

SCIENCE AND SCIENCE IN MUSLIM THEOLOGY Exploratory Study from Contemporary Books of *Tafsīr*

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Abstract: *The paper attempts to reveal the relation between science and religion from Islamic perspective by referring to the views of contemporary Qur'anic exegesis. In addition, it also highlights the sources of sciences based on the divine concept. Moreover, it discusses the status and task of Muslim scientists in developing the civilization. The Qur'ān supports the use of intellectualism to come out with the concept of sciences on the basis of divine guidance. There are many directions in the message related to sciences of biology, preservation of ecology, and medicine.*

Definition

In Muslim theological doctrine, the word *ma'rifah* can be given the meaning as science. Another synonymous term is the word *'ilm* and its derivation which occupies the most parts of the Qur'ān. The word *al-'ālim* is mentioned in one hundred and forty times while *al-'lim* twenty-seven times.¹ The other aspects which are related with science such as pen, book, and ink occupy the big number of verses. While the word *al-qalam* is mentioned in two places and the word *al-kitāb* is repeated in two hundreds-thirty times.²

Other words which have close relation with *'ilm* is *tafaquh* (comprehension), *'aql* (intellectualism), *al-naẓr* (observation), and *al-tafakkur* (thinking). While the words *al-jahl* (ignorance), *al-safīh*

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¹ Baqī, Muḥammad Fuād 'Abd, *Al-Mu'jam al-Mufahras li al-alfāz al-The Qur'ān al-Karim*, Dār al-Fikr, Beirut, 1995.

² The words *al-Qalam* is mentioned in these two verses, Sūrah al-Qalam, No.2, and Sūrah al-'Alaq no.No.4. While the words *al-kitāb* is mentioned, among other things, in these following verses: The Qur'ān, 2: 2, 2: 44, 2: 79, 2: 85, 3:7, 3:72, 3:100.

(foolish), *al-dalāl* (astray), *al-ifk* (false claim), and *al-bāṭil* (false) are considered the things that contradict *al-‘ilm*.

In terminological aspect, there is diversity of definition in the hands of Muslim scholars. Some of them define science as realization of something through cognition and comprehension. Others even hold that science is related with the belief which is in conformity with reality. Hence, those who possess science should have strong conviction and prove it with the reality of lives.

It is inevitable that science is considered as product of learning about all kinds of things, which requires the cognition. Al-Ghazālī is of the view that science is acquisition of information through which one can successfully attain the goal of life. Moreover, science is to guide people successfully in this world and the hereafter. He supports his argument with textual evidence which says,

Allah is the Light of the heavens and the earth. The parable of His Light is as if there were a Niche and within it a Lamp: the Lamp enclosed in Glass: the glass as it were a brilliant star: lit from a blessed Tree, an Olive, neither of the East nor of the West, whose Oil is well nigh Luminous, though fire scarce touched it: light upon Light! Allah doth guide whom He will to His Light: Allah doth set forth Parables for men: and Allah doth know all things.³

God as source of science and He is the one who enlightened everything with science. In that verse, it mentions about the likeness of His light which He enlightened in the heart of Muslims through His book as the verse says, ‘We sent you the real light’ (*wa anzalnā ilaykum nūran mibīnan*).⁴ The Prophet Muhammad (pbuh) is also called as nur (light) as the verse says, ... **Arabic type** (It has come to you from Allah the light and the clear book (*kitāb al-mubīn*)).⁵

³ The Qur’ān, 24: 35.

⁴ The Qur’ān, 4: 17.

⁵ Abū ‘Abdullah Muḥammad b. Aḥmad b. Abī Bakr b. Farah al-Anṣārī al-Khazraḥī Shamsuddin al-Qurtūbī, *al-Jami Ahkam al-The Qur’ān* (Tafsir al-Qurtubi), (Cairo: Dār al-Kutub al-Misriyyah, 1384H/1964), Vol.12, p.233.

Sayyid Quṭb is of the view that human beings can comprehend so many things in this universe due to the science that God granted to them. He holds that all science that they possess should be utilized in a way to obey God's rules.⁶

Science and science are system of learning which need to be developed and disseminated in a manner that recognizes God as creator of the universe and man as His vicegerent on earth. The use of science should be in line with His will and any effort in this regard is considered as an act of 'ibādah (worship).

Status of Science

Muslims believe that the words of God which were revealed to Prophet Muhammad (pbuh) as source of guidance. Their theological concept asserts that the spirituality should manifest in social activities. God declares that human beings are in state of ignorance until He bestowed the science to them. None of them became knowledgeable following their birth without His mercy to grant him the science as the verse says,

It is He Who brought you forth from the wombs of
your mothers when ye knew nothing and he gave you
hearing and sight and intelligence and affections: that
ye may give thanks (to Allah).⁷

Sheikh Mutawālī Sha'rāwī (1911-1998) viewed that when a person was born his senses still do not function yet. It is intentional that God made such kind of thing as instrument to seek the science. It is something natural, he says, that all new born babies do not know anything as their senses are not yet functioning. Through gradual process such kinds of organ start functioning to familiarize objects around him. Through the growing process, hearing, seeing and discerning are supposed to be utilized for the purpose of gaining science which is very essential in the life of mankind.⁸ There is something amazing with regard to the sequence of mentioning the words related with ability of a person to hear, to see the word

⁶ Sayyid Quṭb Ibrāhīm Ḥusein al-Shādhli, *Fī Żilāl al-The Qur'Ān*, (Cairo: Dār al-Shurūq, 1412H), Vol.5, p.282.

