KNOWLEDGE AND ISLAM ON THE NON-RATIONAL AND RATIONAL-HEART-BRAIN INTER-CONNECTION: A CLASSICAL ISLAMIC SCHOLARLY PERSPECTIVE

Mohamed Safiullah Munsoor^{*}, Che Zarrina Saari^{**}

**Department of Aqidah & Islamic Thought. Academy of Islamic Studies. University of Malaya. 50603. Kuala Lumpur. Malaysia.

Emel: **zarrina@um.edu.my

Khulasah

Kajian ini menganalisis ilmu pengetahuan dalam kerangka ilmiah tradisi Islam dengan tujuan untuk memahami sifat. sebab sumbernya, dan serta berusaha untuk mengetahui hubungan yang wujud Transmisi ilmu dalam masyarakat semasa. intelek telah diketahui pengetahuan kepada mengambil banyak bentuk termasuk rasional dan non-rasional, yang mana masing-masing mempunyai kerangka pemahaman tersendiri. Para ilmuan Muslim terdahulu telah menerangkan proses ini secara terperinci, dan ia merangkumi rangka kerja mengenai ilmu non-rasional yang terhasil daripada sifat jiwa yang menerbitkan wahyu, intuisi, iluminasi, hikmah dan mimpi. Ini digabungkan dengan proses rasional yang diperolehi melalui fakulti kognitif termasuk persepsi deria, sebab dan tafakkur, yang merupakan sebahagian daripada ilmu 'syariah' atau pengetahuan asas di dalam Islam. Kajian ini menunjukkan bahawa gabungan rasional yang berkaitan dengan otak dengan non-rasional menandakan hati sebagai suatu yang penting kepada seluruh perkembangan manusia. Kategori yang pertama menentukan kegiatan fizikal dan mental, sementara kategori yang kedua pula menggabungkan kerja kontemplatif atau meditasi, yang jelas bermanfaat seperti yang ditunjukkan oleh data neuro-sains dan kesihatan mental yang baru

muncul. Tumpuan perhatian yang utama terhadap ilmu rasional seperti yang diilustrasikan dalam gaya hidup Barat dan sistem berasaskan sains, vang kemudiannya menujah masuk ke Timur telah memperlihatkan pengabaian terhadap ilmu nonrasional termasuklah kontemplatif atau amalan yang berkaitan dengan ibadah. Ini telah mengakibatkan peningkatan dalam pelbagai psiko-patologi termasuk stres, kegelisahan, kemurungan, bunuh diri dan pendedahan awal terhadap penyakit sosial-psikologi lain. Dalam konteks kontemporari vang ini. hubungan silang antara hati-otak yang tidak rasional dan rasional, yang menjadi ciri khas Islam diperlukan untuk mengimbangi gaya hidup manusia, secara telah hilang eksplisit dalam wacana utama kerohanian. Ini perlu diperkenalkan semula menerusi sistem pembelajaran formal dan informal. Ilmu atau pengetahuan adalah konsep holistik dalam Islam dan tidak semestinya memisahkan yang suci dan yang profane, seperti dalam tradisi sekular. Pengetahuan baik sebagai konsep dan instrumen amalan tertanam kukuh dalam kitab suci Ilahi dan tradisi kenabian. Hakikatnya, ilmu yang rasional dan tidak rasional adalah menjadi asas kukuh Islam, dan dilihat sebagai pencetus untuk mengubah individu Muslim dan masyarakat yang melahirkan tamadun Islam, yang kini diterima sebagai penyumbang besar kepada ilmu dan pemahaman manusia sejagat.

Kata kunci: Ilmu; kecerdasan; jiwa; rasional; non-rasional.

Abstract

This study examines knowledge in some depth within the Islamic traditional scholarly framework with the aim of understanding its nature, cause and source, as well as trying to find out its inherent interconnections within contemporary society. It is found that the transmission of knowledge to the intellect takes many forms including rational and non-rational, each having its own framework of understanding.

Classical Muslim scholarship has articulated this process in much detail, and it includes a non-rational framework of the nature of the soul from which springs revelation, intuition, illumination, wisdom and dreams. This is combined with the rational process gained through the cognitive faculties including sensory perception, reason and reflection, which is a part of the 'shari ah' or the body of knowledge within Islam. The study postulates that combination of the rational relating to the brain and the non-rational denoting the heart as being important to the development of the whole being. The former dictates physical and mental activities, while the latter incorporates contemplative or meditative activities, which is evidently beneficial as indicated by emerging neuro-science and mental health data. Undue focus on the rational as epitomised by the Western life-style and science based system, which has crept into the East, has seen the neglect of the non-rational including contemplative or practices related to worship. This has resulted in the rise in multiple psycho-pathologies including stress, anxiety, depression, suicide, pre-occupation with consumption and other socio-psychological maladies. In the contemporary context this heart-brain interconnection of the non-rational and the rational, which is the hallmark of Islam is required for the balanced human life-style, is explicitly missing in the mainstream spiritual discourse. This needs to be re-introduced through both the formal and the informal learning systems. Ilm or knowledge is a holistic concept in Islam and does not necessarily separate the sacred and the profane, as in the secular tradition. Knowledge both as a concept and an instrument of practice is firmly embedded within the divine scripture and the Prophetic traditions. The fact that knowledge both rational and non-rational was at the epicentre of Islam, and was seen as a trigger for transforming its people and their societies resulting in the Islamic civilisation, which is now accepted a

great contributor to human knowledge and understanding.

Keywords: Knowledge; intelligence; soul; rational; non-rational.

Introduction

One of the most powerful statements made in the context of divine revelation is the primordial utterance of the Prophet (saw), which was '*iqra*' or read, when prodded by Angel Jibril. This is particularly significant given that the Prophet SAW was not literate, as well as the culture of the Arabs was an oral culture. The decent of the Qur'an signalled the change course of the culture, where the divine utterances were written down in various forms, making reading, writing and its transmission a vital process.

Knowledge (*`ilm*) and the intellect (*`aql*) form core elements within Islamic epistemology or the theory of knowledge and has a much wider scope and connotation than in the Western context, for it has given the 'Muslim Civilisation its distinctive shape and complexion.'¹ Rosenthal² asserts that there is no other term that has been more pervasive within Islam than *`ilm*, in terms of its 'depth of meaning and wide incidence of use.'

