



EPISTEMOLOGY IN THE PERSPECTIVE OF ISLAMIC PHILOSOPHY OF SCIENCE: THE INTEGRATION OF REVELATION, INTELLECT, AND SPIRITUAL EXPERIENCE IN THE ISLAMIC INTELLECTUAL TRADITION

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ABSTRACT

The development of modern science tends to be dominated by an epistemology that places ratio and empirical experience as the primary foundations of truth, thereby marginalizing transcendent dimensions and normative values. This condition creates the need for a more comprehensive epistemological framework. This paper aims to examine epistemology from the perspective of Islamic philosophy of science by emphasizing the integration of revelation, intellect, and spiritual experience as the foundations for the acquisition and validation of knowledge within the Islamic intellectual tradition. This study employs a qualitative approach through library research, using conceptual analysis of literature on philosophy of science as well as classical and contemporary Islamic thought. The findings indicate that Islamic epistemology is holistic and theocentric, in which revelation functions as the primary normative source, reason acts as the rational instrument, and empirical experience serves as a means of verifying the reality of the natural world. The integration of these three elements forms an epistemological framework that not only emphasizes rational and empirical truth but also relates it to ethical and metaphysical dimensions. Therefore, Islamic epistemology provides a theoretical contribution to the development of the philosophy of science and to the formulation of a scientific paradigm oriented toward truth and human well-being within the context of contemporary knowledge.

Keyword: *Islamic epistemology; philosophy of science; revelation; reason; empirical experience; Islamic intellectual tradition.*

INTRODUCTION

The development of modern science cannot be separated from the epistemological foundations that sustain it. Since the emergence of modernity, scientific epistemology has largely been dominated by perspectives that place reason and empirical experience as the primary, and often exclusive, sources for acquiring knowledge considered valid and objective. This orientation developed alongside the strengthening of positivism and empiricism within modern Western philosophy, which emphasize observation, measurement, and empirical verification as the principal criteria of scientific truth. Within this paradigm, truth is understood as something that can be empirically tested and demonstrated through rigorous methodological procedures, while metaphysical and normative dimensions are regarded as lying outside the domain of scientific inquiry (Edmund Husserl, 1970).

One consequence of this epistemological paradigm is the narrowing of the meaning of knowledge itself. Knowledge is no longer understood as a comprehensive human effort to understand reality in its entirety but is instead reduced to a cognitive activity oriented



toward the mastery and manipulation of natural phenomena. Thomas Kuhn (1996) demonstrated that the development of modern science is not merely cumulative and objective but is also shaped by specific paradigms that influence how scientists perceive and interpret reality. Within this framework, modern scientific knowledge tends to overlook fundamental questions concerning meaning, purpose, and value because such questions are considered irrelevant to the empirical and objective criteria that define scientific legitimacy.

This epistemological tendency has generated extensive criticism within contemporary philosophy of science. Critical thinkers have pointed out that the dominance of instrumental rationality in modern science has displaced the role of ethical and normative reflection in human life. Jürgen Habermas (1984) argues that instrumental rationality, which is oriented toward efficiency and control, has the potential to undermine communicative rationality that should form the basis of meaningful social interaction. In this context, scientific knowledge no longer functions primarily as a means of human emancipation but instead contributes to processes of alienation and dehumanization. In line with these critiques, Stephen Toulmin (1990) emphasizes that the sharp separation between fact and value within modern epistemology has weakened the role of knowledge as a means of giving meaning to human life. When knowledge is detached from ethical values and moral purposes, science loses the normative orientation that should guide the application and development of knowledge. Consequently, scientific and technological advancement does not necessarily correspond with improvements in the quality of human life. In many cases, it instead generates new ecological, social, and humanitarian challenges.

Within the broader critique of modern epistemology, Islamic epistemology gains relevance as an alternative framework within the philosophy of science. Islamic epistemology rejects a strict dichotomy between reason, empirical experience, and the transcendent dimension. In the Islamic intellectual tradition, knowledge (*‘ilm*) is understood as an integral component of the worldview of *tawḥīd*, which places God as the ultimate source of truth. Knowledge is therefore not merely seen as a product of human intellectual activity but also as a trust associated with the moral and spiritual responsibility of human beings as vicegerents (*khalifah*) on earth (Syed Muhammad Naquib al-Attas, 1993).

