

ISLAMISATION P.G. UNICORE Topic #2**“ISLAM AND KNOWLEDGE”**

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1. ISLAMIC EPISTEMOLOGY

Epistemology (in Arabic: *‘nazarīyyah al-ma‘rifah’*) is a branch of philosophy dealing with the reality of knowledge, the theory of knowledge, involving such questions as "What is knowledge?", "How is knowledge acquired?", "What do people know?", "How do we know what we know?". In Western philosophy, many schools of thought have emerged with their own theories of knowledge such as scepticism, idealism, realism, rationalism, empiricism, positivism, naturalism and postmodernism. Islamic epistemology refers to the Islamic perspective on knowledge, the reality of knowledge, its sources, aims and objectives, types of knowledge, limits of knowledge and the role of scholars (*‘ulamā’*)

1.1 The Concept of Knowledge in Islam

Knowledge is an attribute of Allah SWT and all knowledge originates from Allah as the All-Knowing (*Al-‘Alīm*). Allah’s Revelation (*Wahy*) represents the highest knowledge from which human beings come to know not only transcendent truths but also all the tangible realities in existence. The most important knowledge is the knowledge of God, His attributes, His names and His acts. As the Most Compassionate and Merciful God, Allah has made possible and most imperative that human beings acquire the knowledge from His Revealed Books with the Qur’an as the final Book, and from the Cosmos that He has created, which contains His innumerable Signs. Studying the Qur’an and studying the Signs of God in nature and the Cosmos by the use of the Divine gift of the Intellect (*‘Aql*) are made obligatory for all Muslims. These are in order to obtain (i) the Divinely Revealed Knowledge, from which Muslims attain the necessary religious knowledge they need to lead their lives as His servants, and (ii) the Empirically Acquired Knowledge from which they obtain knowledge of material and physical realities around them, which they need as His vicegerents of the earth. The people of knowledge (*‘ulamā’*) are highly esteemed in Islam because they are the inheritors of Prophetic knowledge and wisdom. So are

the scholars of worldly sciences, provided their methodology for acquiring the worldly sciences are based on 'Aqīdah of Tauhīd (uncompromising and absolute oneness of God) and the worldview of the Qur'an. As both Transmitted Sciences (*'Ulūm Naqliyyah*) and Intellectual Sciences (*'Ulūm 'Aqliyyah*) are necessary to provide a comprehensive and integrated knowledge of religious truths and intellectual truths, Islamic educational institutions are required to **integrate** the two branches of knowledge in their curriculum.

With regard to the importance and complementarity of the two sciences in Islamic epistemology, al Faruqi explains

Allah (SWT) has bestowed man with reason, which is the tool required to know the world around him, to utilize it in satisfying his needs and in shouldering his responsibilities as a vicegerent. On the other hand, Divine Revelation is meant to guide man toward knowledge of the aims of righteous life, of the definition of its responsibilities, and of ascertaining its components. Revelation enlightens man, despite his limited mental powers, about metaphysical concepts (Ismail R. al Faruqi 1987, *Islamisation of Knowledge: General Principles and Work Plan* (Herndon, VA: IIIT: 51-52).

1.2. Sources of Knowledge

Knowledge according to traditional Islamic epistemology and theology consists of four sources: (I). *Al-Khabar al-Ṣādiq* (True Report); (II). *al-'Aql al-Sālim* (Sound Intellect); (III). *al-Ḥawass al-Khamsah* (Five Senses); and (IV). *al-Ilhām* (Spiritual Intuition). (Syed Muhammad Naquib al-Attas (2001), *Prolegomena to The Metaphysics of Islam: An Exposition of The Fundamental Elements of The Worldview of Islam*, Kuala Lumpur: ISTAC: 118.) It is interesting to note that contemporary thought in the International Institute of Islamic Thought, especially that of Shaikh Taha Jabir has included the Cosmos as a source of knowledge after Divine Revelation.

(I). *Al-Khabar al-Ṣādiq*

Al-Khabar al-Ṣādiq is the primary sources of knowledge. It consists of the Qur'an which provides the most authoritative, indispensable and indisputable knowledge and wisdom, and the authentic Hadiths of the Prophet (s.a.w.).

(II). 'Aql Salīm.

Islamic epistemology recognizes the importance of 'aql as a source of knowledge which is rational, logical and *a priori*. Human beings are charged with religious obligations by virtue of they having the sound reason. The soundness of 'aql is an important condition because without it, reason can be influenced by emotions, imaginations and speculative thought.

(III). Al-Ḥawāss al-Khamsah.

The five senses provide knowledge which is empirical. The tangible external data and information derived from vision, audition, gustation, touching and sense of smell need to be guided and coordinated by reason to provide meaningful information.

(IV). Ilhām.

While Western secular epistemology rejects intuition as a source of knowledge, Islamic epistemology includes spiritual intuition source of knowledge because it is one means by which God communicates knowledge or true information directly to the spiritual heart (*qalb*) of a human being by the proses known as *kashf* (unveiling). It is knowledge that God throws into the *qalb* without any effort on the part of the recipient. This intuitive knowledge is considered an important type and source of knowledge, which is not available or achievable to all human beings.

