticisms while merely transmitting others, and does not take *al-Burhān* into account while listing all these objections in detail.

Although he mentions certain criticisms against some of the certain premises, it is clear that Fakhr al-Dīn al-Rāzī does not doubt sense and intellect, that is, the sensibles and the intelligibles. As a matter of fact, in *al-Muhassal*, he discusses the attitudes of four groups toward assents that do not require acquisition and are self-evident, and divides them into four classes: those who accept the sensibles and the intelligibles, those who criticize only the sensibles, those who criticize only the intelligibles, and those who criticize both the sensibles and the intelligibles (Fakhr al-Dīn al-Rāzī, 2002, pp. 5-25). He states that he will not even occupy himself with replying to those who criticize the sensibles and the intelligibles. Fakhr al-Dīn al-Rāzī expresses that, as Ibn Sīnā says in *al-Shifā: al-Ilāhiyyāt*, such people ought to be tormented until they confess the sensibles; that in this situation they will confess the sensibles; and that when they confess the sensibles, they will also have confessed the intelligibles, just like the difference between pain and non-pain (Fakhr al-Dīn al-Rāzī, 2002, p. 25; Ibn Sīnā, 2004, p. 48, 51). There is no doubt that Fakhr al-Dīn al-Rāzī counts himself among the first group, which accepts both the sensibles and the intelligibles.

Naṣīr al-Dīn al-Ṭūsī, in *Sharḥ al-Ishārāt*, points out that Ibn Sīnā divides these not into species but into "classes", states that experience yields certainty as restricted by specific conditions, and enumerates these conditions. He explains in what respects the intuitives and the widely transmitted propositions are like the empiricals, clarifies the difference between the primaries and the generally accepted propositions by treating popularity separately, and likewise clarifies the difference between the purely intelligibles and the estimatives (*waḥmiyyāt*). Furthermore, he mentions that the widely transmitted propositions cannot be used in sciences because they are particular like the sensibles unless they are made universal by the intellect. In *Asās al-Iqtibās*, he points out the similarities and differences between the intuitives and the propositions whose syllogisms are embedded in innate nature, stating that they are not principles in reality, but are counted among the principles because their acquisition is not arduous (Naṣīr al-Dīn al-Ṭūsī, n.d., pp. 343, 345, 347-348, 350-355; 2023, pp. 700-701).

al-Kātibī (d. 675/1277), in *al-Risāla al-Shamsiyya*, makes the certain premises easily understandable by briefly listing them with definitions and examples, whereas Quṭb al-Dīn al-Rāzī (d. 766/1365), in his commentary on this treatise, attempts to clarify these definitions and examples by interpreting them (el-Kâtibî, 2017, pp. 417-419; Quṭb al-Dīn al-Rāzī, 1948, pp. 166-167). This treatise and its commentaries are more voluminous texts compared to al-Abharī's *Īsāghūjī* and the commentaries written upon it. In these texts, limited space is devoted to the certain premises. The widespread teaching of these texts served an important function in the adoption and comprehension of the certain premises by students.

al-Taftāzānī, in his *Sharḥ al-Shamsiyya*, answers the question of how the certain premises are divided into six necessary classes despite being acquired through demonstration by stating that the six principles are the primary certain matters, whereas those acquired from them are in the second or subsequent degree. He indicates that the assertion that demonstration consists only of "necessary propositions" means that demonstration is composed only of "propositions whose assent is necessary," and that demonstration can be constructed from such propositions whether they are necessary, possible, or existential/actual (*wujūdiyya*), or whether they are self-evident or acquired. He further notes that demonstration can be obtained not only from those whose premises are both necessary, but also from those whose premises are both acquired, or those whose one premise is necessary and the other acquired, thereby pointing out that in addition to the primary principles, there can also be secondary principles containing a middle term. He draws attention to the fact that in the observationals, sense does not judge alone; but sense and intellect judge together. Lastly, he clarifies the difference between the empiricals and the intuitives by stating that in the empiricals, the causality of the cause is known while its

whatness is unknown, whereas in the intuitives, both the causality and the whatness of the cause are known (al-Taftāzānī, 2013, pp. 373–377).

