

# MULTIPLEXITY: A NEW KEY TO THE STRUCTURE OF ISLAMIC SCIENCES

RECEP ŞENTÜRK\*

## ABSTRACT

Multiplexity or “*marātib al-'ulūm*”, this paper argues, is the key to understanding and reviving the structure of Islamic disciplines. At the macro level, various Islamic disciplines use different methods. At the micro level, prominent scholars master several methods and employ the distinct method of each discipline in their works. This goes against the expectation that there should be only a single philosophical or scientific method to be used across all disciplines and throughout all the works of a particular scholar. How do we approach this diversity and plurality of methods in the system as a whole and also in the thought of individual scholars? Is it indecision, contradiction or there is a latent structure behind this seemingly puzzling and confusing appearance? This paper adopts the latter view and argues that the seemingly unrelated and even contradictory methods scholars use in different Islamic disciplines constitute a coherent epistemological and methodological system. The works of great Muslim polyhistorians throughout history testify for this argument.

**Keywords:** Multiplexity, uniplexity, epistemological pluralism, Kalām, methodological pluralism, Philosophy, Tasawwuf, al-Ghazālī, Ibn Khaldūn, Tashkoprizade, Katib Çelebi

\* Hamad Bin Khalifa University • senturkrecep@gmail.com  
This project/publication was made possible through the support of grant [#61749] from the John Templeton Foundation. The opinions expressed in this publication are those of the author(s) and do not necessarily reflect the views of the John Templeton Foundation. I appreciate the significant contributions of my dear student and assistant Seda Özalkan to this article. I also thank all members of the Istanbul Circle which served as the habitus while developing these ideas.

It is a common phenomenon that some of the very prominent Muslim scholars and thinkers use various epistemologies and methodologies in their works ranging from philosophy to kalām and tasawwuf. The same author uses purely rational methods in his philosophical works, religious rational methods in his kalām works and spiritual purification methods in his tasawwuf works. This appears to some researchers as indecision or inconsistency in the thinking of the author. Why? This is because those researchers assume that there can be only a single method for a thinker to be used in all his works based on their “uniplex” worldview. This article explains why Muslim scholars did so and argues that it should always be so even today. It offers “*marātib al-’ulūm*” or “multiplexity” as an alternative approach to the study of the structure of Islamic sciences. This is because these disciplines form a cohesive multiplex system for a holistic understanding of reality. This may be called epistemological and methodological pluralism and openness which may be an alternative to today’s methodological monism and closedness in social sciences.

Multiplexity is the translation of the Arabic term *maratib*. It means levels, strata, hierarchies. Multiplexity typically characterizes the Islamic worldview in at least one aspect: it provides a multilayered understanding of reality, existence, knowledge and truth. Multiplexity offers an alternative worldview to the present hegemonic reductionist perspectives. Multiplex approach to existence, knowledge, truth and norms, offers a multilayered system and this is in contradistinction to the uniplex or single layer or monist approaches such as positivism and idealism which focus on only one particular level of existence and one particular type of knowledge and method.

We offer multiplexity as a new key to the structure of sciences in Islamic civilization to help modern researchers better understand the coherent and complimentary usage of diverse epistemological perspectives and methods in different disciplines by Muslim scholars. This phenomenon is concretely observable in the writings of such Muslim polyhistorians as Ghazzali, Razi, Ibn Khaldun, Tashkopruzade and Katib Çelebi among countless others who authored books in various disciplines in each of which using the method of that particular discipline. We will try to demonstrate that the Islamic worldview underpinning these disciplines is multi-layered and that each of these disciplines operates at a different level which is neither a contradiction nor indecision. We will conclude that multiplexity should not be used only to understand the structure of the past Islamic thought but it should also be revived today to serve as the alternative philosophy of science against the dominant uniplexity of monist and reductionist ways of doing science.

The fact that Muslim scholars produced works in diverse disciplines using their methods confuse observers who are not familiar with the multiplex inner structure of Islamic thought and disciplines. Therefore they may be misled to conclude that epistemological and methodological pluralism is an indecision or contradiction. This is because they assume that there should be only a single legitimate scientific method for a scholar to use in all his works persistently. We want to shed new light on this puzzling issue through a holistic look at the Islamic intellectual traditions that highlights the multiple layers of the Islamic world view and knowledge as well as their complementary interrelations. This understanding is a prerequisite for a proper understanding of the history of Islamic thought and also for any effort to systematically revive it today.

There are three major traditions in Islamic intellectual system to study the existence from their particular point of view: philosophy, *kalam*, and *tasawwuf*. There is also Fiqh and its auxiliary disciplines which study human action and society. They together shape the intellectual discourse in Islamic civilization. How are these three disciplines different from each other and how are they related to each other? This question puzzle many insiders and outsiders.

