Reviving *Kalâm Jadid* in the Modern Age: The Perpetual Relevance of al-Ghazāli and Fakhr al-Dīn al-Rāzī*

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Abstract:
The new *kalâm* (*kalâm jadid* or new dialectics) intellectual movement started by al-Ghazāli and matured by Fakhr al-Dīn al-Rāzī succeeded in putting all the hellenising philosophical and natural sciences within the theological and epistemological ambit of tradition. This historical success provides pertinent lessons for Muslim scholars and intellectuals today to formulate what can be called a *kalâm al-‘asr*, or the Dialectics of the Age, in order to bring tradition to engage creatively and evaluatively with the challenge and allure of contemporary westernising sciences.

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Even as a discourse on religion, kalâm obviously inclined, right from the start, to use forms of arguments some of which were clearly employed by ancient (and modern) philosophers; and it is of course important to identify these forms, their sources and characteristics.

– A. I. Sabra

Preamble

In Knowledge Triumphant, Franz Rosenthal observes that the Islamic civilisation is one that is essentially characterised by knowledge (‘ilm), “for ‘ilm is one of those concepts that have dominated Islam and given Muslim civilization its distinctive shape and complexion.” This should not be surprising since the divine revelation itself repeatedly emphasises that its signs or verses are only understandable “for a people who think,” (li qawmin ya’qilūna) and exhorts believers, nay, even non-believers, to look to the cosmic horizons (al-âfâq) and into their very selves (al-anfûs) for empirical/experiential evidences/indications/âyât demonstrating the revealed truth (al-haqq). For many scholars, Muslims and non-Muslims alike, the seeds of rational/cognitive thinking were already in early Islam, in the Qur’ânic revelation itself, or as Nuh Ha Mim Keller puts

5. Fussilat (41): 53.
6. For instance, Hans Daiber in his unpublished series of lectures entitled “Islamic Philosophy: Innovation and Mediation between Greek and
From the very beginning, Muslims have taken a rational (or rather, intellectual and cognitive, ʿaqlī) and scientific (ʿilmī) approach to matters in both the religious (including, spiritual) and mundane domains (ʿumūr al-dīn wa al-dunyā). Simply put, there was never in Islamic intellectual history, Averroes notwithstanding, the peculiarly medieval Christian and early modern problem of reconciling between reason and revelation as if the two were somehow mutually exclusive avenues to truth and knowledge that have to be brought together in some form of uneasy compromise and co-existence. As far as Muslims are concerned, revelation and reason are in mutual harmony as complementary avenues to objective knowledge that springs from the Islamic point of view, believing is not separate or distinct from knowing, hence awwal al-din maʿrifat Allāh (the beginning of religion is the knowing of God), i.e., to “believe” in God is to “know” God.

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9. Etienne Gilson, Reason and Revelation in the Middle Ages (New York: Charles Scribner’s, 1966). It seems to me that, despite himself, Gilson (pp. 81ff.) is subscribing to a kind of Thomistic “two-fold” truth, viz., the truth of Revelation which can only be “believed” rather than “known,” and the truth of “natural reason,” which can only be “known” and hence not “believed,” and to him the two truths should not be mixed up or fused or integrated into a single Truth, for such integration is not possible, and that lack of integration is to him harmony! From the Islamic point of view, believing is not separate or distinct from knowing, hence awwal al-din maʿrifat Allāh (the beginning of religion is the knowing of God), i.e., to “believe” in God is to “know” God.
ultimately from the same transcendent source, as is quite evident in al-Nasafi’s important epistemological preamble to his creed.\textsuperscript{10} For them, to whom belief (\textit{īmān}) must be grounded in knowledge (\textit{‘ilm}), the problem is merely that of specifying the precise relation between the two, which is that reason finds its role and proper place (and hence its cognitive limits) within the enveloping context of experience, including the “trans-empirical” religious or spiritual experience of divine revelation, or Transcendence.\textsuperscript{11} Such was the position taken by the \textit{mutakallimin} and the \textit{falāṣifah}, both of whom “did not distinguish theology from philosophy,”\textsuperscript{12} and neither did they distinguish it from physics or mathematics or medicine for that matter.\textsuperscript{13} Hence, al-Attas makes clear that:

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Islamic science and philosophy (i.e. *hikmah* as contrasted with *falsafah*) have always found coherent expression within a basic metaphysical structure formulated according to the tradition of Sufism and founded upon the authority of revelation, Tradition, sound reason, experience and intuition.¹⁴

Their underlying conceptual point of departure is that true belief cannot be simply “willed,”¹⁵ for it has objective cognitive content that must be known or understood in order to be properly affirmed. Moreover, that content can be demonstratable in various ways, thus, communicated, shared, debated and rationalised.¹⁶ In short, it was clearly understood and accepted that belief or faith is not something you can simply shove down people’s throats or wishy-washily wished into being out of thin air. As Keller puts it:

Indeed, Islam is a sapiential religion, in which salvation itself rests not on vicarious atonement as in Christianity, or on ethnic origin as in Judaism, but on *personal knowledge*. Whoever *knows* that there is no god but God and that Muhammad is the Messenger of God is by that very fact saved.¹⁷

**The Islamic scientific endeavour**

The scientific endeavour (in the sense of systematic intellectual inquiry) in Islam began with the textual standardisation of the

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¹⁵ As William James would have it in his essay “The Will to Believe,” in *William James, The Will to Believe and other Essays in Popular Philosophy* (New York: Dover, 1956).

¹⁶ Thus, for instance, the position of Ibn al-Nafis; see Nahyan Fancy, “The Virtuous Son of the Rational: A Traditionalist’s Response to the *Fālāsifa*,” in Langermann, *Avicenna and His Legacy*, 219–248.

Qur′ān, and with the systematic transmission, collection and authentication of the Sunnah. These budding endeavours in systematic intellectual work soon inspired the cultivation of sophisticated linguistic sciences (etymology, phonology, morphology, syntax, semantics, lexicography, prosody, metrics, rhetoric and tajwid = art of Qur′ānic recitation) which emphasised the precise relations between words and their meanings. On these elaborate linguistic foundations, the science of jurisprudence (fiqh) was rigorously developed with its own internal analogical principles (qiyās) or “comparative-deductive” method of juristic inference which facilitated the creative application of the normative injunctions of the Qur′ān and Sunnah to the particular local and temporal contexts of diverse Muslim communities. This cultivation of linguistic definition and rational argumentation in the context of religious, intellectual (viz., the translation movement) and political discourse (viz., administrative imperatives of government) prepared the minds of Muslim scholars for their eventual creative engagement with the attractions and


21. Roshdi Rashed once said, “If the writings of these two [principal] civilizations [Hellenistic and Persian] and the information they had acquired were to be understood and, therefore, expressed in Arabic, the first task was to translate them and, consequently, to make Arabic, which was a language of the desert, a language of science.” See his public lecture organised by UNESCO, “Islam and the flowering of the exact sciences,” in Islam, philosophy and science (Paris: UNESCO Press, 1981), 133–67 (on p. 133).
challenges of the rich intellectual and scientific cultures of the ancient Egyptians, Chinese, Greeks, Persians and Indians which they encountered in the newly-acquired and far-flung territories beyond the immediate borders of the Arabian peninsula.

The Muslims were most attracted to Greek philosophical, logical, mathematical, scientific and ethical principles, and studied them very thoroughly, critically and self-consciously, indeed. By the time of Caliph al-Ma'mūn (10th century), a cross-cultural intellectual movement for translating these Greek works into Arabic was in full swing with the active support of the state and rich individuals. While rejecting some of those Greek principles, Muslim scholars readily recognised many others that were clearly in general accord with the Qur'ānic injunction of grounding knowledge, belief and practice in objective rational thinking and empirical experience. Clearly, this critical, self-conscious appropriation of these ancient sciences (al-'ulum al-awa'il) was motivated and framed both by the cognitive and pragmatic needs of the new empire and by the intrinsic intellectual allure and challenge of the new, "foreign" system of knowledge. But long before the attractions of Greek rational thought had taken root, the initially dormant discursive and argumentative acumen of Muslims had already been activated and honed by external theological debates with the Jews, Christians, Hindus, Buddhists and Zoroastrians.

as well as by intra-Muslim political, theological and juristic controversies which resulted in the rise of distinct, opposing doctrinal sects (firaq), and schools of thought (madhāhib) in theological, philosophical, scientific and legal matters.