Within the Islamic context, the Qur'anic narrative was a precursor to the development of knowledge, which was orally learnt and then transformed into a written form. The frequency with which the term `*ilm* occurs in the Qu'ran, as well as the emphasis given to it by the Prophet SAW himself, without doubt, is evidence of its prime

¹ Franz Rosenthal, *Knowledge Triumphant: The Concept of Knowledge in Medieval Islam*, with an Introduction by Dimitri Gutas (Brill, Leiden, Boston, USA, 2007).

² *Ibid.*, 2.

importance. The word `*ilm* and its derivative occurs 845 times³ in the Qur'an validating this fact.

In this context, Rosenthal states that the Prophetic concept of knowledge 'set the intellectual life of Islam on its basically unchangeable course.'⁴ Thus Islam laid down of the concepts, methods and objectives enshrined within divine revelation, with it being operationalised by the *Sunnah* of the Prophet (saw) to form a whole way of life. This in-effect laid the platform for the development of the Islamic civilisation⁵.

The height of Islamic civilisation took place in what is historically known as the between the 5th and 15th century. A time which is generally perceived as an intellectually stagnant period in the European world, but for the Muslims was their Golden Age that saw the height of Islamic innovation and pioneering in all fields of knowledge. There were great contributions made to science, medicine, architecture, engineering, the arts and the intellectual tradition in general. In this light, it is difficult to comprehend the current state of the Islamic world, where more than 400 million people in the OIC member countries live in abject poverty, including educational poverty, with a manifested high rate of illiteracy⁶.

The emphasis on knowledge in Islam, combined with the practices that governed it, called for not only the external learning of religious knowledge but more importantly the transformation of one's inner state. Thus,

³ Ismail Serageldin, "The Book in Arab/Muslim Civilization". At the Opening Session "The Meaning of the Book in Human Civilization", Second International Summit of The Book, Singapore, 16/08/2013. Last retrieved 23/8/2016, http://www.serageldin.com/Speech/Details.aspx?ID=110.

⁴ *Ibid.*,19.

⁵ Ibid., 18.

⁶ IDB Poverty Reduction Policy Paper (Islamic Development Bank, Jeddah, 2007).

learning and knowledge transfer took a comprehensive form in Islam, with reading, writing, lectures and discussions, where its contents were internalised and transformed into action backed by the practice as well as the sayings of the Prophet SAW. This led to the transformation of a whole society, which was steeped in ancestral ritual and practices, including the practice of infanticide and total rejection of rights for women. This Islamic platform, with its body of knowledge and accompanying rules, regulations and mission, expanded not only in terms of territory but in terms of increasing the knowledge-based society; this resulted in a peak of intellectual civilisation, which has influenced both Eastern and Western societies and left its mark in history.

This article postulates that knowledge within the Islamic framework was transmitted into the human intellect utilising multiple forms, including rational (sensory, cognitive, conative) and non-rational (revelation, illumination, intuition) forms of knowledge, providing related evidence (scriptural and other texts) where required. This paper starts by outlining some key definitions and then moves on to examine the different types of knowledge and their sources, primary causes based on which the ensuing discussion is developed and concluded.

Key Definitions

There is not a single definition for the term intellect ('*aql*) and in this light, Imam al-Ghāzālī⁷ presents four distinct meanings, with the definition inherent in them:

i. The ability of humans to understand and grasp the theoretical sciences (*nazariyah*), while being able to master the abstract discipline (*fikriyah*). Imam

⁷ Nabih Amin Faris, Imam al-Ghazali, The Book of Knowledge, Translated with Notes of The Kitab al-Ilm of Imam al-Ghazali's Ihya' 'Ulum al-Din. (New Delhi: Islamic Book Services, 1991), 218-220.

Muhāsibī⁸ defines intellect (*aql*) as an instinct (*gharīzah*), which enables people to grasp and understand things. Here the distinction is drawn to this ability, which functions even if knowledge (*darūriyah*) and facts may be lacking.

- ii. Refers to the knowledge which is instinctual, which manifests in infants, with their ability to discern things.
- iii. That which is acquired through experience (empirical knowledge) during the course of time.
- iv. The power of instinct that is so highly developed that one is able to predict or forecast, even though the accuracy of which ranges given that only God has absolute knowledge.

Perspective from the Qur'an and Hadith

It will be appropriate to examine the Qu'ranic and hadith perspectives on `*ilm* or knowledge and the importance and relevance given to it. Some of the verses pertaining to this are first stated and then analysed:

- i. "God will lift up by degrees those among you who have come to believe and those who have been given knowledge".⁹
- ii. "And those who have come to believe know ... whereas those who do not believe say...."¹⁰
- iii. "Those who believe' are coupled with 'those who have certain knowledge $(y\bar{u}qin\bar{u}n)$ "¹¹.
- iv. "And we have set out signs for people who know (*ya`lamūn*) ... for the people who understand (*yafqahūn*) ... for people who have come to believe (*yu'minūn*)".¹²

⁸ *Ibid.*, 218.

⁹ Sūrah al-Mujādalah, 58:11-12

¹⁰ Sūrah al-Baqarah, 2: 24-26:

¹¹ Sūrah al-Baqarah, 2:3-4

¹² Sūrah al-An`ām, 6:97-99.

v. Signs for believers (*li al-mu'minīn*) ..., signs for people who have certain knowledge (*ya`qilūn*) ... people who have understanding (*yafqahūn*) ... and in what story after God and His signs will they believe (*yu'minūn*)¹³.

The above verses points to the importance of knowledge as expressed by God Himself, and to those people of cognition and understanding. The use of various expressions and concepts are well articulated by Rosenthal¹⁴, who points to the precision pertaining to knowledge, with varying degrees of cognition, such as doubt (*shakk*), guessing (*zann*), knowledge (*ilm*), and certainty (*yaqīn*) and this is highlighted in the following Qur'anic passages meaning:

...and they boast, "Behold, we have slain the Christ Jesus, son of Mary, (who claimed to be) an apostle of God!" However, they did not slay him, and neither did they crucify him, but it only seemed to them (as it is had been) so; and, verily, those who hold conflicting views thereon are indeed confused, having no (real) knowledge thereof, and following mere conjecture. For, of a certainty, they did not slay him.¹⁵

In another passage, there are mentions of knowledge, guessing, and conjecturing (*takhrusūn*):

God does not like any evil to be mentioned openly, unless it be by him who has been wronged (thereby). And God is indeed allhearing, all-knowing, whether you do good openly or in secret, or pardon others for evil

¹³ Sūrah al-Jāthiyah, 45: 2-5 and 3-6.