In *al-Maqāṣid*, al-Taftāzānī states that the intellect judges in all six certain premises, expresses the attribute of the genus in the definition of each as the instrument of the intellect, uses the self-evidents (*badīhiyyāt*) and the primaries (*awwaliyyāt*) synonymously, prefers the name "necessaries" (*ḍarūriyyāt*) for the six principles, asserts that the self-evidents and the observationals are foundational, and notes that since the others contain a middle term and are acquired through reflection (*naẓar*), the principles can actually be reduced to two. He clarifies the reason for the transition from principles to knowledge by stating that knowledge is obtained from the necessaries through reflection by virtue of God's creation according to himself, by generation (*tawlīd*) according to the Muʿtazila, and by the completion of readiness and the perfection of emanation according to the philosophers. Here again, al-Taftāzānī, pointing to Fakhr al-Dīn al-Rāzī's classification in *al-Muḥaṣṣal*, classifies people in terms of their rejection or acceptance of the first two of the certain premises, that is, the intelligibles and the sensibles, and grounds that both must be accepted by stating that one must turn away from those who reject the self-evidents, whereas those who reject both will accept them when burned by fire (et-Teftâzânî, 2019, pp. 102–109).

In *Sharḥ al-ʿAqāʾid*, on the other hand, al-Taftāzānī asserts that the reality of things can be known, contrary to the claims of the sophists. He states that when great scholars wish to explain it concisely, they divide the causes of knowledge into three—namely, the intellect, the truthful report (*khabar ṣādiq*), and the sound senses—accepting as well conscience (*wijdān*), intuition (*ḥads*), experience (*tajriba*), and reflection (*naẓar*), and that all of these actually rely on the intellect. He further maintains that the ultimate cause of the occurrence of knowledge in us is God (Glorified and Exalted be He), that the true owner of knowledge is the Creator while its apparent owner is the intellect, that sense is the instrument of intellectual apprehension and report is the path of intellectual apprehension, and by mentioning this at the beginning of his theological book, he interprets the certain premises as prerequisites for fortifying religious faith (al-Taftāzānī n.d., pp. 60–74).

In *al-Mawāqif*, ʿAḍud al-Dīn al-Ījī (d. 756/1355) divides necessary knowledge into three: conscience-based premises (*wijdāniyyāt*), sensibles (*ḥissiyyāt*), and self-evidents (*badīhiyyāt*). Excluding the conscience-based ones due to their limited utility in the sciences, he divides people into four classes based on their acceptance or rejection of the sensibles and the self-evidents, just as Fakhr al-Dīn al-Rāzī did in *al-Muḥaṣṣal* (ʿAḍud al-Dīn al-Ījī n.d., pp. 11–21). In his commentary on the relevant section, Sayyid Sharīf al-Jurjānī (d. 816/1413) enumerates experientials, widely transmitted premises, intuitives, observationals, self-evidents, and innate premises (*fiṭriyyāt*). Nevertheless, just as in al-Fārābī and in accordance with the perspectives of Ibn Sīnā and al-Taftāzānī, he asserts that among these six, the primary foundation in the sciences consists of the sensibles and the self-evidents, as they can serve as evidence for others (Sayyid Sharīf al-Jurjānī, 2017, pp. 214–217). Because they considered themselves to belong to the class that accepts both modes of knowledge, it can be stated that ʿAḍud al-Dīn al-Ījī and Sayyid Sharīf al-Jurjānī were also influential in the widespread acceptance of certain premises.