This perspective is further emphasized by Seyyed Hossein Nasr (2006), who argues that knowledge in Islam cannot be separated from metaphysical dimensions and the spiritual purpose of human existence. Within the framework of Islamic epistemology, the pursuit of knowledge aims not only to understand natural phenomena but also to recognize the order of the cosmos as signs of divine greatness. Scientific knowledge therefore possesses a clear teleological dimension, guiding human beings toward self-knowledge, recognition of God, and the realization of ethical values in life. From the perspective of Islamic philosophy of science, revelation occupies a central position as a normative source that provides ontological and ethical orientation for all intellectual activities. Revelation is not understood as a substitute for reason or empirical experience but rather as a guiding framework that directs their proper use. Nasr (1989) emphasizes that revelation functions as a guiding principle ensuring that human intellectual activity remains connected to metaphysical truth and moral values. Within this framework, reason functions as a rational instrument for understanding reality and interpreting revelation in a contextual manner,



while empirical experience becomes a means for systematically investigating natural phenomena.

Similarly, Ismail Raji al-Faruqi (1982) stresses that reason and empirical observation occupy important positions within Islam, yet both must operate within the framework of values and purposes established by revelation. In other words, Islamic epistemology does not reject rationality or empiricism but situates them within a hierarchical and integrative epistemological structure. The integration of revelation, reason, and experience constitutes the distinctive character of Islamic epistemology as a holistic and theocentric epistemological framework. Nevertheless, contemporary academic studies on Islamic epistemology still reveal several limitations. Wael B. Hallaq (2014) observes that many discussions of Islamic epistemology tend to emphasize the normative dimension of revelation without sufficiently elaborating its relationship with rationality and empirical experience. Such an approach risks producing an understanding of Islamic epistemology that is primarily normative and dogmatic, lacking critical engagement with the realities of modern scientific discourse.

On the other hand, Oliver Leaman (2009) identifies a tendency within studies of Islamic philosophy to overemphasize rationalism, particularly in interpretations of classical Muslim philosophers. This approach risks obscuring the integrative character of Islamic epistemology by separating philosophical rationality from the revelational foundations that form the core of the Islamic worldview. As a result, Islamic epistemology is often understood in a partial and fragmented manner rather than as a coherent framework of philosophy of science. In addition to these partial tendencies, a number of studies on Islamic epistemology remain limited to historical descriptions of classical thinkers without critically relating them to contemporary issues in the philosophy of science. Frank Griffel (2009) warns that purely historical approaches risk freezing Islamic thought within the context of the past and distancing it from contemporary relevance. For this reason, Nader El-Bizri (2015) emphasizes the need for analytical, critical, and contextual readings of Islamic epistemology so that it may contribute meaningfully to the discourse of modern philosophy of science.

Based on this background, this paper aims to examine epistemology from the perspective of Islamic philosophy of science with particular emphasis on the integration of revelation, reason, and experience within the Islamic intellectual tradition. The study focuses on a conceptual analysis of the sources of knowledge, the methods for acquiring knowledge, and the criteria for the validity of knowledge within the framework of Islamic epistemology. This approach aligns with the perspective of Syed Muhammad Naquib al-Attas (1995), who emphasizes the importance of conceptual clarity in understanding knowledge, as well as with the view of Seyyed Hossein Nasr (2007), who stresses the urgency of integrating rational and spiritual dimensions in the development of philosophy of science. Systematically, the discussion in this paper begins with an exposition of the concept of epistemology in the philosophy of science as a general theoretical framework. It then proceeds to examine the foundations of Islamic epistemology and the recognized sources of knowledge within the Islamic intellectual tradition. The discussion subsequently focuses on the ideas of major figures in Islamic philosophy concerning epistemology and their relevance in addressing the challenges of contemporary scientific knowledge. The structure of this discussion follows an analytical and contextual approach as suggested by Oliver Leaman (2019) and Wael B. Hallaq (2019), with the aim of positioning Islamic epistemology



as a living and relevant framework of philosophy of science within the context of modern scholarship.