One of the people who questioned this puzzling issue was the Ottoman Sultan Fatih Sultan Mehmed (1432-1481) who commissioned a book to Abdurrahman al-Jāmī (1414-1492)<sup>1</sup>, one of the most prominent scholars in his time, to explain the difference between sufis, theologians, and philosophers in the way they search for truth. The Sultan wanted to know why and how philosophers, theologians and sufis were different in their approach to truth. Tashkubrizadah, in his biography of al-Jami in *al-Shaqa’iq al-Nu’maniyah* relates the circumstances of this request as follows:

Al-Mawla al-A’zam Sayyidi Muhy al-Din al-Fanari related that his father, al-Mawla ‘Ali al-Fanari, who was qadi in al-’Askar al-Mansur under Sultan Muhammad Khan, said, “The Sultan said to me one day that there was need for an adjudication (muhakamah) between those groups investigating the sciences of reality (*’ulum al-haqiqah*), namely, the theologians, the Sufis, and the philosophers.” My father replied, “I said to the Sultan that no one was more capable of such an adjudication between these groups than al-

<sup>1</sup> Nūr ad-Dīn ‘Abd ar-Rahmān Jāmī (1414–1492), also known as Mawlanā Nūr al-Dīn ‘Abd al-Rahmān or simply as Jami and in Turkey as Molla Jami, was a Persian Sunni and Sufi thinker, poet, and scholar. His most famous poetic works are *Haft Awrang*, *Tuhfat al-Ahrar*, *Layla wa Majnun*, *Fatihah al-Shabab*, *Lawa’ih*, *Al-Durrat al-Fakhirah*. Jami belonged to the Naqshbandi Sufi order.

Mawla ‘Abd al-Rahman al-Jami.’” He then said, “Sultan Muhammad Khan accordingly sent an envoy with precious gifts to him and requested of him the aforementioned adjudication. Al-Jami thereupon wrote a treatise in which he adjudicated between those groups with respect to six questions, including the question of existence. He sent it to Sultan Muhammad Khan stating that should the treatise prove acceptable, he would supplement it with an explanation of the remaining questions. Otherwise there would be nothing to gain in his wasting his time further. The treatise, however, arrived in Constantinople after the death of Sultan Muhammad Khan. “Al-Mawla Muhyi al-Din al-Fanari said furthermore that this treatise remained with his father, and I believe he said that it is still with him.” (cited by Heer 1979: 5).

Yet, in our view, there is another more puzzling question: there are some prominent Muslim thinkers who combined all three perspectives in their own works and carried so to speak several hats instead of one. Actually this is not an exceptional and rare phenomenon; almost all great Muslim thinkers are polyhistorians who use simultaneously philosophical, theological and spiritual approaches in their works. In other words, the philosopher, the theologian and the sufi identities are combined in the same person. Some add on top of these the identities of *faqih* (jurist) and *muhaddith* (scholar of hadith) as well if not more. But all Muslim scholars, even if they did not apply these methods in their own works, acknowledge the legitimacy of multi-layered methodology and subscribe to the multiplex epistemology and methodology. They did not see these methods as mutually exclusive alternatives of each other but as complementary ways to reach a holistic understanding of the truth.

Among countless others, Jami himself was one of the polyhistorians who used different methods in his works ranging from purely rational to spiritual methods. However this is not unique to him. Jami was following the example of his predecessors.

With their respective divergent methodologies and principles, each of these traditions views the nature of existence and knowledge in different ways. For example, philosophy and *kalam* as two distinct rational disciplines give primacy to logical reasoning in the methodology of the sciences, while *tasawwuf* favors spiritual experience over rational demonstration. The essentialist or fragmented look that many contemporary writers adopt in studying Islamic thought leaves out the commonalities between these traditions. More importantly, such an approach fail to appreciate the interrelationships between those disciplines and that there is neither a contradiction nor a disengagement between them. From a modern monist

perspective, it becomes quite challenging to make sense of a scholar writing in different intellectual traditions and using multiple methods. In other words, from this uniplex perspective, it is quite puzzling to understand a scholar being a philosopher, *mutakallim*, and a sufi simultaneously.

This article provides an explanation to this issue without labeling such scholars as being “undecided” or questioning the authorship of their works. And rather than focusing on particular debates or differences of opinion, the article proposes a comprehensive approach to the Islamic intellectual traditions and the structure of science that aims to highlight the commonalities and the least common denominator of the Islamic view of existence and knowledge in order to better understand and appreciate why and how these scholars were able to write in each of these seemingly divergent traditions. This too requires us to investigate the basic structure of scientific discourse in Islamic civilization.

All of these disciplines have been underpinned by the Islamic worldview, even though their respective attitudes towards being and knowledge substantially vary, even within themselves. In this article, we will try to demonstrate that the basic structure of the scientific thought and discourse in Islamic civilization can be characterized by what we call “multiplexity.” By doing so we aim to reconcile the seemingly different approaches of Islamic intellectual traditions to existence and knowledge.

Multiplexity also provides an answer to the question of how Muslim scholars bridged science and religion. Their example may serve today as a model to bridge religion and science in a multiplex system of knowledge. From a multiplex perspective religion and science are in a complementary relationship instead of negating each other. Revelation is only one of the sources of knowledge along with reason and sense perception in a multiplex system of knowledge. None of the sources of knowledge is invasive in this system even divine revelation.