In his poetic work *al-Sullam*, al-Akhḍarī (d. 983/1575) enumerates certain premises as primaries, observationals, experientials, widely transmitted premises, and sensibles, and does not separately mention innate premises. In *al-Sullam*, observationals and sensibles are presented as distinct classes (al-Akhḍarī, 2001, p. 166; al-Damanhūrī, 2001, pp. 166–167). It can be said that the study and memorization of the text in question alongside its commentaries played an important role in transmitting certain premises to subsequent generations.

In the subsequent trajectory of the Islamic logical tradition, the theory of certain premises was likewise accepted and has continued to be treated in logical texts up to the present day. Mullā Fanārī's (d. 834/1431) *al-Favāʾid al-Fanāriyya*, ʿAllāmah ʿAbd Allāh al-Yazdī's (d. 1606) *Sharḥ al-Tahdhīb*, Gelenbevī's (d. 1205/1791) *Sharḥ Īsāghūjī*, Maghnīsī's (d. 1222/1807) *Mughnī al-Ṭullāb*, Aḥmad Jawdat Pasha's (d. 1895) *Miʿyār-i Sadād*, and Ismāʿīl Ḥaqqī İzmirli's (d. 1946) *Miʿyār al-ʿUlūm* can be cited as examples of these. It is observed that certain premises, which were succinctly set forth by al-Fārābī and rendered precise by Ibn Sīnā by being expanded to six, were re-examined with various contributions and interpretations (Mullā Fanārī, 2019, pp. 169–173; ʿAllāmah ʿAbd Allāh al-Yazdī, 2014, pp. 198–200; Gelenbevī, n.d., pp. 144–149; Maghnīsī, 2009, pp. 238–244; Ahmed Cevdet Paşa, 1998, pp. 149–164; Ismāʿīl Ḥaqqī İzmirli, 1315, pp. 74–85).

6. Some Standardized Definitions and Examples Regarding Certain Premises

In the post-Avicennan period, the vast majority of logicians took Ibn Sīnā's works as their model, and this Avicennan narrative of certain premises became firmly established and widespread through logic treatises and handbooks authored for instruction during this era. al-Kātibī's *al-Risāla al-Shamsiyya* and al-Abharī's *Īsāghūjī* can be cited as examples of these. Accordingly, the matter of syllogism is divided into

two: certainties and non-certainties. Demonstration is a syllogism constructed from certain premises to yield a certain conclusion. Certain premises consist of six classes: primaries, observationals, empiricals, intuitives, widely transmitted premises, and propositions whose syllogisms are with them. Primary premises are those in which the mere conception of the two terms is sufficient to judge the existence of a relation between them, as in the example "The whole is greater than the part." Observational premises are those that are judged through the external or internal senses, as in the examples "The sun is illuminating" and "I have fear and anger." Empirical premises are those that are judged due to observations repeated to such a degree that they yield certainty, as in the example "Drinking scammony relieves bile." Intuitive premises are those that are judged due to a powerful knowledge-yielding intuition of the soul, as in the example "The light of the Moon is borrowed from the Sun." Intuition is the name for the swift transition from principles to desired ends. Widely transmitted premises are those that are judged due to the multiplicity of testimony, after knowing that they are not impossible and after ensuring that there is no collusion, as in the example "Mecca and Baghdad exist." Propositions whose syllogisms are with them are those that are judged by means of a middle term that does not remain distant from the mind when their terms are conceived, as in the example "Four is even." The middle term here is "being divided into two equal parts" (el-Ebherî, 2022, 177, 180–181; el-Kâtibî, 2017, 416–419). Two examples are provided regarding observational premises. As al-Taftāzānī noted, the reason for this is that observational premises are divided into sensible premises and conscience-based premises. Sensible premises are observational premises acquired through the external senses, whereas conscience-based premises are observational premises acquired through the internal senses. This narrative of certain premises was generally accepted in the Islamic world in the subsequent period, apart from a few minor details.