RESEARCH METHODS

This study employs a qualitative approach using a library research method oriented toward conceptual and philosophical inquiry. The qualitative approach is chosen because the study aims to understand the meanings, assumptions, and epistemological framework of a particular intellectual tradition rather than to examine relationships between variables or to measure empirical phenomena statistically (John W. Creswell, 2014). Within philosophical studies and the humanities, library research constitutes a primary method for examining ideas, arguments, and conceptual structures articulated in academic texts. Epistemology as a branch of philosophy fundamentally concerns critical reflection on the foundations of knowledge. For this reason, the analysis of philosophical texts represents a relevant and methodologically valid approach (Robert Audi, 2015).

The data sources in this study consist of primary and secondary materials. Primary sources include the major works of classical and contemporary Muslim thinkers who have discussed epistemology, the philosophy of science, and the Islamic worldview, such as Al-Ghazali, Ibn Sina, Ibn Rushd, Syed Muhammad Naquib al-Attas, and Seyyed Hossein Nasr (Al-Attas, 1995). These works are selected because they represent the conceptual foundations of Islamic epistemology across different phases of the development of the Islamic intellectual tradition (Nasr, 2006). Secondary sources include academic books, scholarly journal articles, and critical studies addressing the philosophy of science, Islamic epistemology, and the relationship between knowledge, values, and metaphysical dimensions. These secondary sources are used to broaden the analytical context and to situate Islamic epistemological thought within the broader discourse of contemporary philosophy of science (Oliver Leaman, 2009).

The selection of literature is conducted selectively by considering thematic relevance, the academic authority of the authors, and the direct relationship of the sources with the focus of the study. This selective approach is important to ensure that the analysis is grounded in credible sources recognized within the academic community (Christopher Hart, 2018). Data analysis is conducted through several interrelated stages. The first stage involves critical reading of the literature to identify key concepts related to Islamic epistemology, including revelation, reason, empirical experience, and the validity of knowledge. This critical reading aims to understand the terminology, context, and arguments employed by each thinker (Lisa M. Given, 2008). The second stage consists of conceptual analysis, which involves an in depth examination of the meanings and functions of these epistemological concepts within the framework of Islamic philosophy of science. Conceptual analysis is used to clarify terminology, avoid ambiguity, and systematically trace the relationships among epistemological elements (Audi, 2015). The third stage is theoretical synthesis, which involves integrating the results of conceptual analysis into a coherent framework for understanding Islamic epistemology. At this stage, Islamic epistemology is positioned in critical dialogue with modern scientific epistemology in order to assess its relevance and contribution to the development of contemporary philosophy of science (Nader El-Bizri, 2015).



Overall, the analytical approach employed in this study is both integrative and reflective. The integrative approach seeks to connect revelation, reason, and experience as a unified epistemological structure in which each element complements the others. Meanwhile, the reflective approach is used to critically evaluate the position of Islamic epistemology in addressing the challenges of modern knowledge, which are often characterized by a crisis of meaning and values (Wael B. Hallaq, 2019).

RESULTS & DISCUSSION

1. The Concept of Epistemology in the Philosophy of Science

Epistemology is a branch of philosophy that examines the nature of knowledge, including its sources, methods, and criteria of truth (Robert Audi, 2015). Within the philosophy of science, epistemology functions as a reflective foundation for evaluating how scientific knowledge is generated, justified, and limited in scientific practice (Alan Chalmers, 2013). Consequently, every system of knowledge implicitly relies on particular epistemological assumptions that influence how scientists interpret and understand reality (John Losee, 2001). In the Western philosophical tradition, epistemology developed through a long intellectual debate between rationalism and empiricism as two major schools in the theory of knowledge (John Cottingham, 1996). Rationalism places reason at the center as the primary source of knowledge capable of producing universal truths through rational principles that are considered a priori (René Descartes, 1998). In contrast, empiricism regards sensory experience as the fundamental basis of knowledge, arguing that truth can only be obtained through observation and concrete experience (John Locke, 1975).