Indeed, there were heated controversies amongst these opposing schools of thought as to the extent to which Greek philosophico-scientific thought was or was not in accord with the worldview of Islam projected by the Qurʾān. On the one hand, stood the Muslim philosophers (falsāfah/hukamāʾ), for example, al-Kindī (d. 866), al-Fārābī (d. 950) and Ibn Sīnā (d. 1037) who could be said to be more receptive than critical of the Greek speculative sciences. On the other hand, stood the Ashʿarite rationalist theologians (mutakallimūn), such as, al-Ashʿarī (d. 935), al-Bāqillānī (d. 1013), al-Juwaynī (d. 1085), al-Ghazālī (d. 1111) and Fakhr al-Dīn al-Rāzī (d. 1209) who, could be said to be more critical than receptive to Greek rationality. Moreover, both camps were at the same time in heated engagement with the Ḥanbalites, Muʿtazilites and

28. On the concept “Worldview of Islam” see al-Attas, Prolegomena, especially his forty-page Introduction, viz. (paraphrased from pp. 1-5), “The worldview of Islam is the vision of reality and truth that reveals to the Muslim mind what existence is all about. It is a metaphysical survey of the visible as well as the invisible worlds, including the perspective of life as a whole. In this holistic perspective of life, the dunya-aspect of life is thoroughly integrated into the akhirah-aspect of life, and in which the akhirah-aspect of life has ultimate and final significance.”
Shi'ites. Even amongst the philosophers, Fārābīan-Avicennan Aristotelianism was not received uncritically. A particular case in point is Abū al-Barakāt al-Baghdādi's (d. 1164) remarkable Kitāb al-Mu'tābar which criticised Aristotelian physics and metaphysics just as al-Ghazālī had previously done so in his celebrated Tahāfut al-Falāsifah, and which prefigured much of the Fakhrurāzīan wide-ranging polemics against peripateticism in general. Later on, even the so-called “anti-rationalist” Ibn Taymiyyah could not help but be appreciative of the al-Mu'tābar and its author and of Ibn Rushd himself while being rather critical of both Ibn Sīnā and al-Rāzī.

Ironically, even surprisingly, the perceived intellectual threat of Hellenistic thought, particularly Aristotelianism in its Neoplatonic garb, was in the end overcome by a gradual process of a very self-conscious cooption on the part of post-Ghazālīan mutakallimūn in which the Greek sciences were actively “appropriated” and “naturalised” to such an extent that Ibn Khaldūn in the 15th century was drawn to observe that one could no longer differentiate between kalām and falsafah so

much have the two been fused together.\textsuperscript{34} It may be surmised that the eventual triumph of Ashʿarism (including Māturidism and Ṭahāwism, or Sunnism in general), was due to its creative intellectual versatility in co-opting or “appropriating” the rationalism of the Muʿtazilites and the falsafah and the traditionalism of the Ḥanbalites into its own “synthetic” theological framework\textsuperscript{35} which “gave both naql and ʿaql their due, and took a middle course between the doctrines of the opposing sects.”\textsuperscript{36} It can be seen that this “middle” course was not a “neutral” uncommitted course but a critically integrative one which gives each view and each school its “proper place” in relation to other views and other schools within what may be referred to as a hierarchic onto-epistemic “scale of truth-reality” in which Kalām theology was harmonised with, or rather, integrated into, Ṣūfī metaphysics and ontology.\textsuperscript{37}

Not only were kalām and falsafah fused together in this long process of intellectual appropriation and naturalisation


\textsuperscript{35} On “synthetic” theological framework, see Ceric, \textit{Roots}.

\textsuperscript{36} Al-Ṭażurī, \textit{Kitāb al-Tawḥīd}, ed. and intro. Fathalla Kholeif (Beirut: Dar al-Machreq, 1982), xii.

(or even “Islamisation” in the Attasian sense of the term), but that all the four main mutually autonomous intellectual systems, namely, *kalām*, falsafah, fiqh and *usul al-fiqh* and *tasawwuf* were fused together into a single, enlarged more encompassing and self-consciously integrative Orthodoxy, which thereby, thoroughly *embedded* all the intellectual or discursive sciences (*'aqlīyyat*) into the firm ambit of divine revelation and prophetic tradition (*naqliyyat/sam'īyyat*). In other words, the intellectual was fused with, or rather into the religious, so much so that the intellectual man and the religious man was one and the same man or woman; at least, that was the case for centuries in the Islamic world before the relatively recent onslaught of secularisation brought on by colonisation and westernisation.

**Al-Ghazālī and the new *kalām (kalām jadid)***

Instead of impeding philosophico-scientific thought in Islam, al-Ghazālī’s *Tahāfut al-Falāsifah*, by the intense positive and negative responses it provoked through subsequent

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40. That is, *tasawwuf* in its metaphysical, cognitive or *mukāsashafah* or gnostic mode, i.e., in the form of metaphysical Sufism, in contrast to its more popular and accessible ethical, practical or *mu'īmalah* or pragmatic mode.

centuries, actually did much to hasten this process of critical, self-conscious synthesis and naturalisation. The Tahāfut marked the rise of the new philosophical kalām (kalām jadīd) which was characterised by an aggressive, self-confident, thoroughgoing polemic against Avicennian falsafah on the latter’s own conceptual, methodological and logical terms, a polemic which ended with the former taking over as its own much of the ground covered by the latter.42 By the time al-Ghazālī died, logic (manṭiq) was naturalised as a conceptual tool for kalām and fiqh. Moreover, by the time of al-Rāzī and his successors, logic was well on its way to becoming a self-contained Islamic discipline in its own right,43 while the subject matter of falsafah was as a whole thoroughly integrated into the new kalām. As Elder puts it, “New proofs were forthcoming which made use of the physics, metaphysics and mathematics of the philosophers.”44 In recognition of the pivotal roles of al-Ghazālī and al-Rāzī in the rise and establishment of the new kalām, Ibn Khaldūn says: “The first (scholar) to write in accordance with the (new) theological approach was al-Ghazālī. He was followed by the Imām ibn al-Khaṭīb [i.e., Fakhr al-Dīn al-Rāzī]. A large number of scholars followed in their steps and adhered to their tradition.”45

Eventually, through the intellectual example and influence of al-Ghazālī, and then al-Rāzī, the original threatening Hellenistic background faded into oblivion and falsafah was gradually Islamised until it became totally transformed into a “naturalised” Islamic science in the form of

45. Ibn Khaldūn, Muqaddimah, 3: 43.


48. Shlomo Pines, “Some Problems of Islamic Philosophy,” Islamic Culture (January 1937): 66–80 (on pp. 68–9, 80). The reading of kalâm as philosophical is reflected in the title and substance of the monumental work by Harry Austryn Wolfson, The Philosophy of the Kalâm (Cambridge, MA: Harvard University Press, 1976). Though useful and thoroughly informative, it is unfortunately marred by a too-hasty tendency to “hunt” for parallels to, hence sources of, kalâm theories in classical, hellenistic and patristic theological thought and concepts. A compelling reaction to this is R. M. Frank, who, in his presidential address “Hearing and saying what was said,” said that “...the highly nuanced language of the classical kalâm was developed in an ongoing process of autonomous discourse in Arabic.” See Journal of American Oriental Society (JAOS) 116, no. 4 (1996): 615.


from the Maghrib \(^{51}\) to the Malay Archipelago. \(^{52}\) It is against this general intellectual historical background that one must situate and evaluate the significance of al-Ghazālī and al-Rāzī and their works.

**The Ghazālīan-Fakhrurāzian investigative (tabayyuni) approach and its historical impact**

The works of al-Ghazālī and al-Rāzī mark a historic turning point in the long “movement of thought” \(^{53}\) in the Sunni kalām engagement with Hellenistic philosophy and science from al-Ash’arī (d. 935), al-Māturīdī (d. 944), al-Bāqillānī (d. 1013), al-Juwaynī (d. 1085) and al-Rāzī (d. 1206), al-Nasafi (ca. d. 1142), al-Shahrastānī (d. 1153) to al-Āmidī (d. 1233), al-Bayḍāwī (d. 1286), al-Ijī (d. 1355), al-Taftazānī (1390) and al-Jurjānī (d. 1413). This movement of thought integrated theological, philosophical and scientific themes, and resulted in a resurgent full-fledged philosophical kalām or dialectics (called kalām jadid or the “new dialectics”) characterised by an unapologetic self-confident “investigative” re elucidation of traditional Islamic beliefs (naqliyyāt) on rational principles (mabdā’ ‘aqliyyah).

