

## Interplay of Knowledge, Ritual, and Science in Islamic Tradition

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### Abstract

Islam has long emphasized the pursuit of knowledge as a divine obligation, intertwining spiritual insight with intellectual endeavors. This study explores the Qur'anic foundation for scientific intellectualism, tracing the development of knowledge within Islamic civilization. Beginning with the first revelation, which underscored the significance of reading and learning, the paper examines the subsequent intellectual revolution shaped by the integration of theological, social, and natural sciences. By contextualizing Islamic scientific traditions within the broader framework of Tawhid (the Oneness of God), this research highlights the sacredness of nature as a Divine Sign and humanity's role as its custodian. Furthermore, it underscores the inseparability of science and faith in Islamic thought. By investigating key Qur'anic concepts of knowledge ('ilm), the study offers insights into the unique epistemological framework that has historically driven scientific advancements in Islamic civilization.

**Keywords:** Knowledge in Islam, Qur'anic epistemology, Islamic scientific tradition, Tawhid, Divine signs, Islamic intellectualism

The expansion of geographical borders and the subsequent cultural synthesis forced the keenest minds of the times to continuously formulate answers to a wide range of questions arising from, among other things, new theological concerns, specific needs of the newly converted masses and immigrants, and the emergence of new administrative and financial arrangements between the state and its citizens. The rapid geographical expansion also posed new questions related to the practice of faith and that required immediate attention: how to determine the correct *Qiblah* (direction toward the *ka'bah* in *Makkah*) for the five obligatory daily prayers from a distant city; how to calculate the correct amount of *zakah* (obligatory charity on

wealth and material goods) on goods that did not exist in *Madinah* during the life of the Prophet and for which no clear-cut ruling could be found in the Qur'an or Prophetic precedent how to apply the principles of inheritance outlined in the Qur'an to complex situations that had not existed in the life of the Muslim community in *Madinah*. These and numerous other issues arising out of a rapidly expanding social, political, and economic landscape produced a fervor of intellectual activity that resulted in the emergence of new branches of knowledge.

The intellectual revolution that took place in the world of Islam at this early stage was as much a result of the internal dynamics of the unfolding of Islam in history as it was due to its encounter with some of the richest intellectual traditions of the ancient world. Already during the life of the Prophet, the sciences of the Qur'an (*Ulum al-Qur'an*) had emerged as a differentiated branch of learning. Shortly after his death, focused efforts were made to preserve, annotate, and verify the *Hadith*.

The Qur'an consists of about 70,000 words. Its text has remained fixed without any dispute throughout its existence. During the life of the Prophet, it was memorized by many Companions, some of whom also had written codices it was "put between the two covers" shortly after the death of the Prophet. The *Hadith*, however, were in the thousands, and only a portion of these sayings of the Prophet had existed in written form during his lifetime. His Companions started to compile these sayings after his death, which led to the emergence of a rich tradition of *Hadith* studies, which in turn called for the development of exacting methodologies and techniques to authenticate, index and cross reference a very large number of individual saying of the Prophet. This collection activity, which received sustained and focused attention by successive generations of Muslims until about the middle of the third century of Islam, produced verification methodologies that were later employed by scientists and philosophers in other fields, such as the exact sciences.<sup>1</sup>

The Qur'an and the *Sunnah* the combined body of the Prophet's sayings and his traditions-are the two primary sources of Islam, and both have remained at the heart of Islamic tradition for over fourteen hundred years. For the purpose of this book, it is important to mention that various branches of learning dealing with these two primary sources emerged in Islamic civilization prior to any other branch of knowledge, and they influenced all other fields- including the natural sciences-in numerous direct and indirect ways. Thus, by the time study of nature appeared in Islamic civilization as an organized and recognizable enterprise, the religious sciences had already been firmly established; this sequence affected the framework used to explore nature.

The Qur'an itself lays out a well-defined and comprehensive concept of the natural worlds, and this played a foundational role in the making of the scientific tradition in Islamic civilization. It is therefore incumbent to briefly mention the Qur'anic view of nature in order to develop a methodology for exploring specific aspects of the relationship between Islam and science.