The debate between rationalism and empiricism later stimulated various attempts at synthesis in modern philosophy, one of the most influential being the thought of Immanuel Kant (1998), who sought to reconcile the roles of reason and experience within the structure of human knowledge. Kant argued that knowledge arises from the interaction between empirical data and the a priori categories of the human mind (Sebastian Gardner, 1999). This perspective contributed significantly to the development of epistemology in science by emphasizing that scientific knowledge is not entirely objective but is shaped by the cognitive structures of the knowing subject. Subsequently, epistemology in science became increasingly influenced by positivism, which emphasized empirical verification and the scientific method as the only legitimate path to valid knowledge (Auguste Comte, 1975). Positivism maintained that statements that cannot be empirically verified lack scientific meaning and should therefore be excluded from the domain of scientific inquiry (A. J. Ayer, 1952). As a consequence, metaphysical, ethical, and normative dimensions were excluded from scientific discourse because they were considered incompatible with the criteria of objectivity.

The dominance of positivism within the philosophy of science was strongly challenged in the twentieth century, particularly by thinkers who highlighted the limitations of claims to scientific objectivity. Karl Popper (2002) rejected verification as the criterion of truth and replaced it with falsification as the methodological principle of science, arguing that scientific knowledge is always tentative and open to revision. This perspective emphasizes that science never achieves absolute certainty but continually develops through processes of criticism and correction.



Criticism of positivistic epistemology intensified through the work of Thomas Kuhn, who emphasized the role of paradigms in the development of scientific knowledge (Kuhn, 1996). Kuhn demonstrated that science progresses through scientific revolutions shaped by historical, social, and communal factors rather than by the mere accumulation of objective data (Alexander Bird, 2013). In this sense, the epistemology of science cannot be separated from the historical and social contexts within which knowledge is produced.

Contemporary developments in the epistemology of science also reveal increasing attention to the role of values and ethics within scientific practice. Helen Longino (1990) argued that scientific inquiry is not entirely value free, and philosophers of science increasingly recognize that non epistemic values such as social and moral considerations influence the production of scientific knowledge (Harold Kincaid et al., 2007). Within this perspective, epistemology in the philosophy of science is no longer understood as a neutral and value free theory of knowledge but rather as a reflective framework that is always connected to a particular worldview (Egon Guba and Yvonna Lincoln, 1994). Every intellectual tradition carries its own epistemological assumptions that influence how knowledge is constructed and validated (Michael Crotty, 1998). Consequently, epistemological studies within the philosophy of science open space for dialogue among diverse paradigms of knowledge, including the paradigm of Islamic epistemology. Understanding the concept of epistemology within the philosophy of science therefore becomes an important prerequisite for examining Islamic epistemology in greater depth. Without a sufficient understanding of the epistemological assumptions underlying modern science, Islamic epistemology risks being interpreted merely in normative terms or in an ahistorical manner (Wael B. Hallaq, 2019). For this reason, the discussion of epistemology within the philosophy of science serves as a theoretical foundation for situating Islamic epistemology within a critical dialogue with the development of contemporary scientific knowledge.

2. Foundations of Epistemology in Islam

The epistemological foundations of Islam are grounded in the worldview of *tawhid*, which places God as the ultimate source of truth and the origin of all knowledge. Within this framework, knowledge is not understood merely as the product of autonomous human reason but as part of the cosmic order created and sustained by the Divine will. Consequently, Islamic epistemology is closely connected with ontological and axiological dimensions because knowledge cannot be separated from the reality of existence and the moral purpose of human life (Syed Muhammad Naquib al-Attas, 1995). The concept of knowledge in Islam is articulated through the term *'ilm*, which carries a broader scope of meaning than the modern Western understanding of knowledge. The term does not simply refer to the outcome of rational cognitive processes or the accumulation of empirical information. It also encompasses a deeper recognition of truth that is comprehensive and meaningful. Within the Islamic intellectual tradition, knowledge inherently contains ethical and spiritual awareness that guides human beings toward moral responsibility in both personal and social life (Seyyed Hossein Nasr, 2006).

The principle of *tawhid* within Islamic epistemology affirms that all forms of knowledge ultimately originate from God, whether through revelation or through the intellectual capacities granted to human beings. This perspective does not deny the role of



reason but rejects the assumption that reason possesses absolute autonomy in determining truth. Reason is understood as an important instrument that operates within certain limits and must recognize its inability to independently grasp metaphysical truths in their entirety (Wael B. Hallaq, 2019). Within the framework of Islamic philosophy of science, revelation occupies a central position as a normative source that provides ontological and ethical orientation for all intellectual activities. Revelation functions as a framework of meaning that guides the use of reason and empirical experience so that they remain aligned with the pursuit of truth and human well being. The relationship between revelation and reason in Islamic epistemology is complementary rather than competitive, allowing both to reinforce one another in the process of seeking knowledge (Ismail Raji al-Faruqi, 1982).