¹⁴ Franz Rosenthal, *Knowledge Triumphant*, 31.

¹⁵ Sūrah al-Nisā' 4:157.

(done unto you): for, behold, God is indeed an absolver of sins, infinite in His power.¹⁶

And they have thereof no knowledge. They follow not except assumption, and indeed, assumption avails not against the truth at all.¹⁷

The message is sharp and clear that knowledge and understanding are key to belief, with belief linked to awareness and certainty. This will be discussed further in the section on discussions, but now we will be exploring the hadiths. What do hadiths say about knowledge, given that they serve as a method of putting into practice the message of the Qur'an. Some relevant hadiths are outlined here:

- i. Narrated `Abdullāh Ibn Mas`ūd (ra): The Prophet SAW said, "Do not wish to be like anyone except in two cases. The first is a person, whom Allah has given wealth and he spends it righteously; (the second is) the one whom Allah has given *al-hikmah* (wisdom) i.e. the knowledge of the Qur'an and the *Sunnah* (legal ways) of the Prophet SAW and he acts according to it and teaches it to others".¹⁸
- ii. Narrated Ibn `Abbas (ra): Once the Prophet SAW embraced me and said, "O Allah! Bestow on him the knowledge of the Book (the Qur'an)".¹⁹
- iii. Narrated Abū Mūsā (ra): The Prophet SAW said, "The example of guidance and knowledge with which Allah has sent me is like abundant rain falling on the earth, some of which was fertile soil that

¹⁶ Sūrah al-An`ām, 6:148-149.

¹⁷ Sūrah al-Najm, 53:28.

¹⁸ Al-Bukhārī, Summarized Sahih Al-Bukhari (Arabic-English), compiled by Zia-ud-Din Ahmad bin Ahmad bin Abdul-Lateef Az-Zuaidi, translated by Muhammad Muhsin Khan (Riyadh: Maktaba Dar-us-Salam, 1994). Book of Knowledge, Chapter 9, 66:87-88.

¹⁹ *Ibid.*, Chapter 10, 67:88.

absorbed rain-water and brought forth vegetation and grass in abundance. (And) another portion of it was hard and held the rain water and Allah benefited the people with it and they utilised it for drinking (making animals drink from it) and to irrigate the land for cultivation. (And) a portion of it was barren which could neither hold the water nor bring forth vegetation (then that land gave no benefits).""

In the above items, the first is the example of the person who comprehends Allah's religion (Islam) and gets benefit (from the knowledge), which Allah has revealed through the Prophet SAW and learns and then teaches it to others. He benefits himself and others benefit through him. The second example is that of a person who does not care for knowledge and thus when he receives it is like that barren land that produces no fruit, no use to himself or others.

- Narrated Ibn `Umar (ra): Allah's Messenger SAW said, "While I was sleeping, I saw that a cup full of milk was brought to me and I drank my fill till I noticed its (the milk's) wetness coming out of my nails. Then I gave the remaining milk to `Umar bin al-Khattāb." (The companion of the Prophet) asked, "What have you interpreted (about the dream) O Allah's Messenger?" He replied, "It is (religious) knowledge."²⁰
- Narrated Abū Sa`īd al-Khudrī (ra): "Some women ii. requested the Prophet SAW to fix a day for them as the men were taking all his time. On that he promised one for religious lessons them dav and commandments..."21 denoted This the gender sensitivity of the Prophet SAW.

²⁰ Ibid., Chapter 14, 73:90.

²¹ *Ibid.*, Chapter 25, 87:97.

iii. Narrated Abū Hurayrah (ra): "I have memorised two kinds of knowledge from Allah's Messenger SAW. I have propagated one of them to you and if I propagate the second, then my pharynx (throat) will be cut off (i.e. I will be killed)."²² This alludes to sharing knowledge with people at different levels of understanding, where to the general audience, what is simple is shared, while the more abstract or complicated aspects cannot be disseminated, for possible, misunderstanding or misinterpretation.

The central tenant from the above rendition is that, knowledge is deeply rooted in the divine writ and the way of the Prophet, apart from it being both extensive and diverse. This fact is essential for Islam's universal application, so that it can reach the various parts of world for people with different psyche and amongst ethnic groups. Thus, it can be inferred that the spectrum of knowledge is required and inherently it is not monolithic and therefore, this calls for wisdom and tolerance rather than radicalisation and intolerance.

One key feature that comes from the above is the emphasis on knowledge and Rosenthal²³ makes a sweeping statement when he states the Prophet Muhammad's understanding of knowledge overshadows the triumphs and defeats of the Muslim civilisation.

Essence of Knowledge

In framing the argument pertaining to the real essence of things or the concept of quiddity (essence), Imām al-Taftazānī, commenting on the work of Imam Nasafī²⁴,

²² *Ibid.*, Chapter 32, 100:103.

²³ Franz Rosenthal, *Knowledge Triumphant*, 32.

²⁴ Najm al-Din al-Nasafi, On the Creed of Islam: A Commentary by Sa'd al-Din al-Taftazani, Translated with Introduction and Notes by Earl Edgar Elder and Edited by Austin. P. Evans (New York: Columbia University Press, 1950), 5.

highlights that "The People of Reality²⁵ say that the real essence of things exist in reality and that the knowledge of them is verifiable as real in contradiction to the Sophist."²⁶

Here, the different aspects of the above statement are deciphered in order to gain a clearer understanding of it, as follows,²⁷ and what is articulated below are models of those people who are spiritual beings treading the path of God. This process is characterised by getting to know the Lord through both the rational (thinking, learning, reflection) and the non-rational (contemplation, meditation), which forms the meeting point for developing a balance person:

- i. "The People of Reality" (*ahl al-haqq*): reality is akin to actual facts and includes in a general sense propositions, articles of belief, religions, as well as different schools of practice (*al-madhāhib*). The opposite of it is unreal (*al-bāțil*).
- ii. "The real essence of things in reality": the real essence of things (*al-haqīqah*) and its quiddity (*al-māhiyah*) are ingredients that form the identity of a thing (*ma bih al-shay' huwa huwa*), where for example, humans are referred to as 'rational' animals as opposed to the application of the term 'laughing' animal and 'writing' animal. This symbolizes knowing a thing for what is real.

²⁵ Al-Taftazānī's in Najm al-Dīn al-Nasafī explains the People of Reality as those who followed the approved way and the Community (Ahl al-Sunnah wa al-Jamā`ah) or in the orthodoxy, as well as those who believe not only in the reality of ideas but also in the reality of things.