7. An Example of the Standardized Classification of Certain Premises

Although the number of certain premises was expanded to six with Ibn Sīnā, two of them—primaries and sensibles—are fundamental, while the remaining four are derived from these two. The six premises have been classified in different ways based on sense and intellect. Here, we can give Mullā Fanārī's classification as an example of famous classifications.

According to Mullā Fanārī, the intellect judges certainty either without the aid of sense or with it. The certainty that the intellect acquires by itself without the aid of sense is either without a middle term or with a middle term. The premises that the intellect acquires by itself without a middle term are primaries, whereas those acquired with a middle term are propositions whose syllogisms are with them. The certainty or certain assent that the intellect acquires with the aid of sense perception either does not rely on anything else beyond sense perception, or it does. The certain assents that the intellect acquires after sense perception without relying on anything else beyond it are sensibles. Since the sensory faculties are divided into external and internal ones, Mullā Fanārī divides sensibles into two categories from this perspective, and he calls those acquired through the external senses "observational premises", and those acquired through the internal senses "conscience-based premises".[3] If the intellect relies on something beyond sense perception after the act of sensing, a twofold distinction arises based on whether the sense in question is the sense of hearing or another sense. If the sense in question is hearing, these are widely transmitted premises. For widely transmitted premises are acquired through hearing from other people—that is, via the faculty of hearing—and in this case, the assent acquired through hearing relies on the intellect's judgment that it is impossible for the reporters to agree upon a lie. In widely transmitted reports, the person addressed with these does not directly sense—as they do—the direct sense data that the persons from whom he receives these reports ultimately acquired in the manner of sensibles, but rather acquires them from them by way of hearing. The reason for relying on reports received through hearing is the judgment that the individuals involved in the transmission process do not lie. If acquiring through the sense of hearing what others have sensed is not in question, then that which is relied upon after direct sensing is either the repetition of sensing via the external senses or intuition. While those acquired by relying on the repetition of sensing are empirical premises, those acquired by relying on intuition are intuitive premises (quoted in el-Kâtibî, 2017, 181).

Conclusion

In the classical period, unlike in the modern period, philosophers assigned the name "science" exclusively to the philosophical sciences, and they referred to the human activities commonly called "science" today rather as conjectural sciences. According to the Peripatetic Islamic philosophers in particular, philosophy was the name of the form in which a systematic togetherness of the sciences came into being in the mind of the philosopher. Logic, on

[3] As can be understood, unlike al-Ghazālī, Mullā Fanārī here takes sensibles as a genus, considering observational premises and conscience-based premises to be its two species.

the other hand, consisted of a demonstrative/ philosophical examination of the modes of activity of primarily the philosopher's mind, secondarily the minds of the dialectician and the sophist who also act in the domain of philosophy, and finally the minds of the masses. At the foundation of this perspective, which might appear foreign and nostalgic to modern humans, lay the art of demonstration and the ideal of demonstrative/certain philosophy. Demonstrative syllogisms, which lay at the foundation of the art of demonstration consisted of certain premises. According to the Peripatetic Islamic philosophers, the starting point, that is, the principles of the entirety of philosophy and logic, were these certain premises.

It can be said that the narrative of certain premises in the Islamic logical tradition was constructed by drawing inspiration from Aristotle's narratives in the *Posterior Analytics*. al-Fārābī conducted the first examination regarding certain premises in the Islamic world. It is observed that al-Fārābī conducted analyses on certain assent and certain premises in his various works. Ibn Sīnā, on the other hand, sought to elaborate the theories of Aristotle and al-Fārābī and presented a complete account of certain premises in *al-Ishārāt wa-al-Tanbīhāt*. In the subsequent process, logicians generally accepted and reinterpreted Ibn Sīnā's account of certain premises. It is quite natural for philosophers to accept the certain premises and to seek to develop them. However, in the post-Avicennian period in the Islamic world, *mutakallimūn* (theologians) also studied the science of logic and accepted these classes of premises, which constituted the principles of the method of philosophy. It is particularly interesting that Ashʿarī *mutakallimūn* sought to develop the theory of certain premises for hundreds of years, and this also deserves to be researched separately.