### **The Islam and the Knowledge of the Universe:**

Although the three Abrahamic monotheistic religions Judaism<sup>2</sup>, Christianity, and Islam- Share a certain degree of commonality with respect to belief in one God and certain aspects of creation, their concepts of the natural world and its relationship to humanity has considerable divergences<sup>3</sup>. In the case of Islam, the Qur'anic view of nature is characterized by an ontological and morphological continuity with the very concept of God linkage that imparts a certain degree of sacredness to the world of nature by making it a sign pointing to a transcendental reality. However, just as the Qur'an presents the world of nature to humanity as a sign, it also calls its own verses. This semantic linkage is further strengthened through various Qur'anic descriptions and modes of communication. God communicates, according to the Qur'an by "Sending" His *ayat*. As Izutsu has noted,

On this level, there is no essential difference between linguistic and nonlinguistic Signs, both types are equally divine *ayat*... the meaning of this, in the sense in which the Qur'an understands, it is that all that we usually call natural phenomena, such as rain, wind, the structure of the heaven and the earth, alternation of day and night, the turning about of the winds, etc., all these would be understood not as simple natural phenomena, but as so many 'signs' or 'symbols' pointing to the divine intervention in human affairs, as evidences of the Divine Providence, care and wisdom displayed by God for the good of human beings on this earth.<sup>4</sup>

Thus science, as a systematic study of nature and as it developed in Islamic civilization, could not treat nature and its study open in Islamic civilization, could not treat nature and its study as an entity *separate* from Islam. Furthermore, the Qur'an views nature as a vast system pregnant with movement rather than an inert body. Nature accepts and acts upon Divine Commands, like all else between the heavens and the earth. This view of nature grants it distinct metaphysical qualities. Rather than being self-subsisting, autonomous, or random, is described by the Qur'an as a sophisticated system of interconnected, consistent, uniform, and highly active entities, all of which are ontologically dependent on the Creator and exalt Him in their own specific ways.

*The seven heavens and the earth and whatever is between them sing the glories of God.*<sup>5</sup> It is an oft-repeated refrain of the Qur'an tells us. It must be noted here, however, that this dependence and subservience of nature to God is not a haphazard matter, since God's ways and laws are unchanging<sup>6</sup>;

And thus the entire world of nature operates through immutable laws that can be discovered through the investigation of nature. Since these laws are both uniform and knowable, and since nature points to something higher than itself-indeed, to the Creator Himself-it following that the study of nature leads to an understanding of God, and is in fact a form of worship.

In understanding these relationships drawn by the Qur'an, it is important to recall that the Qur'an is considered by Muslims to be the actual speech of God, imparted to the heart of the Prophet ﷺ by the Gabriel. The Prophet ﷺ then conveyed it as he received it. The text of the Qur'an thus becomes the actual Divine Word, not retrojective inspirational transcriptions, and so its conception of the natural world is grounded in immutable faith. It should also be noted that, according to the Qur'an.

Human beings were created by God as His vicegerents (*khalifa*) in the physical world lying within the finite boundaries of time... [and] the very principle of God's vicegerency also made them His servants (*abd, ibad*) who were-by virtue of a Primordial Covenant (*mithaq*) they had affirmed, and a Trust (*amanah*) they had taken upon themselves in preeternity-the custodians of the entire natural world. Humanity was thus transcendentally charged not to violate the due measure (*qadr*) and balance (*mizan*) that God had created in the larger cosmic whole.<sup>7</sup>

The Qur'anic view of the relationship between the world of nature and God on the one hand and between the worlds of nature and the progeny of Adam on the other is thus highly interconnected. As Syed Numanul Haq explains:

Adam's superiority over creatures and his regency over nature arise in a context that in a context that is highly complex, with its interdigitating metaphysical, moral, and naturalistic dimensions: the conceptual setting here evidently being very different from that of the Old Testament and the Evangel.<sup>8</sup>

Given these inherent relationships between God, humanity, and nature, it is impossible in Islam to conceive of nature as an independent, self-subsisting entity. Likewise, science-as an organized enterprise that studies and explores the natural world cannot be conceived as a separate entity which has to be somehow externally related to Islam. In fact, the much-touted lake of separation of state and religion in Islamic polity is applicable to all other domains, as Muslims believe that Islam is not merely a set of commandments and rituals but a complete way of life, encompassing all domains of knowledge and human activity. This worldview is based on an uncompromising insistence on *Tawhid*, the Oneness of God, a ubiquitous concept in Islamic thought that Oneness of God, a ubiquitous concept in Islamic thought that unifies all realms of knowledge, making them branches of the same tree. Difficult as it may be for the modern Western mind- accustomed to regarding religion solely as set of personal beliefs- to understand this aspect of Islam, it is impossible to construct a relationship between Islam and science- or any other domain of knowledge- as a relationship between two distinctively separate entities.<sup>9</sup>

We need to understand this relationship like that of a mother and a child, in which a particular branch of knowledge- science- emerges from within the greater body of

knowledge dealing with the world of existing things, a world conceived as created by and ontologically dependent upon the Creator. It is a relationship that is inherently inseparable from the well-articulated concept of nature as a Divine Sign. The next chapter explores the emergence of science in Islamic civilization, its relationship with the Greek, Persian, and Indian scientific tradition and its flowering.