⁷ The Qur'ān, 16: 78

⁸ Mu'ammad Mutawālī Sha'rāwī, *Tafsīr Sheikh Mutawālī Sha'rāwī*, (Cairo: Maṭābi Akhbār al-Yawm, n.d.), Vol.1, p.4987.

intelligence (al-sam‘u wa al-abšār wa al-af‘idah) as indicated in the above textual evidence of the Qur’ān. He refers to the view of scientists on organ of human beings in which, according to him, that such kind of the sequence is due to the natural on the composition of human organ. A child when he was born first he or she can hear. Then, after a few days his eyes starts functioning. This can be proved in which when there is strong voice the baby will be struck surprisingly. But, when we show an object in front of the face, he could not respond which indicate that eyes could not see anything. So, the word al-sam‘ (hearing) and al-bašār (viewing) are seen as the main instruments to recognize something which will come into their mind. He ensures that the sequence of mentioning those organs, he says, complies with the finding of modern science.⁹

God obliges each individual to seek science and the duration is not limited to certain degree. It goes beyond the limitation and until the end of his life in this world. Islam is very keen to educate its followers to achieve the progress of human civilization. The result of thinking which have been put into the concept of science or science should be used as the main instrument to elevate their status in the community. The civilization is determined by the science and at the same time should be understood in the light of observing the truth. If a certain nation wants to achieve the progress, it depends on how people have positive response to pursue the science. Again, the textual evident gives glad tidings for those who possesses the science and science to reach high level of civilization as the text says,

Allah will rise up to (suitable) ranks (and degrees), those of you who believe and who have been granted (mystic) science. And Allah is well acquainted with all ye do.¹⁰

In one of the passage of the Qur’ān God elevates the status of scholars and scientists which says,

There is no god but He: that is the witness of Allah, his angels, and those endued with science, standing firm on justice. There is no god but He, the exalted in power, the wise.¹¹

⁹ Mu‘ammad Mutawallê Sha’rāwê, Tafsîr Sheikh Mutawallê Sha’rāwê,(Cairo: Ma‘ābi Akhbār Al-Yawm, N.D.), Vol.1, P.4987.

¹⁰ The Qur’Ān, 58:11

Again, we take the view of Sheikh Mutawalli Sha'rāwī in which he says that on the first part of this verse, God gives witness about Himself. The word shahida, he holds, means 'alima (lit. knows). In this way He informs all human beings that all creatures in the universe are regarded as signs signifying that there is no god but Allah. When He created all planets in the heaven as covered in this textual evident *Arabic Type 111* } means confirmation that there is no single being could compete His power. After He gave witness that there is no god but Himself, such kind of behavior was also followed by Angels in which all of them also gave witness on oneness of His entity and no other being share His power. Sha'rāwī holds that all Angels only receive the truthful command from Him according to the task given to them. Then, it comes into the certain members of human beings who have been granted with science known as ūlū al-'ilm (men of science or scientist). God elevates men of science into high rank as they are put next to Angels and Allah. The reason is that they keep on utilizing their intellectual to ponder upon His creation to come out with the concept of science for the benefit of mankind. Through reflection and study on this phenomenology they should come to their mind that all facilities in this world including their expertise come from their Creator. Thus, toward the end, they should dedicate their works to His will to follow the truth and establishing justice.¹² The witness that Allah, Angels and men of science give is not just related with existence only Allah Who could not be associated in His lordship by others. It also links with justice (qāiman bi al-qisṭī) which characterizes His attributes. Since God posses such character, men of science who is dignified in term of ranks next Allah and His Angels, then, they should become role model to observe justice and peace throughout their lives.¹³ Due to that importance, then, God even makes men of science as ideal example in the community,

And such are the Parables We set forth for mankind, but only those understand them who have science.¹⁴

¹¹ The Qur'ān, 3: 18

¹² Mu'ammad Mutawallē Sha'rāwē, Tafsēr Sheikh Mutawallē Sha'rāwē,(Cairo: Ma'ābi Akhbār al-Yawm, n.d.), Vol.1, p.870.

¹³ Ibid.

¹⁴ The Qur'Ān, 29:43

Science in Islam is to distinguish between the right (al-Īaq) and false (al-bĀṬil). A person who has been granted with science should use it in support of the truth. A lawyer should be concerned to establish justice and a businessman should make sure not to deceive others in the commercial transaction. Similarly, a physician should work in defense on the interest of patients and should not be motivated with material greediness by making forgery of prescription.

Other important aspect of science is that human beings are given responsibility to undertake the task as God's vicegerent on earth. All raw materials that God provides must be utilized to actualize garden of paradise. The first revelation remarkably gives an honor on 'ilm and the objective of seeking the science to glorify God,

Proclaim! In the name of thy Lord and Cherisher, who created. Created man out of a (mere) clot of congealed blood. Proclaim! And thy Lord is Most Bountiful, He Who taught (the use of) the Pen, Taught man that which he knew not.¹⁵

Sayyid Quṭb is of the view that the main theme of that particular sūrah is direction of Lord to his Prophet at the first moment he got link with Supreme Being (Allah) to appoint him as His Prophet with the main task of conveying the message to all mankind. God asked him to read in the name of your Lord (bi ismi rabbik). The second part of the verse discusses about the creation of human being from clot of congealed blood (min'alaq). This indicates, he holds, the might of God to create a person from such congealed blood which was firstly stick on the womb of a women which was later changed through gradual process into the level of human being who was elevated and given the science through learning. Then, God declares on the reality of leaning (ta'līm) with the use of pen as a tool for learning in the life of human beings. Due to that importance, God informs us on the first of the revelation given to Prophet Muhammad (pbuh). Then, the next verse discusses about the source of science (maṣdar al-ta'līm) which come from God in which human beings are powerless. God give them ability or competency to reveal different secrets of science and sciences in this universe. Hence, all activities of mankind, he said, must be started with an acknowledgment to start reading with bi ismillah as the goal in which

¹⁵ The Qur'Ān, 96:1-5

all Him all human beings will return to Him. The last part of the first revelation is to confirm that only God is only the source of science. He is the one who grants science to all mankind on the thing that they do not know it before (‘allama al-insān mā lam ya‘lam). They must be thankful to Him to admit and devote their activities only to the Creator by observing His rules and law to reach into the perfection of life with peace, tranquility, and justice.

