KNOWLEDGE AND TRUTH AS CORE-VALUES IN SCIENCE AND RELIGION

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Introduction

As the topic *Knowledge and Truth As Core-Values in Science and Religion* implies it covers, the whole area of philosophy, namely ontology, epistemology, and axiology.

The second clarification is that *Values Education* demanded aspects of philosophy which are related to implementation and operationalization, which has become the main concern of this paper. Without going into details on why and what are knowledge and truth as prescribed in all philosophical investigations, I would focuss on how these ideas about knowledge and truth are implemented in educational settings. Let us, then, proceed to treat the topic by combining both *knowledge* and *truth* in one section and *science* and *religion* on the other, since both are interrelated. In other words, treating knowledge will lead us to treat truth so as talking about science will lead to talking about religion and vice versa.

Knowledge and Truth

Early Muslim philosphers,[1] such as Ibn Sina, al-Ghazali, etc, viewed that knowledge and truth are two sides of the same thing or two faces of the same coin. In other words, if one were to speak about *truth* or [2] *reality* one has to investigate of how to *know* what reality is. Al-Ghazali,[3] for example, viewed that *knowledge* is the way leading towards reality. In other words, for a person to be able to reach *reality* or *truth* he has to have knowledge about that reality.

Before we proceed further to explain what knowledge is, it is necessary that we differenciate among various *terms* used concerning knowledge (Arabic:*ʿilm*). Ilm,[4] in Arabic, is drived from the verb *ʿalima* meaning to know. Knowledge (*ʿilm*), therefore, is the abstract noun (*masdar*), and if extended further it becomes *ʿalim*, or the knower or the subject, whereas the object of knowledge (*ʿilm*) is called *maʿlum* (the known). In the process of the development of knowledge (*ʿilm*), 'ilm was used to mean three things :i.e. as an abstract noun (*masdar*) or the process of the acquisition of knowledge ('ilm) and

as an object or product of knowledge (*'ilm*) (*ma'lum*). We use the word *'ilm* (knowledge) to mean both aspects: as a process and as a product.

Another usage of the term *'ilm*, at least in Islamic philosophy, is that it is one of 99 attributes of God.[5] So God is the best to know or the knower (*al-'Alim*), just as He is the Merciful (*al-Rahman*), the Compassionate (*al-Rahim*), the Holy (*al-Quddus*), the Living (*al-Hayy*), the Life Giver (*al-Muhyi*), the Death Giver (*al-Mumit*), the Powerful (*al-Qawiyy*), the Creator (*al-Khaliq*) and so forth. Ibadah or worship as the purpose of life means, among other things, the development and the exercise of these qualities in man in accordance with God's commandments and guidance. For example, God is the Knower (*al-'Alim*), but He commands that man should extend the frontiers of his knowledge and pray to Him for help as follows:

> *"My Lord! Increase my Knowledge"*
> *(Q.20:114).*

In the following we will describe how these three usages of *'ilm* (knowledge) are used in Islamic philosophy in its relation to *truth* or reality.

a. Knowledge as a Process

As we mentioned earlier that philosophers were really searching for *truth*, but they are not able to reach that truth without *knowing* first what and where it is. Here *perception* came forward because it is the only direct means leading to that truth. Nevertheless, this direct and easily obtained knowledge shows its falsehood by observing it thoroughly. Because it seems that perceptual knowledge was easily influenced by imagination and illusion. Al-Ghazali (d.1111 A.D), while discussing about perceptual illusion, gave examples that our eyes see the sun very small, and the stars in the sky look like small coins spread on blue carpet, whereas our mind told us that the sun is far bigger than the earth, and the stars are far bigger that what we see with our eyes. In fact,[6] in his later book, *al Munqiz min al-Dalal*,[7] he added that perceptual illusion caused him to doubt all human knowledges. Therefore, al-Ghazali said, all perceptual knowledges are doubtful, and they are not real-knowledge.