### **The Scope of Knowledge in Islam**

In the entire history of Islam, much have been said about the concept of knowledge (*'ilm*) by Muslim and non-Muslim writers<sup>10</sup>. The concept of "*'ilm*" in the verses of the Qur'an in which the world takes place in its root-form and derivatives can be categorized as<sup>11</sup>:

1. First of all, the concept of knowledge (*'ilm*) in the Qur'an is indivisible and holistic, (In this respect, there is a certain important difference between the concept of '*ilm* in the Qur'an and that of what Muslims understand today).
2. The Qur'anic concept of knowledge includes all Knowledge also scientific knowledge insofar as it represents reality at all levels of abstraction.
3. The concept of knowledge in the Qur'an does not allow the categorization of true false knowledge, as the word is always used in relation to reality. On the other hand it can also be used for indicating that someone is having or not having the knowledge of something, as in "...Has the knowledge of?" or "... has not the knowledge".<sup>12</sup>
4. The Qur'anic concept of knowledge indicates that the reality is grasped with knowledge, and the limits of knowledge determine the extent of the awareness of reality and consciousness. (027:084).
5. In the Qur'an it is stated that Allah has encircled (*wasi'a*) everything with knowledge. This might mean that knowledge extends through space.<sup>13</sup>
6. Also, the expression "knowledge from the site of Allah "takes place in verses as a different kind of knowledge, in contrast to the knowledge that extends through space.<sup>14</sup>
7. The fact that Allah has power over everything can be known by man.<sup>15</sup>
8. The verb "to know" (*alima*) is applicable to both Individual human being and to a nation (*a qawm*) as in the expression "a nation that knows".<sup>16</sup>
9. "Those who know and those who do not cannot be the same"<sup>17</sup>.

The conceptual grammar of "knowledge" that we have summarized here constitutes a part of a wider conceptual network in the Qur'an the importance and necessary of knowledge in Islam emerges as A prerequisite for being a human being Only through knowledge A prerequisite for being a human being Only through knowledge Man wants to know how far his abilities and responsibilities extend.

### Necessity of Knowledge: Man's Position in the Universe

What makes man/woman who occupies such a small space time region on a small planet compared with the astronomical galaxies important? The question may be answered in Islamic perspective: What makes us important is the fact that Allah has given us some superior qualities among His creation notably our ability to learn and think which enable us to increase our contact with reality and consciousness. For one who believes in Allah the most important question of science is to know: "how does Allah direct the heavens and the earth?" Although these questions are difficult yet they may be answered the answer to the second question is obviously "yes". The answers are given in the Qur'an also.

Have they not studied the administration of the heavens and the earth and things that Allah created?<sup>18</sup>

Allah is He, who created the seven heavens and of the earth the like of them. The instruction (*amr*) is sent down through them so that you know that Allah has power over everything, and that Allah has encompassed everything with knowledge.<sup>19</sup>

As is obvious in the first verse above man is motivated to a systematic study of the administration of the heavens and the earth or in other words over the laws and principles of the events that take place in them.

In the second verse, we see how the concept of instruction (*amr*) that emerges as a key concept in the "administration of the Heavens and the earth" is closely related to the concept of knowledge (*ilm*) In this verse, the expression "so that you should know". Clearly indicates that man can know how Allah keeps the events happening in the heavens and the earth under His knowledge and His control. The knowledge of this should indeed be the most important gain for mankind.

The Muslims in the classical era turned towards the understanding of self and the space that they lived in. This was the motivation behind their pre-occupation with sciences as mathematics, logic, physics, chemistry, and astronomy. The importance that is given to knowledge, learning and thinking in Islam is a pointer to the importance that is given to man. The Prophet had taught the importance of knowledge, learning and thinking to Muslims through the Qur'an And the Muslims, through their books between 8-12<sup>th</sup> centuries, taught the Europeans how to give reason about all that happens in the nature. However due to some basic changes in their concept structure Which began to surface towards the end of the 11<sup>th</sup> century, Muslims lost their motivation to science, and as a result, their influence on science gradually began to disappear in the following centuries The present state of the Muslims with regard to scientific activity constitutes a complete contrast with that of the Islamic civilization in the classical era The concept of knowledge has lost its significance, while some secondary or obscure concepts have acquired prominence in the Muslim's mind today. Knowledge and Scientific Motivation in Islam the concept of knowledge (*ilm*) had such a central role in the Islamic civilization during the classical era that made famous orient list Franz

