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Islamic Science, Modern Science, and Post-Modernity:
Towards a New Synthesis through a *Tawḥīdic* Epistemology

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Abstract
Synthesis of ideas in all sectors of human life and thought – that is, of human civilization in general – is the very basis of the existence (*raison être*) of the religion of Islam. Islam has been revealed as a synthesis of all religions. It created a new civilization which is synthetic in spirit and ingenuity. In civilization-building Islam created a synthesis of the principles, ideals, values, and positive achievements embodied in the previous civilizations in conformity with its own divinely revealed *tawḥīdic* character. To be *tawḥīdic* means to be both universal and inclusive and particular and exclusive. Consequently, Islamic civilization is at the same time universal and particular as well as inclusive and exclusive in its nature and characteristics. This truth is clearly reflected at the level of its scientific culture and its scientific pursuits and practices. When traditional Islamic science is understood in its entirety we would be in a good position to see its mixed traits: it is both universal and particular and both inclusive and exclusive. Now in this new and challenging twenty-first century the global *ummah* is again called upon to create a new science and a new scientific culture both for itself and for the whole human community. In undertaking this task the global *ummah* needs to pay due attention to three things – Islamic science, modern science, and postmodern science. Islam once produced the most advanced science and the most brilliant scientific culture in the whole world. As a matter of principle, we call that science and scientific culture Islamic science. In the last two centuries or so Islamic science came to be eclipsed by the so-called modern science which was largely of Western inspiration. As a result of the powerful influence of modern science and various other factors, the scientific community of the *ummah* embraced its philosophy and practices. The ruling elites of the *ummah* embraced its practical philosophy and its technological fruits in their pursuits of material and economic developments. However, since the mid-twentieth century Western intellectuals have been telling the world that the age of modern science has come to an end. The modern scientific worldview has been shattered most of all by the "new physics." We are now in the era of post-modernity which if pursued to its logical conclusion would require the human community to cultivate a new science. After taking into consideration these three things – Islamic science, modern science, and post-modernity – the *ummah* must work to produce a new science through a synthesis of ideas embodied in the three intellectual cultures and worldviews. The most important intellectual tool needed for this synthesis is the Qur'ānic principle of *tawḥīd*. The Islamic tradition of synthesis needs to be understood and revived in our times. Ibn al-Haytham (c. 965 – c. 1040) whose first millennial anniversary partly inspires this conference was himself a major figure in this tradition of synthesis, more precisely in the field of mathematical physics. This paper seeks to suggest ways and means by which Islam's *tawḥīdic* epistemology can help the *ummah* in producing the new synthesis.

Abstrak
Sintesis idea dalam semua aspek kehidupan manusia dan pemikiran yakni ketamadunan manusia umumnya ialah sebab utama dan terpenting bagi kewujudan agama Islam. Islam disifatkan sebagai sintesis kepada semua agama. Islam telah melahirkan satu tamadun baharu yang berlandaskan roh dan kebijaksanaan. Dalam pembinaan tamadun, Islam mensintesiskan