2. THE POSITION OF KNOWLEDGE IN ISLAMIC CIVILISATION AND DEFINITIONS OF KNOWLEDGE

The preeminent position given to knowledge in the religion and civilization of Islam is well-known among Muslim scholars and many books have been written on this subject. The awareness of this fact among non-Muslim scholars is lacking but one notable exception needs to be highlighted. Franz Rosenthal (1914-2003), a professor of Semitic languages at the university of Yale from 1956-1967, has to be credited with being the first non-Muslim scholar to have produced the most exhaustive study in English to date on the supreme importance of knowledge in Islamic civilization. In his excellent work, *Knowledge Triumphant: The Concept of Knowledge in Medieval Islam* (2007), Rosenthal observes that the Islamic civilisation is one that is essentially characterized by knowledge (*'ilm*). He writes in the introduction of his work the following:

For *'ilm* is one of those concepts that have dominated Islam and given Muslim civilization its distinctive shape and complexion. In fact, there is no other concept that

has been operative as determinant of Muslim civilization in all its aspects to the same extent as *‘ilm*. This holds good even for the most powerful among the terms of Muslim religious life such as, for instance, *tawhid* “recognition of oneness of God,” *ad-din* “the true religion”, and many others that are used constantly and emphatically. None of them equals *‘ilm* in depth of meaning and wide incidence of use. There is no branch of Muslim intellectual life, of Muslim religious and political life, and of the daily life of the average Muslim that remained untouched by the all-pervasive attitude toward “knowledge” as something of supreme value for Muslim being. *‘Ilm* is Islam, even if the theologians have been hesitant to accept the technical correctness of this equation. The very fact of their passionate discussion of the concept attests to its fundamental importance to Islam. (Franz Rosenthal 2007: 2)

In the Concluding Remarks of his book, Rosenthal reiterates that

[Islamic civilisation’s] insistence upon “knowledge” has no doubt made medieval Muslim civilization one of great scholarly and scientific productivity and, through it, Muslim civilization made its most lasting contributions to mankind. (Franz Rosenthal 2007: 340)

He affirms that there are two types of knowledge in Islamic civilization, Divine Knowledge and Human Knowledge and his study shows that knowledge has several manifestations – as theology and religious sciences, as Sufism, as philosophy, and as education. In his chapter on definitions of knowledge, he has grouped the numerous definitions – more than a hundred – into the following categories:

- A. Knowledge is the process and identified with the knower and the known, or it is an attribute enabling the knower to know.
- B. Knowledge is cognition (*ma‘rifah*).
- C. Knowledge is a process of obtaining or finding through mental perception (*idrāk*).
- D. Knowledge is a process of clarification, assertion, and decision (*tabyīn, ithbāt, tamyīz*).
- E. Knowledge is a form (*ṣūrah*), a concept or meaning (*ma‘nā*), a process of mental formation and imagination (*taṣawwur* “perception”) and/or mental verification (*taṣdīq* “apperception”).
- F. Knowledge is belief.
- G. Knowledge is remembrance, imagination, an image, a vision, an opinion.
- H. Knowledge is a motion.
- I. Knowledge is a relative term.
- J. Knowledge may be defined in relation to motion.
- K. Knowledge is conceived as the negation of ignorance
- L. Knowledge is the result of an intuition coming from outside or as the result of introspection. (Franz Rosenthal 2007: 52-69)

With such a bewildering variety of definitions of knowledge, it is not easy to come up with a standard and generic definition. However, Dr. Yūsuf al-Qaradāwī prefers the general definition given by al-Rāghib al-Isfahānī in his *al-Mufradāt fī Gharīb al-Qur’ān* which reads: “*idrāk al-shai’ bi haqīqatihi*” (the perception of something as it really is). Al-Qaradāwī mentions that there are strong differences of opinion on the definition of knowledge. As such if there is no consensus among the scholars on the definition. He says:

No matter how the word *‘ilm* is defined -- together with the differences among the specialists, including the distinction they made between *‘ilm* and *ma’rifah* -- as far as we are concerned we will take the general definition mentioned by Imam al-Raghib, namely “the perception of something with its reality”. Every perception, exposition, and elucidation of that which is not known, from any type and in any area, such that its reality is made as clear as possible to human beings, comes under in the meaning of “knowledge” (*‘ilm*) that the Qur’an speaks of. (al-Qaradāwī 1996, *al-‘Aql wa al-‘Ilm fī al-Qur’ān al-Karīm*. Cairo: Maktabah Wahbah, 74)

Al-Qaradāwī’s book affirms several fundamental teachings of the Qur’an with regard to knowledge such as:

1. Knowledge is possible because Allah SWT makes it possible, first by His attribute of knowledge being the *Al-‘Alīm* who taught mankind knowledge via His Revelation and via the use of the *‘aql* which is the most precious divine gift for mankind,
2. Knowledge is of two kinds basically, knowledge of God revealed as *Āyāt* in the Recited Book of Qur’an and the Sunnah, and knowledge of His creation revealed as His *Āyāt* (Signs) in the Open Book of the Cosmos. Both knowledges are necessary for human beings to know with priority given to Divinely-revealed knowledge because it reveals religious and transcendental truths and realities, which are beyond the ken of human reason. This category of knowledge is called *Fard ‘Ain* knowledge. The second category reveals the physical and material realities of God’s creation, which were created to serve the needs of human vicegerency of the world. This category is regarded as *Fard Kifāyah* knowledge. It is interesting that in interpreting verses 27-28 of *Sūrah Fāṭir* which read:

أَلَمْ تَرَ أَنَّ اللَّهَ أَنْزَلَ مِنَ السَّمَاءِ مَاءً ۖ فَأَخْرَجْنَا بِهِ ثَمَرَاتٍ مُخْتَلِفًا أَلْوَانُهَا وَمِنَ الْجِبَالِ جُدَدٌ بَيْضٌ وَحُمْرٌ مُخْتَلِفٌ أَلْوَانُهَا وَعَرَبِيٌّ سُودٌ

Do you not see that Allah sent down water from the sky with which We brought forth fruits of diverse hues? In the mountains there are white and red, of diverse hues, and pitchy black;

وَمِنَ النَّاسِ وَالْأَنْعَامِ مُخْتَلِفٌ أَلْوَانُهُ كَذَلِكَ ۗ إِنَّمَا يَخْشَى اللَّهَ مِنْ عِبَادِهِ الْعُلَمَاءُ ۗ إِنَّ اللَّهَ عَزِيزٌ غَفُورٌ

and human beings too, and beasts, and cattle diverse are their hues. From among His servants, it is only those who know that fear Allah. Verily Allah is Most Mighty, Most Forgiving. (Q. Fāṭir 35: 27-28)

Al-Qaraḍāwī says that the context of the verses means that the knowledge implied in the verses refers to scientific knowledge such as geology, astronomy, anthropology, physics, etc., not religious sciences. The scholars being praised in the verse as having the quality of *khashyatu 'Llāh* (the awe and fear of the displeasure of Allah) are not religious scholars but scientists with deep faith and God-fearing attributes:

- i. These scholars are held in high esteem to their profound knowledge of Allah SWT and His creation.
- ii. This implies that the reasoning power of human beings called the 'Aql (intellect, reason) is in fact a cognitive function of the spiritual heart *Qalb*.
- iii. It is therefore necessary for human beings to take care to clean their spiritual hearts of many serious diseases and ailments, otherwise the *hawā* and *nafs* would poison the cognitive function of the 'Aql. The importance of maintaining a clean heart makes spiritual education *tarbiyah rūḥiyyah* an urgent necessity for contemporary Muslims.
- iv. Hence, it is important for Muslims to be in the forefront of knowledge of both the religious and the worldly. The integration of the two is the prerequisite for the sound development of the world and the construction of a virtuous civilisation.

Without reducing the importance of mastering the worldly sciences, al-Qaraḍāwī has also emphasized the necessity of Muslim educated class and leaders to be adequately exposed to spiritual education, because many of them have become victims of moral and ethical corruption. Contemporary education and the sciences have also been seen to have given less importance to ethics and character education.

In this regard we feel that it is important for Muslim intelligentsia and graduate students to be acquainted with al-Ghazali's views on knowledge and men of knowledge due to the dearth of spiritual and ethical education in the higher learning institutions. We shall provide below some of the contents of "The Book of Knowledge" the first chapter in al-Ghazali's *Iḥyā' 'Ulūm al-Dīn* which are pertinent to the above issues. It is in this regard that we feel that it is important for Muslim intelligentsia to be acquainted with al-Ghazali's views on knowledge and men of knowledge. We shall provide below the salient points of the Book of Knowledge in the *Iḥyā'*

ʿulūm al-Dīn. Before that it is useful to read the introduction on al-Ghazali given by Dr Ibrahim Kalin as follows:

At a time when it is easy to confuse knowledge with information and forget the meaning of wisdom, it is important that we get the basic concepts right as we move forward. In our search for veritable knowledge in the modern world, al-Ghazali is one of the most prominent Muslim scholars to turn to for such wisdom.

The reason that al-Ghazali stands out among his peers is because he is a thinker who has travelled across various paths, studying traditional sciences and coming to terms with the biggest questions of religious law, theology, philosophy and metaphysics. In his autobiography titled, “Deliverance from Error” (*al-Munqidh min al-Ḍalāl*), he tells the story of his journey as a dedicated seeker of knowledge and the pitfalls against which all seekers of knowledge and virtue must be careful in order not to lose their way.

Al-Ghazali lived in the intellectual and spiritual world of the Qur’an and the Sunnah, enriching the religious scholarly community with his own enduring contributions. His ability to combine the various fields of knowledge is a testimony not only to his personal ingenuity but also to the intellectual-spiritual climate in which he flourished as a thinker and scholar. He rose to prominence in a cultural and educational environment where knowledge was regarded as a supreme virtue and the possessors of knowledge were held in high esteem. Clearly, this comes from the importance that the Qur’an attaches to knowledge.

The Quran uses the word knowledge (*‘ilm*) and its variants in more than 750 places. Knowledge may refer to revelation, the stories of the prophets, human concepts or the natural world. In almost every instance, knowledge refers to something larger and more essential beyond information. It serves as a “sign” (*ayah*) which intelligent people are supposed to decipher, seeking not only to widen one's perception of the world in which we live but also to inculcate a sense of moral responsibility and spiritual direction in us. True knowledge leads to faith and virtue because all knowledge is ultimately a reference to the source of all things.