²⁶ Any of a class of ancient Greek teachers of rhetoric, philosophy, and the art of successful living prominent about the middle of the fifth century BC for their adroit subtle and allegedly often specious reasoning", Merriam Webster, 2014, http://www.merriamwebster.com/dictionary/sophist; Last accessed on 7th January 2014

²⁷ Najm al-Din al-Nasafi, On the Creed of Islam, 10-13.

- iii. "And the knowledge of them": This refers to the real essence both from the viewpoint of it being perceived (*taṣawwur*) and those that are affirmed or can be validated.
- iv. "Is verifiable as real": refers to knowledge of reality relating to the existence of essences and can be known through spiritual experiences.
- v. "In contradiction to the Sophist": this refers to a group of people who refute the real essence of things as fancies (*awhām*) and vain imaginations (*khayālāt*). The notion is that these are constructions of what people believe to be true and therefore it becomes true for them, a post-modernist position that we construct our own reality. This whole aspect will be taken up further as the paper proceeds, especially in the section on causes of knowledge.

What is discussed above is both the rational and the non-rational domain of knowledge, which is used to gaining the knowledge of God through ritual as well as experiential learning, which includes worship, contemplation and meditation, which is connected with the brain and the heart.

Source of Knowledge

Now we turn our attention to sources of knowledge within the Islamic framework. There are four such sources: the Qur'an (divine revelation), the *Sunnah* (actions and speech of the Prophet), as well as *ijma*` (gaining consensus) and *qiyas* (analogical deductions). These are sources of knowledge in relation to *sharī`ah*. Firstly, the Qur'an; Imām al-Qanāwī²⁸ says that the Qur'an is "*the form of knowledge that comprises the variety of possible conditions affecting existing things*", which also implies a 'form of divine attribute of knowledge' directly from God.

²⁸ Sadr al-Din al-Qanāwi in *I* ja al-Bayān, 48, 54, 57, 219 as quoted in Franz Rosenthal, *Knowledge Triumphant*, 219.

Secondly, the *Sunnah;* that forms the application of this Qur'anic knowledge to everyday life by the Prophet. The former was recorded immediately and transmitted through time, while the latter was orally sustained and later recorded as text.

There were two aspects that evolved subsequently in order to complete the framework within which knowledge could be understood, namely, thirdly, *ijma*, which is agreement or consensus. This refers to building scholarly consensus on often complicated or legal matters, and fourthly, *qiyas* or analogy, which denotes analogical deduction, where when things are not explicitly mentioned in the Qur'an but the principle is used to arrive at a decision.

These four aspects form the main body of the Islamic knowledge. During the time of the Prophet, there were only two sources; namely the Qur'an and the *Sunnah*, since the Prophet himself was present to respond to the various queries. Thereafter, *ijma*` and *qiyas* were added as time progressed and different situations arose. *Ijma*` and *qiyas* were added after the passing-on of the Prophet as different and new situations arose and it became necessary to have these categories and these can range from use of various types of technologies from contraception to organ transplant.

Within this body of knowledge, there are those aspects that are connected to practice and termed 'derived' (far`iyyah) and 'practical' (`amaliyyah), while the others are linked to dogma or fundamentals (asliyyah) and doctrine $(i`tiq\bar{a}diyyah)$. Those linked with the Qu'ran manifest as the science of canon law (al-shar`) and judgments. Those connected with the dogma or fundamentals are framed within the science of the unity (al-tawhid) and the attributes (al-sifat) of God.²⁹

²⁹ Najm al-Din al-Nasafi, On the Creed of Islam, 5-6.

Following the time of the Prophet and his earliest companions, there arose differences of opinion on various matters, with a tendency towards innovation (*al-bid`ah*) and personal desires (al-ahwā') /innovation personal desires began influencing somethings. In order to deal with this, there were rules, regulations and fundamentals that were laid down, which became known as *al-figh*. These relate to the science of practical judgment coming from detailed proofs (from Qur'an and Sunnah); and alkalām referred to the science of articles of belief deriving from the proofs.³⁰ The quintessential aspect of Islam is that knowledge is not knowledge for its own sake but to enlighten our souls and become better people before we move on to the next life. In this sense, the soul becomes an important vehicle and the next section provides a framework for it.

Nature of Intellect and Knowledge

In order to comprehend intelligence and knowledge, it is relevant to examine the schema developed by Ibn Sīnā³¹ and largely adopted by Imam Ghazālī,³² which served as a framework of his philosophy of mind. Table 1 sketches out this framework revolving primarily around the nature of soul, which is deemed to be the centre of intelligence and knowledge.

In terms of the intellect and development of knowledge, as evident in Table 1 below, there are dominant faculties that help human beings discern and gain knowledge. These are the perceptive faculties and the

³⁰ *Ibid.*, 7. Here two of the greatest contributors to re-framing the orthodoxy of Islam were Abū Hāmid al-Ghazālī (1058-1111AH) and Abū al-Hasan al-Ash`arī (-/935AH).

³¹ Al-Ghazali, Kitab Sharh 'Aja'ib al-Qalb, Marvels of the Heart, Book 21 of the Ihya 'Ulum al-din: The revival of the Religious Sciences, Walter James Skelle Translated from Arabic with an Introduction and Notes, with Foreword by T.J. Winter (Amsterdam: Fonsa Vitae, 2010), xviii.

³² *Ibid.*, 5-11.

active intelligence (practical reason) and speculative intelligence (theoretical reason) under the human or rational soul. The perceptive faculties have both the external instrumentation, with the five senses including sight, hearing, smell, taste and touch, and the internal senses, which encompass common sense, formative faculty, cognitive faculty, estimative faculty and memory. The rational soul has the active intelligence, which is the operational arm or the practical aspect, while the speculative or theoretical intelligence deals with abstract notions, concepts and axiomatic knowledge³³. In this light, the humans have all three types of these souls, even though for the sake of clarity it has been categorised separately.

The contents of the above are summarised by Imām Ghazāl \tilde{i}^{34} as follows:

- i. Vegetative soul: absorbs nutrition, grows and reproduces.
- ii. Animal soul: possesses sense perceptions, has power of discrimination, and voluntary movements like animals.
- iii. Human or rational soul: Differs from both plants and animals by having rational power, while being empowered with higher knowledge, including the knowledge of God.
- iv. By virtue of being enabled by experimental knowledge humans reside between the animals and the angels and this is articulated in stating that, 'There in him the desire of the beast united with a reason that is godlike.'³⁵

³³ *Ibid.*, xviii.