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prinsip, idealisme, nilai-nilai murni dan pencapaian positif yang terkandung dalam tamadun-tamadun sebelumnya yang menepati ciri dan hukum tauhid itu sendiri. Ciri tauhid yang dimaksudkan itu bersifat universal dan merangkum serta khusus dan eksklusif. Justeru, tamadun Islam adalah bersifat universal dan khusus serta inklusif dan eksklusif. Kebenarannya dapat dilihat daripada budaya saintifik dan usaha mengejar dan mengamalkan ilmu saintifik. Apabila tradisi sains Islam difahami secara keseluruhannya maka kita dapat melihat ciri dan sifat pelbagainya itu. Kini dalam abad ke-21 yang serba mencabar, ummah di seluruh dunia diseru agar mencipta ilmu dan budaya saintifik baharu untuk diri dan komuniti sejagat. Bagi menggalas tugas ini, ummah perlu menitikberatkan tiga perkara yakni sains Islam, sains moden dan sains pascamoden. Pada satu ketika dulu, Islam pernah menghasilkan ilmu sains yang tersohor dan budaya saintifik yang unggul di dunia. Secara prinsipnya, kita menamakan ilmu sains dan budaya saintifik itu sebagai sains Islam. Kira-kira dua abad yang lalu, sains Islam telah disaingi oleh sains moden yang dipelopori oleh tamadun Barat. Kesan daripada pengaruh yang kuat daripada sains moden Barat dan beberapa faktor lain, komuniti saintifik ummah telah mengamalkan falsafah Barat. Golongan elit ummah yang memerintah pula mengamalkan falsafah pragmatis dan hasil teknologi untuk mengejar kemajuan ekonomi dan material. Walau bagaimanapun pada pertengahan abad ke-20, para intelektual Barat mula mencanangkan bahawa zaman sains moden sudah sampai ke penghujungnya. Pandangan hidup saintifik moden telah diketepikan dengan hasil jumpaan 'fizik baharu'. Kita sekarang telah memasuki era pascamoden yang sekiranya ditangani secara logikal akan memerlukan komuniti dunia mempelopori ilmu sains baharu. Setelah menimbang tiga perkara itu iaitu sains Islam, sains moden dan pascamoden, ummah mesti berusaha menghasilkan sains baharu menerusi sintesis idea yang terkandung dalam ketiga-tiga budaya intelek dan pandangan hidupnya. Alat intelek yang paling penting dalam sintesis ini ialah prinsip tauhid al-Quran. Tradisi sintesis cara Islam perlu difahami dan diamalkan masa kini. Ibn al-Haytham (c. 965 – c. 1040) yang meraikan milenium pertamanya berperanan mengilhamkan persidangan ini. Beliau merupakan seorang tokoh utama dalam tradisi sintesis khususnya dalam bidang fizik matematik. Kertas ini cuba mencadangkan cara-cara epistimologi tauhid Islam yang dapat membantu ummah menghasilkan sintesis baru itu.

The role of synthesizer: the destiny of Islam

It is the destiny of the religion of Islam to play the role of synthesizer in the last age of humanity. It is Islam's vocation to play this role by virtue of the fact that it is the last of the divinely revealed religions[1] and the most perfect religion.[2] Moreover, Islam's universal mission and character was not an afterthought in the collective Muslim mind after the religion and its *ummah* have undergone historical developments for a considerable period of time but instead it was explicitly mentioned by God in the Qur'ān.[3] In other words, Islam was deeply conscious of its universal mission and character right from the time of its birth. Logically speaking, only a religion that is the last in the series of divine revelations to mankind and the most perfect as well as that is addressed to the whole of mankind could play the role of synthesizer in the most effective manner. Only Islam can claim to be such a religion.

Being the last religion, Islam has to take into account the essential teachings of all the religions that came before it. The best response to the previous religions as indeed Islam has done it both in its revealed text (i.e. the Qur'ān) and in its historical unfolding would be to synthesize them with its own core teachings. The Qur'ān's response in this case is to affirm the unity of all divine revelations by confirming the truth of all previous revelations and by guarding and protecting their true original messages to the different *ummah* or branches of humanity for whom they were meant. The Qur'ān's role of confirming previous revelations is best indicated by its phrase *muṣaddiqan limā bayna yadaihi* while its role of scriptural guardianship and protection by the name it gives to itself, *al-muhaimin*.[4] The implication of these twin roles of the Qur'ān is quite obvious. The Qur'ān has both rights and responsibilities when it comes to interpreting other sacred scriptures. Believers in the Qur'ān have as much rights in interpreting the other sacred scriptures as their respective believers. However, they also have a responsibility to guard and protect the authentic interpretations of these scriptures by remaining faithful to the Qur'ān's teachings and perspectives on them.

And being the most perfect especially in terms of the depth and breadth of its social teachings that could help to guarantee societal salvation for human communities in the last age, Islam has to explain to the world what "extra" things it has that other religions lack; for that matter, what the non-religious ideologies lack as well. In my view, the most important "extra" thing in question is Islam's possession of the principle of *tawḥīd* (divine unity). True enough there are other religions that also

claim to be monotheistic but, generally speaking, both in depth and breadth of their doctrines and practices their respective monotheisms fall below the "pure and absolute monotheism" of Islam.[5] It is this principle of *tawḥīd* that Islam uses as the fundamental basis of its synthesis agenda. Since Islam is meant for the whole of mankind its synthesis agenda must be universal in nature as well as global in scope.