Intellectual knowledge, said al-Ghazali, is far wider in scope than perceptual knowledge to achieve reality, that is because it is very much influenced by imagination and fancy. These are some of al-Ghazali's ideas on knowledge as a process where perception and intellect are the main instruments to reach reality or truth.

There is, however, the third instrument other than the two, perception and intellect, mentioned above, that is the direct knowledge, usually acquired by

prophets, messengers, and saints which goes through the hearts without the medium of perception and intellect, as mentioned in al-Quran:

"And whom We had taught Knowledge from Our own Presence."
(Q.18:65)

which is, in Arabic, called *'ilm ladunni* meaning knowledge bestowed from God's own presence.[8]

Al-Ghazali recognized that this way is not the easy way. It needs prerequisites and practices. First of which is the purification of the soul (*tazkiyah al-Nafs*).

Now, let us see the other aspect of knowledge which was mentioned earlier, that is knowledge as a product in the following paragraphs.

b. Knowledge as a Product

What we mean as knowledge as a product here is what in Arabic is called *Ma'lum*, meaning *what* or the thing *known*. If we considered three things related to each other, that is the *one who knows* (*'alim*), *the process of knowing* (*'ilm*) and the *one which is known* (*Ma'lum*), what we mean by knowledge as a products of their civilization which are different from that of the Persians, and so forth. These differences exist as a result of their visions of *reality* in terms of whether they are important, less important, or necessary to know or understand.

Aristotles,[9] for example, classified knowledges into two big categories, namely *theoretical* knowledges which includes natural, mathematical and metaphysical knowledges or sciences, and practical knowledges which include ethics, household management, and city management or politics. Following Aristotles, al-Kindi also made the same classification with some modification and adjustment. Ibn Sina made the same with some modification according to his own vision. Ibn Khaldun, being late comer and learning from the insights of his predecessors, had made quite distinct classification away from the influence of the Greek. He classified knowledges into *naqli* (transmitted or revealed) knowledges, and *aqli* (rational or acquired) knowledges. Al-Attas (1978) classified knowledges into *fard 'ayn* knowledge, whose parts have been integrated to form the *core* knowledge for individuals in Islamic education, and *fard kifayah* knowledge whose part had been deployed according to priorities of service to self, state and society in the Muslim community. This classification of al-Attas was formally adopted by the First World Conference on Muslim Education in Makkah, 1977 after some deliberation and with some modification and elaboration.

As an implementation of above mentioned classification of knowledge adopted by the First World Conference on Muslim Education, the Second

World Conference on Muslim Education held in Islamabad in 1980 expanded the above mentioned classification and elaborated them to be included in primary, secondary and tertiary curricula. The classification of knowledge is the main concern of this conference. Preamble of the recommendation of the Second World Conference on Muslim Education held in Islamabad, 1980 reads as follows[10]:

PREAMBLE

In order to frame a curriculum two questions have to be answered: What should be taught? What can be learnt? In answering the first question we have to state the aims and goals of the curriculum and this can be done only when we state the aims and goals of education. The second question can be answered only by referring to the growth of the mental abilities of children including the deepening and widening of their range of sense experience and emotive realization, refining and sharpening of their power to analyze, synthesize, generalize and rationalize and above all, the strengthening of their spiritual power to intuit and realise truth and be deeper and truer in faith.

As the aims of education have been clearly stated in "Recommenations" of the First World Conference and further analysed and stated in two books on Islamic education published by King Abdulaziz University thesis in Muslim Education by S.S. Husain and S.A. Ashraf and Aims and objectives of Islamic Education edited by S.N. Al-Attas, this Second World Conference hereby reiterates them as follows.

> Education should aim at the balanced growth of the total personality of Man through the training of Man's spirit, intellect, the rational self, feeling and bodily sense. Education should therefore cater for the growth of man in all its aspects, spiritual, intellectual, imaginative, physical, scientific, linguistic, both individually and collectively and motivate all these aspects towards goodness and attainment of perfection of complete submission to Allah on the level of individual, the community and humanity at large.