Without knowing that source, one cannot have a true and full knowledge of things. As Aristotle said, one cannot know the effect without knowing the cause. Since God is The Cause of causes and The Source of all effects, all true knowledge is inextricably bound up with knowledge of Him as the Creator. That is why the Qur'an establishes a strong connection between knowledge, faith and virtue.

In this sense, knowledge is not “mental gymnastics.” It is not mere literacy. It is not a tool to manipulate the world of nature. Rather, true knowledge is an act of engaging in the reality of things and a process of existential transformation. It changes and matures the knower. It is deeply personal in the sense that one cannot remain indifferent to the transformative power of knowledge. Veritable knowledge not only gives us wisdom but also leads us to a life of virtue and spiritual contentment.

Al-Ghazali is one of the pinnacles of this synthesis of knowledge, wisdom and virtue. In his various works including “*Iḥyā’ ‘Ulūm al-Dīn*”, “*al-Mustasfā*”, “*al-Iqtisād fī l-ḥikmah*”, “*Mishkāt al-Anwār*” and “*Tahāfat al-Falāsifah*”, he shows the essential unity of the revealed and reasoned knowledge. As true knowledge shows us the reality of things as they are, it also invites us to act in accordance with that knowledge. This is

like knowing everything about the sea and the wind. Such knowledge is essential but the sailor will have to act in accord with it, otherwise he can neither sail nor survive in the face of a storm. Knowing by itself is not enough; one has to have wisdom as well, which means distinguishing between right and wrong and act morally. (Transliteration added.)

(<https://www.dailysabah.com/columns/ibrahim-kalin/2017/02/04/al-ghazali-and-the-search-for-knowledge-in-the-modern-world>)

3. AL-GHAZALI'S *THE BOOK OF KNOWLEDGE*

(from al-Ghazālī (2015). *The Book of Knowledge*, translation of *Kitāb al-‘Ilm* by Kenneth Honerkamp. Louisville, KY: Fons Vitae: xx-xxiv.)

In the introduction to the English translation of the book, Dr Hamzah Yusuf (President of Zaytuna College in California) says the following:

Imām al-Ghazālī understood that knowledge is the starting point of any revival of the Islamic spirit, so he began his spiritual *magnum opus*, the *Ihyā’*, with *The Book of Knowledge*. However, he redefined knowledge as something deeper than simply rote memorization... All of learning should be directed toward true knowledge – knowledge of God. In other words, for *Imām* al-Ghazālī, the quest for truth was ultimately a search for God. In redefining knowledge at the outset, the seeker is able to proceed on the path to self-realization set out by the *Ihya’*...

His premise is that there are essentially two kinds of knowledge: practical knowledge (*mu‘āmalah*) and spiritual knowledge (*mukāshafah*)...He makes it clear that his book, the *Ihyā’*, is solely about practical knowledge – knowledge that when acted upon will invariably lead to spiritual knowledge.....

Imām al-Ghazālī saw both revelation and reason as necessary to arrive at truth. He likens reason to sight and revelation to sunlight....

Imām al-Ghazālī was able to arrive at the quintessence of transmitted knowledge and realize for himself, through practice[ing] the truth of experiential knowledge and then find[ing] a way of articulating the orthodoxy of both. (al-Ghazālī 2015. *Kitāb al-‘Ilm*, tr. Kenneth Honerkamp. Louisville, KY: Fons Vitae: xx-xxiv.)

3.1. The Virtue of Knowledge: On the Virtue of Knowledge, Learning, and Evidence Founded on Transmission and Reason

God says: *God witnesses that there is no deity except Him – and so do the angels and those of knowledge* (Q. 3: 18).

Behold how God begins [first] with Himself, second [with] the Angels, and third with the people of knowledge. What a remarkable way to establish honour, virtue, loftiness and rank.

God also said: *God will raise those who have believed among you and those who were given knowledge, by degrees* (Q. 58: 11).

Ibn Abbas said, “The scholars are superior to the believers by seven hundred levels; between each level is a journey of five hundred years”.

God said: *Say, “are those who know equal to those who do not know?”* (Q. 39: 9).

And He said: *From among His servants, only those who fear God are those who have knowledge* (Q. 35: 28).

Al-Ghazali quotes many other verses of the Qur’an, relevant hadiths of the Prophet s.a.w. and traditions of the Companions and others to indicate the high esteem given to knowledge and exalted the station of the people of knowledge above the ordinary believers. Both the Qur’an and the Sunnah exhort mankind to the necessity of *acquiring pure and accurate knowledge, not conjecture*, for human beings to have the right values and attitudes to pursue the right way of living.

Al-Ghazali provides evidences of the excellence of knowledge from reason with the following statements:

Know that the goal of this chapter is [to gain] a realization (*ma‘rifah*) of the virtue of knowledge and how precious it is... When you look at knowledge you should perceive it as a delight in and of itself and [as something to be sought after for itself, and you should find it as a means to the abode of the hereafter and its delights as well as a path to proximity with God, for there is no means of approaching Him but through it [knowledge]... The virtue of knowledge is absolute. However, the levels of knowledge differ... and their levels of virtue, without doubt, are ranked accordingly...