The Prophet (pbuh) is the best example to keep remembering God. All what he said is in a way he remembered Allah, all his command, prohibition and legislation reflect remembrance of God. His praise and glorification are meant as zikr, his news related to attributes of God, His law, behavior, promises and threat (wa‘duhu wa wa‘īduhu) are manifestation of his zikr toward Him. The Prophet used different kinds of du‘a as narrated by ‘Āysah that when he woke up from sleep he said, ‘Praise be to Allah who rose up from dead (of sleeping) and to him we will return’.¹⁶

Prophet Muhammad (pbuh) made compulsory pursuit of science which could be considered as the main impetus for the nation in reaching into high level of civilization.

The reason behind such obligation is that as a matter of fact, those who have been granted with science can differentiate the right and wrong, truth and false, as well as the good and evils. The Prophetic tradition says, ‘seeking science is compulsory upon every Muslim’. Moreover, the task of vicegerent cannot be done haphazardly rather to be conducted with the use of science to come out with good result. This can be seen in the matter of creation of Adam to undertake the task as vicegerent on earth as stated in this verse, And He taught Adam the names of all things; then He placed them before the angels, and said: "Tell Me the names of these if ye are right."¹⁷

Sheikh Mutawwalī ShañrĀwĪ is of the view that God granted Adam science through intellectualism which distinguished him from the rest of other creation. He excelled Angles due to his competency in knowing something which Angle did not grasp in this universe.

¹⁶ Sayyid Quṭb IbrĀhīm ×usein al-ShĀdhī, FĪ ŪilĀl al-The Qur’Ān, (Cairo: DĀr al-ShurĒq, 1412H), Vol.8, pp.67-68.

¹⁷ The Qur’Ān, 2:31

ShaṅrĀwī gives reflection and comparison between Adam as the father of the whole mankind and the Angle. In fact, if we look at the beginning of creation, Angle was much more superior compared to Adam. The first was created from the light (al-nĒr) while the second was created from the clay (al-ṬĪn). God granted competency to Adam in knowing so many things instead of to Angles. It is entirely the will of God to make him superior in term of competency and science. Another example can be referred to the story of Sulayman who was appointed as Prophet but at the same time as al-mĀlik (king).¹⁸ Yet, the bird called hodhod knew certain things that he could know as mentioned in this textual evident,

But the Hoopoe tarried not far: he (came up and) said:
I have compassed (territory) which thou hast not
compassed, and I have come to thee from Saba with
tidings true.¹⁹

It should be born in mind that God's science surpasses the science of human beings as the textual evidence says,

And he is Allah in the heavens and one earth. He
knoweth what ye hide, and what ye reveal, and he
knoweth the (recompense) which ye earn (by your
deeds).²⁰

Even in another place God declares that human beings get very limited science, Science it is only a little that is communicated to you, (O men).²¹

In this particular part, again, we refer to the views of Sheikh Mutawallī ShaṅrĀwī in giving the commentary of this textual evident in very convincing way. Whenever someone asked on certain thing which is beneficial for his life and to avoid on the danger thing, then, the Qur'Ān responds it in more positive way. The example can be found in this evident which says,

¹⁸ Muġammad Mutawallī ShaṅrĀwī, TafsĪr Sheikh Mutawallī ShaṅrĀwī, (Cairo: MaṭĀbi AkhbĀr al-Yawm, n.d.), Vol.1, p.128.

¹⁹ The Qur'Ān, 27:22

²⁰ The Qur'Ān, 6: 3.

²¹ The Qur'Ān, 17:85.

They ask thee concerning women's courses. Say: they are a hurt and a pollution, so keep away from women in their courses, and do not approach them until they are clean. But when they have purified themselves, ye may approach them in any manner, time, or place ordained for you by Allah. For Allah loves those who turn to him constantly and he loves those who keep themselves pure and clean.²²

If the question is related to certain thing which will not cause any harm, then, the Qur'Ān turns it away on other thing which will bring benefit to people. This can be found, he said, in this particular aspect related to different size of the moon which starts from little tiny and gradually changes into bigger and bigger until reaches into the full shape and demise again toward the end. The verse says,

They ask thee concerning the new moons. Say: They are but Signs to mark fixed periods of time in (the affairs of) men, and for pilgrimage.²³

But sometime there is a question from a person to others with the purpose of giving a test as it was the case of unbelievers of Makkah who collaborated with the Jews to test the Prophet (pbuh) regarding the soul (al-rĒĪ). This is, in fact, ShaŃrĀwĪ adds they realized that there is no one who could answer the question. It was a tactic in which when the Prophet (pubh) could not answer it, it might cause the effect with regard the acceptance of people toward his call (al-daŃwah). Hence, the question was responded with the arrival of the revelation which says,

They ask thee concerning the spirit (of inspiration).
Say: the spirit (cometh) by command of my Lord: of science it is only a little that is communicated to you, (O men).²⁴

He said in further that when People of the Book heard such kind of response through the revelation, many of them converted into Islam as

²² The Qur'Ān, 2: 222.

²³ The Qur'Ān, 2: 189.