The curriculum designer has to keep the above aims in view and organize all available knowledge in such a manner that a pious, righteous man is produced who is ready to say "O My Lord, my prayers, my sacrifice, my life and my death are for Allah, the Lord of the Worlds Who hath no peer."

All available knowledge was also re-classified on the basis of the source, Divine and Intellectual, and named accordingly "Perennial" and "Acquired" in the following words:

> Planning of education to be based on the classification of knowledge into two categories (a) "Perennial knowledge derived from the Quran and the Sunnah meaning all Sharia-oriented knowledge susceptible to quantitative growth and multiplication, limited variations and close cultural borrowings as long as consistency with the Sharia as the source of value is maintained.
>
> The means of receiving the former is "Divine Revelation" contained in the Quran and the Hadiths and the means of acquiring the second is man's imagination and his sense-experience. The curriculum has to be so designed that man may reach beyond sense-experience and think conceptually and instead of getting confined to sense and the external world become able to proceed beyond them into the region of Higher Truth and come closer to Allah.
>
> This classification is both logical and psychological because the former is given knowledge based on "faith" and the latter is "acquired" by human faculties but enlightened by faith.

Looking at the above quotation from the recommendation of the Second World Conference on Muslim Education, we come to the conclusion that as we mentioned earlier concerning the views of early Muslim scholars, the purpose of knowledge in Islam is to proceed beyond perceptual and external world into the region of *Higher Truth* and become closer to Allah.

Some parts of the recommendation of the Second World Conference on Muslim Education in Islamabad also mentioned very clearly about the relative position of knowledge toward the truth when it mentioned that: "in view of the fact that though all knowledge belongs to Allah and is granted by Him to mankind, some knowledge is revealed to man through His chosen people, the Prophets, and some are granted to man when he strives with his mind and soul and the former therefore has the status of absolute truth and the latter of tentative truth always to be judged with reference to the former" (p. 208).[11]

This discussion on knowledge and its relationship with truth, absolute or relative, leads us to a further investigation on the relationship of science and religion, at least in Islamic sense and the relationship of both with educational process. So let us proceed with this issue.

Science and Religion

Science as the totality of human knowledge regarding natural phenomena is an old as the ancient people of China, Mesopotamia, Egypt, India, and Greece. We may take it as axiomatic that certain philosophical tendencies underlie every scientific endeavour and that, as such, certain philosophical tendencies are

implicit in the science of the ancient people. However, as an organized body of systematic knowledge based quite consciously on certain principles, science is a recent phenomenon. Consequently, philosophy of science as we have it today as dinstinct branch of philosophical enquiry may be said to have arisen in the last century or the 19th century A.D. as a result, on the other hand, of endeavours to make manifest the principles underlying the practice of science, and on the other hand, of endeavours to reject the materialism of modern science.

From the point of view of philosophy of science, the architectonies of science may be regarded as built up of concepts, laws and theories - using these terms in the sense that theories explain the laws, and laws explain and interrelate the concepts. Now, the concepts that are used in any science may be divided into three categories:

1. concepts that embody observed properties of perceptible objects, such as weight;
2. concepts that embody unobserved properties of perceptible objects which, though unobervable, can be directly measured or are otherwise related to observable phenomena, such as mass; and
3. concepts that embody unobserved properties of theoretical entities, such as charge and mass of electrons or protons. The first two categories present no difficulties to materialistic philosopher's of science, but last category of concepts presents an enormous difficulties. The principle of God-head had been schemed for the reason that the Attributes of God presented us with concepts that embody unobserved properties of an unobserved object: and now the third category of scientific concepts was precisely of this same character. A group of philosophers, therefore, have denied the third category of concepts and have endeavoured to reduce such concepts to the former categories. Extreme reductionist philosphers have attempted to reduce all scientific concepts to the first category, while other reducationist philosophers have accepted the second category and have been satisfied with the possibility of reducing the unobservable properties to properties that can be observed or directly related to observable properties. However, most such attempts have ended in failure and non-empirical concepts today are being used in science which are epistemologically at par with concepts used in religion.