For Taha Abdurrahman, interconnectedness and interpenetration characterize the Islamic intellectual tradition as he says:

Interconnectedness and interpenetration are the most salient features of the Islamic tradition, as evidenced in the numerous classical works concerned with classifying the traditional sciences and outlining the connections and interdependencies between and among them. From Fārābī’s *Iḥṣā’ al-‘Ulūm* and Ikhwān al-Ṣafā’s *Rasā’il* to Ibn al-Nadīm’s *Fihrist* and Ibn Ḥazm’s *Marātib al-‘Ulūm*, from Ṭāshkuprīzādeh’s *Miftāḥ al-Sa’āda* to Ḥajjī Khalifa’s *Kashf al-Ẓunūn*, these and numerous works, despite their

different orientations, evince a strong tendency to treat the sciences that constitute the tradition as mutually complementary and interdependent.<sup>2</sup>

## I. MULTIPLEX ONTOLOGY (*MARĀTIB AL-WUJŪD*)

Multiplex ontology constitutes the foundation of Islamic worldview as well as the sciences grounded on it. We use the term ‘multiplex ontology’ to represent the concept of *marātib al-wujūd* in the Islamic literature. Our aim here is to contextualize this already systematic ontological conception that has the potential to serve as a foundation for a comprehensive multiplex perspective, accommodating insights from divergent views and discourses.

The ontological perspective in the Qur’an is clearly multiplex. The first verse in the first surah of the Qur’an talks about the *worlds* as it states “Praise be to the Lord of the universes” (*Alhamdu lillahi Rabb al-‘alamīn*). This instructs the readers of the Qur’an that there is more than one world unlike the materialist claims that there is a single material world. Allah is introduced not only as the “Lord of the universes” but also “the king of the Day of Judgment” (*malik yawm al-dīn*) which refers to the next world to come. Likewise, in the beginning of the second surah, it is mentioned that the truly pious people believe with utmost certainty in the unseen world (*al-ghayb*) and also in the Hereafter. The unseen world and the Hereafter expand the ontological view of the reader of the Qur’an beyond the tangible world in which he lives. There are numerous verses in the Qur’an to the same effect. The same is observable in the *ahadith* (sayings) of Prophet Muhammad (peace be upon him) as well. Due to the common familiarity of every Muslim with it, we are not going to present more citations from the Qur’an and the hadith to demonstrate the levels of existence.

We can say that in the Qur’an the earth and the heavens (*samawāt*) are repeatedly mentioned. In the literature, the earth is commonly called as the world of *mulk* while the heavens are called as the world of *malakūt*. These are the least common denominators despite the differences in details in the works of various scholars on the levels of existence. Some of the works on the *marātib al-wujūd* may list numerous levels of existence. Our concern here is not to survey this literature or analyze it in detail because we are concerned only with the fundamental approach to the structure of the world as a multiplex being.

The ontological multiplexity in Islamic thought can be more clearly recognized when compared to the conceptions of existence in other civilizations and especially modern West. Modern Western ontology reflects a controversy between materialist and idealist ontologies. Only those who are discontent with this reductionist false dichotomy between materialism and idealism try to go beyond it by searching for a multiplex ontology. Yet they could not form a major tradition in the face of materialism or idealism.

From the most commonly adopted multiplex ontology perspective, it is accepted that existence has multiple layers: material world, non-material world and the divine world or in Arabic respectively *‘ālam al-mulk*, *‘ālam al-malakūt* and *‘ālam al-lāhūt*. The world of *mulk* is also called the world of observation (*‘ālam al-shahādah*) while the world of *malakūt* is also called the unseen world (*‘ālam al-ghayb*). This view may be explained in greater detail but at the moment, what is important for us is to demonstrate that Muslim scholars, thinkers and philosophers accept that there are different levels of the existence and they reject reductionist materialism or idealism. And usually philosophers conflate the divine world (*lāhūt*) and the non-material world as a single level of the existence which they call metaphysical world. But Muslims separate the level in which God exists from the existence of the metaphysical world because it would be wrong to conflate the Creator (*al-Khāliq*) and the created world. The existence of Allah should be separated from all creation—even from the metaphysical world—as a single level of existence.

Another type of classification of existence in the literature from a multiplex perspective which was formulated by Ghazzali, Tashkoprizāde and Katib Çelebi also known as the Haji Khalifa is as follows: material existence in the world of objects (*wujūd fī al-a’yān*), conceptual existence in the mind (*wujūd fī al-dhihn*), linguistic existence in speech (*wujūd fī al-lafdh*), existence in writing (*wujūd fī al-khat*).<sup>3</sup> From this perspective, every object usually exists at all these four levels of existence except for some which exist only in the mind, speech and writing but not in the external world. This type of existence is called figurative existence (*al-wujūd al-majāzī*) because it lacks the external existence.