While the place of the *Posterior Analytics* in logic and philosophy was accepted by Peripatetic philosophers in the classical period, it was also rejected by scholars from other philosophical and theological traditions. However, especially in the modern period, a philosophy based on logic and demonstration is hardly ever mentioned. Modern humans have maintained a distance from true, universal, essential, and certain premises and knowledge. Modern civilization has adopted practical utility, wealth, and power as its fundamental principles and has developed technology to the utmost degree. Today, if we still wish to speak of philosophy in the sense of an endeavor to know existence universally, even if in a nostalgic manner, the Islamic logical tradition, the art of demonstration, and the theory of certain premises still seem to maintain their claim to guide us.

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References

Ahmet Cevdet Paşa. (1998). *Miʿyâr-ı Sedât* (H. T. Feyizli, ed.). Ankara: Fecir Yayınevi.

al-Akhḍarī. (2001). al-Sullam al-Murawnaq. In al-Damanhūrī, *Īḍāḥ al-Mubham min Maʿānī al-Sullam* (ʿA. al-Thannārī. Damascus: Dār al-Farfūr.

Aristotle. (1997). *Posterior Analytics* (H. Tredennick, ed. & trans.). In *Posterior Analytics; Topica*. Cambridge: Harvard University Press.

Aristotle (Aristoteles). (1998). *Eudemos'a Etik* (S. Babür, trans.). Ankara: Dost Kitabevi.

Aristotle (Arisṭūṭālīs). (1999). Kitāb Anālūṭīqā al-Thānī aw Kitāb al-Burhān (Abū Bishr Mattā b. Yūnus, trans). In *al-Naṣṣ al-Kāmil li-Manṭiq Arisṭū* (F. Jabr, ed.), 2 vols. Beirut: Dār al-Fikr al-Lubnānī.

el-Ebherî (al-Abharī). (2022). *Īsāghūjī* (F. Özpilavcı, ed. & trans.). İstanbul: Litera Yayıncılık.

al-Damanhūrī. (2001). *Īḍāḥ al-Mubham min Maʿānī al-Sullam* (ʿA. al-Thannārī, ed.). Damascus: Dār al-Farfūr.

DiPasquale, D. M. (2019). *Alfarabi's Book of Dialectic (Kitâb al-Jadal): On the Strating Point of Islamic Philosophy*. Cambridge: Cambridge University Press.

Ergün, C. (2026). The Epistemological Function of Aristotelian Dialectic and Its Relationship to First Principles. *Beytulhikme An International Journal of Philosophy*, 16 (2): 633-656.

Gelenbevī, I. (n.d.). *Sharḥ Īsāghūjī* (A. Hiçdönmez, ed.). İstanbul: Maktabat al-Ḥanafiyya.

al-Fanārī. (2019). *al-Fawāʾid al-Fanāriyya* (ʿAbd al-Malik al-Saʿdī, ed.). Amman: Dār al-Fārūq.

al-Fārābī. (1931). *Iḥṣāʾ al-ʿUlūm* (ʿU. M. Amīn, ed.). Cairo: Maktabat al-Khānjī.

al-Fārābī. (1986a). Kitāb al-Jadal (R. al-ʿAjam, ed.). In *al-Manṭiq ʿinda al-Fārābī*, vol. 3. Beirut: Dār al-Mashriq.

al-Fārābī. (1986b). Kitāb al-Qiyās (R. al-ʿAjam, ed.). In *al-Manṭiq ʿinda al-Fārābī*, vol. 2. Beirut: Dār al-Mashriq.