As for the **excellence of teaching and learning**... it is a manifest affair. For if knowledge is the best of undertakings, then acquiring it is a quest for that which is most excellent, and teaching it is a means to attaining [what is] most excellent... The teacher is engaged in its [the *qalb*’s] perfection, enhancement, purification, and with bringing it into proximity with God.

Thus teaching knowledge is, from one point of view, an aspect of worship of God, and from another, it is an aspect of vicegerency [of people for] God. In fact it is the most exalted [kind of] vicegerency, because God has opened the heart of the scholar to knowledge... (al-Ghazālī, 2015: 23-28).

3.2. Knowledge that is compulsory for each individual (*Farḍ ‘Ain*) and Knowledge that is a communal obligation (*Farḍ Kifāyah*).

With regard to the first category, al-Ghazali stresses the necessity of knowing the pillars of the Islamic faith; the fundamental compulsory religious obligations or pillars of Islam; the knowledge of Islamic ethics, of what is allowed and what is prohibited; and traits of praiseworthy as well as blameworthy character; the knowledge of the diseases of the spiritual heart (*Qalb*) and the ways to overcome them. Referring to the Prophetic statement that “Seeking the knowledge is obligatory on every Muslim,” al-Ghazālī says:

Therefore it is clear that when he [Muhammad s.a.w.] used the term ‘the knowledge’ (*al-‘ilm*), with definite article *al-* in his statement, ...he meant the knowledge that must be applied practically and which is recognized as obligatory on every Muslim. (al-Ghazālī 2015: 37)

With regard to knowledge that is a communal obligation, he says:

Communal obligations include every form of knowledge that is indispensable to the establishment of the affairs of the world, [and include disciplines] such as medicine, which is necessary for the preservation of healthy bodies; and mathematics, which is necessary for [financial] transactions and the division of wealth...[F]oundational crafts are also communal obligations, such as agriculture, the manufacture of cloth [and tailoring], and governance, even cupping... (al-Ghazālī 2015: 38).

Al-Ghazali explains that **blameworthy** (*al-madhūm*) **disciplines** includes “the practice of magic and the making of talisman, as well as legerdemain and deception” while “**Neutral** (*mubāḥ*) practices include the knowledge of poetry that is free of caprice and the narration of oral histories of people and similar occupations.” (al-Ghazālī 2015: 38). As for knowledge or disciplines which are **praiseworthy** (*al-maḥmūdah*), he identifies four such categories:

- i. The *uṣūl* (fundamentals), namely the Qur’an, the Sunnah, the *Ijmā’* (consensus) of the Community and the Traditions of the Companions (*āthār al-Ṣaḥābah*);
- ii. The subsidiary branches of knowledge which are innumerable and cover all those that bring public good (*maṣlaḥah*) in this world, and that are beneficial in the hereafter;
- iii. The preliminary tools required for the mastery of the fundamental knowledge or disciplines; and
- iv. The supplementary disciplines of the fundamental disciplines (al-Ghazālī 2015: 39).

Al-Ghazali clarifies at the beginning of his *magnum opus* *Iḥyā’ ‘Ulūm al-Dīn* that his book would focus only on **practical knowledge** (*‘ilm al-mu‘āmalah*) because this is the category of knowledge that all Muslims must know, not on gnostic or “**knowledge of unveiling**” (*‘ilm al-mukāshafah*) because this gnostic and mystical knowledge is the preserve of the Messengers, Prophets, Saints and the Elect among the special servants of Allah. However, “**the knowledge of the states of the heart**” (*‘ilm aḥwāl al-qalb*) in practical knowledge that leads to the hereafter is absolutely necessary. The praiseworthy states which Muslims have to attain include:

Patience, gratitude, fear and hope [in God], contentment [in God], abstinence, piety and self-sufficiency [in God], open handedness, recognition of the grace of God most high

in all states, excellence (*ihsān*), thinking well [of people and God], good character, good mutual relationships, truthfulness and sincerity.....(al-Ghazālī 2015: 52).

As for the **blameworthy attributes**, al-Ghazālī gives a long list as given below:

[T]hey include fear of poverty, discontent with Allah’s decrees, spitefulness and resentment, envy, dishonesty, ambition to high station, love of praise, love of longevity to enjoy the mundane pleasures of this world, arrogance, ostentation, anger, conceit, enmity and hatred, acquisitiveness, avarice, passionate craving and vanity, insolence [ingratitude] and discontent. [It comprises as well] being in awe of the wealthy and demeaning of the poor, pride and self-importance in wealth and ancestry, rivalry and boastfulness in wealth, knowledge and position, haughtily rejecting [God’s] right, and meddling in that which does not concern one. [It comprises as well] pomposity (*ṣalaf*), affectation and currying favour, adulation, being too occupied with the fault of others to see one’s own faults, a heart devoid of regret and humility, violent self-defense in the face of humiliation, weakness in the defense of [God’s] right, and outwardly claiming brotherhood while holding secret enmity. [Among these traits as well are] feeling secure from the designs of God The Exalted from the loss of which He had given, reliance on one’s own act of obedience [rather than God’s grace], plotting treachery and deceit, [excessive] hopes for longevity, rude harsh behaviour, delight with worldly pleasure and grief over its loss, enjoying intimacy with creation and feeling alienation in separating from them, coarseness, heedlessness, zeal in worldly affairs, and a dearth of shame and compassion... Knowledge of the boundaries of these matters, their realities, causes, fruits and influence are all aspects of the knowledge of the hereafter. According to the ruling of the scholars of the hereafter, [knowledge of these] is an individual obligation (al-Ghazālī 2015: 52-53).