Rosenthal<sup>20</sup> to conclude that there had been no other civilization in the classical era, (including the western civilization) except Islamic civilization.<sup>21</sup>

With the birth of Islam our inclination to learn turned quickly into a campaign, and within a short span of historical time it caused the formation of scientific motivation among Muslims. The campaign for learning had already started in the Madina period when the Prophet introduce a policy of releasing the prisoners of war (who were treated as slaves) on the condition of teaching Muslim children reading, writing and grammar, Such an educational policy could not even be dreamt of in those ages, In this era, Muslims considered learning and acquisition of knowledge as the paramount duty of human being.

### The Conceptual Disintegration of Knowledge

In fact a very drastic change about the concept of *'ilm* had taken place in the history of Islamic thought, Today this concept seems to have been divided into broad and different categories "*ilm ad din*" (religious knowledge) and "*ilm ad dunya*" (worldly knowledge.) Rather actually there is no indication of any such categorization in the Islamic sources. On the contrary, the concept appeared to be holistic and indivisible. This obviously indicated that a conceptual division of knowledge (as "religious knowledge-worldly knowledge") was introduced for the first time in the subsequent centuries. But the fact that this conceptual division of "knowledge" was planted deep in the minds of Muslims in the 11<sup>th</sup> century.<sup>22</sup>

People may argue that the categorization of knowledge into "religious knowledge and worldly knowledge" came into being as a necessity to classify knowledge. We maintain that Muslims theologians for purposes other than taxonomic necessity introduced this conceptual division in the 11<sup>th</sup> century. These purpose primarily included the "protection of Muslims from certain heretical beliefs and ideas". Whatever the aims might have been the conceptual changes introduced by the theologians were hardly manifestation of goodwill, in view of the drastic results that they entailed In fact it was an introduction of a simpler but contradictory concept system in place of a rich, complex but consistent conceptual structure in the Qur'an.<sup>23</sup>

The division of knowledge as "religious knowledge and worldly knowledge" in the 11<sup>th</sup> century questioned the status of physics, chemistry, astronomy, mathematics and logic, as 'worldly knowledge". In the beginning it was stated that these sciences "had no role-positive or negative to play with the religion"<sup>24</sup> and that the knowledge of these sciences are superfluous Quite often these science were considered as "useless knowledge" as opposed to the "religious knowledge" which was regarded as "useful" its definition. The public and the rulers alike supported Muslims who were actively involved in such science activities but gradually they also began to lose interest and even not liked by people.

The case of Ibn Rushd (Averroes)<sup>25</sup> is a glaring example. He was appointed chief justice in Cordova and the doctor of the Caliph during the Andalusia Umayyads in

the 12<sup>th</sup> century. But He had to face trial because of his views on science and philosophy, by the theologians who had then newly established their political power in the administration. The theologians burned Ibn Rushd's books and wanted to have him sentenced to death, but he narrowly escaped with the help of the Caliph. His earlier services to the state came to his rescue and he banished to North Africa instead. Reactions against scientists to the extent of the Inquisition are not observed in general in the history of Islam, but we can see that the rejection of philosophy as almost a heresy and science as a useless enterprise must have deeply influenced the motivation of the Muslims away from such activities, both conceptually and politically.<sup>26</sup>

The most interesting outcome of this conceptual division is the division of the concept of knowledge itself, which previously appeared as a unified concept in the Qur'an as "religious Knowledge and worldly knowledge". And this was almost unanimously accepted by the Muslims after 11-12<sup>th</sup> century obviously this meant the acceptance of secularism by the Muslims in thought as a doctrine. In other words, by accepting such a conceptual division, Muslims would have effectively accepted the separation of their "religion" from their "world" Despite this, when they were faced with the situation of forcefully accepting Secularism as a legal principal after nine centuries, they strongly reacted against it. Now the validity of this reaction should be evaluated in the same framework as the division of the concept of knowledge in the 11<sup>th</sup> century.

Forgetting all about the understanding of a cosmic order based on the concept of "*amr*" (instruction) and set of related concepts in the Qur'an, the theologians adopted a view of physical space based on the hypothesis of continuous creation-annihilation. The hypothesis was developed from the concept of "creation" which was the outcome of the reduction of a dozen concepts in the Qur'an related with "creation" In this process, the theologians reduced such concepts in the Qur'an as *khalaqa ja'ala, baththa, nabata, fatara, banaa, sawwara, sawwa*, etc., bringing into existence, constructing, growing, etc., into a single concept "creation" (*khalaqa*) and in this way, turned a rich, complex and consistent concept system into a single concept.