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51. For the case of the Maghrib, the educational role of Abū ‘Abd Allāh al-Sanūsī (d. 1490) and his *Umm al-Barāhīn* is significant; see article on him in *ET2* by H. Bencheneb, s.v., “al-Sanūsī,” with copious references. For the reception of the *Umm al-Barāhīn* in the Malay-Islamic world, see Che Razi Jusoh, “Al-Sanūsī’s *Umm al-Barāhīn*” in its Malay exposition: with an annotated transliteration and translation of the Malay text,” (master’s thesis, International Institute of Islamic Thought and Civilization (ISTAC), 2000).

52. For the case of the Malay Archipelago, see, for instance, al-Attas, *The Oldest Known*, 1–52 passim.

As Sabra puts it, “kalâm was an argumentative approach to religion which sought, through discussion and discursive thought, to interpret and transform the content of the Islamic revelation into a rationally-based doctrine,” and as such, it was a “genuine form of knowledge” that is essentially not apologetic nor polemical in its intellectual goals, for:

The mutakallimûn in particular made it their business to meet the falasifa on their own ground, not however by merely arguing against their opponent’s views, but by being able to produce a distinct body of thought that proved powerful and elaborate enough to function as a substitute for falsafa.

Sabra applies this characterisation to both Mu’tazilite and Ash’arite kalâm, and in this regard, finds ready support in R. M. Frank, and in the important recent, as yet unpublished doctoral dissertation of Muhammad Afifi al-Akiti. Al-Akiti notes that within a century of al-Ghazâlî’s thoroughgoing “disassembling,” and “reassembling” of falsafah,

The Eastern Islamic world saw the emergence of a new kind of religious scholar: the madrasah-trained, orthodox Sunni who was an Ash’arî theologian as well as a Shâfi’î jurist. These scholars included Fakhr

55. Ibid., p. 23n.24.
56. See also Sabra, “The Simple Ontology,” 68-78; and idem, “Kalâm Atnomism,” 199-272.
al-Din al-Rāzī, Sayf al-Dīn al-Āmīdī (d. 631/1234) and ‘Abd al-Latīf al-Baghḍādī (d. 629/1231–32)—all of whom were well-versed in the ilāḥiyāt and in the rest of the theoretical sciences of the medieval tradition of falsafah, including ontology, cosmology, and psychology. Unlike their founding father [i.e., al-Ghazālī], who could only philosophize behind closed doors to a restricted audience, they were able to publish their ilāḥiyāt and falsafī works in the full light of day.60

To quote some of al-Akitī’s multifaceted conclusions on the net harvest of al-Ghazālī’s engagement with falsafah:

The arguments of these three works—the Madnūn, the Tahāfut, and the Maqāsid—are mainly presented at the highest scholarly level, that of burhān, a style of exposition which is itself a result of al-Ghazālī’s engagements with the falsafī. For al-Ghazālī, burhān—but not kalam—is what he considered to be scientific knowledge, the ‘gold standard’ in the art of reasoning—a judgement expounded in his Mi‘yār al-‘ilm. This standard is higher than what was offered in the tradition from which he emerged and the traditional proofs which he rehearses (or should we say ‘preserves’) in the Iqtiṣād . . .

Al-Ghazālī made the art of burhān acceptable in the Weltanschauung of Islam’s religious scholars. In time, that allowed Aristotelianizing theologians to emerge in the traditional Muslim Asharite school, men such as Fakhr al-Dīn al-Rāzī (d. 606/1209–10)—a doctor subtilis in his own right. Indeed, al-Ghazālī was the first among this new breed of scholastic theologians: a committed rationalist of the Aristotelian sort, yet equally a spokesperson for the Sunni, orthodox tradition (and also, of course, a strong advocate of Sufism).60

60. Ibid., 91.
The investigative (tabayyuni)\textsuperscript{61} nature of dialectical theology

“Investigation” or “research” is the key word in \textit{al-Hathth ‘alā al-Bahth} (The Encouragement to Investigation), the title given by the great Al-Ash’arī himself to his work with the purpose of encouraging the study of kalām or rationalistic theology.\textsuperscript{62} According to Marmura, al-Ghazālī’s \textit{Tāhāfut al-Falāsifah} (Incoherence of the Philosophers) was third in an integral, investigative series of four works in which he expounded on the rational methodology of the philosophers (\textit{Mi’yar al-’īm}, i.e., The Gauge of Knowledge), summarised their cognitive objectives (\textit{Maqāṣid al-Falāsifah}, i.e., The Objectives of the Philosophers), exposed the internal inconsistency of their philosophical belief system (\textit{Tāhāfut al-Falāsifah}), and finally expounded on the true beliefs of Islam as he understood them (\textit{al-Iqtisād fi al-I’tiqād}, i.e., The Golden Mean of Belief). Al-Akiti’s detailed study of the al-Ghazālī’s \textit{Maqānūn} corpus further reinforces this notion of “scientific investigation”—“scientific” due to its inherently cognitive, constructive and positive nature, rather than merely dialectical, argumentative and apologetic. As Langermann puts it in summarising Al-Akiti’s study:

Afifi al-Akiti detects, uncovers, and displays three levels of writing in al-Ghazālī’s approach to falsafa (hellenistic philosophy), particularly as formulated for the Muslim public by Ibn Śīnā. He presents this philosophy as ugly in his \textit{Maqāṣid} (Intentions

\textsuperscript{61} In allusion to the verse “if a vicious person brings any news, try to get at the facts” (\textit{in ja’akum fāsiqun bi naba’iṣn fatabayyanū}), \textit{sūrah al-Ḥujūrāt} (49): 6, trans. Thomas Cleary, \textit{The Qur’an, A New Translation} (Starlatch, 2004), 255.

of the Philosophers); it appears ugly because he includes without comment teachings that are clearly unacceptable. However, in his Tahafut (Incoherence of the Philosophers), this same philosophy is presented as merely bad: specific faults are identified and criticized. Finally, in the corpus of texts known as the Madrnin (restricted), philosophy is seen to be good; sound philosophical doctrines are exploited in order to formulate key Muslim beliefs. 63

Similarly, al-Rāzī’s early work critically engaging Avicennan thought was entitled al-Mabāḥith al-Mashriqiyah (The Eastern Investigations). The Mabāḥith was already at this early stage of his intellectual life a work very critical of Avicennan philosophy, somewhat in the spirit of Abū al-Barakāt’s Kitāb al-Mu’tabar, or even as some have claimed, in the spirit of al-Ghazālī’s Tahafut. 64 It cannot be said that he started out as a straightforward peripatetic philosopher and ended up eventually to become a straightforward Ashʿarite mutakallim. Rather, his intellectual journey was highly nuanced from the very beginning to the very end as indicated by the title of his last philosophico-kalām work, al-Maṭālīb al-ʿAliyah, which may be roughly translated as The Lofty Researches.

Although the century after al-Ghazālī witnessed some notable mutakallimūn such as al-Nasaʿī and al-Shahrastāni, 65

al-Rāzī is still clearly the first post-Ghazāliān mutakallim who brought to comprehensive realisation the intellectual project of close, detailed and comprehensive critical engagement with Greek philosophy initiated by al-Ghazāli in his Tahāfut al-Falāsifah. While al-Ghazāli succeeded in integrating Aristotelian logic into the principles of kalām and fiqh, al-Rāzī managed further to critically integrate much of the subject matter of Aristotelian metaphysics and physics into his many kalām and falsafah works, including into his great commentary on the Qur'ān, al-Tafsir al-Kabîr or Mafātîh al-Ghayb. He is noted by Dhanani as the first mutakallim to discuss space and time in a comprehensive manner, and probably the first also to undertake a critical comparative study of atomism and hylomorphism of any comprehensive scope and intensity of treatment. This versatility is no doubt due in large part to his own intimate, first-hand knowledge of the philosophical sciences such as logic, physics, medicine, mathematics and astronomy, in addition to his complete mastery of the traditional Islamic sciences. Hence, it is hardly surprising that “here Fakhr al-Dīn al-Rāzī was to become al-Ghazāli’s most influential continuator,” and perhaps his “completor.”

According to Marmura, al-Ghazāli’s Tahāfut can be interpreted as a response to Ibn Sīnā’s “wide-ranging criticisms of the kalām.” However, in launching his wide-ranging counter-attack, Al-Ghazāli could not avoid being persuaded to some extent by the obvious objective cognitive merits of his adversary, hence, his appropriation of some key Avicennan

ideas to flesh out his basically Ash'arite framework. As al-Ghazālī’s “most influential continuator,” and most probably also “the most outstanding Sunnite figure” after him, al-Rāzī took up where the former had left, and intensified the debate with Ibn Sīnā, even while Ibn Rushd, his contemporary in the Islamic far west, was preparing his own counter-Tahafut to criticise both Ibn Sīnā and al-Ghazālī.