3.3. Reasons why some knowledge is blameworthy

If knowledge, al-Ghazālī says

“constitutes the cognition of a thing according to its inherent nature (*‘al-‘ilm huwa ma ‘rifat al-shai’ ‘alā ma huwa bihi’*); this is among the attributes of God The Exalted, how could any knowledge, being knowledge – be blameworthy?” (al-Ghazālī 2015: 78).

He says that

“knowledge in and of itself is not blameworthy: it only becomes blameworthy in relation to the rights of the servants.” (al-Ghazālī 2015: 78). \

Recalling that the Prophet (s.a.w.) said that “We seek protection from knowledge that brings no benefit (*‘min ‘ilmin la yanfa’*)” al-Ghazālī gives three reasons:

- i. The first is that it causes harm (*ḍarar*) in some manner or another, either to the one who pursues it or to a third party...
- ii. The second reason is that, in most cases, it is directly detrimental to the one engaging in it...

- iii. The third reason [that knowledge may become blameworthy is that it is] immersion in a field in which the seeker is not firmly established. (al-Ghazālī 2015: 78).

3.4. The proper *ādāb* (comportment) incumbent upon the student and the teacher.

Al-Ghazālī describes ten responsibilities of the student:

- i. “To give precedence to purifying his soul from reprehensible character traits and blameworthy qualities.”
- ii. “To diminish his ties with mundane occupations and distance himself from family and homeland.”
- iii. “To not conduct himself in an arrogant manner toward knowledge, nor dominate the teacher.”
- iv. “To be wary – in the beginning – of lending an ear to discussions dealing with divergent opinions among the people...”
- v. “Not to leave a single aspect of the study of praiseworthy sciences or any branch of them without giving them careful consideration...”
- vi. “To pursue in each field the best it has to offer...”
- vii. “Not to delve into all the various fields of knowledge all at once...”
- viii. “To understand the manner in which the noble nature of the sciences is ascertained...”
- ix. To ensure that the intention at each moment is the enhancement of his inner state and its adornment with the virtues of good character.
- x. “To understand the relationship of the sciences to the goals being sought.” (al-Ghazālī 2015:138-159)

Before describing the functions of the teacher, al-Ghazali says that:

the one who has acquired knowledge, and acted upon it, and imparted it to others is praised in the heavenly domains as a person of great worth: he is like the sun that sheds light on others, being thus a light unto itself, or a whetstone that sharpens other things but cuts nothing, or a needle that clothes others but remains unclothed itself, or it is similar to the wick of a lamp that illumines for others while consuming itself in its own flame.....

In whatever manner one is engaged in instruction, he has taken on a momentous task of grave consequences; so let him guard well his conduct and the role incumbent upon him (al-Ghazālī 2015: 160).

Then al-Ghazali lists eight functions of the teacher as follows:

- i. “The first function [of the teacher] is benevolence toward his students, he should behave in such a manner that he treats them like his sons.”

- ii. “The second function is to follow the example of the master/conveyor of the law [i.e. Prophet Muhammad], may the peace and blessings of God be upon him.”
- iii. “The third function of the teacher is not to hold back anything from the guidance he provides his student.”
- iv. “The fourth function [of the teacher]—and among the most subtle of the art of teaching – is deterring the student from reprehensible conduct by way of intimation to whatever extent possible.”
- v. “The fifth function for the one responsible for certain sciences is not to criticize or disparage other fields of learning to his student.”
- vi. “The sixth function [of the teacher] is to confine the student [to the material that is] at the level of his comprehension.”
- vii. “The seventh function [of the teacher] is to teach the poorly prepared student the clear and evident aspects [of the sciences] that benefit him, and not to mention to him that beyond this there are minutiae that he is keeping hidden from him.”
- viii. “The eighth function [of the teacher] is to apply his knowledge.” (al-Ghazālī 2015: 159-169)

The *Book of Knowledge* of al-Ghazali looks at ‘*Aql* with faith, whereas the modern ‘*aql* is removed from faith. (Note: for the Integral Epistemology of al-Ghazali as the solution to the crisis of knowledge in the world today, please refer to Prof Osman Bakar’s professorial lectures (Osman Bakar (2019), “Advancing Comparative Epistemology and Civilisational and Futures Studies”, *Al-Ghazali Chair of Islamic Thought Inaugural Lecture: advancing comparative epistemology and civilisational and futures studies*. ISTAC-IIUM Publications, Kuala Lumpur; and “Al-Ghazali’s Epistemology: Its Significance for Contemporary Human Thought”, The Second ISTAC World Professorial Lecture (IWPL 02), 13th October 2021 @ <https://www.youtube.com/watch?v=rUyQG1Nhj90>).