al-Fārābī. (1990). Sharāʾiṭ al-Yaqīn (M. Türker-Küyel, ed. & trans.). In *Fârâbî'nin Şerāʾiṭü'l-Yaḳīn'i*. Ankara: Atatürk Kültür Merkezi Yayını.

al-Fārābī. (2012). *Kitâbu'l-Burhân* (Ö. Türker & Ö. M. Alper, eds. & trans.). İstanbul: Klasik Yayınları.

al-Fārābī (Fârâbî). (2019a). *el-Medînetü'l-Fâzıla* (Y. Aydınlı, trans.). İstanbul: Litera Yayıncılık.

al-Fārābī. (2019b). *Book of Dialectic* (D. M. DiPasquale, trans.). In D. M. DiPasquale, *Alfarabi's Book of Dialectic (Kitāb al-Jadal): On the Strating Point of Islamic Philosophy*. Cambridge: Cambridge University Press.

al-Fārābī. (2024). *Book of Letters (Kitāb al-Ḥurūf)* (C. E. Butterworth, trans.). Berkeley: Zaytuna College.

al-Ghazālī. (1994). *Miḥaqq al-Naẓar* (R. al-ʿAjam, ed.). Beirut: Dār al-Fikr al-Lubnānī.

el-Gazzâlî. (2013). *Miʿyār al-ʿIlm: İlmin Ölçütü* (A. Durusoy & H. Hacak, eds. & trans.). İstanbul: Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları.

al-Ījī, A. (n.d.). *al-Mawāqif fī ʿIlm al-Kalām*. Cairo: Maktabat al-Mutanabbī.

İzmirli, İ. H. (1315). *Mi'yâru'l-Ulûm*. İstanbul: Yuvanaki Panayoditis Matbaası.

al-Jurjānī (Cürcânî). (2017). *Sharḥ al-Mawāqif (Mevâkıf Şerhi)* (Ö. Türker, ed. & trans.). İstanbul: Türkiye Yazma Eser Kurumu Başkanlığı Yayınları.

Ibn Sīnā. (1985). *Kitāb al-Najāt*. Ed. Mājid Fakhry. Beirut: Manshūrāt Dār al-Āfāq al-Jadīda.

Ibn Sīnā (İbn Sînâ). (2004). *Kitâbu'ş-Şifâ: Metafizik* (Ö. Türker & E. Demirli, trans.). İstanbul. Litera Yayıncılık.

Ibn Sīnā (İbn Sînâ). (2005). *İşaretler ve Tenbihler* (A. Durusoy, M. Macit & E. Demirli, trans.). İstanbul: Litera Yayıncılık.

Ibn Sīnā. (2006). *Kitâbu'ş-Şifâ: İkinci Analitikler* (Ö. Türker, trans.). İstanbul: Litera Yayıncılık.

Ibn Sīnā. (2010). *ʿUyūn al-Ḥikma* (ʿA. Badawī, ed.). Paris: Dār Byblion.

Ibn Sīnā. (2013). *Dânişnâme-i Alâî: Alâi Hikmet Kitabı* (M. Demirkol, ed. & trans.). İstanbul: Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları.

Ibn al-Nafīs. (2015). *Sharḥ al-Wurayqāt fī al-Manṭiq* (A. F. al-Mazīdī, ed.). Beirut: Dār al-Kutub al-ʿIlmiyya.

el-Kâtibî (al-Kātibī). (2017). *Şemsiyye Risâlesi* (F. Özpilavcı, ed. & trans.). İstanbul: Litera Yayıncılık.

al-Maghnīsī. (2009). *Mughnī al-Ṭullāb* (M. al-Sabūʿī, ed.). Damascus: Dār al-Bayrūtī.

al-Rāzī, F. (1373). *Sharḥ ʿUyūn al-Ḥikma* (A. Ḥijāzī & A. al-Sakkā, eds.), 3 vols. Ṭahrān: Muʾassasat al-Ṣādiq li-al-Ṭibāʿa wa al-Nashr.

al-Rāzī, F. (1386). *Sharḥ al-Ishārāt* (ʿA. R. Najafzāda, ed.). Ṭahrān: Anjuman-i Āthār wa Mafākhir-i Farhangī.

al-Rāzī, F. (1986). *Lubāb al-Ishārāt wa-al-Tanbīhāt* (A. Ḥ. al-Saqqā, ed.). Cairo: Maktabat al-Kulliyyāt al-Azhariyya.