As a result of this conceptual reductionism, they could soon refute the fact that substances had any essential properties. In fact they closed their minds and could not perceive the truth beyond their concept-system and thus made all scientific explanation Redundant and impossible. (Imagine the development of empirical Sciences such as physics, chemistry and astronomy, without the Principal of causation)<sup>27</sup>, whereas it is clear from the verses related to the word *amr* (instruction) and a set of other related concepts in the Qur'an that the properties of substances are manifestations of a set of instructions that goes into the making of substances with certain fixed distinguishing characteristics.

There are about 250 verses in the Qur'an where the word *amr* (instructions). And its derivatives are mentioned. Some of these verses state that Allah rules the heavens and the earth with his *amr* (instruction). Indeed, it is clearly stated in these verses

mentioned in the context of the movements of celestial objects that they must move in accordance with the instructions of the Almighty during the formation of the heavens.

....Then He decreed it (the heaven) as the seven heavens, and revealed in (or loaded in) each heaven its instructions.<sup>28</sup>

The sun, the moon and the stars and the stars are bound in their States (*musakhkharat*) with His instruction.<sup>29</sup>

On the other hand, in verses related to the word *sakhkhara* (سخّرنا) (to give under use or control)., in the Qur'an Allah states that he Has given "whatever is in the heavens and the earth under man's control".

"Do you not see that Allah has given whatever in the heavens and the earth under your control (*sakhkhara la kum*)?"<sup>30</sup>

The words *amr*, *izn* *sakhkhara*, *sultan*, *qadr* and *qada* constitute an extremely remarkable conceptual network.

The continuation of conceptual disintegration in subsequent centuries resulted in the abandonment of the research tradition developed until the 12<sup>th</sup> century. It is hardly possible to conduct research in experimental science such as physics and chemistry, In an intellectual framework where causality and the essential properties of substances were denied. The philosophical disagreement between al-Ghazzali and Ibn Rushd was debated till the 15<sup>th</sup> century when the Otoman Sultan Mehmed II in a decisive but academic manner made effort to resolve this tangle. The Sultan effected the formation of two groups of scholars to resolve the issue between themselves in a free spirit. In the end, the group of scholars that defended al-Ghazzali's arguments won the debate, and as a consequence, the theologian' views formed the basis of the official educational policy of the Ottoman higher educational institutions (*the Madrasah*). This has been recorded by Osman Turan, a 20<sup>th</sup> century Turkish historian, as follows.

Sultan Mehmed had gathered the scholars of the age around him. He wanted to have the disagreement between al-Ghazzlai and Ibn Rushd resolved. For this reason, he formed a commission under the chair of Hodja-Zadeh who had publications on philosophy. However, because of the complexity of the issue, the problem remained unresolved, and the controversy between philosophy and religion continued.<sup>31</sup>

The reasons, why the Ottoman universities (*the Madrasah*) could not compete with European universities in the field of mathematical and physical sciences, and in the abandonment of his research tradition developed by the Muslim scientists till the 12<sup>th</sup> century. Despite their failure in physical sciences, the Ottoman success in political science and administration can partly be explained by the effect of the Enderun (the Royal College which was independent of the *Madrasah* system. Besides, to a certain degree, the Ottomans followed the original political concepts

of Islamic rather than that of the 14<sup>th</sup> century theologians such as Ibn Taymiyyah. This is another important point that needs careful examination.

The poor performance of the Ottomans in science and philosophy compared with the developments in Europe had been noticed much before by some Ottoman scholars. For example Katip Chelebi (1609-1657CE) had alerted the Ottoman Administration about the complete failure of the *Madrasah* in the Study of physical sciences and mathematics by its dismissal of such sciences.<sup>32</sup> But the distorted concept system that had been planted deep into the Muslims mind after the 11<sup>th</sup> century.