The synthesis envisaged by Islam is essentially one of ideas. Moreover, on the largest scale possible, it would a synthesis of ideas in all sectors of human life and thought. A synthesis on such a scale would thus be civilizational in scope. In both theory and practice, however, it is possible that it could just be the concern of a particular sector of human civilization such as science and technology. Moreover, a synthesis on a smaller scale could also be performed at various levels within the particular sector or domain of human civilization in question. We may speak of the need, for example, for a synthesis in science as a whole or in the more limited scope of any of its branches. We know that in the history of Islamic science Ibn al-Haytham, arguably one of the greatest physicists of all times, created a new synthesis in the field of optics resulting in the birth of a new mathematical physics with a new methodological approach to its study.[6] This was one of Ibn al-Haytham's greatest contributions to the mathematical and physical sciences.

As I have asserted earlier, synthesis of ideas is the very basis of the existence (*raison être*) of the religion of Islam. The basic ingredients needed for the various levels of synthesis we have in mind would be ideas. Since Islam is an integral and total religious tradition in the most comprehensive sense of the word – or holistic as many people would prefer to say nowadays – the more substantial ideas in the particular synthesis in question would necessarily come from its own "indigenous" sources.[7] At the fundamental level of ideas pertaining to any science or branch of knowledge, the rule to be observed is that Islam is necessarily self-sufficient. This has to be so, because if Islam were to be otherwise even in the domain of fundamental ideas, then it could not claim to be a complete and holistic religious tradition. Less fundamental ideas in the synthesis could of course come from "foreign" sources.[8] What more when both the Qur'ān and the Prophetic traditions (*ḥadiths*) legitimize the intake of "foreign" ideas particularly for synthesis purposes. As the Qur'ān frequently reminds us, metaphysically speaking, all truths and all knowledge come from God who is the Ultimate and Absolute Truth (*al-Ḥaqq*) and the Omniscient or the All-Knowing (*al-'Alīm*). And the Prophet is reported to have told us that "knowledge (*'ilm*) is the lost property of a Muslim" while "wisdom (*hikmah*) is the lost property of a believer (*mu'min*)" and, accordingly, he should take it wherever he finds it. What these prophetic sayings imply is that the Muslims or the believers are free to own true and useful ideas from non-Muslim sources.

Any major synthesis of ideas especially at the civilizational level would have to necessarily involve ideas taken from "foreign" sources. It is important, however, to understand the place and role of the "foreign" ideas in such a synthesis. The foreign ideas that are to serve as one of the ingredients in the synthesis in question must be truly integrated into the existing indigenous epistemological framework if these imported ideas are not to be simply artificially grafted into the new Islamic body of knowledge that is to be produced. The indigenous epistemological framework in question is none other than the traditional *tawḥīdic* epistemology of Islam. While some of the ingredients or elements of the synthesis could come from foreign sources the synthesizer to effect it must be provided by the receiving indigenous tradition. In the case of the Islamic tradition it is the principle of *tawḥīd* that normally plays the role of synthesizer. Without an effective synthesizer no authentic synthesis could come into fruition.

Thanks to the very nature and scope of its revealed teachings founded on the principle of *tawḥīd* Islam has come to possess a well-established and strong tradition of synthesis. True enough in modern times this important tradition has weakened considerably. However, in my view, this tradition can be revived in our present times. What has happened is that, due to numerous factors which are beyond the concern of this article, the present generation of Muslims has forgotten the tradition. The wisdom embodied in the Islamic synthesis tradition is not lost but forgotten! So it just remains for the younger generation of Muslim academics and scholars to be reminded of this forgotten tradition and its importance to the renewal and revival of the *ummah* especially in the context of the "challenge of knowledge" in the twenty-first century.