Al-Ghazālī’s engagement with falsafah was such that he can be said to have succeeded in “kalāmising” philosophy and, as an unavoidable consequence, “philosophising” kalām, thus integrating (if not “con-fusing”) the two originally separate intellectual disciplines. Such is the judgement of Ibn Khaldūn, and one cannot but agree with him somewhat after even a cursory reading of al-Rāzī’s works. So, it seems that historically the “exciting intellectual combat” between falsafah and kalām has always been a dynamic two-sided affair, with blows and counter-blows actively exchanged and no implications, however nuanced or subtle, left hidden and unexplicated. Kalām may have won finally but as can be surmised from Ibn Khaldūn’s and Taj al-Dīn al-Subki’s remarks, the victory was somewhat bitter-sweet—kalām ended up thoroughly imbued with the philosophising spirit which demands of Muslims that

70. R. M. Frank’s misgivings notwithstanding.
73. Ibn Khaldūn, Muqaddimah, 3: 43.
75. Interestingly Hourani (“Dialogue,” p. 191) judged Ibn Rushd argumentative performance to be “disappointing,” as had van den Bergh (Averroes, p. 20, and p. 23 n.1).
they, as responsible thinking individuals, be self-conscious and self-critical about their beliefs, al-Ghazālī’s (somewhat ambivalent?) Iljām al-ʿAwāmm notwithstanding.76

The long-term intellectual consequences of al-Ghazālī’s and after him, al-Rāzī’s wholesale creative “appropriation” of the philosophical sciences into kālām discourse was duly, if critically and even reluctantly, appreciated not only by subsequent Ashʿarīte mutakallimīn but also by Ḥanbalīte theologians such as Ibn ʿAqīl and by the formulators of Schīʿī kālām in the Persian East, such as al-Ṭūsī (d. 1274),78 and the Christian scholastics of the late medieval Latin West.79 The intellectual impact of this new kālām as manifested about two centuries later in al-ʿĪjī’s al-Mawāqīf and al-Jurjānī’s commentary on it80 was also felt by medieval Jewish thinkers81 and the thinkers, philosophers and scientists of the

77. See, for instance, Hoover, “Perpetual Creativity,” 287–329.
European Renaissance and Enlightenment who shared with the *mutakallimūn* “a determined rejection of Aristotelianism and a preference for experimentation with various forms of atomism, as well as, the belief in an omnipotent and free creator.”82 One may also add that the new kalām also impacted on early modern European explorations of various forms of occasionalism and their epistemological, cosmological and theological implications.83 Even modern-day Christian creationist theologians and philosophers have not failed to notice the Ghazālīan-Fakhrurāzian intellectual historical link in the further development of the kalām cosmological argument and its fine-tuning in modern physical and mathematical terms.84

**Kalām jadid and contemporary concerns**

In the light of the foregoing overview of the intellectual historical impact and relevance of the new kalām, the whole point of the first part of this discourse is dealt with, at least

82. Sabra, “Science and Philosophy,” 52. A separate, detailed inquiry is obviously needed regarding late kalām influence on the metaphysical foundations of early modern science.


84. For the kalām cosmological argument in creationist thought, see William L. Craig, *The Kalām Cosmological Argument* (Eugene, OR: Wipf and Stock, 2000).
insofar as it concerns thinking Muslims who are concerned about how to intelligently engage the all-enveloping secular modernity of our day. Muslim progress in appreciating their rich intellectual heritage will not be boosted by the prevailing negative attitude, implicit or explicit, amongst many Muslim academicians, educationists and intellectuals about the contemporary relevance, or lack thereof, of the seemingly “obtruse” and “error-prone” traditional Islamic philosophies and sciences of the long bygone and forgotten past. Quite on the contrary, Islamic philosophy exercises the mind and trains it to grasp structures and methods revealed through the passage of time. Its comprehension represents a constant challenge to the powers of human understanding and its creative force, the imagination.\textsuperscript{85} In short, if Muslims fail to appreciate the achievement of their past history, they thereby fail to comprehend the predicament of their present moment, and in turn fail to plan for their future revival as a positive civilisational force for the common good in the postmodern, post-industrial and post-development world. Intelligent, thinking, reflective, self-conscious Muslims should read their rich classical past as a beacon for the present toward the future, hence, the past has not “passed” away into oblivion but is always perpetually present as a living tradition from which insights (tabṣirah) and lessons (‘ibrah) can always be drawn for overcoming the challenges of the present age, or of any future ages for that matter.

It has been said that in sheer intellectual range, al-Ghazālī and al-Rāzī stood alone, and the issues they raised and the difficulties they faced gave their thought a character that in many places addresses concerns that we find to be

\textsuperscript{85} Daiber, “What is the meaning,” xxxiii.
modern and perennial. A case in point is al-Ghazālī’s overriding concern in the first book of his magnum opus *Ihya‘ Ulūm al-Dīn, Kitāb al-‘Ilm (The Book of Knowledge)* and in his introduction to the *Tahāfut* for not conflating the form of knowledge with its substance and content, and for differentiating between true and pseudo-sciences—a concern which resonates very well with current debates in both East and West about the form, substance and objectives of modern religious and secular education. The revival of his and al-Rāzi’s intellectual jihād in the postmodern dissipative and nihilistic age may well result in the realisation of a contemporary, distinctively Islamic counter-science “powerful and elaborate enough” to replace a modern, exploitative Western science and civilisation that is now well into its twilight phase.

But what about al-Ghazālī’s *Iljām al-‘Awāmm ‘an ‘Ilm al-Kalām*, which seems to bar Muslims in general from indulging in philosophy and dialectical theology? The answer in fact lies in the very title of the book, *Iljām al-‘Awāmm*, which means “Barring the (Unlearned) Laity,” and not *Iljām al-Khawāṣṣ* or “Barring the (Intellectual) Elite,” which of course begs the question of what is meant by ‘awāmm and what is meant by khawāṣṣ. In this age of institutionalised mass public education and electronic mass media in which the West has become

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86. In Peter G. Ridell and Tony Street, eds., *Islam: Essays on Scripture, Thought and Society, a Festschrift in Honour of Anthony H. Johns* (Leiden: Brill, 1997), 11 (paraphrased). That was said in regard to the *Mafātīḥ*, but it applies just as well to many other major works of al-Rāzi, especially the *Mafātīḥ*.


something like a disembodied mega-machine that has long cut itself loose from its original masters—a kind of turbo-charged techno-Frankenstein—an age when the West and the East are intermingling everywhere, strange knowledge and stranger ideas that were once only accessible to the relatively few dedicated intellectual *khāwāṣṣ* (elite) are now required standard readings for high school students and university undergraduates and postgraduates, who do not really know why they should be in schools in the first place or have a clue as to what the word “university” really means. In an age when the laity are compelled in one way or another, directly or indirectly, to be among the educated elite, it will be hard to find anyone, farmer or professor, to whom a good dose of Ghazālīan *Tahāfuti kalam*, reexpressed of course in modern idiom, will not do some good to his or her mind and soul.

**Al-Ghazālī and the Islamisation of falsafah**

Hellenising falsafah was a largely autonomous (i.e., autonomous of traditional orthodoxy) comprehensive conceptual system (or body of thought) for relating the absolute to the relative, or the transcendent to the contingent, in metaphysical, physical and mathematical terms by using its own hellenistic conceptual categories and logico-rational methodology. Moreover, many intelligent Muslims were drawn into that rich universe of intellectual discourse, either directly through studying the philosophical works of al-Fārābī and Ibn Sīnā, or indirectly through cultivating the empirical and mathematical sciences generated by that philosophy. That in itself was not a threat to traditional Islamic orthodoxy as represented by the *fuqahā*’ and *muhaddithin*. But when it became increasingly clear to orthodoxy that the language used by falsafah to describe the relation between God and the world was compromising the foundational Qur’ānic doctrines of divine omnipotence and
omniscience and of the absolute dependence of the world on God (iftiqār al-khalq ilā al-khāliq), or even effectively denying it altogether, then orthodoxy had no choice but to step in forcefully, as it were, and come to a head on, close engagement with the truth-claims of falsafah, especially when some of these truth-claims were seen to pose a direct challenge to the Sunni theological orthodoxy established by the Ash‘āri-Māturīdī-Ṭahāwī school.