### **The ‘Knowledge’ and Science in the Historical perspective**

By the turn of the century, the Ottomans realized that their failure to build their economy and strengthen their defense structure was largely because of their poor performance in the sphere of philosophy and science, and consequently in technology however, the Ottoman administrators and intellectuals tried to rejuvenate their efforts by undertaking a series of several social and political measures to regain their previous position. The measure was: *Islahat* (recovery), *Tanzimat* (reorganization) and *meshrutiyet* (constitutional reform). They could not understand that these problems could not be resolved by mere political and social measures in fact these problems were rooted deep into the conceptual frame, and adversely affecting Muslim’ motivation to science.<sup>33</sup>

Lastly the educational campaign that was undertaken by Sultan Abdul Hamid II towards the end of the 19<sup>th</sup> century met with serious opposition from Muslims themselves and found to be inadequate. Finally, the Ottoman States disappeared from the race as the Europeans who obviously had enough scientific and technology superiority, which they demonstrated during the First World War, decisively defeated them. The attempts to solve these conceptual problems through several political and social measures continued in the Turkish Republican Era. These changes were manifested in the replacement of the alphabet and the outfits of people. It also replaced the constitution and legal codes with the Swiss and Italian Laws in the early period of the Republic (1923-1933 CE). The industrialization campaign was undertaken in the second stage (1950-1960 CE), the heavy-industrialization phase in the third stage (1970-1975 CE), and finally, the recent liberalization and market Economy policies (1980-1990 CE). All these may be regarded as the continuation of the efforts made in the last century. As the conceptual frame that was inherited from the Ottoman could not be changed, the forceful political, social, legal and pseudo cultural measures adopted by Turks failed to yield success. The positivist Muslims in their efforts to motivate Muslims to science and assimilate it in their social fabric did not yield satisfactory results because they strained the illicit “religion-science” division instead of exploring measures to resolve problem.

Despite the most current slogans that were raised about science, the Republican governments failed to initiate measures to effect substantive scientific development. This is perhaps because of this failure there is no Academy of Science, no Ministry

of Science and Technology, and on the top of everything there is no policy of Science and Technology in Turkey. These problems should be seriously investigated into by the intellectuals of this country.<sup>34</sup>

In recent years some Muslim writers propose that the scientific theories developed by Western scientists should be examined carefully and modified in accordance with the Islamic viewpoint. Their sincerity apart their attempts appear to be spurious, as they do not make any serious consideration of the conceptual problems involved and consequently cannot resolve the problem. As to S.H. Nasr, his attempt to provide mystical foundations for the scientific motivation of the Muslim scientists of the future appears to be a wild goose chase.

The two programs mentioned above must fail as they are inherently faulty and bristle with errors. These writers do not see that the decline of the Islamic civilization in the context of science and in many other spheres of life is partly because of Muslims' neglect of their own research tradition, and worse still, because of their loss of motivation to learning and research. No program can succeed unless Muslims regain their motivation to science. And this will happen only if the Muslims dissociate themselves from the disintegrated concept system that they now possess, and reclaim the rich and consistent concept system in the Qur'an. Then alone they can see and understand things in their proper perspective and rid themselves of the need of slogans and the shallow or mystical politics of change.

As to Pervez Hoodbhoy's comments<sup>35</sup>, we have to take seriously his criticism on the ill-formed notion of science of Muslims today. However, we have also to consider the errors in his analyses and show that his analyses are based on a series of mistaken premises. One of the serious of Hoodbhoy's claim that science is a secular activity<sup>36</sup> is precisely based on his assumption that scientific motivation to Muslims during the 8-11<sup>th</sup> century was not related to religion. He seems to forget that the Muslims during the above centuries conducted their studies and research in accordance with concept system and also in accordance with the understanding of "being human". And all this they learned from Islam. However, if Hoodbhoy was correct in his estimation that the early Muslims scientists and philosophers owed their success to a secular view of the world, the questions arises what was the original source? If the secular view came to them from the ancient Greeks, the question again arises: why did not they take advantage of this view centuries earlier? Also why other secular societies (including the secular Greeks themselves) did not demonstrate substantive and remarkable scientific activity around the same centuries? The fact is that Muslims during these centuries never interfered with the activities of other cultures that co-existed with their own.

We have to remember that Ottoman and the Turkish Republican intellectuals and administrators drew the same conclusion much earlier. But this conclusion was not consistent with fact and the various political measures taken to set it right ultimately proved to be a futile effort. In fact, deep and down in the heart of the crisis lie the problems of conceptual nature, not political or economic.

Undoubtedly, Science has a special position in society. It has been regarded throughout the world as being amongst the most worthwhile forms of human activity. Its practitioners are regarded in high esteem and the fundamental institutions of society are closely aligned with its authority. The historical position of religion in its relationship with the State has in most cases been assumed by science and the priesthood of the doctorate has come to replace that of the Church. Appeal to science gives ideas the stamp of credibility. One frequently sees Marxists claiming that historical materialism is a scientific theory. There is Management Science, Library Science, Forest Science and even Mortuary Science, Library Science, Forest Science and even Mortuary Science, all currently taught or were recently taught in western universities<sup>37</sup>. Application of I.Q. tests in the education system and behaviorist psychology that encourages the treatment of people as machines have been defended in the name of science. And this passion for association with science has also engulfed the Muslims.