²⁴ The Qur'Ān, 17: 85.

they realized that human beings are incompetent to know the position of al-rĒĒĪ (the soul) which is entirely in the hands of God. Here ShaĒrĀwĪ convinces on weakness of human beings whatever the science may gain compared with the science of God. They may know a lot of thing but once the soul comes out from their physics, then, they become helpless indicating their cessation with this world.²⁵

God describes Himself as source of science,

If all the trees on earth were pens and the Ocean (were ink), with seven Oceans behind it to add to its (supply), yet would not the Words of Allah be exhausted (in the writing): for Allah is Exalted in power, full of Wisdom.²⁶

Sayyid Quṭb is of the view that human beings are weak and their science which is in reality derived from God, are not possible to record the whole science of God which is unpredictable by human mind. Human beings keep of trying to predict through their intellectualism what will be happening in this world but their prediction in many cases will not avail due to their weaknesses. In this case, God challenges them even if they try to record what will be happening in this universe with regard to the will of God with maximum effort as if the whole tries would become pens and the ocean as ink and even added with another seven oceans, they will not be in position to do it. In fact, in such situation, human beings should admit their weaknesses and offer the respect on the mighty of God which unrivalled by any human beings on earth.²⁷

The terms used to denote about the universe is al-kawn which can be translated into either the universe or the phenomena. This al-kawn (lit. phenomena) represents the field of the natural sciences (‘ulĒm al-ṬabĒĒiyyah). The Qur’Ān mentions repeatedly concerning the foundation of sciences in different forms such as the process of creation of human beings which later emerged the concept of science

²⁵ MuĒammad MutawallĒ ShaĒrĀwĪ, TafsĒr Sheikh MutawallĒ ShaĒrĀwĪ, (Cairo: MaṬĀbi AkhbĀr al-Yawm, n.d.), Vol.1, p.5292.

²⁶ The Qur’Ān, 31:27

²⁷ Sayyid Quṭb ×usein al-ShĀdhilĒ, FĒ ŪilĀl al-The Qur’Ān, (Beirut: DĀr al-ShurĒq, 1412H), vol.5, p.2795.

of biology, the growth of plantation that later human beings conceptualized the science of botany, animals, outer space etc.

The Qur'Ān is not the book of science that describes the detail of all disciplines. It only gives the main ideas to be thoroughly studied pertains to different aspect of the life in this world to come into the thought that can stimulate the consciousness to follow His rule, and utilize all bounties to be devoted toward seeking His pleasure. The study of natural sciences is equal with the study of religious texts with the aim of seeking the truth. The study on the universe and phenomenology is to prove whether the finding on certain field comply with the message contained in that revelation. In other word, the revelation could be considered as mind opener not only in legal aspect rather it includes other field of sciences such as medicine, astronomy, biology, engineering etc.²⁸

The word 'ulama (lit. Muslim scholars) is not confined to those who mattered Islamic law or Shari'ah rather it includes to those who study about natural sciences. This can be referred to this evident which says,

And so amongst men and crawling creatures and
cattle, are they of various colours. Those truly fear
Allah, among His Servants, who have science: for
Allah is Exalted in Might Oft-Forgiving.²⁹

It should be noted that God created so many things in this universe in different forms whether in the aspect of fruits, plantation, animals, and human beings. Even in term of competency they are at level of understanding and thinking. Thus, al-ŪlamĀ (lit. scholar) is highly respected as they have responsibility to teach them about the science and goodness which, at the end, is to train them with God's consciousness through their study on everything in this universe. The word ŪlamĀ as contained in the above evident is not confined on those who specialized in their study about religious text and Islamic jurisprudence. It goes beyond the coverage of the meaning which expands on those scientists and experts in different field of disciplines through study of the universe. The result of their research and study

²⁸ HanĪdĪ, Jamal Muġammad, Tarbiyyah 'UlamĀ al-ṬabĪŪniyyah wa al-Kawniyyah al-MuslimĪn, DĀr al-WafĀ, ManĪĒrah, Egypt, 2000, p.92-93.

²⁹ The Qur'Ān, 35: 28.

should lead them to obey the divine rules and regulation.³⁰ The evident that the word *Ẓulamā* is not confined to those who specialize in the field of legitimate science (*Ẓulm al-sharʿiyyah*) it can be referred, among other things, to this verse,

And among His Signs is the creation of the heavens and the earth, and the variations in your languages and your colours: verily in that are Signs for those who know.³¹

Conception of Science

To discuss the conception of science is closely knit with the status of human beings and intellectualism (*al-ʿaql*). The angel offered bowing down to the Adam due to his competency in identifying certain objects when they were fail to do it. The textual revelation invites the intellectualism to ponder upon the phenomenology (*al-kawn*) through the intellectualism to develop the science and sciences. The natural sciences is linked with its application either beneficial or causing destruction. The mind is regarded as an instrument to understand the truth and those who think objectively might come to an understanding about the truth even without formal guidance of the religious text. All human beings may share the universal values although without following the formal belief.

Intellectualism is regarded as the greatest favors as a way toward God through the conception of science and science. The Qurʾān condemns those who spoil the intellectual power as mentioned in this verse,

For the worst of beasts in the sight of Allah are the deaf and the dumb, those who understand not.³²

Human beings are required to use the mind and give evident on all activities. During the Makkan period, the Prophet Muhammad (pbuh) simply focused the daʿwah to eliminate all kinds of superstitious and myth which dominated the people of Arabia. Those who believe in superstition they never think rationally. It should also be born in mind that the concept of *ʿilm* (lit. science) covers all kinds of human science

³⁰ Darwazah Muḥammad Izzat, *al-Tafsīr al-ʿadīth*, (Cairo: Dār Iḥyā al-Kutub al-ʿArabīyyah, 1383H), vol.3, pp.120-123.