³⁴ *Ibid.*, xx.

³⁵ *Ibid.*, xx.

Ibn Sīnā³⁶ points out that in line with the cognitive and the motive faculties, that are part of the animal soul, the human or the rational soul also has two faculties, the theoretical and the practical, both termed the 'intellect'. The theoretical intellect is primarily concerned with pure cognition of truth, while the practical intellect is linked to specific actions and interconnected with human behaviour (refer Table 1).

Vectories	Derror of a	der ati an		
Vegetative	Power of reproduction			
Soul				
	Power of growth			
	Power of nutrition			
Animal Soul	Motive	Appetitive	Attractive power	
	faculties	power	(concupiscence)	
			Repulsive power	
			(irascibility and	
			passion)	
		Efficient	In motor nerves	
		power	and muscles	
	Perceptive	External	Sight, hearing,	
	faculties		smell, taste,	
			touch	
		Internal	Common sense;	
			formative	
			faculty.	
			Cognitive	
			faculty,	
			estimative	
			faculty, memory.	
Human or	Active Intellig	Active Intelligence (Practical reason)		
Rational	Speculative	Material intellect or potentiality		
Soul	Intelligence	of knowledge		
Sour	Interngence	of knowledge		

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³⁶ Ibn Sina, An English Translation of Kitab al-Najat, Book II, Chapter VI with Historico-Philosophical Notes and Textual Improvements on the Cairo Edition, translated by Fazlur Rahman (Westport: Hyperion Press, 1981), 83.

³⁷ Ibn Sina, An English Translation of Kitab al-Najat, xviii.

(theoretical	Intellect of possession	
reason)	recognises axiomatic knowledge	
perceives	Perfected intellect lays hold on	
ideas by	intelligible	

In trying to comprehend the intellect and its bearing on the types of knowledge, Imām al-Ghazālī³⁸ vis-à-vis Ibn Sīnā's schema points out the four definitions of the intellect, as follows:

- i. The instinct is the foundation and origin of the other three types of souls mentioned in the table above.
- ii. The possibility to discern or distinguish things is interlinked to the first category.
- iii. The experience or empirical knowledge is derived from the first and the second combined, where instinct and axiomatic knowledge result in forming the empirical.
- iv. The human or the rational soul is asserted as the main goal, where knowledge is highly developed and enables one to distinguish between the good and bad aspects.

The first two are classed as being inherent or native, while the last two are acquired; in this light Imam al-Ghazālī cites Sayyidinā $Al\bar{i}$:³⁹

Knowledge is of two kinds: native and acquired,

But no acquired knowledge is of any use,

If there is no native knowledge, just as the light of the sun is useless,

When the light of the eyes is shut off.

There is a distinction made between the word intellect (aql), which basically refers to the instinct (native intellect), and knowledge, which is seen as the

³⁸ Al-Ghazali, *Ihya Ulum-ud-Din* 1, translated by Fazlul Karim (New Delhi: Islamic Book Services, 1991), 101-102.

³⁹ Al-Ghazali, *Ihya Ulum-ud-Din* 1, 103.

fruit born out of using the intellect. This is exemplified by two sayings: 'The fear of Allah is knowledge' and 'He who fears Allah is learned', that is, 'the fear of God is the fruit of knowledge'.⁴⁰ Thus in this case, `*aql* has been metaphorically used for other than the term instinct (native intellect).

Causes of Knowledge

The cause of knowledge or why it exists and how it unfolds within human faculties are threefold⁴¹ and this applies to all of creation, including angels, men or jinn:

First, the physical senses $(al-haw\bar{a}ss)$ comprise hearing (al-sam'), seeing (al-basar), smelling (al-shamm), tasting (al-dhawq) and touching (al-lams), and each of these has its own unique properties. An important point is made where some philosophers maintain that proofs of the internal senses are sufficient. However, according to the fundamentals of Islam this is insufficient since it has its own defects⁴².

Second, true narrative is categorised into two, namely, *mutawatir*, which results from repetitive oral transmission, which validates itself given the multiple nature of transmission. The other is that which emanates from the Messenger supported by evidentiary miracles, while it is akin to knowledge established by certainty. Both of these are further explained below. In terms of a true narrative as a form of speech, the principle is that it is in agreement with a fact and concurs with something external, and in this case it is true.

Concurrently, it may not agree with the externality and is deemed false. Thus, truth and falsehood are descriptive aspects of narratives as well as that which is applied to the narrator⁴³. Referring to *mutawātir* narrative

⁴⁰*Ibid.*, 221.

⁴¹ Najm al-Din al-Na Najm al-Din al-Nasafi, On the Creed of Islam, 15.

⁴² *Ibid.*, 18.

⁴³ *Ibid.*, 19.

as stated above, there is a sequence and continuity, which has been orally validated by the people and this gives it strength. This takes the form of reporting history and within the context of Islam, one can also refer to *mutawātir hadīth*.

Evidentiary miracles $(al-mu)jizat)^{44}$ are where a Messenger is chosen by God in order to transmit a message and or judgments, where it annuls the customary ways of the people, where a messenger, by the permission of God, performs an act which is beyond human power/potential thereby validating the truthfulness of his claim to be a Divine Messenger, which becomes the narrative of the Messenger.

Third, reason includes that which is gained by immediate perceptions, as well as by the deductive process. Reason is arrived at by giving attention to things, by developing a surmise or an experience or based on a premise and in some cases reason is supported by sensory perceptions⁴⁵. Deduction (*al-istidlal*) is an instrument within the realm of reason, which needs to be supported by proof (dalīl), and it should have the following characteristics: firstly, being able to gain knowledge of a subject by giving it due consideration as transmitted by a narrative. An example is cited where 'the proof of the existence of the Maker is the world.⁴⁶ Secondly, refers to a minor proposition coming from a major one, which includes judgments. An example of this is '... that the world is originated and that everything originated has a maker '47

In the light of the above, a distinction is made between the three above states, where, if the cause of the knowledge is within the person, it is termed as a sense

⁴⁴ *Ibid.*, 21.

⁴⁵ *Ibid.*, 18.

⁴⁶ Ibid, 22

⁴⁷ *Ibid.*, 22.

perception or part of the perceptive faculty, while if it is outside a person then it is true narration, and if this is not the case, then it falls under the rational faculty or reason⁴⁸.