The Islamic approach to science is best seen in the light of the Qur'an and the Hadith which have created a conducive atmosphere for the cultivation of sciences emphasizing the virtue of all knowledge as a way to realize the Divine Unity<sup>38</sup>. True worship is impossible without knowledge. Therefore, sciences as a means to knowledge are of rightful concern to Muslims.

However, this has nothing to do with trying to justify the Book of God with "Modern Science". How often in recent years have we seen how one verse of the revelations explains the nature of quantum theory or the other indicates the Big Bang<sup>39</sup>? Once again here we see the over dominance of the authority of science and the danger that it is becoming the hallmark of truth.

#### **Qur'anic Inspiration for Wisdom & Knowledge:**

Moreover, clear indications can be found in the Qur'an that more than reason alone is needed for reaching at the truth. Belief in the Unseen is shown as the key to spiritual progress and understanding.<sup>40</sup> Knowledge itself is not seen as the guaranteed product of the application of "a method" But as result of God's Grace<sup>41</sup>. This is in contrast with the "scientific" notion of objective knowledge that can be transmitted through rational discourse.

New research in this area has indicated that there may be more subtle relationships between intellect and knowledge in the language of the Qur'an<sup>42, 43</sup>. Although reason, in the sense of logical arguments, may be a tool in the pursuit of knowledge, it is not in itself sufficient either in the process of acquisition or the verification of knowledge.

What is then left as guidelines for the Muslim Scientist?

How is he to proceed from observations to theories? By what standards is he to judge the value of his craft? In the absence of objective standards why bother?

It is important to return to the fundamental objective of all Muslims, whether scientist, philosopher or layman, before we can attempt to answer such a question the purpose for our creation is the *worship* of the Creator. This worship is achieved through knowledge and action Knowledge of Him through His creation and action

to establish His commands Both of these goals can be achieved by the Grace of God and the good intention of the believer It is important to realize that no immutable set of standards or “objective” set of theories are necessary to attain either goal.

### Conclusion

The Qur'anic emphasis on knowledge ('ilm) has shaped an enduring tradition of intellectualism within Islam, fostering an environment where faith and reason coexist harmoniously. By perceiving nature as a manifestation of Divine Signs, Islamic thought integrates scientific exploration within a sacred framework. This holistic approach establishes a profound connection between humanity, nature, and the Creator, promoting scientific inquiry as both an intellectual pursuit and an act of worship. The unification of knowledge under the principle of Tawhid ensures that all branches of learning remain interconnected, reinforcing Islam's comprehensive worldview. This study underscores the pivotal role of the Qur'an and Sunnah in inspiring a rich legacy of knowledge and innovation, demonstrating their timeless relevance in addressing contemporary challenges.



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### References

- <sup>1</sup> Rais Ahmad, *Islam and Science Debate: Searching for Legitimacy*, New Delhi, 2006, p. 16
- <sup>2</sup> Judaism from the Latin Iudaismus, derived from the Greek and ultimately from the Hebrew, Yehudah, "Judah"; is the religion, philosophy and way of life of the Jewish people. Judaism is a monotheistic religion, with its main inspiration being based on or found in the Hebrew Bible (also known as the Tanakh) which has been explored in later texts, such as the Talmud. Judaism is considered by religious Jews to be the expression of the covenantal relationship God established with the Children of Israel. (Shaye J.D. Cohen, *The Beginnings of Jewishness: Boundaries, Varieties, Uncertainties*, Berkeley: University of California Press; p. 7)
- <sup>3</sup> Syyed Hussain Nasr, *Religion and the Order of Nature*, Oxford University Press, London, 1996, p. 53
- <sup>4</sup> Izutsu, Toshihiko. *God and Man in the Koran*, Tokyo: The Keio Institute of Cultural and Linguistic Studies, reprinted 2002 as *God and Man in the Qur'an: Semantics of the Qur'anic Weltanschauung*. Kuala Lumpur: Islamic Book Trust, an important work on the semantics of the Qur'an by a Japanese scholar of Islam that examines the semantic structure of the Qur'an and the mutual relationship of its essential themes.
- <sup>5</sup> *Al-Quran* 24: 41
- <sup>6</sup> *Al-Quran* 36: 62
- <sup>7</sup> Haq Nomanul Syed. *Names, Nature and Things*, Kluwer Academic Publishers, Dordrecht. 2001, p. 112
- <sup>8</sup> *Ibid.*
- <sup>9</sup> Bron R. Taylor, (ed.) *The Encyclopedia of Religion and Nature*. 2 vols. Thoemmes Continuum , New York, 2005