Empirical experience also holds an important position in Islamic epistemology as a means of recognizing the order of nature and the phenomena of life. Nature is understood as a collection of signs that reflect the greatness of God and that can be observed, contemplated, and analyzed through rational inquiry. In this framework, empirical experience gains epistemological legitimacy as long as it is situated within the worldview of *tawhid* and remains connected to the dimensions of meaning and value that surround it (Nasr, 1989). The integration of revelation, reason, and experience forms the epistemological structure of Islam, which is both hierarchical and holistic. Revelation occupies the position of the highest source of truth, reason functions as the instrument of rational reflection, and empirical experience serves as a means of verifying and understanding the realities of the natural world. This structure distinguishes Islamic epistemology from modern epistemology, which often reduces knowledge to purely rational and empirical dimensions (Al Attas, 1995).

The foundations of Islamic epistemology are also closely related to the purpose of knowledge in Islam, which is not limited to the mastery of nature or technological advancement. Knowledge is understood as a means of cultivating civilized human beings who are capable of situating knowledge within the framework of moral and spiritual responsibility. In this sense, Islamic epistemology establishes a close relationship between knowledge, ethics, and the ultimate purpose of human life (Nasr, 2007). Within the broader discourse of the philosophy of science, the epistemological foundations of Islam offer an alternative paradigm that rejects the dichotomy between fact and value. Scientific knowledge is not viewed as a neutral and value free activity but as an intellectual practice that inevitably carries ethical and existential implications. This perspective opens possibilities for developing a philosophy of science that is more humane and oriented toward meaning (Oliver Leaman, 2019).

Based on these epistemological foundations, Islamic epistemology may be positioned as a coherent and relevant framework within the philosophy of science for addressing the challenges of contemporary knowledge. These foundations provide an important basis for examining more specifically the sources of knowledge in Islamic epistemology in the following discussion. For this reason, understanding the foundations of Islamic epistemology becomes a prerequisite for assessing its contribution to the development of modern knowledge (Nader El-Bizri, 2015).



3. Sources of Knowledge in Islamic Epistemology

3.1 Revelation

In Islamic epistemology, revelation occupies a fundamental position as the highest source of knowledge that provides orientation for truth, meaning, and purpose in all intellectual activities. Revelation is not merely understood as a normative text but as divine guidance that frames how human beings comprehend reality and evaluate truth. For this reason, revelation functions as an epistemological foundation that establishes the ontological and axiological framework of human knowledge (Syed Muhammad Naquib al-Attas, 1995). The role of revelation in Islamic epistemology is both normative and directive, meaning that it provides a system of values that guides the use of reason and empirical experience. Revelation does not replace human rationality but ensures that intellectual activity remains connected to moral purpose and metaphysical truth. In this sense, revelation serves as a reference standard that evaluates the direction and implications of the knowledge produced by human beings (Seyyed Hossein Nasr, 1989). Within the framework of Islamic philosophy of science, revelation also functions as a source of legitimacy for concepts of truth that extend beyond the limits of empirical verification. Truth is not reduced to what can be observed and tested through sensory experience but also encompasses metaphysical realities that can only be accessed through divine guidance. This position distinguishes Islamic epistemology from modern epistemological frameworks that tend to exclude revelation from the domain of legitimate knowledge (Wael B. Hallaq, 2019).

3.2 Ratio

Ratio holds an important place in Islamic epistemology as the principal instrument for understanding reality, interpreting revelation, and developing knowledge. Islam recognizes the rational capacity of human beings to think, reason, and draw conclusions, and therefore reason is regarded as a legitimate means in the acquisition of knowledge. However, this recognition is always accompanied by an awareness of the limitations of reason in comprehending truth in its entirety (Al-Ghazali, 2000). In the tradition of Islamic philosophy, reason is understood as a divine gift that operates within the framework of the *tawhid* worldview. Reason is not positioned as an autonomous authority that stands independently but rather as an instrument that functions in harmony with revelation. This relationship emphasizes that rationality in Islam is guided and responsible rather than value free, as often assumed in secular modern epistemology (Ibn Taymiyyah, 1993). The role of reason in Islamic epistemology is also evident in the development of rational sciences and systematic methodologies of reasoning. The Islamic intellectual tradition demonstrates that reason has been extensively employed in philosophy, theology, and the sciences without abandoning the foundational authority of revelation. In this context, reason functions as a bridge between the normative principles derived from revelation and the empirical realities encountered by human beings (Oliver Leaman, 2009).