This long process of close engagement culminated in al-Ghazālī and al-Rāzī who decided to neutralise the intellectual-theological threat posed by the autonomous status of falsafah, not only by refuting some its truth claims (negative critique), but, by also critically and systemically bringing it within the credal ambit of traditional orthodoxy (positive critique), so that, henceforth, all Muslims, regardless of their particular intellectual inclinations with respect to the traditional and intellectual sciences, would discourse within the ethico-cognitive parameters of the worldview of divine revelation and prophetic tradition. Thus, the Ghazālian-Fakhrurāzian encounter with falsafah can be summarised in three words: engagement, neutralisation, appropriation—in effect a systemic and programmatic Islamisation of falsafah and all the logical, empirical and mathematical sciences generated from it.

In short, Ghazālian initiated kalām jadid was a long-term theologico-philosophico-scientific research programme that has served its purpose wonderfully well in the classical age of Islam. There is a real need now for Muslim ‘ulamā’, scholars, intellectuals, thinkers and scientists of today’s age to learn afresh from that rich intellectual historical experience and revive that research programme in contemporary terms in close, critical engagement with all aspects of Western science and philosophy.89

89. Adi Setia, “The Theologico-Scientific Research Program of the Mutakallimūn: Intellectual Historical Context and Contemporary Con-
Toward a “Kalâm of the Age” (kalâm al-‘aṣr)

The intellectual challenge faced and overcome by al-Ghazālī and al-Rāzī close to a thousand years ago has now again resurfaced in a new form and in a new idiom in the guise of the modern, secular, western sciences and philosophies systematically imparted in the modern mainstream academia, but with a much more draconian objective, namely, a thoroughgoing nihilistic disenchantment of the world and the whole of existence. Moreover, young, intelligent Muslims in their countless millions imbue this secularising nihilism masquerading as value-free education and knowledge quite oblivious to its negative conceptual and actual impact on their belief and value system as Muslims, and on their communities and societies, if insofar as being “Muslim” to them denote any substantial intellectual and practical content different and distinct from being “non-Muslim.”

Hence, the relevance and lesson of the Ghazālian-Fakhrurāzian encounter with falsafah to Muslims in the present age may be encapsulated into the “Kalâm of the Age” initiative (kalâm al-‘aṣr or Dialetics of the Age) which pertains to a creative revival of the Ghazālian-Fakhrurāzian dialectics for coming to terms with the multifarious challenges of modern western sciences and philosophies and their impact on our religiocultural traditions and values and our communities. The author’s tone in the following lines will be deliberately personal and directed primarily to a Muslim audience who knows and cares for their Worldview, i.e., the Worldview of Islam, and desires to see it operative again in both their private and public domains of life through a proactive constructive engagement with the dominant modern Western secular worldview, with
which many major Western thinkers, authors and activists are becoming increasingly disillusioned as evidenced in their current conceptual and practical experiments with diverse strands of postmodernism and various "post-isms."90 The

Kalām of the Age (kalām al-‘aṣr) is the systemic deconstruction of all the Western sciences and philosophies and their reconstruction from within the epistemic and axiological framework of the Worldview of Islam, by which, along the way, some of these sciences and philosophies and aspects thereof, may be seen to be irrelevant or even discardable altogether, while others modified, restructured and redirected to serve

the higher axiological purposes of the divine Law (maqāṣid al-shari‘ah), i.e., to serve the true purpose of our lives as Muslims in this temporal world, which to us is but the seedbed of the next world of eternal life (al-dunyā mazra‘at al-akhirah).

Let not our present preoccupation with the current socio-political upheavals in the Muslim world, or intra-Muslim credal controversies, or even the commendable inter-religious “Common Word” initiative divert us from the great, if not greater, task of drawing creatively from the profound lessons of traditional classical kalām to meet head on the real underlying, common challenge of the age—the challenge of a subtle and sophisticated secularism, materialism, scientism and nihilism systemically imparted into the minds and hearts of both Muslim and non-Muslim students and scholars in Western and Western-type universities (including those calling themselves “Islamic University”). For there is no war between religions but only between religions and the ideologies of secularism, consumerism, scientism and nihilism, and hence, we need a Common Word between Religions on that common enemy, for instance. As Keller puts it, “The real challenge to religion today is the mythic power of science to theologize its experimental method, and imply that since it has not discovered God, He must not exist.” This call of the Kalām of the Age is precisely the call which Afifi al-Akiti is inviting us to heed in his important article, “The Negotiation of Modernity


through Tradition in Contemporary Muslim Intellectual Discourse: The Neo-Ghazalian, Attasian Perspective."  

This is a common challenge insofar as it challenges the paramount emphasis on humanity responsiveness to Transcendence expressed in all religions. Keller himself has alluded to this real challenge of the age when he says that,

... attacks today on religion by scientism should be met by Muslims as al-Âš'âri and Maturidi met the Mu'tazilites and Jahmites in their times: with a dialectic critique of the premises and conclusions thoroughly grounded in their own terms. 

In light of this consideration, understanding the Ghazalian 

Tahâfut and the Fakhurîzâzîan Maṣâ'ilîb and the creative re-articulation of this understanding in contemporary philosophical and scientific terms, should be rendered accessible to all who are studying, teaching or practising the Western sciences—who, by the very fact of their engagement with the modern sciences, cease to be 'awamm but become from among the khawâss. The real intellectual battleground for Muslims in the modern age is the neo-Dahrism of the western 


sciences which they all gleefully imbibe, including those students who might right now be sojourning at the feet of the great living shuyük of our time in Malaysia, Indonesia, Patani, Syria, Jordan, Egypt, Yemen, Morocco, Mauritania, Pakistan and India, nourishing themselves from the wellsprings of tradition. By “gleefully,” it refers to the gleeful innocence or naivete of those who do not have a clue as to what they are actually imbibing as “education” or “knowledge” or “skills” in the modern universities. Indeed, “gleefully” is an apt description because, by enrolling in the modern academia, they are rather unlikely to be able to avoid becoming unwitting intellectual victims of that grand, elaborate and systemic charade called modern science, technology and economics, the funün min al-zunün (multifarious sciences of conjectures) of the modern age.

The great task of these students and scholars is to see through the intellectual charade and then to systematically construct and elaborate a sophisticated counter-intellectual framework or dialectics by which the tradition can be brought to bear critically and constructively on these Western sciences, or shall they go on allowing their own knowledge of tradition to be intellectually impotent and silent in the face of a modern, aggressive, arrogant and even militant neo-Dahrism now reinventing itself as “globalization”? The fault then lies not within the tradition as such but within their own minds and hearts. None of these are new, for even the conscientious

97. Allusion to al-Ghazâli’s use of the term in the beginning of his hard-hitting introduction to his Tahâfut al-Falásifîh, intro. Šalâh al-Dîn al-Hawwârî (Beirut: al-Maktabah al-‘Asriyyah, 2007), 41. Marmura translates it as “multifarious beliefs,” but it can also be more literally rendered as “the multifarious sciences of conjectures,” in which case then al-Ghazâli is rebuking those so enamoured of Greek philosophy—which is but sciences based on conjectures rather than certain knowledge—that they have gone so far as to “belittle the devotions and ordinances prescribed by the divine law.” See also Al-Ghazâli, The Incoherence, 1-2.
thinkers of the West are making similar forceful indictment of their own elaborate intellectual edifice (wa shahidū ‘alā anfusihim, i.e., “and they bear witness against their own selves”) such as Martin Heidegger, Jacques Ellul, Karl Polanyi, E. F. Schumacher, Serge Latouche, Michael Sahlins, James Howard Kunstler, and many others. In fact, a whole century ago, the eminent American philosopher and psychologist, William James had already come to the damning judgement that, “The most significant characteristic of modern civilization is the sacrifice of the future for the present, and all the power of science has been prostituted for this purpose.” Without a rigorous Kalām of the Age, Muslims today cannot be too sure that they are in fact not collaborating in that “sacrifice of the future for the present.”