Knowledge in the context of the above rendition is framed as an attribute, which becomes evident or revealed (*yatajallā*), by which is meant that the person has comprehended what it is and is able to describe it clearly. This relates to both an object that is existing in reality (*mawjūd*) or that which is non-existing (*ma`dūm*). Knowledge is gained through both understanding through the senses (*al-idrak*) and through reason (*al-`aql*) of things either conceived (*al-taṣawwurāt*) or asserted (*al-taṣdīqāt*). The latter refers to both certainties (*al-yaqīniyah*) and noncertainties (*ghayr al-yaqīniyah*).⁴⁹

It is important to distinguish between necessary knowledge and acquired knowledge,⁵⁰ as necessary knowledge, that which is not within the power of the creature and thus offers no choice (*maqdur*), and that which results without thought or speculation relating to proof, which is thus distinguished from deductive knowledge. The example cited of this type is knowledge of one's existence and changes in one's state (*ahwāl*).⁵¹ This signifies the non-rational type of knowledge.

Whilst, acquired knowledge, is acquired (*iktisāb*) by immediate causality (*mubāsharah al-asbāb*) through the act of choice and it is distinguished from deductive knowledge as it does not seek proof. Its causes are three: sound sense, truthful narrative, and speculation of reason, the last of which results in two kinds of knowledge,⁵² namely, that which comes at the very beginning

⁴⁸ *Ibid.*, 16-17.

⁴⁹ *Ibid.*, 15-16.

⁵⁰ *Ibid.*, 26.

⁵¹ Nūr al-Dīn Ahmad b. Mahmūd b. Abū Bakr al-Ṣābūnī al-Bukhārī in his book *al-Bidāyah* quoted in Najm al-Din al-Nasafi, *On the Creed* of Islam, 26.

⁵² *Ibid.*, 26.

speculation without any reflection (*tafakkur*), for example, knowledge that the whole is greater than the part; and deductive, in which reflection is necessary, where for example, deducing that there is fire from the smoke that is emitted. This denotes the rational aspect of knowledge, which uses both the cognitive (intellectual) and conative (ascribing meanings). This is clearly connection with the brain and its' related activities.

It is highlighted that knowledge here refers to all created things and does not relate to the knowledge of the Creator; this knowledge is a part of His essence and not a result of any causation⁵³. The sufficient cause (*al-sabab*) al-mu'aththir)54 in relation to all kinds of knowledge is from God, which He brings into existence without recourse to sensory faculty, true narration and reason. In this connection, reason appears to be only a cause, with the senses being an instrument by which we discern things, and narrative a method of understanding. Adding to this, the ultimate cause (al-sabab al-mufdi)⁵⁵ is where God creates within us the agents of causation, such as, reason, sensory perception and narration. This is reinforced by other aspects, namely, sensibility (alwijdan), surmise (al-hads), experience (al-tajribah), and the speculation (al-nazar) pertaining to reason, which are manifested as principles and premises (mugaddimāt).

One of the causes of knowledge that is not within the mainstream but yet vital is illumination (*al-ilhām*), which is defined as the casting of an idea into the intellect (*al-qalb*) by means of overflowing (*al-fayd*).⁵⁶ It is pointed out that this is not recognised as a cause for cognition (*al-ma`rifah*) in relation to the 'people of reality'; those who have attained a higher state of being or put it into

⁵³ *Ibid.*, 16.

⁵⁴ *Ibid.*, 17.

⁵⁵ *Ibid.*, 17.

⁵⁶ *Ibid.*, 27.

Maslow's⁵⁷ term self-actualised. Al-Taftazānī says that what al-Nasafī meant by the above statement is that illumination is not a general cause by which knowledge results in people, while acknowledging that illumination does impart knowledge; this is evident in the tradition of the Prophet and his companions.⁵⁸ This denotes the heart, which is related to the absorbing the divine, inspirational and compassionate aspects of life together with the rational and the legal aspect of Islam denoting the brain is the holistic aspect of Islamic life as epitomised by the Prophetic way of life.

This above articulated holistic way of life has been disrupted by the Islamic world either adopting the Western way of life or else not following the traditions of Islam which provided both rational and non-rational perspectives. Walsh captures this when he states that:

Lifestyle factors can be potent in determining both physical and mental health. In modern affluent societies the diseases exacting the greatest mortality and morbidity— such as cardiovascular disorders, obesity, diabetes, and cancer—are now strongly determined by lifestyle. Differences in just four lifestyle factors—smoking, physical activity, alcohol intake, and diet—exert a major impact on mortality, and even small differences in lifestyle can make a major difference in health status.⁵⁹

Walsh further elaborates this, when he points out that:

⁵⁷ Abraham. H. Maslow, *Religions, Values and Peak Experiences* (New Delhi: Penguin Compass, 1964), 68

⁵⁸ Ibid., 27.

⁵⁹ Roger Walsh, Life Style and Mental Health, in American Psychologist, 66 (7), 2011, 579-592.Last Retrieved 25th August 2016; https://www.apa.org/pubs/journals/releases/amp-66-7-579.pdf

More specifically, mental health professionals have underestimated the importance of unhealthy lifestyle factors in contributing to multiple psychopathologies, as well as the importance of healthy lifestyles for treating multiple psychopathologies, for fostering psychological and social well-being, and for preserving and optimizing cognitive capacities and neural functions.⁶⁰

In this light, Walsh succinctly articulates this when he says:

Mental health professionals have significantly underestimated the importance of lifestyle factors (a) as contributors to and treatments for multiple psychopathologies, (b) for fostering individual and social well-being, and (c) for preserving and optimizing cognitive function. Consequently, therapeutic lifestyle changes (TLCs) are underutilized despite considerable evidence of their effectiveness in both clinical and normal populations. TLCs are sometimes effective as either psychotherapy as or pharmacotherapy and can offer significant advantages. Important **TLCs** therapeutic include exercise, nutrition and diet, time in nature, relationships, recreation, relaxation and stress management, religious or spiritual involvement, and service to others.⁶¹

This refers to Therapeutic Life-style Changes (TLC) is what the Prophetic middle way of life (*ummatan wasatan*), which called for a modulated way in terms of eating, fostering good relationships, physical activities,

⁶⁰ Ibid..

⁶¹ Ibid..

fasting, spiritual and religious participation, service to others, charity and loving others as you love yourself.