3.5. Traits of Scholars of the Hereafter (‘*Ulamā’ al-Ākhirah*) and Reprehensible Scholars (‘*Ulamā’ al-Sū’* or ‘*Ulamā’ al-Dunyā*)

On this topic, al-Ghazālī says:

In innumerable traditions dealing with reprehensible scholars there are severe warnings making it evident that they will be the most severely chastised of the creation on the day of resurrection. It is of tremendous importance to realise the traits that separate the scholars of the world from the scholars of the hereafter. We intend by the scholars of the world those reprehensible scholars whose goal in the pursuit of knowledge is revel in [the joys of] this world, and gain esteem and high position in the eyes of its inhabitants. (al-Ghazālī 2015: 170)

As for the worldly scholars, they pursue the study of erudite branches of related to issuing judgements [in matters of law] and judicial decisions, they tire themselves

conceiving hypothetical cases that will never arise though time ends... [They do all this] while they forsake that which is incumbent upon them...(al-Ghazālī 2015: 230)

With regard to the traits of the scholars of the hereafter, al-Ghazālī says:

Among these traits are that they do not seek worldly gain through their knowledge. For the minimal degree any scholar may understand is that he has come to realise the paltriness of this world, its squalid murkiness and ephemeral nature, and [that he has come to realise] the great consequence and eternity of the hereafter; with the pureness of bliss therein and the resplendence of its kingdom...

For whoever has not come to realise the paltriness of this world, its squalid murkiness, and the way its pleasure is mixed with pain, wherein anything of goodness eventually passes away, [he] lacks even minimal insight. For surely one's own eyes and life experience bring one to realise that [very fact]; how can one be among the scholars and have no intelligence? (al-Ghazālī 2015: 175)

Among the traits of a scholar of the hereafter is that he is steadfast in giving everything to strengthen his certitude [*yaqīn*]. For certitude is the foundational principle of religion. The Messenger of God (s.a.w.) stated, "Certitude is faith in its entirety". (al-Ghazālī 2015: 214)

.....Resulting from this is the certitude that God is ever observant of you in every state, He witnesses the inner notions of your conscience, your hidden inclinations and your thinking. (al-Ghazālī 2015: 222)

Al-Ghazālī concludes by saying:

In summary, the majority of mankind only incline toward the easiest things and that which accords best with their natural dispositions; verily the truth is bitter, being resolute in it is arduous, comprehending it is demanding, its path – in particular the realization of the properties of the heart and cleansing it of blameworthy traits – is not well traveled; for all that is an unending source of agony for the spirit. (al-Ghazālī 2015: 232)

.....We seek protection with God from the pretexts of Satan, from which the multitudes have already perished; and we ask God The Exalted to place us among those who have not been led astray by the life of [this] world, and who have not been deceived by the Deceiver. (al-Ghazālī 2015: 246)

3.6. On the Intellect ('*Aql*) and its Noble Nature.

The last chapter of al-Ghazālī's *The Book of Knowledge* is devoted to his elucidation on the noble nature of the Intellect. Al-Ghazālī says:

The intellect is the source of knowledge, its point of origin and its foundation; knowledge springs forth from it like fruit from a tree, light from the sun, and vision from the eye. How could that which is the means to well-being in this world and the hereafter not be of noble character?

The noble nature of the intellect is self-evident...God The Exalted has called it light (*nūr*)...and when He mentions light and darkness He intends in it knowledge and ignorance, as in His saying, “*He brings them out from darkness into the light*” [Q. *al-Baqarah* 2: 257].

The Messenger of God (s.a.w.) said, “...A person’s worthy character...is not complete until his intellect is made whole, whereupon his faith becomes whole, and he obeys his Lord and disobeys his enemy, Iblis”.

It was related on the authority of Abu Said al-Khudari that the Messenger of God (s.a.w.) said, “There is a firm support for all things, and the firm support for a person of faith is his intellect and his acts of worship are in proportion to his intellect. Have you not heard the words of the reprobates [in hell]: “And they will say, ‘If only we had been listening or reasoning [with the intellect], we would not be among the companions of the blaze’.” [Q. 67: 10]

In conclusion, the intellect – despite a variety of definitions given to it – is understood by al-Ghazālī as a fundamental spiritual faculty in man which is innately obedient to Allah SWT The Creator of the intellect. Because it is infused with *īmān* (faith) it’s function is to complement Divine revelation and to guide human beings to Allah SWT. That is the reason why the Qur’an praises highly the *Ūlū’l-Albāb* (possessors of sound intellect) and the *‘Ulamā’* who have the quality of *khashyatu’Llāh* (fear and awe of the displeasure of Allah SWT). It is important to remember this faithful and God-obedient nature of the intellect and the God-fearing scholars in the worldview of the Qur’an because in the modern worldviews and in contemporary secular civilization the intellect has been completely detached from its spiritual and transcendent root. In fact, the intellect of modernism and postmodernism has been enthroned as the “new deity” which replaced the One True God. We should be grateful to Imam al-Ghazālī and scholars like him who have bequeathed to the present generation of Muslims an epistemology that integrates the intellect with faith and Revelation – as taught by the Qur’an – which has the means to overcome the crisis of knowledge and the intellect in today’s world.