³¹ The Qurʾān, 30:22.

³² The Qurʾān, 8: 22

whether its source comes the intellectualism (‘aql) such as math and the science, which its sources are based on senses and experimentation. In view of this, Ibn Taymiyyah produced the book entitled ‘refutation on the contradictory between the intellectualism (al-‘aql) and textual revelation (al-naql). He discussed at length the relation between two sources i.e. intellectualism and revelation.

The intellectual power is given to mankind with the aim of at acquiring science through the study of phenomena to see the greatness of their Lord and, at the end, will offer obedience to Him. Scientists and scholars are given the task to conceptualize sciences, which comply with the principles of divine message. The first revelation discuss about the concept of science that will make people reach higher status in term of community development.

It is agreeable that the science and science is to determine the future shape of civilization. Those who have been granted that science is elevated into higher status as mentioned in this verse,

Allah will rise up (to suitable) ranks (and degrees), those of you who believe and who have been granted science.³³

The concept of science and science should be based on divine norms to bring about the goodness in the community. Those who follow the desire to conceptualize the science which will not bring about harmonious life as Allah remind them in this verse,

Then seest thou such a one as takes as his god his own vain desire? Allah has, knowing (him as such), left him astray, and sealed his hearing and his heart (and understanding), and put a cover on his sight. Who, then, will guide him after Allah (has withdrawn guidance)? Will ye not then receive admonition?

It is viewed by certain Muslim mufassir that the above evident is related to standpoint of unbelievers of Makkah who exposed arrogant against the message given to the Prophet (pbuh). They humiliated him as if the divine message is irrelevant and false.

³³ The Qur’Ān, 59:11

They never believed in the day of judgment which all human beings will be asked accountability on what they did during their lifetimes in this temporarily world. The word ... *arabic type* ... (a person who takes as his god his own vain desire) is considered as strong humiliating question addressed to them as they simply follow their desire without logical argument. The desire cannot bring them into the right thing as it is baseless and human thought, in many cases, are characterized with weaknesses. Thus, they need the divine guidance to come into the right thing in term of way of life. Muġammad Darwazah ensures on segment of human intellectuals who eulogize their thought and even become so fanatic without having any desire to turn to the idea of others which has stronger argument. So, the above evident is an admonition given to all Muslims to refrain from such kind of tendencies and to turn into the law given by God instead making their desire as the replacement.³⁴

God consciousness could be regarded as important factor which represents as gift to those who observe His rules in term of conceptualizing the science. The evident that science is granted through inspiration can be seen in this verse which says,

So fear Allah; for it is Allah that teaches you. And Allah is well acquainted with all things.³⁵

The above evident indicates that the key to the science a believer by utilizing his intellectualism will be granted the science. Ibn Taimiyyah confirms on the important of that ilhĀm in which he said,

The study or learning cannot entirely be achieved through preparation and seriousness of efforts in fact there is undeniable part of natural aspect which be achieved through the inspiration of Allah.³⁶

Likewise, Ibn Sina confirmed on the importance of ilhĀm in conceptualizing the science in which in he said,

³⁴ Muġammad Ĥizzat Darwazah, al-TafsĪr al-×adĪth, (Cairo: DĀr IĪyĀ al-Kutub al-ĤArabiyyah, 1383H), vol.3, pp.85-86.

³⁵ The Qur'Ān, 2 : 282

³⁶ AĪmad FuĀd BĀshĀ, MuĪĀlah al-Ta'Īl al-IslĀmĪ li al-'UlĒm al-Kawniyyah, IIIT, Cairo, 1993, pp.5-6

At home (during the study) I put the light in front of me before started reading and writing. Whenever I felt sleepy and tired I had a drink until I regained my strength then I returned to read. During the sleep I saw the dream on the problem which I encountered during the study until everything became so clear in my eyes and was able to conceptualize the science of logic, natural science, and math.³⁷

In another occasion, Ibn Sina told his experience in the conception of science in which whenever he was encountered with certain problem he took an ablution and went to the mosque to offer two raka'āt of prayers. He invoked God to make it easy and open up his heart through the inspiration.

The purpose of taqwā' is to get the guidance with the truth in term of study pertains to the natural world. The natural sciences from the Islamic perspective should be linked with the belief as it is conceptualized through their mind as a gift from the God. All sciences such as the physics, chemical, science of anatomy, medicine, astronomy, botany, etc. all of them give proof which caused the belief to the Creator of the universe.

Human beings after their creation have specific mission to undertake the task of establishing the truth, justice, and virtues to secure peaceful atmosphere. In order not to go into the wrong direction, they are equipped with 'Aql (lit. mind). The science given to Adam is, among other thing, due to the excellence to distinguish the true and false. The character of the intellectualism occupies the highest level of perfection as God ensures 'We have indeed created man in the best moulds/best stature',³⁸ which clearly indicates that human intellectualism is superior upon all other creatures.