From this perspective, the existence of things are complex because it is constituted by their existence at four levels: external, mental, written and spoken. In other words, every individual creature in the world have a multiplex existence. This is because of the symmetry

<sup>2</sup> Taha Abdurrahman. *Tajdīd al-Manhaj fī Taqwīm al-Turāth* (Casablanca: al-Markaz al-Thaqāfi al-‘Arabī, 2007), 89-90 in Wael Hallaq, *Reforming Modernity* (New York: Columbia University Press, 2019), 67.

<sup>3</sup> Al-Ghazālī. *Mi‘yār’ul-‘Ilm* (Istanbul: Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları, 2013), 57; Aḥmad bin Muşṭafā Tashkoprizade, *Miftāḥ al-Sa‘ādah Wa Mişbāḥ al-Siyādah Fī Mawḍū‘āt al-‘Ulūm* (Beirut: Dar Ibn al Hazm, 2010), 58.

between the macro and micro worlds. Every being that exists externally in the world, also exists internally in the mind as well as in speech and in writing. A tree exists externally but we have the concept of tree in our minds; we speak about tree and write it. Our speech refers the image of tree in our minds but not the external existence of the tree. Mind mediates between the external existence and the spoken and written existence. We are in the world but the world is in our mind and speech. Should we take only one of them as real and focus on it or should we focus on both from a holistic multiplex perspective?

Given the interconnectedness of the world, the eventual reality we arrive at may be called multiplex relationalism. Various levels of existing beings are connected to each other through their multilayered network. Furthermore, different levels of existence (*mulk*, *malakut* and *lāhūt*) are also interconnected to form a unified reality. Consequently, there emerge horizontal network between things at the same level of existence and vertical networks between things at different levels.

Multiplex ontology goes beyond the dichotomy between ontological realism and idealism because they are grounded on a particular level of existence from a narrow perspective. Realists focus exclusively on the external existence while idealists focus exclusively on the mental existence or discursive existence in language. Yet multiplex ontology adopts a holistic perspective giving its due to each level of existence, be it external in the world or internal in the mind.

## II. MULTIPLEX EPISTEMOLOGY

Multiplex ontology leads to multiplex epistemology. Both are constitutive elements of Islamic world view and the scientific paradigm. This epistemological approach as conceptualized by Muslim scholars is traditionally referred to as *marātib al-'ulūm* or *marātib al-'ilm* (lit: levels of knowledge) in Arabic. Islamic civilization is distinguished from modern civilization with multiplex epistemology. However it should be noted that in the classical or pre-modern world almost all civilizations in the world commonly adopted a multiplex ontology and epistemology as they accepted the unseen world and communication with it in the form of revelation. From such a long durational historical perspective modern and postmodern worldview may be seen as a deviation from the ontological and epistemological heritage of humanity.

*Maratib al-'ilm* or *maratib al-'ulum*, translated as Multiplex epistemology. At the

moment, it is usually accepted that there is a single type of scientific knowledge and there cannot be any other type of scientific knowledge and that knowledge is based on observation and experimentation. This excludes divine revelation and also spiritual epistemology.

Multiplex epistemology is a theory of knowledge that deems senses, reason, and divine revelation as legitimate sources of knowledge. It classifies sources of knowledge into two categories, objective and subjective. Objective sources of knowledge include sense perception (*al-hawās al-salīma*), sound reason (*al-'aql al-salīm*), and revelation or reported knowledge (*al-khabar al-sādiq*). Subjective sources of knowledge include intuition, dreams, inspiration, and spiritual illumination (*kashf*).

The conviction that knowledge and its sources are multiplex is integral to Islamic thought and can be seen in many classical texts such as Sa'ad al-Din al-Taftazani, *A Commentary on the Creed of Islam (Sharh al-'Aqa'id al-Nasafiyyah)*; al-Ghazali, *Deliverance from Error (al-Munqidh min al-Dalāl)*; Ibn Hazm, *The Levels of the Sciences (Risāla fi marātib al-'ulūm)*.

The multiplex epistemology incorporates objective as well as subjective sources of knowledge. Objective sources of knowledge includes *al-khawās al-salīmah* (sound sense perception), *al-'aql al-salīm* (sound reasoning), *al-khabar al-ṣādiq* (divine revelation). These sources of knowledge are objective because one can make a case in the public domain based on this type of knowledge.