3.3 Spiritual Experience

Empirical experience constitutes an important source of knowledge in Islamic epistemology, particularly in understanding natural phenomena and social life. Nature is viewed as a collection of signs reflecting the greatness of God that can be observed and studied through sensory experience and rational reflection. For this reason, the observation



of nature gains epistemological legitimacy within the framework of the Islamic worldview (Seyyed Hossein Nasr, 2006). Within Islamic epistemology, empirical experience does not stand independently as an autonomous source of truth. Experience must be interpreted within the framework of revelation and rationality so that it does not fall into reductionism or narrow empiricism. This position emphasizes that experience functions as a means of verification and understanding of reality rather than as the ultimate determinant of truth (Syed Muhammad Naquib al-Attas, 1995).

The integration of empirical experience with revelation and reason enables Islamic epistemology to develop a balanced scientific approach that combines observation, reasoning, and values. Through this perspective, science is not understood as a value free activity but as part of the human effort to understand the order of God's creation in a responsible manner. This view provides an epistemological foundation for the development of knowledge that remains connected to ethical and spiritual dimensions (Nasr, 1989). The three sources of knowledge in Islamic epistemology, namely revelation, reason, and experience, do not function separately but form a complementary unity. Revelation provides normative and metaphysical orientation, reason performs the function of rational understanding, and empirical experience supplies concrete data about natural reality. This integrative structure highlights the holistic and hierarchical character of Islamic epistemology (Ismail Raji al-Faruqi, 1982).

Through this structure, Islamic epistemology offers a framework within the philosophy of science capable of avoiding the dichotomy between rationality, empiricism, and values. Knowledge is not reduced to the result of methodological procedures alone but is understood as a meaningful and responsible search for truth. This framework provides an important basis for evaluating the relevance of Islamic epistemology in contemporary scientific discourse, which will be discussed in the following section (Nader El-Bizri, 2015).

3.4 Figures and Schools of Islamic Epistemology

The development of Islamic epistemology cannot be separated from the contributions of Muslim thinkers who formulated the relationship between revelation, reason, and experience within diverse philosophical frameworks. Although their approaches differ, these scholars share a common concern in addressing fundamental questions regarding the sources and validity of knowledge in Islam. Their thought is therefore better understood as representing epistemological schools rather than merely individual perspectives (Oliver Leaman, 2009). Al-Ghazali occupies a significant place in Islamic epistemology due to his effort to critique claims of rational certainty while maintaining the authority of revelation. In his works, Al Ghazali argues that reason and sensory experience possess limitations in reaching absolute truth and therefore require the guidance of revelation and the purification of the inner self. His epistemology emphasizes that valid knowledge must remain consistent with divine truth and aligned with the ethical purpose of human life (Al Ghazali, 2000).

In contrast, Ibn Sina represents a rational tendency in Islamic epistemology by emphasizing the role of reason in understanding reality. Ibn Sina maintains that the human intellect possesses the capacity to attain universal knowledge through processes of abstraction and intellectual reasoning. Nevertheless, his rationalism remains grounded in Islamic metaphysics, which recognizes God as the first cause and the ultimate source of the order of existence (Leaman, 2009).



Ibn Rushd developed an epistemological approach that sought to reconcile philosophy and revelation through the principle of harmony between reason and religious law. According to Ibn Rushd, truth cannot contradict itself, and therefore valid rational conclusions will ultimately correspond with revelation. This view affirms that philosophy and rational sciences possess epistemological legitimacy within Islam as long as they remain within the framework of the objectives of the Sharia (Ibn Rushd, 2001).