On the first place, the function of human mind is to comprehend the divine message which gives the detail about the guidance. It is inevitable that all human beings share the same feelings about the truth. Even without religious guidance they may be aware what the truth is all about. The only one thing is that the concept of the truth

³⁷ Ibn Abi 'Asiah, *Ūyūn al-Anbā fī Ūbaqāt al-Aṭibbā*, p.437

³⁸ The Qur'ān, 95:4.

which may be discerned by intellectualism is not equal as it has been outlined in the revelation. Even in religious matter, Muslims are not allowed to follow blindly. God condemns taqlīd (lit. blind imitation) which can be seen in this textual evident that says,

And pursue not that of which thou hast no science; for every act of hearing, or of seeing or of (feeling in) the heart will be enquired into (on the day of reckoning).³⁹

The intelligence that is given to mankind is basically due to the fact that undertaking the task as vicegerent will encounter with delicate situation in which, they will not be able to cope unless through the use of intellectualism. Apart from that, that this worldly temporarily life represents the test to achieve the eternal happiness in the Hereafter. Thi is the evident from the Qur'Ān which says,

He Who created Death and Life, that He may try which of you is best in deed: and He is the Exalted in Might, Oft-Forgiving.⁴⁰

Science and Belief

Muslim scholars divide science into the legitimate (ʿilm al-sharʿī) and the science of the universe. The first is the science, which its sources come from the revelation. This is mainly related with 'aqīdah, values, general concept of existence, and human relation in the society. The second deals with the universe and the use of senses to come out with the true concept of science.

Some scholars view that one-eight of the Qur'Ān deals with general science, while the rest mainly deal with Islamic creeds, devotion ('ibādah), legal aspects, history, and moral values. It is not strange that Islam is very much concerned with the science to guide mankind into the right path, to confirm oneness deity, sovereignty, and to take benefits from what God's creation to achieve happiness in this world and hereafter. According to Yūsuf Qarāwī the science includes the study of natural sciences (ʿilm al-ṭabīʿiyyah), chemical, biology,

³⁹ The Qur'Ān, 17:36.

⁴⁰ The Qur'Ān, 62: 2.

astronomy, medicine, and engineering which are mainly based on experimentation. The true science is the one, which causes the belief.⁴¹

It is unfortunate that some scholars view the science which is limited in the study of religion. The word ‘ilm includes the study of the universe, biology, chemistry, as well as other branches of sciences. To study the relation between sciences and religion is much more important than the deepening one aspect of religious studies. The field of astronomy was also given sufficient attention by Muslim scientists. Ibn al-Haytham was so much concerned toward the link of religion with science. He was scienceable and highly respected the Shari’ah. He invented the compass to know the direction of the qiblah. In addition, he ascertained the prayer times and the time of appearing of the moon at the first month of Ramadan. Such kind of thing cannot be done unless a person has great ambition to offer obedience toward God through prayer, fasting, and devotion.

Musa al-Khawarizmi he invented the math to fulfill the needs in term of calculating distribution of inheritance and the will, laws and commercials.

All books written by Muslims on natural sciences give indication on the link of the authors with the belief. Ibn Sina, for instance, said, ‘We asked Allah SWT to protect us from the wrong direction and to guide us into the right path as He is the only One Who offers His mercy.’ Whenever he was encountered with any difficulty he took an ablution and then went to the mosque to offer the prayer. He invoked Allah to open up his heart and make it easy for him.

One of the doctors in the fourth century of hijrah elaborated the importance of sincerity for the cause of Allah SWT in which he said, ‘I have great ambition in knowing the right medicine until Allah opened the way for my desire to reveal the hidden aspect to study the thing which is beneficial for mankind. Allah had provided the cure through the plantation on earth, the animals that work on earth and those who live in the ocean, and also from the mining in the earth all of them contained the cure as token of mercy and kindness of Allah SWT. In view of this, Ibn Sadr al-Din, one of the experts on the anatomy of

⁴¹ Views of QarālĀwī quoted by Jamal Muġammad Muġammad al-HanĪdī in *Tarbiyyah ‘UlamĀ al-‘UabĪŅiyyah wa al-Kawniyyah*, DĀr al-WafĀ, 2000, p.43

animal organs said, 'Those who do not know the shape and anatomy will be difficult in knowing the Lord'.⁴²

Muslim scholars regard the important link between the legitimate science ('ulĒm al-sharĒiyyah) and the natural sciences. The science of anatomy, according to them, is one of the means to reach understanding about maĒrifatullah. One of great expert on the astronomy said that the science of astronomy is to be studied by everyone as all Muslims should be concerned in matter of the religion and its rules as the astronomy will lead to identify the signs of unity of God, knowing His mighty, wisdom, and perfection of His creation. It is unknown in the history of Islam that an expert in the field such as the physic, chemistry, and medicine exclude themselves from the Islamic tenet (al-'aqĒdah al-IslĀmiyyah).

Medical Science

The Islamic religion highly emphasizes the importance ṬahĀrah (lit. cleanliness or hygienic). It has been made as obligatory task that a Muslim must do it before performing the prayer. The concept of ṬahĀrah (lit. hygiene) is binding upon individual in which the ritual service will be considered invalid without doing it. This is the evident from the Qur'Ān, which says,

O Ye who believe when ye prepare for prayer, wash your faces, and your hands (and arms) to the elbows; rub your heads (with water); and (wash) your feet to the ankles. If ye are in a state of ceremonial impurity, bath your whole body. But if ye are ill, or on a journey, or one of you cometh from offices of nature, or ye have been in contact with women, and ye find no water, then take for yourselves clean sands or earth, and rub therewith your faces and hands. Allah doth not wish to place you in a difficulty, but to make you clean, and to complete his favour to you, that ye may be grateful.⁴³

⁴² Haji Khalifah, 'Kashfu al-Dhunun', Dar al-Ihya al-Turath al-Arabi, Lebanon, n.d., vol.1, p.409.