The subjective sources of knowledge includes such sources as intuition (*hadith*), dreams (*ru'ya*), inspiration (*ilham*) and also unveiling the eye of the heart (*kashf*). These are the subjective sources of knowledge, one cannot make an argument in the public domain based on one's dream, intuition or *kashf* but they have their own legitimate place in the private domain. Also, the knowledge derived from the subjective sources must not contradict with the objective knowledge. This is because in case of contradiction, objective knowledge has the power to override the subjective knowledge. A prominent Sufi, Ahmad al-Sirhindi, who is known as al-Imam al-Rabbani, wrote the following: "Know that every issue in which there is a disagreement between scholars (ulama) and the Sufis you find the truth on the side of the scholars after you deliberate and make a deep research about it."<sup>4</sup>

Osman Bakar makes the following observation about how different sources of knowledge have been used by Muslim scholars and thinkers:

Islamic intellectual tradition upholds the idea of the hierarchy and unity of knowledge

4 Muhammed Emin Er. *Al-Mukhtarāt min Maktūbāt al-Imam al-Rabbānī al-Sirhindī* (Istanbul: İSAR, 2016), 53.

and of modes of knowing. There are many sources and forms of knowledge, and there are many ways of knowing. In Islam, all possible avenues to knowledge are duly recognized. Each avenue is accorded a legitimate place and function within the total epistemological scheme furnished by the revealed teachings of the religion. This has been the general view of Muslim scholars regardless of whether they are scientists, philosophers, theologians or Sufis. Observation and experimentation, logical thinking, mathematical analysis and even rational interpretation of sacred Books, not just of Islam but of all humanity, all have their legitimate roles to play in the scientific enterprise of traditional Muslim scientists. If we look at the scientific treatises of famous scientists like Ibn Sina, al-Biruni, Nasir al-Din al-Tusi and Qutb al-Din al-Shirazi such as those dealing with astronomy, geology, medicine and cosmology, we will find them arguing not just on the basis of empirical and rational data but also on the foundation of revealed data. Far from generating theoretical conflicts that defy solutions, these different types of data, on the contrary, serve to complement and strengthen each other.<sup>5</sup>

As an example to what Osman Bakar mentioned, we can look at the views of Ghazali on multiplex epistemology.

Imām al-Ghazālī's theory of knowledge is tied intimately with his cosmology; in order to understand the former, we must briefly touch on the latter. The most basic element of Imām al-Ghazālī's conception of the universe is that he sees the world - all that God has created - as existing on the planes of the physical and metaphysical: "Know that the cosmos is two worlds: spiritual and corporeal (*rūhānī wa jismānī*).<sup>6</sup>

These realms are also referred to as the *'ālam al-malakūt* (the world of the dominion, or the spiritual world) and the *'ālam al-mulk* (the visible or corporeal world), respectively. Though they are distinct, they are not separate spheres, but rather are connected; they are layered upon or permeate one another such that it is possible to access one from the other. In the context of earthly life, man's senses dominate his untrained consciousness, thus he will experience this as movement from the physical world to the metaphysical one:

5 Osman Bakar. "Science" in *The History of Islamic Philosophy*, eds. Oliver Leaman and Seyyed Hossein Nasr, 926-947 (New York: Routledge, 1996), 941.

6 Abū Hāmid al-Ghazālī. *The Niche of Lights: A Parallel English-Arabic Text*, translated by David Buchman (Provo, Utah: Brigham Young University Press, 1998), 25.

The visible world [*mulk*] is a ladder to the world of dominion [*malakut*]...if there were no relationship and connection between the two worlds, climbing from one world to the other would be inconceivable. Hence, the divine mercy made the visible world [*mulk*] parallel to the world of dominion [*malakut*].<sup>7</sup>

It has been customary to see the Muslim theologian Abū Hāmid al-Ghazālī (d. 1111) as a vehement critic of philosophy, who rejected it in favor of Sufism, a view which has come under increased scrutiny in recent years. Instead, al-Ghazālī should be seen as an example of a scholar who is committed to multiplexity. The works he produced in logic, theology, jurisprudence and Sufism testify to this. Al-Ghazālī's critique of philosophy is to demarcate its limitations regarding metaphysical questions but to completely reject it. Likewise, his critique of reason and sense perception is not to abandon them completely but to create an awareness about their limitations to pave the ground for a multiplex epistemology and methodology. For al-Ghazālī, relying on a single source of knowledge, be it reason or revelation, would mislead people.

Al-Ghazālī uses a metaphor to depict the way knowledge comes to be reflected, or enters, in the heart: He describes two doors that open into the heart and allow knowledge to enter it from two different sources. He writes that "the heart has two doors. One door opens toward the world of spirits (*'ālam al-malakūt*)...the other door opens toward the five external senses that are tethered to the visible material world."<sup>8</sup> The access we have to the realm of spirits is through our hearts and the door that opens up to them from it. The door opens out to the corporeal world, and involves the use of the five external senses, but also the five internal senses, which are housed in the physical brain according to al-Ghazālī, and which facilitate both empirical and a priori knowledge.<sup>9</sup>

It is a delusion, however, to think that reason can alone and by itself attain to the fullness of truth, for the guidance of revelation is required. For this, one needs reason and revelation together; the one cannot do without the other.<sup>10</sup>

7 Ibid.

8 Al-Ghazālī, "Kitāb 'Ajā'ib al-Qalb," book 21 of the *Ihyā' 'Ulūm al-Dīn*, 4 vols. (Cairo: Muṣṭafā al-Bābī al-Ḥalabī, 1346/1927), 3: 77. See the translation by Walter James Skellie as *Al-Ghazālī, The Marvels of the Heart* (Louisville, KY: Fons Vitae, 2010), 60.