<sup>10</sup> F. Rosenthal, *Knowledge Triumphant*, Leiden: EJ. Brill, 1970

<sup>11</sup> Haq Nomanul Syed. *Names, Nature and Things*, Kluwer Academic Publishers, Dordrecht. 2001, p. 117

<sup>12</sup> Al-Qur'an 006:108,006:119, 030:029

<sup>13</sup> Al-Qur'an 006:080

<sup>14</sup> Al-Qur'an 018:065

<sup>15</sup> Al-Qur'an 065:012

<sup>16</sup> Al-Qur'an 002:0230, 006:097, 007:032

<sup>17</sup> Al-Qur'an 039:009

<sup>18</sup> 007.185

<sup>19</sup> 065.012

<sup>20</sup> F. Rosenthal, *op. cit.*

<sup>21</sup> Rais Ahmad, *Islam and Science Debate: Searching for Legitimacy*, p. 20

<sup>22</sup> *Ibid*, p. 21

<sup>23</sup> *Ibid*, p. 22

<sup>24</sup> Al-Ghazzali in his book *Al Munqidh min ad-Dalal* states that logic and mathematics which are counted as philosophical sciences, have nothing to do-positively or negatively- with the religion. We do not argue about his intentions about this qualification, but observe that it is quite open to misunderstandings.

<sup>25</sup> Abū l-Walīd Muḥammad bin 'Aḥmad bin Ruṣd, commonly known as Ibn Rushd or by his Latinized name Averroës (April 14, 1126 – December 10, 1198), was a Andalusian Muslim polymath, a master of Aristotelian philosophy, Islamic philosophy, Islamic theology, Maliki law and jurisprudence, logic, psychology, politics and Arabic music theory, and the sciences of medicine, astronomy, geography, mathematics, physics and celestial mechanics. Averroës was born in Córdoba, Al Andalus, present-day Spain, and died in Marrakesh, present-day Morocco. He was interred in his family tomb at Córdoba. The 13th-century philosophical movement based on Averroës' work is called Averroism. (Duignan, Brian, *Medieval Philosophy: From 500 to 1500 CE*, The Rosen Publishing Group. 2010. p. 102)

<sup>26</sup> Rais Ahmad, *Islam and Science Debate: Searching for Legitimacy*, p. 28

<sup>27</sup> *Ibid*,

<sup>28</sup> Al-Qur'an 041:012

<sup>29</sup> Al-Qur'an 007:054, 014:033, 016:012, 022:065

<sup>30</sup> Al-Qur'an 031:020

<sup>31</sup> Osman Turan, *Turk Cihan Hakimiyeti Mejkuresi Terihi*, Vol. II, p. 542.

<sup>32</sup> Rais Ahmad, *Islam and Science Debate: Searching for Legitimacy*, p. 36

<sup>33</sup> *Ibid*, p. 30 and see for details: Hoodbhoy, Pervez. *Islam and Science: Religious Orthodoxy and the Battle for Rationality*. Zed Books Ltd. London and New Jersey, 1991

<sup>34</sup> Rais Ahmad, *Islam and Science Debate: Searching for Legitimacy*, p. 36

<sup>35</sup> Pervez Hoodbhoy, *Islam ve Belim*, (Turkish Tr.) Cep Kitapları. İstanbul: 1992.

<sup>36</sup> *Ibid*, p. 17

<sup>37</sup> A.F. Chalmers, *what is this thing called Science?* Second edition (Open University Press, 1982) p. XVI.

<sup>38</sup> See Al-Qur'an; 39:9.

<sup>39</sup> For example reading science into the Qur'an see M. Bucalille, The Bible, the *Qur'an* and *Science* (Diwan Press 1980); A. Deedadt, *Al-Qur'an; The Ultimate Miracle*, (The Islamic Propagation Centre 1985); A.M Soliman, *Scientific Trends in the Qur'an* (Ta-ha Publishers Ltd., 1985). For an interesting attack on this approach see A. Mufti Ahmad *The Qur'an and the Fallacy of Computer Connection* (Muslim Ulama of South Africa, 1986).

<sup>40</sup> Al-Quran 2;1-3

<sup>41</sup> Al-Qur'an 2:255.

<sup>42</sup> S. Kocabas the Word *Constellation AMR in the Quran Foundations of Scientific Thought in Islam* (S. Kocabas, London 1987).

<sup>43</sup> S. Kocabas *the Qur'anic Concept of Intellect* (S. Kocabas London 1987).