From the above-mentioned discussion about the nature of science and its relation to religion we could conclude that scientific knowledge is largely inferred to and constructed by the mind and, therefore, subjective to a great extent. The edifice of science stands upon certain laws and values which are based not upon reason but upon faith or intuition and is, therefore, subjective. Science has, therefore, no right to castigate religion on grounds of subjectively. If the laws like *causation* and *induction* and the values of science are taken to be

merely subjective having no objective reference, then the arguments of scientists against religion will have no objective validity.

Let us now see whether the accusation made by some scientists that God had no relevance with relevance with respect to nature. Not that God does not exist, proclaimed persistantly by Nietzsche, but that "God is dead". This spectacular spread of skepticism is partly due to the success of science which is seen as the continuing victory of the empirical, over religious, mind. The latter is defined as that which adheres to notions taught by the Church. In the opinion of the empiricists, the Church had lost its magisterium, or authority to teach the truth, a long time ago. The Western World, and all those who emulate it, are still intoxicated by that easy victory of the scientific mind over the Christian church. Under its transport, they jump to the false hood and double generalization that whereas all religious knowledge is necessarily dogmatic, all ways to the truth must be empirical, finding their ultimate confirmation only in the given sense, as presented by the controlled experiment. Anything not so confirmed is doubtful; and, if it is thus unconfirmable, is necessarily false.[12]

In the 19th century, at the apogee of this intoxication induced by the victories of science, Schleiermacher, a German theologian, advised his fellow Christians in reply to the despisers of religion to base the Christian truth not on fact, or critically observable reality, but on subjective experience. The revolution of romanticism had apparently completed its domination of European consciousness. Even God, in the romantic view, is to depend for His reality upon the feeling of the experiencing subject of faith.

Iman in Islam never to be equated to faith or belief in Christian sense. Because these two words in English carry within them an implication of untruth, of probability, of doubt and suspicion. On the other hand, *iman* in Islam, deriving from *amn* or security, means that the proposition it covers are in fact true, and that their truth has been approapriated (i.e., understood and accepted) by the mind. As al-Faruqi put it: "Iman is hence "conviction", absolutely free of doubt of probability, of guessing and uncertainty. It is not an act, not a decision, not a resolution to accept, or put one's trust in, that which is known to be true, a wager to place one's fortune in this rather than that basket. It is of the nature of a geometrical conclusion which, given the anteceding premises, one recognises its truth and inevitability; or as the Quran has put it, an object whose existence is doubted, is produced and placed before spectators for all to see and touch." (p. 48).[13] That is why Allah (SWT) described the truth of Islam in these terms; "(With this revelation) the truth has become manifest; falsehood is confuted, just as it should be.... Wisdom is now manifestly shown; error is something else" (Q. 17:81).

As a conclusion, it should be said that *iman* is not merely an ethical category, it is firstly a cognitive category; that is to say it has to do with knowledge, with the truthfulness of its propositions. As al-Ghazali put is that *iman* is a vision which puts all other data and facts in the perspective which is proper to, and requisite for, a true understanding of them.[14]

The findings of modern science not only admit the possibility of there being a spiritual meaning and significance of the world, but they strongly favour the religious view of the universe. Modern science has, indeed, made atheism impossible, to use the words of the great scientists - philosopher A.N. Whitehead and Le Comte Du Nouy.

Now, let us see how these values, knowledge and truth in science and religion, be inculcated from generation to generation to safeguard the continuity of the cherished goals of our civilization, that is to create a harmoniuos and balanced pattern of growth and development of man individually as well as collectively, in order to be able to assume his function as a vicegerent of Allah on earth. Let us translate these ideas and concepts into a workable plans and programmes relevant to the needs, of the present day education.