This focus on the inward or the heart forms and important aspect in Islam and is an essential part of worship of God and this is signified by the contemplative practices of Islam including ritual prayers, remembrance of God (*dhikr*) and other related activities including night vigil (tahajud). It is interesting to note that, research carried out by Mark William's⁶² indicates that even a relatively short 8 weeks training in mindfulness based meditation has impact, where is has been found that there are changes in the brain patterns. The part of the brain called the insular in the neo-cortex, which deals with empathy and bodily experience beings to uncouple with the ventral-medial pre-frontal cortex, which is associated with developing narratives (language, stories). This leads to the activation of insular whereby, the compassion centres gets into action, which helps to over-drive the narratives or stories and brings our fully the feeling of well-being and avoids 'rumination' or the recurrence of stories which most of us seems to experience.

Work by David Krisller also indicates that part of the brain the 'amagdula', which deals with the 'fight and flight' response which is over-active in stress situation, tends to be subdued, thereby, reducing the stress response and less likely to be prone to negative feeling that normally occurs in this state. There have also been a growing number of trials conducted by Goldin,⁶³ a neuroscientist, which supports the above mentioned results cited by Mark Williams. The above mentioned works are

⁶² M. Williams, *The New Psychology of Depression*. Available: http://podcasts.ox.ac.uk/series/new-psychology-depression, 2011. Last accessed 25th Aug 2012.

⁶³ P. Goldin, Cognative Neuro-Science and Mindfulness Meditation. Available, 2011, http://www.youtube.com/watch?v=sf6Q0G1iHBI, last accessed 1st Sept, 2012.

corroborated by a number of studies⁶⁴ within the sphere of Islamic contemplative practices including prayer, meditation and fasting, which shows mental and physiological benefits.

Human beings are created with an inherent knowledge of reality and this is supported by the statement where the Lord says, "And Whenever thy Sustainer brings forth their offspring from the loins of the children of Adam, He (thus) call upon them to bear witness about themselves: "Am I not your Sustainer?" to which they answer: "Yea, indeed, we do bear witness thereto!""⁶⁵ This refers to the confession of their souls. It is further reinforced by the statement of the Lord, "Read, for thy Sustainer is the Most Bountiful One, who has taught (man) the use of the pen, taught man what he did not know!"⁶⁶

Discussion

Be it from the classical or the modern scholarship perspective, the soul within the Islamic perspective is at the centre of our being and a platform for the generation of knowledge. This is powerfully presented in the articulation of Ibn Sīnā and expounded by Imām al-Ghazālī (Table 1) and accentuates the non-rational aspect

⁶⁴ Fatimah Ibrahim, W. Abu Bakar W. Abas & N. S. Cheok, *Salat: Benefit from Science Perspective* (Kuala Lumpur: Department of Biomedical Engineering, Faculty of Engineering, University of Malaya, 2008), 11-111.

⁶⁴ Ibid., F. Ibrahim, & W. W. Ahmad, "Study of Heart Rate Changes in Different Salah Positions," (4th Kuala Lumpur International Conference on Biomedical Engineering, 2008), 687-690; H. Doufesh, T. Faisal, K. S., Lim & F. Ibrahim, "EEG spectral analysis on Muslim prayers," Applied Psychophysiology and Biofeedback 37(1) (2012): 11-18; B. Aldahadha, "The Effects of Muslim Praying Meditation and Transcendental Meditation Programs on Mindfulness among the University of Nizwa Students," College Student Journal 47(4) (2013): 668-676.

⁶⁵ Sūrah al-A`raf, 7:172.

⁶⁶ Sūrah al-`Alaq, 96:3.

of knowledge, while the rational aspect is embedded within the Islamic theological framework with its discursive debates, varying view points and schools of thoughts and legislations.

From an overall knowledge perspective, al-Attas⁶⁷ states that it is necessary to distinguish that within the Islamic framework, its worldview is not conceptualised as being generated by the sense and the intellect, as in the Western sciences, but is rooted within our current material existence – the *dunyā* – and also to what is beyond – the $\bar{a}khirah$ – or the world beyond, to which the soul travels when material existence ceases. Thus, he says it is rooted within the continuum of *dunyā-ākhirah*, where what you do in this world affects your abode in the next. In this context, this perspective differs from that of the Sophist, who sees the development of knowledge as a human construct, where one comes to believe that what one thinks or believes it to be so (human constructs), with no divine writ or implication for the next life.

We see that the development of knowledge and its transmission along these lines is embedded within the Qur'an and the way of life and teachings of the Prophet, as seen by the multiple number of Qura'nic verses and the teachings of the Prophet. This has led to the shaping of the worldview and complexion of the Muslim civilisation, as asserted by Rosenthal⁶⁸.

`*Ilm* or knowledge within the Islamic context, includes primarily being able to discern things that Imām Muḥāsibī defines as 'instinct' (*gharīzah*), as distinct from gathering information and facts, and what arises out of experience (empirical). Reflecting (*tafakkur*) on things and learning from it, as well as transmitting it to others, is a core teaching of the Prophet. This constitutes a form of

⁶⁷ Syed Muhammad Naquib al-Attas, *Prolegomena to the Metaphysics* of *Islam* (Kuala Lumpur: ISTAC, 2001), 1-3

⁶⁸ Franz Rosenthal, *Knowledge Triumphant*, 32.

introspection or 'the capacity to inspect the, metaphorically speaking, "inside" of one's mind, ^{'69} where one is able to ascertain the mental state that one is in. As compared to perception, introspection seems to be less error prone, given the limitations of the perspective faculties⁷⁰.

The mission of the Prophet SAW is highlighted as an analogy, where God says the Prophet "calls you to that which will give you life" where the rain that falls on fertile ground results in growth, while rain on barren ground does not, meaning that some people are able to comprehend it, while others, even though they may be given knowledge, cannot do so.

The Prophetic *hadīth* indicates that there is no discrimination with regards to knowledge, it is a priority for both men and women, given that it is a holistic concept in Islam. Knowledge instructs every facet of life in our waking consciousness and is a part of our sleeping consciousness, even dreams, which were interpreted by the Prophet and have become a part of the Islamic tradition.

In this light, knowledge in all its forms is a vehicle to develop ourselves and our souls, where we become integrated and grounded in this world and are prepared for the next life. The potential for humans to self-actualise, says Maslow, and move on to have heightened awareness and 'unitive consciousness', which is a part of the 'peak experiences', where the scared is glimpsed 'in and through the particular instance of the momentary, the secular, the worldly.⁷¹

Knowledge is well grounded in the context of the Qur'an; it occurs many hundreds of times, more than most

⁶⁹ Epistemology, *Stanford Encyclopedia of Philosophy*, 2005, http:plato.standford.edu/entries/epistemology, 22.