Knowing the tradition alone is not enough, for the carriers of this tradition must also know how to read the “situation of the age” (ahwāl al-‘asr) that they may bring the former to bear creatively, evaluatively and critically on the latter through means of a Dialectics of the Age (kalām al-‘asr),

98. Allusion to the verse “the life of the world deceived them and so they testified against themselves that they were atheistic” (wa gharratum al-hayātu wa shahidū ‘alā anfusihim annahum kānū kāfīrin) (Cleary’s translation) in al-Anʿām (6): 130.
100. Jacques Ellul, The Technological Society, trans. John Wilkinson (New York: Vintage, 1967), which has been described (on the front cover) as “a penetrating analysis of our technical civilization and of the effect of an increasingly standardized culture on the future of man.”
106. As cited in ibid., 185 (italics mine).
and thereby, avoid falling into the pitfalls of nihilistic neo-Dahrism masquerading as evolution, progress, historicism, growth, development, change, globalisation, science and technology. This is called neo-Dahrism because it harks back at the Dahrism and the Dahriyyin\textsuperscript{107} of old, so that we may be shocked out of our slumber to real constructive, proactive and anticipative intellectual and educational action, and hence, social action, and thereby, go way beyond the 9/11 agenda that has been imposed on us, directly or indirectly, for the real ongoing challenge is at the core intellectual, even if there happens in the near future a complete political peace between Islam and the West.

The whole problem with neo-Dahrism (\textit{al-dahriyyah al-jadidah}) is that it does not ostensibly present itself as heresy, and thus, are not largely seen as such, but to see it as such is to revive the \textit{kalam jadid} of the Ghazalian \textit{Tahafut}, the Fakhru\textsuperscript{a}z\textsuperscript{i}an \textit{Ma\textsuperscript{a}l\textsuperscript{i}i\textsuperscript{b}}, the Taftaz\textsuperscript{a}ni\textsuperscript{n} \textit{Maq\textsuperscript{a}sid}, and the \textit{I\textsuperscript{d}jian Maw\textsuperscript{a}q\textsuperscript{i}if}, and failing to do so may not necessarily render us formal neo-Dahris (self-conscious believers in secular progress). Nevertheless, we will be neo-Dahris in practice because the neo-Dahrist disciplines imbibed in the universities present themselves as value-neutral objective data, facts and truths, and we are gullible enough to accept that presentation, lock, stock and barrel. In brief, the heresy of the age demands a \textit{Kal\textsuperscript{a}m of the Age} to expose its true face to all thinking Muslims who care about \textit{reviving} the wisdom of tradition, reorientating themselves to Transcendence, and reorganising their personal, communal and civilisational life on the belief in the ultimate life to come.

\textsuperscript{107} Literally temporalism, temporalists, referring to the beliefs of the materialists and atheists who believe in the eternity of the world; see the article “Dahriyya,” in http://www.muslimphilosophy.com/et2/dahriyya.htm, which includes useful references.
Therefore, it is of the utmost imperative that we not only master completely the Worldview of Islam\textsuperscript{108} but also master completely the various specific civilisational contexts in which it is to be made operational, for the Worldview of Islam must not only inform, it must also transform. The Ghazālīan intellectual approach of the Maqāṣid and the Tahāfut for the addressing and overcoming the challenges of the current era, which is essentially “The Challenge of Knowledge,” has to be revived and implemented which, as al-Attas incisively observes, is the challenge,

\ldots indeed, not as against ignorance; but knowledge as conceived and disseminated throughout the world by Western civilization; knowledge whose nature has become problematic because it has lost its true purpose due to being unjustly conceived, and has thus brought about chaos in man’s life instead of, and rather than, peace and justice; knowledge which pretends to be real but which is productive of confusion and scepticism, which has elevated doubt and conjecture to the ‘scientific’ rank in methodology and which regards doubt as an eminently valid epistemological tool in the pursuit of truth: knowledge which has, for the first time in history, brought chaos to the Three Kingdoms of Nature; the animal, vegetal and mineral. It seems to me important to emphasize that knowledge is not neutral, and can indeed, be infused with a nature and content which masquerades as knowledge. Yet it is in fact, taken as a whole, not true knowledge, but its interpretation through the prism, as it were, the worldview, the intellectual vision and psychological perception of the civilization that now plays the key role in its formulation and dissemination. What is formulated and disseminated is knowledge infused with the character and personality of that civilization—knowledge as presented and conveyed

\textsuperscript{108} Al-Attas, Prolegomena; idem, Islam & Secularism (Kuala Lumpur: ISTAC, 1993); and idem, The Concept of Education in Islam (Kuala Lumpur: ISTAC, 1991). See also Wan Mohd Nor, The Educational Philosophy.
as knowledge in that guise so subtly fused together with the real so that others take it unawares in toto to be the real knowledge per se.¹⁰⁹

This rigorous re-articulation of the Worldview of Islam will be the new dialectics, the Dialectics of the Age (kalām al-ʿaṣr). It is hoped that through these well-grounded efforts in collaboration with like-minded scholars, intellectuals and institutions, Muslim and non-Muslim, and with the guidance of our teachers and shuyūkh, the Worldview of Islam will once again find public expression as a world culture and civilisation to which it belongs and blossoms and finds its home and thereby contributes to the universal revival of a heart-felt consciousness of the Transcendent in human life and society.

Kalām al-ʿaṣr, worldview of Islam and the comprehensive critical mapping of the modern sciences

In the present context of freeing oneself from the intellectual and cultural hegemony of the West, Islamisation entails dewesternisation. As a matter of fact, al-Attas is saying to the effect that dewesternisation is a condition of Islamisation:

In appraising the present situation with regard to the formulation and dissemination of knowledge in the Muslim world, we must see that infiltration of key concepts from the Western world has brought confusion which will ultimately cause grave consequences if left unchecked. Since what is formulated and disseminated in and through universities and other institutions of learning from the lower to the higher levels is in fact knowledge infused with the character and personality of Western culture and civilization and moulded in the crucible

of Western culture . . . , our task will be first to isolate the elements including the key concepts which make up that culture and civilization. . . These elements and key concepts are mainly prevalent in that branch of knowledge pertaining to the human sciences, although it must be noted that even in the natural, physical and applied sciences, particularly where they deal with interpretation of facts and formulation of theories, the same process of isolation of the elements and key concepts should be applied; for the interpretations and formulations indeed belong to the sphere of the human sciences. The ‘Islamization’ of present-day knowledge means precisely that, after the isolation process referred to, the knowledge free of the elements and key concepts isolated are then infused with the Islamic elements and key concepts which, in view of their fundamental nature as defining the fitrah, in fact imbue the knowledge with the quality of its natural function and purpose and thus makes it true knowledge. It will not do to accept present-day knowledge as it is, and then hope to ‘Islamize’ it merely by ‘grafting’ or ‘transplanting’ into it Islamic sciences and principles; this method will but produce conflicting results not altogether beneficial nor desirable. Neither ‘grafting’ nor ‘transplant’ can produce the desired result when the ‘body’ is already possessed by foreign elements consumed in the disease. The foreign elements and disease will have first to be drawn out and neutralized before the body of knowledge can be remoulded in the crucible of Islam.110

Quite apart from the ongoing foundational work of conceptual engagement and explication outlined above by al-Attas, one practical outcome of the Kalām of the Age approach will be to design a two-part certificate or diploma course on the Worldview of Islam covering both its “pure” (i.e., conceptual = mafhūmi) and “applied” (operational = ma‘mūli, ‘amali) dimensions, with a view to helping students or

110. Al-Attas, Islam and Secularism, 162–163.
participants engage creatively and closely with both tradition and modernity in a manner that enable them to bring the tradition to bear critically and constructively on the sciences of the modern academia, and thereby, differentiating between objective truths and subjective fictions, and separating the beneficial from the harmful of those sciences, or separating the beneficial from the harmful aspects of each of those sciences, especially those sciences having general axiological warrant from within the perspective of tradition and local culture. Scholars and students alike are invited to implement an educational and research programme toward operationalising Nuh Ha Mim’s important and urgent call to “scientifically literate Muslims today to clarify the provisional nature of the logic of science, and to show how its epistemology, values, and historical and cultural moment condition the very nature of questions it can ask—or answer.”

Conceptually, the Worldview of Islam Course (WIC) or Worldview of Islam Intellectual Series (WISE) shall

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114. Title and acronym proposed by Dr. Mohd Zaidi Ismail of IKIM, and accepted by the management of the course.
be offered at two levels. One level is for high school or pre-university matriculation students before they enrol in the modern academia for formal studies of the various modern disciplines. Another level is that for high school teachers and university lecturers (including postgraduate researchers, working professionals, educational policy-makers and curriculum-developers) who teach and/or design the courses in any of the modern disciplines, from preschool to tertiary levels of education. The two levels are conceptually connected but with different immediate pragmatic objectives.