Values and Education

Aims in education perform three important functions all of which are normative in nature. In the first place, they give direction to the education process. For the second place, aims not only should give direction to education but should motivate it as well. Aims are values, and if they are valued, if they are wanted, they should induce the learner to release the energies necessary to accomplish them. And finally, aims have the function of providing a criterion for evaluating the educational process.

Values, such as knowledge and truth as well as other values which are very strongly emphasized in the formulation of educational planning and curriculum in Islamic sense. For, apprehension of values requires the acknowledgment that man may reach the truth of values. Whether, what is claimed to be a value is indeed so, whether is realized or violated in a given instance, and whether the given instance is in fact what is described to be, are questions without which no valuational claim could be ascertained. Unless one begins, therefore, with an assumption contrary to skepticism, namely, that the truth may be reached regarding these matters, nihilism becomes inevitable.

These values, such as knowledge, truth, service to God as the purpose of man being created, and so forth are values which should be attached, and had been attached to the roles of *ulama'* and teachers, as described in the history of Islamic Education in its golden ages, especially during the era of the Prophet

(P.B.U.H.) and his Companions. Because teachers, and for that matter ulama and leaders, consciously or unconsciously influence the values of their pupils and followers through the use of a wide repetoire of strategies, most of which fall within the domain of the "hidden curriculum". Just as every teacher, whatever he teaches, is a teacher of language, so is every teacher a teacher of values. When a teacher praises a pupil, he is rewarding a particular behaviour or action. When a teacher punishes a child, he is punishing a specific behaviour. Even when a teacher ignores a child, the child may construe this as a subtle expression of disapproval.

From psychological point of view the teaching, as one way of operationalizing education, or inculcating values to children or better still to the young generation could be implemented through, first of all, compliance, then identification and the last through internalization.

In the stage of compliance an individual is urged to get reward and get rid of punishment, that is compliance occured only so long as the promises to get reward and avoid punishment are still maintained. While in the stage of identification, which literally means to imitate with pride someone's behaviour, because the person who identified wanted to be at par with the person being identified. The reward, in terms of satisfaction as a result of identification, plays an important role. In the stage of internalization of values, sincerety and punctuality for example, though, initially it started with individual but later on became idealized. In other word, the value is self-rewarding, namely, the values itself became a stimulus, and the person responded to it feels satisfied. In other word, values became stimuli and reward at the same time.

Prophet (P.B.U.H) gave a very clear example of these three stages of inculcation of values concerning prayer by saying:

مروا أولادكم بالصلاة على سبع واضربوهم على عشر

Order your children to pray while they are seven years old, and beat or punish them when they reach ten years old.

This is an indication to compliance because children were ordered to pray and they were rewarded or punished accordingly.

In the second stage Prophet (P.B.U.H.) said:

صلوا كما رايتمونى اصلى

Pray as you have watched me pray.

This is an indication of identification, because model of prayer, who is the Prophet (P.B.U.H.) himself, who became the object of pride and satisfaction for the identifyer.

In the last stage of inculcating values, the values itself became the stimulus and reward at the same time, as Prophet (P.B.U.H.) said when he described his felicity and happiness during prayer:

وقرة عينى فى الصلاة

I feel satisfied, and felicitious in my prayer.

These are a few of the practices made by Prophet (P.B.U.H.) in the process of inculcation of values taken from tradition. This is just the general idea, and much had to be implied and taken from the history of Islamic education and translated into the present day education in the Muslim Ummah.

Conclusion

This paper is concerned with the inculcation of knowledge and truth as core-values in science and religion.

In Islamic perspective, knowledge and truth are two of the 99 attributes of God Who is One. Tawhid or unization of God is the essence of Islam. Tawhid is the recognition that the truth is indeed knowable, that man is capable of reaching it. Although all knowledge belongs to Allah and is granted by him to mankind, some knowledge is revealed to man through His chosen people, the Prophets, and some are granted to man when he strives with his mind and soul and the former, therefore, has the status of absolute truth and the latter of tentative truth always to be judged with reference to the former.