Beyond rationalism and the synthesis of revelation and reason, the Islamic intellectual tradition also includes an illuminative epistemological approach developed by Suhrawardi. In the philosophy of illumination, knowledge is not acquired solely through discursive reasoning but also through inner illumination and intellectual intuition. This approach expands the scope of Islamic epistemology by recognizing inner experience as a legitimate source of knowledge within the metaphysical framework of Islam (Nasr, 2006).

In the context of modern Islamic thought, Syed Muhammad Naquib al-Attas made an important contribution by emphasizing the relationship between epistemology and the Islamic worldview. Al Attas argues that the crisis of modern knowledge originates from epistemological errors that separate knowledge from values and meaning. According to him, Islamic epistemology must be grounded in the concept of *tawhid* so that knowledge functions as a means for cultivating civilized and morally responsible human beings (Al Attas, 1995). Similarly, Ismail Raji al-Faruqi highlighted epistemological issues in his project of the Islamization of knowledge by emphasizing the importance of integrating revelation with modern rationality. Al Faruqi argued that modern knowledge needs to be reconstructed so that it aligns with Islamic values without rejecting rational and empirical methods that have already developed. This perspective positions Islamic epistemology as both a critical framework for evaluating modern science and a foundation for intellectual renewal (Al Faruqi, 1982).

Overall, the diversity of figures and schools within Islamic epistemology demonstrates that the Islamic intellectual tradition is dynamic rather than monolithic. These different approaches reflect continuous efforts to articulate the relationship between revelation, reason, and experience in varying contexts. Despite these differences, all of these perspectives share a common assumption that knowledge must ultimately be directed toward truth, meaning, and the moral responsibility of human beings (Wael B. Hallaq, 2019). By examining the contributions of these figures and schools of thought, it becomes clear that Islamic epistemology provides a rich spectrum of approaches for responding to the challenges of knowledge. This diversity represents an important intellectual resource for evaluating the relevance of Islamic epistemology within contemporary philosophy of science. The discussion therefore serves as an introduction to a broader examination of the role of Islamic epistemology in the context of modern scientific knowledge in the following section (El Bizri, 2015).

3.5 The Relevance of Islamic Epistemology in Contemporary Scientific Knowledge

The development of contemporary science is characterized by rapid methodological and technological advancement, yet it is also accompanied by increasingly complex epistemological challenges. Modern science is often considered successful in explaining and controlling natural phenomena, but it is less capable of providing normative orientation regarding the meaning, purpose, and ethical implications of the knowledge it produces. This



situation indicates that the crisis of modern knowledge is not merely a technical or methodological problem but is rooted in epistemological foundations that tend to be reductionist (Wael B. Hallaq, 2019).

Within this context, Islamic epistemology offers significant relevance as an alternative framework that rejects the separation between knowledge and values. Islamic epistemology maintains that knowledge can never be value neutral because it always operates within a particular worldview that shapes the direction and purpose of its application. By placing revelation as a normative source of orientation, Islamic epistemology provides a clear ethical foundation for the development and application of scientific knowledge (Syed Muhammad Naquib al-Attas, 1995). The relevance of Islamic epistemology is also evident in its critique of the dominance of instrumental rationality in modern science. When rationality is reduced to a tool for efficiency and control, scientific knowledge risks losing its reflective dimension and its sense of social responsibility. Islamic epistemology, through the integration of revelation, reason, and experience, encourages a form of rationality that is purposeful and meaningful. In this way, science is not merely a means of controlling nature but also a pathway for cultivating ethical awareness in human beings (Seyyed Hossein Nasr, 2007).

Furthermore, Islamic epistemology is relevant in responding to the fragmentation of contemporary knowledge. The sharp separation between the natural sciences, social sciences, and the humanities often hinders a holistic understanding of reality. The holistic character of Islamic epistemology allows for the integration of various scientific disciplines within a coherent framework of meaning without eliminating the methodological distinctiveness of each field (Oliver Leaman, 2019). In the discourse of contemporary philosophy of science, Islamic epistemology also contributes to efforts to transcend the dichotomy between fact and value. Scientific knowledge is not understood merely as a representation of objective facts but as a human activity that carries moral and social implications. In this sense, Islamic epistemology aligns with recent developments in the philosophy of science that increasingly acknowledge the role of values in scientific practice, while offering a stronger metaphysical foundation through the worldview of *tawhid* (Nader El-Bizri, 2015).