⁴³ The Qur'Ān, 5:6

The Prophet (pbuh) even ensured that cleanliness is a part of the belief. While in the community level, the Prophet requires to make the beauty of environment in which he said, ‘God looks handsome (jamīl) and loves the beauty (yuhib al-jamāl), good and loves the goodness (Ṭayyib yuḥibbu al-Ṭayyib), clean and loves the cleanliness (naḏīf yuḥibbu al-naḏāfah)’.⁴⁴ Islam which is considered as natural religion, in the field of medicine initially focuses on the prevention by following the divine precepts in consuming the food. Based on the Prophetic tradition the belly of human beings is regarded as source of disease (bayt al-da). Regardless of achievements of in the hand of scientists to discover the medicine in fact, in many cases, may cause side effects. More importantly, human beings metabolically have different system in the sense that not all medicine which is suitable for a person could give the remedy to others. We found in the Muslim religious text to maintain the physical fitness a person should take precaution in consuming the food as the evident says,

Forbidden to you (for food) are: dead meat, blood, the flesh of swine, and that on which hath been invoked the name of other than Allah; that which hath been killed by strangling, or by a violent blow, or by a headlong fall, or by being gored to death; that which hath been (partly) eaten by a wild animal; unless ye are able to slaughter it (in due form).⁴⁵

In order to reach into the perfection, human beings are advised to be excessive in consuming food the text says,

O Children of Adam Wear your beautiful apparel at every time and place of prayer: eat and drink: but wast not be excess, for Allah loveth not the wasters).⁴⁶

The Prophet describes that physical aspect of human beings should not be annihilated or even tortured rather it needs the proper care. The physical fitness is ultimately aimed at struggling to establish justice,

⁴⁴ Muḥammad b. Ḥusayn b. Sawrah b. Maysān b. Ḍahāk al-Tirmidī Abū Ḥusayn (d.279H), Sunan al-Tirmidī, taḥqīq wa taḥḥīq Aḥmad Muḥammad Shākir wa Muḥammad Ḥabīb al-Bāqī, (Cairo: Shirkah wa Maktabah Muḥafāz Bāb al-Halabī, 2nd edition, 1395H/1975M), vol.5, p.111.

⁴⁵ The Qur’ān, 5 : 3

⁴⁶ The Qur’ān, 7 : 31

goodness, and peace in the community. Jihād gives the sublime meaning, which is not related with extremism. According to the Prophetic statement a Muslim should maintain the physical fitness, as the work of jihād needs great effort to eradicate all kinds of negative attitude in this world. A person who enjoys physical fitness can only do this. The Prophet encourages taking the healthy food to consume the things which have been declared as lawful.

The status of those who enjoy the physical fitness is at higher level compared with those who are weak. The Prophetic tradition says, ‘A believer who has physical fitness is better and much favored by God compared to those Muslims who are weak’.⁴⁷ There are ample evident from the tradition to undertake the physical exercise such as ‘teach your children about archery and swimming’.

The benefit of exercise is not just related with physical maintenance but it is the one which determines the intellectual power. Intellectualism may not be functioning to come up with new ideas whenever physical organs are in limbo. In view of this, the Prophet (pbuh) said, ‘Intellectual safety is highly dependent on physical fitness (al-Ņaql al-salīm fī al-jism al-salīm). Medical science or science as framed within the Prophetic tradition is mostly related with al-Ṭib al-waqāʾī (medical prevention). All senses that God created need to be fed sufficiently to maintain the healthiness. The Prophet (pbuh), again, remind us on the importance of taking care on each organ by giving them their rights as the tradition says, ‘your body has its own right, eyes have their own rights, etc.’⁴⁸ The example of medical prevention, it can be referred to the ʾādīth of the Prophet (pbuh) in he said, ‘We are the nation in which we never consume any food unless we feel hungry. Whenever we consume the meal we never let our belly becomes full’.⁴⁹ At present, medical doctors are of the view that within

⁴⁷ Muslim b. al-ṣajāj AbĒ al-ṣasan al-Qusheiri al-NisābĒrĪ, al-Musnad al-SaīfĪ al-Mukhtasar bi Naql al-Ņadl IIĀ RasĒlillah Øallallahu Ņalayhi wa sallam, tahqĪq Muġammad FuĀd ŅAbd al-BĀqĪ, (Beirut: DĀr IĪyĀ al-TurĀth al-ŅArabĪ, n.d.), vol.4, p.2052.

⁴⁸ Muġammad b. ŅismĀŅĪ AbĒ ŅAbdullah al-BukhĀrĪ al-JaŅfĪ, al-JĀmiŅ al-Musnad al-ØaĪth al-Mukhtasar min UmĒr al-RasĒlillah Øallallahu Ņalayhi wa sallam wa sunnanihi wa ayyĀmihi (ØaĪth al-BukhĀrĪ), (Beirut: DĀr ŪĒq al-NajĀt, 1422H), vol.3, p.29.

⁴⁹ Ibn MĀjah AbĒ ŅAbdullah b. YazĪd al-Quzwainy, Sunan Ibn Majah, (Cairo: DĀr IĪyĀ al-Kutub al-ŅArabiyyah, n.d), Vol.2, p.1093.

the belly of human beings should be made into three compartments for the air, food, and water.

Healthiness is the greatest niġmah that God granted to mankind. They are required to maintain it to perform the task of fighting against evil deeds, injustice, and exploitation. In the light of this, Ibn al-Qayyim says,

Whoever takes the reflection on the nature of guidance given by the Prophet, a person will find it the most complete one to maintain the healthiness based on precautionary measure of consuming the food, drinking water, housing, air, sleeping and awakening. Whenever it is done fairly that complies with physical aspect, environment, age, and tradition, it will lead into perpetual physical fitness.⁵⁰ One of the Prophetic statement describes on the first question will accounted to a person in the Day of Judgment says, ‘have you protected your body by drinking cold water’?