9 Skellie, op. cit., above "Translator's Introduction", xxiii.

10 Richard M. Frank. *Al-Ghazali and the Ash'arite School* (Durham and London: Duke University Press, 1994), 11.

For al-Ghazālī, like all other Muslim thinkers, a comprehensive understanding of reality as it truly is requires that man be open to each source of knowledge; they do not work in opposition, nor do they work in isolation. One without the others is incomplete.

### III. MULTIPLEX METHODOLOGY

Methodology is also closely related to ontology and epistemology. It is stated above that multiplex ontology leads to multiplex epistemology and the multiplex epistemology lays the ground for multiplex methodology. This is because different levels of existence require different sources of knowledge and the different sources of knowledge require different methods to produce knowledge.

Taskhkoprüzade presents the multilevel approach on methodology in his book *Miftah al-Sa'āda wa Mişbāh al-Siyāda fi Mawḍū'āt al-'Ulūm* and classifies disciplines accordingly. He states that there are two methods to truth: *nazar* (reasoning) and *taşfiyah* (purification) or *tazkiyah*. Taskoprüzade's primary goal was establishing a system of disciplines that reconciled rational fact and revelatory truth, as well as intuitive experience through the enhancement of personal virtue.

*Nazar* means both theoretical and empirical reasoning or rational approach which uses demonstration (*istidlāl*) as a method. We divide *nazar* into two categories:

- (1) *Nazar aqli*, which we translate as pure reasoning. *Nazar aqli* is used in empirical, philosophical and rational research. Pure reasoning is used by natural sciences, logic, math, philosophy and empiric social sciences which Ibn Khaldun called *ilm al-'umran*. It involves deductive and inductive methods as well as qualitative and quantitative methods.
- (2) *Nazar shar'i*, which we translate as religious reasoning, is used by Islamic disciplines such as *kalam* and *fiqh*. It incorporates *nazar aqli* but adds on it divine revelation.

The difference between the two is that *nazar shar'i* incorporates *wahy* and *hadith* in it. But *nazar aqli* does not have to incorporate divine revelation into empirical or philosophical research. These two methods are accepted as legitimate methods, but they are not exclusive of each other. Nor are they alternatives to each other. They complement each other. If one is studying nature, laws of physics, or biology, one can use pure reasoning because, at the material level of existence, the focus is on material phenomena and their causal relations. As

for religious reasoning, it is mainly used in disciplines such as *kalām* and *fiqh*. This difference is only valid for methodological purposes.

As to the method of spiritual purification (*taşfiya* or *tazkiya*), it is a practical and experiential method rather than an intellectual one to reach to truth. *Taşfiya* is a method of spiritual epistemology which produces experiential knowledge in the heart. Knowledge gained through reasoning is called "acquired knowledge" (*al-'ilm al-kasbī*) whereas the knowledge gained through purification of the heart is called "gifted knowledge" (*al-'ilm al-wahbī*). This is because it is not gained through academic or scientific research but through pious practices such as love, altruistic service to others, *dhikr* and abstention.

As to the relationship between the methods of reasoning and purification, Tashkuprizade states that eventually they lead to each other. The one who reaches the zenith of the rational knowledge feels thirsty for spiritual knowledge while the one reaches the zenith of spiritual knowledge feels the need for the rational knowledge. The scholars who is equipped with both are the ideal scholars who can implement rational methods as well as spiritual methods to reach to truth. Employing both methods they develop a holistic understanding of the multiplex truth. Thus they become scholars with two wings who combine rational and spiritual knowledge, the knowledge of the visible material and the invisible non-material worlds.

The ideal scholar in Islam is the one who can employ all methods in his toolbox to derive knowledge from all sources of knowledge. Great scholars such as Ghazali, Ibn Khaldun, Razi, Tashkuprizade mastered all these methods as used them in their works in a various of disciplines.

In sum one can say that every subject is multiplex and thus can be studied by multiplex methodology from a variety of complementary perspectives. Below this will be demonstrated by drawing attention to three examples: Tafsir, natural sciences and social action.

The discipline of Tafsir has three methods: rational (*tafsir bi al-diraya*), traditional (*tafsir bi al-riwāyah*) and spiritual (*tafsir bi al-ishārah*). The same text is interpreted using these methods in a complementary way. In the Tafsir literature there are commentaries of the Qur'an which employs only one of these methods while some combine them.

Likewise, Muslim scholars saw nature as book and used empirical methods for causal explanation and hermeneutic or interpretive methods to explore the meaning of nature. I call the latter effort "semiotics of nature."<sup>11</sup> Muslims have never seen a contradiction in using these

<sup>11</sup> See Recep Şentürk, "Semiotics of Nature: Recharging the World with Meaning" in *Ein Traditioneller Gelehrter Stellt Sich der Moderne: Said Nursi (1876-1960)*, ed. Martin and Bülent Uçar (Osnabrück,

methods together to understand different levels of natural existence. Yet the modern positivist science presents them as mutually exclusive and requires us to exclusively focus on researching causal relations in nature.