⁷⁰ Ibid., 22.

⁷¹ Abraham H. Maslow, *Religions, Values and Peak Experiences*, 68.

concepts, as Rosenthal highlights. `*Ilm* as presented in the Qur'an has gradation, highlighting the people who know (*ya'lamūn*), who understand (*yafqahūn*) and who believe (*yu'minūn*). It often pairs belief with knowing. This without any doubt encapsulates the prime importance of knowledge within Islam; it is incumbent upon all Muslims to gain knowledge; it is seen as a holistic concept, including not only facts but the ability to discern, reflect and develop it.

In this sense, it differs from the Western concept, which bifurcates knowledge and wisdom, and roots it within the material abode of existence. This is especially true of the more secular or modern context, which is shaped by the Western 'enlightenment' era, which laid the ground for it from what is called the scientific revolution based on objectivity. This is now being critiqued by the post-modernist, a reaction to the so-called 'enlightenment era' given the limitations of science and technology⁷². Islam on the other hand sees it in a more holistic sense, where religion and science, as articulated by Imām al-Ghazālī, as well as the sacred and the profane, co-exist without this bifurcation. All this differs too from the post-modernistic perspective.

Another distinction between the Islamic concept of knowledge and the Western scientific based and secular traditions is that, in the former there is rational as well as non-rational or those that have arrived either through direct revelation from God to the Prophets, known as wahy – evidentiary miracle. The other non-rational mode is through intuition or direct perception without any rational process per se, as if 'it was cast into the heart', as Imām al-Ghazālī says. The latter is also known as 'illumination', which the orthodoxy does not necessarily

⁷² Post-Modernism, *Encyclopedia Britannica*, 2013, 1; http: britannica.com?EBchecked/topic/1077292/postmodernism/282559/P ostmodernism-and-relativism, last accessed December 2013.

consider but is cited as being a part of the reality of the Prophet and his Companions. This type of knowledge, according to those who believe in 'inward reality', is much more grounded since it comes directly from the heart, and without any filters that occur in sense perceptions and their inherent limitations.

The Islamic framework with its breath and depth of knowledge and universal call for monotheism as well as for social justice; the latter being the bedrock for cultivating equality, compassion and tolerance. This emanates from both the rational-self characterised by the brain, and the non-rational signified by the belief and absorptions in God, services and compassion to others as well as the connection with oneself through a process of introspective or self-discovery. As cited in the text, the emerging neuro-science data indicates mental health benefits from getting into the non-rational mode of contemplation and meditation. This study postulated that both the cultivation of the rational and the non-rational is essential to the developing a balanced human being, which as evident in the main body of the text is embedded within the framework of Islam.

It has been noted that the modern affluent life style, which was primarily Western but now is very much a par of the Eastern way of life too have negatively impacted both physical and mental well-being. This kind of life style has increase external dependencies with high intakes of alcohol, smoking, psychotropic drugs, excessive eating, as well as increase in levels of depression, anxiety and other mental related illnesses. The Therapeutic Life-style Changes (TLC) that Walsh discusses is most akin to the life of the Prophet - the middle-way of Islam, if one adorns these religious, spiritual and inter-relationship practices and falls within the domain of the rational understanding and the non-rational contemplative practices.

What this alludes to here is that, while the rational domain of knowledge is important to think and conduct one's life, the non-rational relating to contemplation and worship is essential to lead a mindful and peaceful life. This latter type of knowledge is said to lead to greater levels of intuition as Imām al-Ghazālī's numerous works indicates, and different states and stations, that is, different levels of consciousness as the works of Imām Muḥāsibī indicates. Dream states, which is not a part of the rational process, was a part of parcel of the Islamic tradition and was given weightage in terms of its interpretation and application to one's life, where Abū Bakr al-Ṣiddīq (ra) was one of the leading personalities in this subject.

The pursuit of rational-non-rational is what the authors point out to as the brain-heart interconnection, where the focus and methods are different is the quintessential aspects of the spiritual Islamic narrative, which has significant human benefits. Even in the Muslim world, the general trend to be the focus on the outer aspects of Islam including the rituals and incessant debates about which ideological position is right or wrong. The focus on the inner dimensions of Islam of striving to improve oneself through contemplative practices, tolerant behavior seems to be weaning. This is exacerbated by the modern life-style of long hours of work, entertainment, pre-occupation with social life. The result of this both in the West and the East is as Walsh puts it, an increase in multiple psycho-pathologies with affects both mental and physical well-being.

The Islamic vision of reality is based on the divine framework, which does not change in space and time and does not separate the sacred and the profane; rather it is integrated as one entity, which is different from the Western conception of things.⁷³

⁷³ Syed Muhammad Naquib al-Attas, *Prolegomena to the Metaphysics* of Islam, 1-3.

Conclusion

Within a classical Islamic perspective, knowledge has been well grounded, given that it is embedded within the Qur'an and the Prophetic tradition. This has provided the concepts, tools and methods (as well as the impetus for growth and development) that have shaped and given a distinct feature to Islamic civilisation, which reached great heights with its significant contributions to multiple fields or branches of knowledge.

The soul is seen as the centre from which the various forms of knowledge are generated. The transmission of knowledge takes multiple forms, arising from the sensory and the rational faculties including practical and theoretical knowledge, as well as those that are considered non-rational, as manifested through divine revelation and direction perception or illumination. In this light, this has been different as well as more holistic than the Western scientific and secular perspective, which has not factored in non-rational type of knowledge. the The comprehensive teaching and learning of the diverse knowledge both non-rational signified by the heart, and rational denoted by the brain is a treatment for the soul and a mercy to humankind.

This is the hallmark of Islam, which is, however not a part of the mainstream narrative and that which needs to be included as a part of our spiritual discourse. It is evident that the combination of the rational thinking, and the non-rational practices and experiences culminates in what Walsh calls the Therapeutic Life-Style Changes (TLC), has profound effects on the mental and the physical well-being. This evidence based scientific finds including those of William and others point out to following the traditional practices firmly embedded within the Islamic framework.

Further research is needed in order to gain better understanding and frame this brain-heart interconnection,

which has both theological, as well as neurological aspects, as the emerging neuroscience data indicates. This understanding and shift in focus and its subsequent consciousness would foster the development of a more harmonious life and its ensuing life-style.

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