Râzî, F. (2002). *Kelam'a Giriş (el-Muhassal)* (H. Atay, trans.). Ankara: Kültür Bakanlığı Yayınları.

al-Rāzī, Q. (1948). *Taḥrīr al-Qawāʿid al-Manṭiqiyya fī Sharḥ al-Risāla al-Shamsiyya*. Cairo: Matbaʿat Muṣṭafā al-Bābī al-Ḥalabī.

al-Sāwī. (n.d.). *al-Baṣāʾir al-Naṣīriyyah fī ʿIlm al-Manṭiq* (Ḥ. al-Marāghī, ed.). Ṭahrān: Matbaʿat Aftāb.

Street, T. (2024). *Najm al-Dīn al-Kātibī's al-Risālah al-Shamsiyyah: An Edition and Translation with Commentary*. New York: New York University Press.

al-Suhrawardī. (1388). *al-Talwīḥāt al-Lawḥīya wa-al-ʿArshīya* (N. Ḥabībī, ed.). Ṭahrān: Mu'assasa-yi Pajūhish-i Ḥikmat wa Falsafa-yi Īrān.

al-Suhrawardī. (2010). *Ḥikmat al-Ishrāq* (I. Ḥaydūrah, ed.). Beirut: Dār al-Maʿārif al-Ḥikamiyya.

al-Suhrawardī. (2025). *Kitâbü'l-Meşâriʿ ve'l-Mutârahât. Mantık: Felsefî Meseleler ve Eleştiriler* (S. Yalın & A. K. Cihan, eds.), Vol. 1. İstanbul: Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları.

al-Taftāzānī. (2013). *Sharḥ al-Imām al-Saʿd al-Taftāzānī ʿalā al-Shamsīya fī al-Manṭiq li-al-Imām al-Kātibī* (C. B. Ṣāliḥ, ed.). ʿAmmān: Dār al-Nūr.

al-Taftāzānī. (n.d). *Sharḥ al-ʿAqāʾid al-Nasafiyya* (M. ʿA. Darwīsh, ed.). Beirut: Dār al-Kutub al-ʿIlmiyya.

Teftâzânî. (2019). *el-Makâsıd: Kelam İlminin Maksatları*. Trans. İrfan Eyibil (İ. Eyibil & A. Kaylı, eds. & trans.) İstanbul: Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları.

al-Ṭūsī, N. (2023). *Tarjamat Asās al-Iqtibās fī al-Manṭiq* (M. Khusraw, trans. & F. Özpilavcı, ed.), Vol. 2. Cairo: Dār Fāris.

al-Ṭūsī, N. (n.d.). *Sharḥ al-Ishārāt*. In Ibn Sīnā, *al-Ishārāt wa-al-Tanbīhāt maʿa Sharḥ Naṣīr al-Dīn al-Ṭūsī* (S. Dunyā, ed.). Cairo: Dār al-Maʿārif.

Tekin, A. (2025). Mantık: Kıyas ve Burhan. In *İslam Felsefesi: Tarih ve Problemler* (M. C. Kaya, ed.), Vol. 2. İstanbul: İsam Yayınları.

Tekin, A. (2017). *Varlık ve Akıl: Aristoteles ve Fârâbî'de Burhan Teorisi*. İstanbul: Klasik Yayınları.

al-Yazdī. (2014). *Sharḥ al-Tahdhīb*. Karachi: Maktabat al-Bushrā.