The objective of the first level or WIC Level I is to provide pre-university students with a critical survey or mapping of the numerous, diverse disciplines on offer in the modern academia. The mapping can equip the students in such a way that they can stand back, reflect and consider carefully the intellectual and career direction they are about to undertake, and its long-term implications for their belief and value system as Muslims, who are self-conscious about their worldview, about their duty to their local communities, and to the larger cosmopolitan society, in which their communities may be embedded, whether in the East or West. This mapping, as a generative guide to creative reflection and thoughtful deliberation, will help soon-to-be university students to be more discriminative in choosing their fields of study and their majors; to be very selective in their choice of universities, faculties or departments to enrol in; and even to be very particular about their choice of professors, lecturers and academic supervisors, insofar as they are able or allowed to exercise that choice. By this critical mapping, it is hoped that students will choose disciplines and decide on career paths that are beneficial rather than harmful, meaningful rather than frivolous or superfluous, and that are geared toward meeting some real social, cultural, intellectual or economic needs of their communities, rather than serving narrow corporate greed, nihilistic economic growth or
disembedded material development, or even aimless idle curiosity. For instance, one may opt for green chemistry\textsuperscript{115} rather than conventional chemistry, natural medicine\textsuperscript{116} or naturopathy over conventional allopathic medicine, cognitive psychology\textsuperscript{117} over behavioural psychology, ecological and steady-state economics\textsuperscript{118} over neoliberal capitalism, organic or permaculture\textsuperscript{119} over chemical intensive agriculture, biomimicry\textsuperscript{120} over biotechnology,\textsuperscript{121} appropriate technology\textsuperscript{122} over high technology. Such choices are arguably more in accord with the Islamic axiological principles of non-harmful (lā darara wa lā ʿdirara), beneficial knowledge (ʿilm nāfiʿ) and mercy (raḥmah).

\begin{itemize}
\item[\textsuperscript{115}] Including related areas such as green engineering and green technology; see, for instance, Paul T. Anastas and John C. Warner, Green Chemistry: Theory and Practice (Oxford: Oxford University Press, 1998).
\item[\textsuperscript{118}] Herman Daly, Steady-State Economics, 2d edition (Washington, DC.: Island Press, 1991).
\item[\textsuperscript{119}] Bill C. Mollison, Permaculture: A Designer’s Manual (Sisters Creek, Tasmania: Tagari Publications, 1988).
\item[\textsuperscript{120}] Janine M. Benyus, Biomimicry: Innovation Inspired by Nature (New York: William Morrow, 1997).
\item[\textsuperscript{121}] On the dangers of biotechnology, see Brian Tokar, ed., Redesigning Life?: The Worldwide Challenge to Genetic Engineering (London: Zed Books, 2001).
\end{itemize}
of this critical mapping toward unravelling the philosophical and metaphysical assumptions underpinning those disciplines and the often hidden, murky parochial background of their original development in Western, Enlightenment socio-intellectual history.

The objective of the second level or WIC Level II is to help working professionals, researchers and policy-makers transform both the content and the method of what they are presently doing so that these will eventually be brought into axiological accord with the Worldview of Islam. For instance, as a result of this critical mapping, a Muslim researcher in physics may opt for the Bohmian ontological interpretation of quantum mechanics over the mainstream Copenhagen instrumentalist interpretation. As an education policy-maker may want to make a course in ecology a prerequisite to an economics programme or even embed economics altogether into ecology and/or sociology, thereby creating what can be termed as an ecologies of economics. A biology school teacher may want to transform his biology course into a true “science of life” by putting the “bio” back into biology through opting for the class to study, as an example, actual living frogs by a pond embedded in the wild, rather than dead, dissected frogs pinned to a lab bench, which is thoroughly disembedded from any ecosystemic contexts of the natural world.

The Kalām/Dialectics of the Age approach discussed above may be schematised in the form of three concentric circles as follows:

The inner circle represents the unchanging, permanent, revealed metaphysical core expressed as the “Worldview of Islam” (ru’yat al-Islām li al-wujūd).\(^{126}\) The middle circle represents the network of auxiliary conceptual constructs, theories and hypotheses, which may be modified, changed or added to from time to time and may be called the “network of auxiliary theories” (shabakat al-nazariyyat al-mulḥaqah). This middle circle effectively represents the creative, critical yet self-critical kalām or dialectics of the age. The outer circle represents nature (al-ṭabī‘ah), the physical, sensible world itself, or simply, the “physical world,” which may also be extended to include the human, socio-cultural world insofar as it is embedded in the larger natural world. The challenge of Islamic scientific creativity presently lies squarely in the middle circle and consists in the intellectual work of articulating objective

\(^{126}\) Al-Attas, Prolegomena, 2.
conceptual and theoretical frameworks for bringing the worldview of tradition to bear evaluatively on our engagement with and understanding of the natural and cultural world, especially the cultural world which is now overwhelmingly under the sway of a secularising, nihilistic mode of thinking and doing systemically imparted to both Muslims and non-Muslims alike through the various disciplines of the modern academia.  

By "objective" is meant that the dialectics is to be amenable to participation and scrutiny by non-Muslim thinkers, philosophers and scientists, if they so wish, even if they do not believe or are not committed to the metaphysical core (i.e., the Worldview), by reference to the very same physical and social world accessible to both Muslims and non-Muslims alike and in which they are both embedded. It is by virtue of this objectivity that Muslim scientists involved in the new dialectics will have no problem recognising and incorporating certain positive elements of Western and Eastern sciences and insights into both their intellectual and practical work.  

Although further elaboration is needed on the creative nature of the dialectical middle circle, which is basically where the discursive reason (fikr/nazar) and contemplative intellect ('aql/ wijdān) mediate between the book of revelation and the book of creation, a simple general example as follows suffices.


128. To underline this important point, it is worth mentioning the recent 72-hour Permaculture Design Certificate course on the science, art and practice of permaculture and sustainable living that was recently organised in Kuang, Selangor, Malaysia. Most of the nearly twenty participants were Muslims but the three non-Muslims participants also found the course to be very useful and beneficial to them. A review of the course is on the website: http://murujan.com/2012/03/19/permaculture-design-course-review/.
The Qur’ān says that the Prophet was sent as a mercy to all the worlds (raḥmatan lil-‘alāmin). If we, as scientists, are to follow in the footsteps of the merciful Prophet, then the way we study nature and interact with it (muṣ’amalatu al-nāsi al-τabī’ata) is constrained by the prophetic ethics of cosmic mercy. This means that much of what we do or take for granted in contemporary science and technology has to be seriously and systemically rethought since it is obviously unrestrained by the ethics of mercy. Modern science and its technological offshoots are, in many diverse, complex ways, very aggressive toward nature and, by extension, toward humankind as part of nature. If by definition, science is “the study of nature,” then obviously it is in the interest of science to preserve nature in order to guarantee its continued study by science. Thus, scientific curiosity entails moral responsibility. However, the paradox now is that the more science knows about nature, the more of nature is devastated, and the less there remains of it to be studied and appreciated. It is as if the modern pursuit of abstract, cerebral science and its manipulative technological offshoots have to go hand in hand with the desolation and disappearance of living nature as an unavoidable consequence, but that position is unacceptably fatalistic for truly concerned Muslim scientists. For them, the Qur’ānic ethics of universal, cosmic mercy shows the way toward another way of doing science, namely, one that respects and preserves nature (and by extension humankind) rather than destroys it, and a well-articulated kalām dialectics of science involving the active participation of all thinking, reflective and self-critical ‘ulama’ and scientists will facilitate the way toward realising that science in practice. The following are some specific examples by way of illustration.

Vivisection, meaning “to cut alive” hence, the preferred term, “animal testing,” in modern academia, is the way modern, business-driven medicine tortures live animals to test drugs in order to rid humanity of their ever-lengthening list
of old and new diseases. As a method of medical research, it is relatively new (only a hundred or so years old) and peculiar to modern Western medical culture. Quite apart from the extrinsic question of ethics in respect thereof, is also a more fundamental intrinsic question, namely, the question of the scientific integrity (or cognitive value) of the underlying, largely unexamined assumption of a significant degree of biological and physiological similarity between laboratory test animals and human beings justifying extrapolations of clinical results from one to the other. The *kalām* dialectical deconstruction and reconstruction of modern medicine for Muslim medical researchers in this regard will be to find systemic alternatives of unquestioned scientific and ethical integrity to vivisection, including valid alternatives critically-sourced from presently marginalised Western (e.g., homeopathy) and eastern medical traditions (e.g., traditional Chinese medicine) which could be incorporated into a well-articulated Islamic Medicine Research Program. Some of these alternatives can also be gleaned by undertaking evidence-based medical research into the well-documented but largely neglected vast corpus of the very successful one thousand year-old Islamic cosmopolitan medical tradition.