What is this forgotten synthesis tradition? First of all – for those of us Muslims who need a reminder – let us be reminded of the fundamental truth in Islam that the Qur'ān has been revealed as a synthesis of all previously revealed truths together with the new body of Qur'ānic truths not found in

previous religious scriptures. The Prophet compared the religion of Islam he brought to mankind to a house which he and fellow prophets before him had collectively built. "Except for a little part" the house has been completed by his predecessors. The Prophet described his role as having to complete the incomplete part. That was how the Prophet described his "synthetic" role. The synthetic nature of the Qur'ān in relation to all other revealed scriptures thus justifies its name and role as *al-muhaimin*, which conveys the meaning of protector and safeguard, to which I have referred earlier. As I have emphasized, it is the function of the Qur'ān to confirm the truth of the earlier revelations. Now, to confirm them means to affirm and to protect and safeguard the core content of their respective messages. In view of this particular function of the Qur'ān the Muslims have as much rights as the Christians – if not more than them – in interpreting the Bible. Muslims will, of course, interpret the Bible in light of the teachings of the Qur'ān. The same principle applies to the Qur'ān's attitudes toward the other religious scriptures. We can therefore see what sort of implications the synthetic nature of the Qur'ān in its religious dimension can have on the academic discipline of Islam in its relations to the other religions and more generally on the discipline of comparative religion. If we bear this in mind then it should not come as a surprise to us that more than ten centuries ago Muslim scholars pioneered studies in comparative religion.

Secondly, let us be reminded of the historical fact that through its *ummatic* ideals the religion of Islam succeeded in creating a new civilization that was synthetic in spirit and ingenuity. In its civilization-building Islam created a synthesis of the principles, ideals, values, and positive achievements embodied in the previous civilizations in conformity with its own divinely revealed *tawḥīdic* character. To be *tawḥīdic* means to be at once universal and particular and also to be at once inclusive and exclusive. In as much as the Qur'ān is the root of this *tawḥīdic* character we are able to see in it passages that are both exclusive and inclusive in nature. Verses that begin with "O mankind!" may be said to be inclusive since they are addressed to the whole of mankind.[9] On the other hand, verses that begin with "O you who believe!" may be said to be exclusive since they are meant for the Muslims only.[10]

As an example of the Qur'ān's insistence on the need to take into consideration both universal and particular truths, we may refer to the verse on how from the first couple, Adam and Eve, the human family has grown to become nations and tribes so that "they may know one another." The verse reads as follows:

"O mankind! We created you from a single (pair) of a male and a female, and made you into nations and tribes, that you may know each other. Verily the most honoured of you in the sight of God is (he who is) the most righteous of you. And God has full knowledge and is well acquainted (with all things)"

[The Qur'ān 43:13]

In the above verse we see the Qur'ān addressing an issue that has both universal and particular dimensions. The issue in question pertains to the division of mankind into nations and tribes. The universal truth to be observed in the verse is the common origin of mankind; another universal truth emphasized by the verse is the moral principle that asserts righteousness as the true measure of human worth and dignity. Yet, there is also a particular truth which the verse seeks to convey. This is the truth that affirms ethnic identity and ethnic pluralism as having a legitimate place and role to play in the promotion of human values and world peace. Thus, the Qur'ān acknowledges both the universal and particular meanings of ethnic diversity and pluralism. It does not seek to negate ethnic identity and dignity in the name of the more universal idea of spiritual identity (or spiritual brotherhood) and moral dignity that transcend ethnic differences. Ethnic identity and dignity will become blameworthy if and only if it is sought for its own sake and at the expense of its higher purpose, namely "that you may know each other" – meaning mutual acquaintance, mutual knowledge, and mutual understanding – leading to the knowledge of God the Creator. How can knowledge of ethnic diversity lead to knowledge of God the One? This is the Qur'ān's challenge to anthropology! Anyway, the Qur'ānic objective of ethnic diversity is to be understood at various levels.[11] Only then can we harmonize its lower goals – for example, acknowledgment of ethnic identity – with its higher goals, for example, human brotherhood and acknowledgment of righteousness as the true measure of human worth and dignity.

In view of the Qur'ān's *tawḥīdic* spirit as explained above, Islamic civilization is consequently one and at the same time universal and particular as well as inclusive and exclusive in its nature and characteristics. This truth about Islamic civilization is perhaps best illustrated by its scientific culture and its pluralistic scientific

community with its multi-dimensional scientific pursuits and practices. When traditional Islamic science is understood in its entirety we would then be in a good position to see its mixed traits. It will be seen as at once universal and particular as well as at once inclusive and exclusive. Islamic science as it developed in the first several centuries of Islamic history was created as a synthesis of the indigenous Arab-Islamic scientific ideas and elements and the diverse elements and currents of thought drawn from the pre-Islamic scientific sources in non-Arab civilizations that came into Muslim hands. However, it was the rich scientific and philosophical ideas to be found in the Qur'ān and the Prophetic traditions and in the religious sciences that originated from these scriptural sources that played the most important role in the synthesis.[12] Islamic science was indeed created as a grand synthesis. The epistemological thread that links these diverse elements to one another and weaves them intricately yet beautifully into a harmonious whole is none other than the principle of *tawḥīd*.