4. THE FORMATION OF SCIENTIFIC MENTALITY IN THE QUR’AN.

(Based on Dr. Yūsuf al-Qaraḍāwī’s book *al-‘Aql wa’l-‘Ilm fi’l-Qur’ān al-Karīm* (The Intellect and Knowledge in The Generous Qur’an))

The formation of the scientific mentality (*al-‘aqliyyah al-‘ilmiyyah*), according to al-Qaraḍāwī is one of the most important concerns of the Qur’an. The Qur’an rejects mind-sets, attitudes or beliefs based on superstition, unquestioning reverence for ancestral traditions or compliance with the ways of the powerful and influential elites in society, or mind-sets which follow the base desires. Sound knowledge has to be constructed and developed by minds, which are trained to think, to analyse, to discuss, to be objective, and to present credible arguments (al-

Qaradāwī 1996: 249). Al-Qaradāwī presents hundreds of verses of the Qur'an to support his claim that the Qur'an is most concerned with the issue of formation of the scientific mind-set, an aspect of the Qur'an which not many religious scholars are aware. Space does not allow us to reproduce all the relevant verses of the Qur'an, but suffice it to mention that he has presented seven general principles which support the claim. They are:

- I. **Rejection of conjecture, opinion, surmise, speculation (*ẓann*)** in every matter (*rafḍ al-ẓann*), which requires conviction or convincing evidences. For instance, when discussing issues regarding the existence of God, it is unacceptable to support such creeds on the basis of *ẓann*. There are many verse which refer to the rejection of *ẓann* as supports for religious beliefs.
- II. **Absence of compliance with desires or emotions (*ittibā' al-ahwā' wa'l-'awāṭif*)** in matters of knowledge or science. The Qur'an accused the polytheists and the disbelievers of following their desires and emotional sentiments in their mind-sets. Prophets and believers are therefore warned by the Qur'an not to resort to desires or emotional arguments. (al-Qaradāwī 1996: 252)
- III. **Rejection of blind imitation (*al-taqlīd al-a'mā*)**, absolute submission to what the ancestors and predecessors had established or considered sacrosanct. (al-Qaradāwī 1996: 253)
- IV. **Rejection of subordination or blind following** to the tyrants, overlords, powerful elites, and the nobilities in the communities (*al-tab' iyyah li's-sādāt wa'l-kubarā*). (al-Qaradāwī 1996: 256)
- V. **To subject oneself to intellectual observation (*al-ta'abbud bi'n-naẓar al-'aqlī*)**. One of the constituents of scientific mind-set which the Qur'an extols is the use of intellectual observation, which it regards as an obligation (*farīdah*) and contemplation (*al-tafakkur*) as an *'ibādah* (religious worship, service). The Qur'an urges human beings in innumerable verses to observe analytically their own selves, their environments, the heavens and the earth, the nature and the Cosmos, thus becoming conscious of the Creator of all the things observed. Human beings are being urged to travel in the world to observe intellectually (*ar-ru'yah al-'aqliyyah*) how things have been brought into existence by the Creator and how ancient nations have disappeared. (al-Qaradāwī 1996: 258-267)

- VI. Unacceptance of any claim or contention not supported by evidence (*lā taqbal da'wā bi-ghair burhān*).** Evidence could be in the form of sense perception, historical evidence, rational evidence or scriptural evidence. Polytheism is regarded as an ignorance (*jahl*) because it cannot be supported by credible evidence, materially, intellectually or spiritually. (al-Qaradāwī 1996: 269-270)
- VII. Paying attention to the laws or conventions of Allah SWT in the Cosmos and in human society (*ri'āyat sunan'illāh fi'l-kaun wa'l-mujtama'*).** Respect for the laws or conventions, which Allah SWT had established is one of the pillars of scientific mentality. These laws are unchangeable. If they are studied and followed conscientiously, they will help the scholars of the world of nature and the world of human societies to understand the realities of things on the basis of what Allah SWT had determined or created. Such social sciences or natural sciences would produce knowledge which accommodates the intervention and will of the Creator in history and in nature, unlike the sciences which study nature or human beings based on what they conceive to be “natural laws” whereas they are in fact Divine laws and conventions. (al-Qaradāwī 1996: 279-280)

In the hope that Muslim natural scientists who read his book would take note and act on it, al-Qaradāwī quotes a paper from his friend Professor Dr Abdul Hafiz Hilmi, a biological scientist, who appealed many years ago to “the believing natural scientists” (“*Mā huwa maṭlūb min 'ulamā' al-kaun al-mu'minīn*” – “What is required of scientists of the Cosmos who are Believers”) to present their scientific discoveries to the world community as manifestations of their *īmān* (faith in Allah SWT), and not merely as scientific facts. To do that they need to understand the Qur'an, the works of Qur'anic exegetes and the scientific legacy of Islamic civilisation. (al-Qaradāwī 1996: 294-299). It would be of interest to know that there have been several non-Muslim scientists who have converted to Islam simply because they discovered that the Qur'an contained many scientific information and facts, which contemporary science only came to know about them 1400 years later. Among them are the names of Dr Maurice Bucaille (French medical doctor), Professor Keith L. Moore (Canadian professor of anatomy), Professor Marshall Johnson (US professor of anatomy and developmental biology), Professor Gerald C. Goeringer (US professor of medical embryology) and Professor Alfred Kroner (German professor of geosciences).

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