130. In Malaysia, we are in the process of establishing the Hakim Islamic Medicine Institute & Academy (HIMIA) in order to systemically revive the study, teaching and practice of Islamic Medicine. For further deliberation on this, see Adi Setia, “Some Current Critical Rethinkings in Modern Medicine: Outlining an Autonomous Islamic Medicine Research Program,” paper presented at the HAKIM-IYC Islamic Medicine Colloquium on Prophetic Medicine in the Light of Eastern Medicine, Kuala Lumpur, Malaysia, 6 March 2010.
Modern agriculture, to take another case in point, is overly chemical-intensive with widespread use of pesticides, herbicides, synthetic nitrogen fertilisers and others, which poison the soil, kill rural wildlife, even toxify the harvests and disrupt the health of farmers. Traditional farming methods have been perfectly adapted to local socio-natural conditions generating a symbiotic, holistic balance between the needs of humanity and the rights of nature. As the word implies, agriculture is a culture, a whole way of life of mutual respect, communal give and take, and cooperative rather than competitive living. Indeed, there are also agro-innovations, but innovations within ecological and cultural limits, as the case of Andalusian agricultural science and practice (‘ilm al-fiJa)Jah)131 show. It is not a mere business, as the modern corruption of the original word into “agribusiness” would have it—most exemplified perhaps in the case of Monsanto132—which imposes the face-less corporate tyranny of impersonal profit-maximisation on once self-respectful, independent farmers and indigenous peoples, reducing them to wage-and debt-slaves, squatters on the very lands they once have had native customary rights to but presently wrested from them by faceless, soulless corporations. Ironically, the agricultural food production, which once unquestionably served the welfare of humankind, should now, in the hands of big agrochemical companies, be seen to be working toward destroying the very ecological basis of that welfare. In order


to return agricultural practice onto the ethical path of mercy toward both culture and nature, the *kalam* dialectics would work toward rearticulating an authentic Islamic Agricultural Research Program (IARP) as one that eschews harmful chemicals altogether, and instead looks into the various effective sustainable organic agricultural methods now available, such as permaculture, and develop new ones by, for instance, drawing on the thousand years’ accumulated experience of a very successful Islamic agricultural tradition—the original, truly “green” revolution in the history of mankind. In this respect, the “greening the desert” initiative by Geoff Lawton and his partners in Jordan is a great inspiration.

Ultimately, all such initiatives toward a constructive counter-academia will have to be systemically-consolidated under an academic and vocational educational structure quite independent of the mainstream educational establishment. The underlying idea is that we want our students and graduates not only to understand the Islamic tradition and the Worldview of Islam, but are also able to have careers and make a decent, respectable and meaningful livelihood for the common good by using their knowledge and training to operationalise the Worldview of Islam in the public, socio-economic domain within the local communities in which they are embedded.

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133. To realise this civilisational vision, links are being forged with the Cambridge-based Golden Web Foundation, and the Permaculture Research Institute of Australia to set up Fitrah Organics and working closely with University of Malaya Environmental Secretariat (UMCares). Plans are underway to send suitable people for formal training in permaculture and set up sustainable agricultural communities in Malaysia.


135. Mention should here be made of the HAKIM (see [http://www.hakim.org.my/](http://www.hakim.org.my/)) initiative in organising the public educational Worldview of Islam Intellectual Series (WISE) with various partners, and the Mu’amalah Research Unit (MRU) at the International Islamic University Malaysia (IIUM). While WISE works toward fleshing out in conceptual and pragmatic terms the operational implications of the Worldview of Islam.
The question of scientific objectivity (i.e., what should count as objectively-verified knowledge and the research methods by which this objectivity is ascertained) has more to do with the cognitive rather than ethical values underpinning the kalām dialectical approach, although in Islamic scientific practice, the cognitive merges seamlessly into the ethical and becomes one with it, hence, the foundational notion of adab as knowledge realised in virtue through ta'dīb (education as discipline of mind, soul and body). In other words, cognitive evaluation and ethical evaluation are both intrinsic to the scientific enterprise in Islam, as is quite evident in Ibn Haytham’s much studied scientific methodology which involved a thoroughgoing “kalāmīc” dialectics with Greek physical and optical theories. The realisation that scientific objectivity and methodological probity are not possible without concomitant ethico-moral integrity has been growing in the West and is now converging on a position more in accord with the Islamic position, thus, allowing room for mutual constructive engagement on this important meta-scientific issue.

136. Al-Aitas, The Concept of Education; see also the elaborate discussion in Wan Mohd Nor, The Educational Philosophy.
To illustrate briefly how the concept of scientific objectivity actually operates in the kalām dialectics with respect to cultivating an intellectually self-competent and self-confident critical attitude toward the Western sciences and disciplines, consider the twin Qurānic cognitive principles of tabayyun (investigation, scrutiny) and tabarhun (proof, evidence). Due to the global dominance of Western science, Muslim scientists are continuously bombarded with reports of promising new methods, discoveries and techniques in prestigious Western science journals like Nature, Science, New Scientist and Scientific American. It will be irresponsible of them to take these reports at face value without undertaking their own investigation (tabayyun) into the often hidden, diverse underlying contexts of these reports and ascertaining their empirical adequacy (burhān) and epistemic autonomy (al-istiqlāl al-‘ilmī) from powerful forces geared less toward global scientific enlightenment than narrow political economic self-enrichment. Creative understanding and practice of tabayyun and tabarhun, as exemplified by Ibn Haytham, will help Muslim scientists to separate the wheat from the chaff of Western science and incorporate it into an integrative Islamic Science Research Program (ISRP). For instance, in the case of chemistry, the growing new field of “green chemistry”\textsuperscript{138} is something that shows great promise for eliminating the threat of toxic chemicals from the cultural and natural environment, thus realising the foundational ethico-juridical principle of lā ḍarara wa lā ẓirara (“no harming and no reciprocating harm”),\textsuperscript{139} which is itself derived from the cosmic, prophetic principle of universal mercy.

\textsuperscript{138} And related areas such as green technology, green engineering and green architecture (eco-building).

\textsuperscript{139} Which is actually hadith no. 32 in Imām al-Nawawi’s Forty Hadiths (al-Arba’in al-Nawawīyyah).
Conclusion

As alluded to above, the highly important, strategic question of the appropriate higher educational institutional framework needs to be addressed for realising the Islamic Science Research Program (ISRP) over the long term, especially by educating and training postgraduate researchers (including university professors, even) to creatively apply ISRP principles (culled from kalām jadīd and contemporary history and philosophy of science) to their respective specialisations.

This author harbours some doubts as to whether the vision of the ISRP in the framework of a Kalām of the Age can be faithfully and successfully realised from within the current restrictive pedagogic framework of the modern academia including the current “Islamic University” system, which to a large extent, is either overly coopted into the secular agenda of corporate globalisation or into the political economic agenda of the over-centralised state, or both. Under the current circumstances, the way forward may take the form of a loose, informal network of autonomous grassroots educational initiatives, such as, institutes, academies, madrasahs and think-tanks, built up by independent scholar-intellectuals of conscience and vision and their student-supporters who know one another intimately through visits, conferences and other avenues of close intellectual interactions toward a common educational and civilisational mission, in which the ISRP can be embedded. Some of these grassroots educational initiatives are already well-established and flourishing in places such as Malaysia, Turkey, Syria, Egypt, Libya, Dubai, Jordan, Yemen,

England, Scotland, the United States, South Africa, Indonesia and Canada.¹⁴²

Eventually, some form of consensus will emerge on common academic standards by which a student qualified in the traditional religious sciences from one institute can be recognised and accepted to study the intellectual, empirical and vocational sciences in another institute dedicated to the programme of Islamising the disciplines that have to do with earning an honourable and meaningful livelihood in the service of the common good of the community (i.e., the fardū kifāyah sciences in general).

As pointed out by S. Nomanul Haq, there is a great need to revise the way we educate university science students so that they know how to integrate their scientific knowledge and expertise into the more fundamental and higher goals of human life, and thus, avoid the destructive pitfalls of scientism.¹⁴³ True science is beneficial knowledge (al-‘ilm al-nāfi‘) resulting in beneficial works (al-‘māl al-nāfi‘ah) that is geared toward serving rather than subverting these higher, human goals. The highest goal, the summum bonum, is, of course, “to bring a sound conscience to the meeting with the Lord,”¹⁴⁴ and thereby, to attain His pleasure (marđātiLlāh).

¹⁴² The author had indeed personally visited some of them.
¹⁴⁴ Al-Shu’ara’ (26): 89.