In Islamic civilization, social action is studied by three disciplines which use three distinctive methods: *‘ilm al-‘umrān* using *nazar ‘aqlī* to explore causal relations in society, *fiqh* using *nazar shar‘ī* to explore the visible level of social action and tasawwuf using tasfiya to explore the inner level of social action.

#### IV. THE MULTIPLEX STRUCTURE OF SCIENCES

The foregoing account demonstrated briefly that Islamic worldview is multiplex. So is the paradigm built upon it with multiplex ontology, epistemology and methodology. This gave rise to ontological, epistemological and methodological pluralism in Islamic civilization which may be challenging to understand to those who have the conviction that reality is a single layer. They are also convinced that there can be only a single scientific method, be it explanation or interpretation.

As mentioned above, Tashkuprizade and Katib Çelebi, in their monumental works, adopted multiplicity as the key to expose the structure of Islamic disciplines and thus classify sciences in their time depending on the level of existence they specialized in.

- (1) Disciplines studying material existence in the world of objects (*wujūd fī al-a‘yān*),
- (2) Disciplines studying conceptual existence in the mind (*wujūd fī al-dhihn*),
- (3) Disciplines studying linguistic existence in speech (*wujūd fī al-lafẓ*),
- (4) Disciplines studying existence in writing (*wujūd fī al-khat*).<sup>12</sup>

Every object exists at all these four levels of existence otherwise its existence is called figurative (*al-wujūd al-majāzī*). Mythological figures who lacks a physical existence cannot be subject for natural sciences. For instance Pegasus is a mythological figure without a physical existence. It exists only in our minds, our speech and writing. The figurative existence is for exceptional entities. Under normal conditions existence is complex with four layers. For

instance, the moon exists as a material object outside of our mind, the concept of moon exists in our mind, we talk about moon and produce a discourse about it in our language; and we produce writings about the moon.

Consequently, every object becomes the subject of several disciplines studying its various levels of existence. Astronomy and physics study the moon’s physical existence, philosophy and psychology study its mental perception, literature study the oral and written discourse about the moon. Some disciplines use multiple methods to study their subject such as tafsir which uses rational, traditional and spiritual methods to interpret the Qur’an. The multiplicity in Tafsir methodology is based on multiplicity of meaning (*marātib al-mā‘āni*).

From another ontological perspective, levels of existence and the sciences studying them may be classified in a different way if we are to follow its multiplex ontology which exhibits primarily three broad levels of existence:

- (1) Absolute Realm: Divine level of existence, variously named as “*‘Ālam al-Lāhūt*”, “*Ghayb al-Ghuyūb*”;
- (2) Transcendental Realm: Metaphysical level of existence which is variously named as “*‘Ālam al-Malakūt*” or “*‘Ālam al-Jabarut*”;
- (3) Material Realm: Physical level of existence, called “*‘Ālam al-mulk*”, “*‘Ālam al-Shahādah*”.

Each realm can be considered as an area of study which will be a subject matter for a specific science. In Islamic creed the first realm of lāhūt, namely the divine realm, cannot be known by anyone except God. Therefore, if we want to attain its knowledge we need to refer to divine revelation which is sent only to certain people who are chosen as Prophets. In that case, the study of this area is not in the true sense a science but “knowledge of the Absolute” as revealed. In Islamic scientific tradition all we need to do is try to understand and emulate what is given in this regard. Thus this domain is primarily the realm of *manqūlāt*, the revealed knowledge but aided by other types of knowledge.

As for the second realm, which is the domain of the transcendental beings, consist of things that extend to us from the Absolute reaching the physical world. In that case sciences that deal with beings and the phenomena of this realm need to follow the guidance of the revelation wherever possible and utilize at the same time knowledge of the sciences developed by scholars and try to reach results based on this integrated approach. This transcendental realm is the world of things that are between the absolute and the physical. In that case, this realm will include things that bare closer to the absolute and things in the middle region

Germany: Universtätsverlag Osnabrück, 2017).

12 Aḥmad bin Muṣṭafā Tashkoprizade, *Miftāḥ al Sa‘ādah Wa Miṣbāḥ al Siyādah Fī Mawḍū‘āt al ‘Ulūm* (Beirut: Dar Ibn al Hazm, 2010), 58. Katib Çelebi (Haji Khalifah), *Kashf al-Zunūn ‘an asāmī al-Kutub wa-al-Funūn*, see the edition by Gustavus Fluegel (London: The Oriental Translation Fund, 1835; also Bayrūt: Dār al-Kutub al-‘Ilmiyah. 2008).



and things that are closer to the physical universe. Each one of these things require a special approach developed according to multiplexity. Explicated very briefly we can say that the method of study with regard to things that are in the transcendental realm closer to the region of the absolute require the least rational methods and more the methods of the revelation as a source of knowledge. The method of study with regard to things that are in the transcendental Realm right in the middle regions of the absolute and the physical realm require a balanced approach in using rational methods and the methods of the revelation as a source of knowledge. These sciences in Islamic civilization are such sciences as tafsir, hadith, kalam, tasawwuf and fiqh. But in this sense fiqh which is wrongly translated as “Islamic law” plays the role of many sciences of society including law and ethics. This domain is primarily the domain of ma’qulat, the rational knowledge but aided by other types of knowledge.