Islamic science was partly universal and inclusive in nature because it was based upon the Qur'ān's universal principles and it was created out of the scientific heritage of the world's civilizations, big and small. Moreover, it was contributed by scientists who belonged to diverse religious and ethnic groups, again both big and small. And it served the needs of the whole world. It was the universal and inclusive component of Islamic science that was substantially inherited by the modern West. It was therefore this component of Islamic science inherited by the West that served as the link of continuity between Islamic science and modern science.

However, there was also a discontinuity between Islamic science and modern science. Not everything scientific produced by the classical Muslims was inherited by the modern West. The modern West chose to inherit only those elements of Islamic science which were in conformity with their rational worldview and which served their utilitarian natural philosophy. The particular and exclusive component of Islamic science which was created to serve the *ummah*'s religious and spiritual needs as dictated by the Islamic *sharīʿah* was largely ignored by modern science. For the *ummah*, however, science in the service of Islam – to borrow David King's words[13] – was a real and paramount need. Muslim scientists worked diligently to fulfil this particular need of the *ummah*. Thus we could see in the Islamic scientific heritage a substantial component devoted to the service of the *sharīʿah*. The *sharīʿah* has inspired Muslims to produce scientific knowledge especially in the mathematical, physical, and medical sciences that would enable the *ummah* to observe its injunctions in the best possible manner.

Since this particular need of the *ummah* is perennial in nature Islamic science of any period or era would have to address it. What this means is that if Islamic science were to again become dominant in the world it would still be displaying the same major characteristics and traits as its precedents in the classical period. Generally speaking, we could say that Islamic science of the future would be addressing the particular needs of the *ummah* as well as the universal and global needs of the whole human community.

Islamic science, modern science, and post-modernity: the call for a new grand synthesis

For the twenty-first century *ummah*, Islamic science, modern science, and postmodern science – if we can already speak of it as being meaningful enough– are now important parts of their collective intellectual memory and their present collective consciousness. These three sciences I am sure pose many questions to the contemporary Muslim minds especially the practising scientists. The notion of Islamic science is by no means universally accepted by present-day Muslims. The great majority of Muslims today know very little about science in Islamic civilization of the past, both understood as a body of knowledge and as a culture. At best, they are informed about the historical fact that the global *ummah* once produced the most advanced science and the most brilliant scientific culture in the world. However, the identity and character of this science is little understood by them. Even the scope of its achievements is little known except to the experts in its history.

It is precisely because so many Muslims today are confused about the identity and character of science in Islamic civilization that they hotly dispute the use of the term Islamic science. They believe that there is no difference between science in Islamic civilization and modern science in their nature and characteristics because they think there was complete continuity between the two sciences. However, as I have earlier emphasized, such a belief is false. It is my view that, as a matter of principle, this science deserves to be called Islamic science not just because it happened to be largely produced by Muslims but more important because it was based on the universal and particular principles of the Qur'ān.[14]

Now comes the new revelation about modern science! The revelation surprises and shocks many people including Muslims. Significantly, it came from the West, the birthplace of modern science itself. For those Muslims who have already begun to accept modern science not only as a system of knowledge but also as a culture on the supposed ground of its total compatibility with Islam, the timing of the revelation is a source of much psychological discomfort. Since the mid-twentieth century many Western intellectuals including leading scientists have been telling the world that the age of modern science has come to an end. They claim that the modern scientific worldview has been shattered most of all by the so-called "new physics." We are now in the era of post-modernity whatever that means. Given the vagueness of the idea of post-modernity in the West itself, what this era could mean to contemporary Muslim life and thought is not surprisingly still a matter of speculations although a small group of Muslim intellectuals in various parts of the Muslim world have embraced postmodernism. But the little we now know about postmodernism already persuades us to come to the conclusion that the human community of this century is called upon to cultivate a new science. This conclusion is based on my judgment on the standpoints of the various strands of thought that constitute postmodernism.[15]