The relevance of Islamic epistemology becomes even more apparent when addressing global challenges such as environmental crises, social inequality, and the misuse of technology. These problems cannot be resolved solely through technical or empirical approaches but require an epistemological framework capable of connecting knowledge with moral responsibility. Islamic epistemology positions human beings as ethical agents who are responsible for the knowledge they possess. Consequently, knowledge is directed toward collective well being rather than merely serving instrumental interests (Nasr, 1989). Within this epistemological framework, Islamic epistemology is not intended to replace the entire structure of modern science but rather to provide corrective insight and normative orientation for its development. It opens space for critical dialogue with modern science without rejecting the rational and empirical achievements that have already been produced. Such a dialogical approach allows Islamic epistemology to function as a reflective paradigm that enriches contemporary philosophy of science (Hallaq, 2019).

Overall, the relevance of Islamic epistemology in contemporary knowledge lies in its capacity to integrate rational, empirical, and normative truths within a meaningful



framework. This integration positions Islamic epistemology as an important conceptual resource for formulating a scientific paradigm oriented toward truth, values, and ethical responsibility. For this reason, Islamic epistemology possesses significant potential to contribute to the development of a philosophy of science that is more humane and sustainable (Al Attas, 1995).

CONCLUSION

This study demonstrates that epistemology in the perspective of Islamic philosophy of science possesses distinctive characteristics that fundamentally differentiate it from the dominant epistemology of modern science. Islamic epistemology does not regard knowledge merely as the product of the autonomous operation of reason or empirical experience, but rather as part of an order of meaning rooted in the worldview of *tawhid*. Within this framework, knowledge is always connected to the ultimate source of truth, moral purpose, and the existential responsibility of human beings. Consequently, knowledge cannot be separated from ontological and axiological dimensions.

The discussion of the foundations of Islamic epistemology highlights that the concept of *ilm* reflects a holistic and integrative understanding of knowledge. Knowledge is not interpreted solely as the accumulation of information or the result of rational cognitive processes, but also as recognition of truth that encompasses ethical and spiritual dimensions. The principle of *tawhid* leads Islamic epistemology to reject the claim of absolute autonomy of reason while also avoiding the reduction of knowledge to purely empirical aspects, as commonly found within positivistic paradigms.

The analysis of the sources of knowledge in Islamic epistemology shows that revelation, reason, and experience function as complementary epistemological elements within a coherent and hierarchical structure. Revelation serves as a normative and metaphysical source that provides orientation toward truth and values. Reason operates as the instrument of rational understanding and interpretation, while empirical experience functions as a means of observation and verification of natural reality. The integration of these three elements forms the epistemological foundation of Islamic thought, enabling the development of knowledge without falling into the dichotomy between rationality, empiricism, and value.

The examination of figures and schools within Islamic epistemology also indicates that the Islamic intellectual tradition is dynamic and plural in its approaches while maintaining a shared epistemological orientation. The differences among the critical approach of Al-Ghazali, the rationalism of Ibn Sina, the synthesis of revelation and reason proposed by Ibn Rushd, the illuminative epistemology of Suhrawardi, and the integrative perspectives of modern Muslim thinkers reflect an ongoing intellectual effort to formulate a balanced relationship between revelation, reason, and experience. This diversity confirms that Islamic epistemology is not a static tradition but one that remains open to reflection and conceptual renewal.

In the context of contemporary science, Islamic epistemology holds significant relevance as both an alternative and a corrective framework. It offers a critique of epistemological reductionism and the fragmentation of knowledge while simultaneously providing a normative foundation for the development of science oriented toward meaning and ethical responsibility. By rejecting the strict separation between fact and value, Islamic



epistemology positions knowledge as a meaningful intellectual practice rather than merely a technical instrument. Overall, this study affirms that Islamic epistemology can be positioned as a coherent, integrative, and relevant framework within the philosophy of science when addressing the challenges of modern knowledge. Islamic epistemology is not intended to replace the entire structure of modern science but rather to provide philosophical and ethical orientation that enriches its direction of development. In this way, Islamic epistemology holds significant potential to contribute to the formation of a scientific paradigm grounded in truth, values, and the welfare of humanity.

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