Finally comes the sciences that are concerned with the physical world known today as “natural sciences” but in the Islamic tradition it is rightly referred to as “kawniyyât” or the “sciences of kawn”. In this realm the only way we can gain knowledge is through rational methods. This is the domain of primarily *maḥsūsāt* but again aided by other types of knowledge.

It is clear that sciences are structured in this way in accordance with the principles of multiplexity in Islamic civilization. We should realize that when we refer to this concept as a “new” key we simply mean that this comprehensive conception of sciences in the past Islamic civilization is newly termed “multiplexity” and therefore, we do not mean that it is a new discovery altogether.

## CONCLUSION

The Islamic worldview is multiplex. So is the structure of its sciences. This is the argument of this paper. “A worldview is generally understood as a set of beliefs about fundamental aspects of Reality that ground and influence all our perceiving, thinking, knowing, and doing.<sup>13</sup>” When it comes to the deepest questions about human life and existence, does anything surpass the final implications of the answers supplied by one’s essential Weltanschauung?<sup>14</sup>

13 [https://www.qurtuba.edu.pk/thedialogue/The%20Dialogue/6\\_3/Dialogue\\_July\\_September2011\\_268-289.pdf](https://www.qurtuba.edu.pk/thedialogue/The%20Dialogue/6_3/Dialogue_July_September2011_268-289.pdf)

14 D. K. Naugle, *Worldview: The History of a Concept* (Grand Rapids, Michigan and Cambridge UK: William B. Eerdmans Publishing, 2002), 345.

There are various intellectual traditions in Islamic civilization. Even though each tradition may differ in its methodologies or principles, a more comprehensive look at different intellectual traditions of Islamic civilization exposes a larger intellectual system based on the multiplex worldview. These intellectual traditions in Islamic civilization are not mutually exclusive. The evidence to this is that a great many of Muslim scholars have written in each discipline. They used two types of nazar, nazar aqli and nazar shar’i, and also tasfiyah. One of the most important examples of this was Ibn Khaldun. While he was considered as an empiricist by many, according to the perspective presented here, he is not an empiricist but multiplex appreciating the domain where empirical methods are utilized.

Tashkoprizade’s system of knowledge does not merely present an encyclopedia of sciences, but also presents a picture of the intellectuals needed by society. Tashkoprizade called the intellectuals who reconcile the facts of reason with the norms of revelation, and whose spiritual practices refine their minds and bring stability and order to society, “the place where the two oceans meet” (*majma’ al-baḥrayn*). This image of the intellectual as the microcosmic ideal, also known as the complete person (*al-insan al-kāmil*), was widespread in Ottoman society.<sup>15</sup>

Multiplexity, in its most basic sense, is a worldview that characterizes the ‘structure’ of the Islamic sciences, and it has potentiality to serve as an alternative foundation. It does not negate the sources of knowledge but shows their appropriate places. This fair but critical perspective reveals a multi-level understanding of the sources of knowledge by appreciating the capacity and limitations. More concretely, multiplexity does not negate sense perception, but appreciates its capacity and limitations, and demonstrates how it can be complemented by reason, revelation and intuitive sources of knowledge. In other words, it incorporates an empirical approach but rejects empiricism. Likewise it relies on reason but rejects rationalism. The same way it accepts revelation and sacred scriptures but rejects scripturalism. It does not deify any particular source of knowledge, instead mobilizes all of them in a balanced and coherent system. Multiplexity, in addition to the objective sources of knowledge, incorporates the subjective, intuitive and spiritual sources of knowledge as part of the larger epistemological system. Therefore, multiplexity offers us a plurality or multiplicity of ways of knowing, each used for appropriate places: the senses in the domain of *maḥsusat*, reason in the domain of *ma’qulat*, and the revelation in the domain of *manqulat*. In other words, multiplexity builds a holistic epistemology based on

15 Ahmet Taskopruzade, *Bayan Asrar al-Khilafa al-Insaniya wa al-Saltana al-Ma’naviya* (Istanbul: Istanbul Medeniyet Universitesi Yayinlari, 2016).

the harmony among *aqliyyat* (rational knowledge), *hissiyyat* (sensual knowledge), *naqliyyat* (revealed knowledge) and *kashfiyyat* (spiritual knowledge).

This comprehensive approach to existence, knowledge and methodology is the key to understanding the structure of Islamic thought and sciences. It is also the alternative to the reductionist and monist views prevalent today. The researchers should investigate what sort of implications multiplexity can have for current sciences.