The body of human beings need proper care and should not be forced to do the job beyond the capacity. The Prophet (pbuh) denied three companions who, one of them made vow to observed the whole night performing the night vigil prayer. The second, promised to do fasting continuously without having any break, and the third wanted to get abstain from getting married. Then, the Prophet said to them, ‘I am the closet person among you to God. I stand up to pray at night and also sleep, I perform fasting and also make it break for ifṬĀr, and I also got married. Whoever is against my way of life, then, he will not be regarded as my followers’.

Ecology and Environment

Another contribution given by the message of Islam is related with preventive ecological system. To attain the happiness, human behavior should maintain modernization and environmental preservation. There are certain rules and principles to be observed to maintain ecological balance. Again, maintaining environment is closely related with hygienic and cleanliness. The example can also be referred in the ĀdĪth of the Prophet prohibiting people to do urine in the static water, in public place, shadow of trees which will lead the curse from Angels

⁵⁰ QarĀlawĪ, YĒsuf, op.cit., p.148.

and other pious people in this world. During the hajj season all pilgrims are not allowed to contaminate the environment by cutting trees and killing animals.

YĒsuf QaraĀwĪ views that the city of Makkah and its surrounding areas need to be preserved. Neither animals nor trees to be cut unless it is felt needed. If we look at the climate in gulf countries with high heat of sons, then, it is dire need to preserve to maintain greenery to give benefit to people.⁵¹ Environmentalists can take a lot of benefit from Hadīth of the Prophet which highly support their program to maintain the good condition. In one occasion the prophet tradition says, ‘Who cut the trees of sidrah, he will be flushed his head with fires.’⁵² Sidrah is the name of a tree which only grows in the desert in which, people take benefit as shadow especially in high temperature. It becomes more obvious that to let the trees grow and not to cut it without any reasons, indicates that the Prophet (pbuh) idea proceed other human theory to keep ecological balance.

The concept of fasĀd (lit. corruption) in the Qur’Ān is also related with the corruption of ecological system and environmental pollution. It gives an illustration on the attitude of previous nation such as Thamud who misused the bounties that God gave simply because following their whim and desires. The consequences of misusing the God’s facilities caused, at the end, curse for them as we found in this evident,

(All) these transgressed beyond bounds in the lands.
They heaped therein mischief. Therefore did thy Lord
Pour on them a scourge of diverse chastisements: For
thy Lord is (as a Guardian) on a watch tower.⁵³

Similar case which happened to other nation as they were heedless to follow the truth in using the bounties of God,

⁵¹ See QaraĀwĪ, YĒsuf, *al-Sunnah Masdaran li al-MaŅrifah wa al-Ārah*, DĀr al-ShurĒq, Cairo, 1998, pp.142-143.

⁵² MuĀammad b. ŅIsmĀŅĪ AbĒ ŅAbdullah al-BukhĀrĪ al-JaŅfĪ, *al-JĀmiŅ al-Musnad al-ŌaĪh al-Mukhtasar min UmĒr al-RasĒlillah Ōallahu Ņalayhi wa sallam wa sunnanihi wa ayyĀmihi (ŌaĪh al-BukhĀrĪ)*, (Beirut: DĀr ŪĒq al-NajĀt, 1422H), Vol.3, p.67.

⁵³ The Qur’Ān, 89:11-14.

There was for Saba, aforesaid, a Sign in their home land two Gardens to the right and to the left. Eat of the Sustenance (provided) by your Lord, and be grateful to Him: a territory fair and happy, and a Lord Oft-Forgiving. But they turned away (from Allah), and We sent against them the flood (released) from the Dams, and We converted their two garden (rows) into: gardens producing bitter fruit, and tamarisks, and some few (stunted) Lote trees.⁵⁴

The Prophet (pbuh) encouraged human beings to plant trees in their environment and to make greenery which complies with the concept of maintaining the environment as the tradition says,

‘Any Muslim who plants the plantation (man gharasa gharsan), the fruit which is produced and later consumed becomes a part of charity (īdaqah), and even some of them are stolen, again, it becomes īdaqah until the Day of Judgment’.⁵⁵

This ĩadīth talks about the behavior of one of the companions who was seen by others.

Conclusion

All the injunction and prohibition in the Qur’ān represent the absolute truth as it represents the words of God. The divine guidance is not confined in the right and wrong in terms of social conducts and inter-human relations. It expands beyond the concept of science. The prohibition of consuming pork and drinking alcohol, for instance, it brings the negative implication related with the health aspect of human beings. Likewise, earning the livelihood based on lawful and truthfulness will bring about happiness. A person who ignores the truth and exploit others will lead him into the mental disorder.

The Qur’ān provide the complete guidance in which the concept of worship known as Ēibādah. The conception of science in the hands of

⁵⁴ The Qur’Ān, 33: 15-16.

⁵⁵ Muġammad b. ĒIsmĀĒĪ AbĒ ĒAbdullah al-BukhĀrĪ al-JaĒfĪ, al-JĀmiĒ al-Musnad al-ŌaĪĪh al-Mukhtasar min UmĒr al-RasĒlillah Ōallalahu Ēalayhi wa sallam wa sunnanihi wa ayyĀmihi (ŌaĪĪh al-BukhĀrĪ), (Beirut: DĀr ŪĒq al-NajĀt, 1422H). Vol.3. p.103.

scholar could also be considered as an act of worship. In view of this, the Prophet made clear that there will not be anything left after the death of a person which would bring the reward for him except three things. One of them is the science which gives benefit to others.

All legal injunctions pertaining to the al-halāl and al-íarām are to be observed in all space and times to give guarantee of reaching into the perfection of humanity. Since the Qur'ān embodies the words of God, then, it has no shortcoming in terms of edifice, concept, and legal aspect. It has been agreed by Muslim scholars and scientists whenever there is contradiction between scientific discovery, the Qur'ān always prevails in responding the issue.