The revelation that modern science has met its end when so many Muslims regard it as being in conformity with Islam must have indeed puzzled them. No less puzzling to many people is the phenomenon of postmodernism which originated with the overthrow of the modern scientific worldview by the new quantum physics. As I have asserted earlier, for many Muslims modern science has ceased to be an ideological issue. They have accepted it as "a part of modern Islamic culture." Their acceptance of it only goes to show the extent of the impact of modern scientific thought on the Muslim minds. What happened was that in the last two centuries or so, Islamic science came to be eclipsed by modern science which was largely of Western inspiration. As a result of the powerful influence of modern science and technology on human life and various other factors, the scientific community of the *ummah* embraced its philosophy and practices. Furthermore, in their pursuits of material and economic developments, the ruling elites of the *ummah* many of whom were educated in the Western secular tradition embraced the practical philosophy of modern science and its technological fruits. In the last few decades, however, Muslim voices critical of modern science have become more numerous and also louder.

One important thing to note, however, is that Muslim critics of modern science would find in postmodernism a useful ally. Postmodernism provides a Western confirmation of the many views certain Muslim scholars had held against modern science. But as to what the alternative to modern science should be postmodernism is of no help to Muslims who are also seeking for an alternative, albeit in its Islamic form. Actually, postmodernism raises more questions than it provides answers and this is certainly true in the domain of science.

Regardless of the depth of our understanding of what we call Islamic science, modern science, and post-modernity, we have to confront the disturbing realities of our times. In this new and challenging twenty-first century the global *ummah* is again called upon to create a new science and a new scientific culture both for itself and for the whole human community. In undertaking this task, the global *ummah* needs to pay due attention to the three sciences just mentioned. A group of Muslim scholars and academics must exist to provide responses to these sciences with the view of clearing the ground for a new grand synthesis within the framework of Islamic *tawḥīdic* epistemology.

The new synthesis: what is essentially required

After taking into consideration these three things – Islamic science, modern science, and post-modernity – the global *ummah* must work together to produce a new science through a synthesis of the ideas embodied in the three intellectual cultures and worldviews. The most important intellectual tool needed for this synthesis is the Qur'ānic principle of *tawḥīd*. The Islamic tradition of synthesis needs to be understood well and revived in our times. We have to think of the ways and means by which Islam's *tawḥīdic* epistemology can help the *ummah* in producing the new synthesis.

In my view, we should start with reviewing and changing where necessary the foundations of modern science. Postmodernism has abandoned the modern scientific worldview but it has not replaced it with a better one. In particular, it has not put in place a better foundation for contemporary science. Worth noting is that Islamic science and postmodern science both agree that the new (quantum) physics has undermined the foundations of modern science. It is therefore important to bear in mind that if we really want to create a new science – and the present state of human knowledge tells us that we have to – then we have to construct

anew its foundation. It is in the construction of this foundation that traditional Islamic science could be of great help. Traditional Islamic science was known for its solid foundation. Not only Islamic science as a whole but also its major branches such as the mathematical sciences, natural sciences, and cognitive sciences were known to have well-established foundations. From the point of view of Islamic science, not every element in the foundation of modern science is faulty. However, the whole foundation of modern science needs to be re-examined in light of the foundational assumptions of both Islamic science and postmodern science. Some form of harmonization between the Newtonian scientific worldview that has sustained modern science for a considerable period of time and the new physics appears to be necessary and a claim is made here that this could be achieved under the guidance of Islamic cosmology and Islamic epistemology.

It is perhaps worth mentioning that some scientists in the West have already taken several few steps in the direction of reconstructing the foundation of contemporary science. I am happy to note here that I was indeed fortunate to be associated with one of the multidisciplinary groups of intellectuals and thinkers representing the different continents and religious traditions that are concerned with the issue of foundational assumptions of modern and contemporary science. This small group of eight people first met in July 2007 in Hokkaido, Japan and it called their historic meeting the "Hokkaido Science Symposium."[16] The members of this group succeeded in identifying a good number of the foundational assumptions of modern science that for various epistemological reasons need to be discarded. They also concur on the present assumptions that could be retained. Further, they have identified its foundational assumptions that need further examination before a conclusive judgment could be made on their epistemological status and their usefulness.