Unlike cognitive and psychomotor education, values education has a distinct way of inculcating its contents to the consumers.

One of the prequisites of the inculcation of values is the existence of *model* which embodies the values in question, Values such as sincerity, knowledge, truth and so forth should be attached to a specific person or individual who inculcates the values gradually through compliance, indentification and internalization.

NOTES

1. Al-Kindi was the first Muslim philosopher to be known in the history of Islamic philosophy followed by al-Farabi, and Ibn Sina. They are called philosphers because they attempted to accommodate Greek Ideas and Philosophy into Islamic world view. Philosophical thinking among earlier Muslim thinkers began much earlier than al-Kindi, especially among the theologians, Mutakkalimun, such as al-Muktazilah, al-Asha'riyah, and so forth.
2. Truth or *haqiqah* is defined by the theologians as : "*al-haqiqah ma bihi al-Shay Huwa Huwa*" meaning : "reality is that by which a thing is what is". See al-Attas, S.M.N. *Commentory on the Hujjat al-Siddi of Nur al-Din al-Raniri,* Kuala Lumpur : Ministry of Culture, Malaysia, 1986 p. 88.
3. See Hasan Langgulung, *Manusia dan Pendidikan*, Jakarta : Pustaka al-Husna, 1986, p. 131.
4. *'Ilm* in Arabic is used as a systematic kind of knowledge which is what we call now *science* whereas *ma'rifah* is used as knowledge in general.
5. See al-Ghazali, *al-Maqsad al-Asna fi Sharh Ma'ni asma' Allah al-Husna*, Beirut : Dar al-Mashriq, 1971.
6. Al-Ghazali described his religious experiences where he found out that only through Sufi experience (tariqah sufiah) that truth could be obtained.
7. Translated into English with the title : "Confession".
8. It is mentioned in the Quran (Q. 18 : 65), and described how the Messenger of Allah Khidhr (A.S.) was bestowed knowledge from God's own presence.
9. Aristotles is called by the Arab philosphers as the First Teacher, whereas al-Farabi is called the Second Teacher, and Ibn Rushd is called the Greatest commentator of Aristotelian philosophy. This shows how great the impact left by Aristotelian philosophy among early Muslim philosophers. Al-Ghazali is the first among Muslim philosophers who denounced many concepts in Greek philosophy in his well-known book "*Tahafut al-Falasifah*".
10. See Hasan Langgulung, *op. cit.* p.p. 206-219.
11. *Ibid*, op. cit. p. 208.
12. See al-Faruqi, I.R. Tawhid : *Its Implications for Thought and Life,* Washington D.C. IITT, 1982.
13. *Ibid*, p. 46. The contrast of Islamic Iman is strongest with the faith of Pascal who argued for faith as a wager which one places on an outcome which is by definition unknowable. Whereas in Pascal's thinking, man can never be demonstrably convinced of God's existence, of His commandments and final judgements, Islam has taken up the challenge to give such demonstration. Every form of argument was hence used by Muslims to bring about such rational convictions. The arguments from creation and change, from design and purpose, and from the moral consciousness received their best formulation in the Quran.
14. Al-Ghazali in his *al-Munqiz min al Dalal*, Damascus : University Press, 1956. Here al-Ghazali says that iman does not deny, contradict or go against the evidence of reason but confirms it. "I sought a cure for my doubt, but it was impossible except with rational evidence. However, no evidence stood unless it was based upon the primary sciences (metaphysics). And since the bases of these sciences were not secure, their conclusions and anything built upon them were equally insecure .... But later (i.e. under, or *within*) ..... all the rational foundations (of science and metaphysics) became secure, rationally sound and acceptable, fully supported by their foundations in knowledge". (p. 62).