In conclusion I would like to urge Muslim scholars, academics, and scientists concerned with the Islamic alternative to modern science to join this scholarly enterprise so that our proposed grand synthesis in science could materialise in our times, inshā'Allah

[1] "Muhammad is not the father of any of your men, but (he is) the Messenger of God and the Seal of the Prophets. And God has full knowledge of all things." *The* Qur'ān, 33:40.

[2] "This day I have perfected your religion for you, completed My favor upon you, and have chosen for you Islam as your religion."*The Qur'ān*, 5:3.

[3] "We have not sent you but as a universal (messenger) to men, giving them glad tidings, and warning them (against sin), but most men do not understand." *The Qur'ān*, 34:28.

[4] The Qur'ān has summed up these two roles of it in this verse: "To you We sent the Scripture in truth, confirming the scripture that came before it, and guarding it in safety." (5:48)

[5] Commenting on the monotheisms of Judaism and Christianity which are usually regarded as the sister religions of Islam in the Abrahamic family of religions – often viewed as the most monotheistic family of religions – a twentieth-century sage spoke of Christianity as having "relativized God" and Judaism "nationalized God."

[6] See Ibn al-Haytham, *Optics*, trans. with Introduction and Commentary by Abdul Hamid I. Sabra (London: The Warburg Institute, University of London, 1989), volumes I & II.

[7] By "indigenous" sources I mean in the order of fundamentality and importance the Qur'ān, the *Hadiths*, and the various forms of wisdom and knowledge discovered and produced by Muslim minds at various points of time in Islamic history.

[8] By "foreign" sources I mean those that lie outside the religion and *ummah* of Islam.

[9] I have collected all verses beginning with "O mankind!" (27 in all according to my count) and sought to identify the themes, ideas, and issues which these verses seek to convey to the global human family. My main interest in these verses is currently on their significance and value for inter-religious and inter-cultural dialogue since I interpret these verses to mean that the Qur'ān is calling on the whole world to dialogue among themselves on a wide of range of global issues that pose challenges and problems to world peace. For my discussion of several of these verses from the perspectives of inter-religious and inter-cultural dialogue, see Osman Bakar, *The Qur'ān on Interfaith and Intercivilizational Dialogue: Interpreting a Divine Message for Twenty-First Century Humanity* (Kuala Lumpur: ISUGU & IIIT, 2006).

[10] In my view, this set of verses numbering eighty or so is extremely important to the Muslims both in their individual and *ummatic* context. In particular, these verses should be studied from the point of view of intra-Islamic dialogue with the objective of achieving peace and unity in the global Muslim *ummah*.

[11] For a discussion of the various understandings of "that you may know one another" in the Qur'ānic purpose of ethnic diversity, see Osman Bakar, *The Qur'ān on Interfaith and Intercivilizational Dialogue*, pp. 15-19.

[12] On the role of the Qur'ān, the Prophetic traditions and the early religious sciences in the foundation of Islamic science, see Osman Bakar, *Tawḥīd and Science: Islamic Perspectives on Religion and Science* (Shah Alam, Malaysia: Arah Publications, 2008).

[13] David King is currently Emeritus Professor of History of Science, Johann Wolfgang Goethe University, Frankfurt am Main, Germany. For his treatment of the theme 'science in the service of Islam, particularly the sharia' see David A. King, *Astronomy in the Service of Islam* (Aldershot, UK: Ashgate Publishers, 1993), Variorum Collected Studies Series.

[14] For arguments why science cultivated in Islamic civilization deserves to be called Islamic science, see Osman Bakar, *Tawhid and Science*, pp. xviii-xxvi.

[15] Thus far I have given several speeches and presented papers including at ISTAC, IIUM on the theme of the implications of

postmodernism for Islamic life and thought. Insha Allah, I will be publishing a book on this theme in the very near future.

[16] For more information about this important event, see Osman Bakar, 'The Spirit of Islamic Science in the Hokkaido Science Symposium,' *IAIS Journal of Civilization Studies*, vol. 1, no. 1 (October 2008), pp. 203-207.

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