

IAS, RSS AND ETC
INTERNATIONAL SEMINAR
on
Islamic Perspectives on Science's
Big Questions

5 May 2016
Amman, Jordan

SEMINAR REPORT¹

Under the patronage of HRH Princess Sumaya bint El-Hassan, President of the Royal Scientific Society, Jordan; the Islamic World Academy of Sciences (IAS) and the Amman-based UN-ESCWA Technology Centre (ETC) convened an international seminar in Amman, Jordan, on 5 May 2016, under the title 'Islamic Perspectives on Science's Big Questions.'

Convoked at the Royal Scientific Society (RSS), the seminar was an open activity in which over 90 local and international participants took part. Among the participants were Fellows of the IAS, local scientists from the various universities, young university students as well as heads of diplomatic missions and international agencies based in Amman, Jordan.

The seminar was organised and sponsored by:

- Islamic World Academy of Sciences (IAS), Jordan;
- UN-ESCWA Technology Centre (ETC), Jordan; and
- Royal Scientific Society (RSS), Jordan.

The theme of the seminar is based on a recent report published by Muslim-Science.com's Task Force, which was made up of a group of academics from a number of OIC countries, under the title of 'Islam and Science,' that was supported by:

- John Templeton Foundation, USA;
- The Muslim World Science Initiative, Pakistan; and
- Turkish Society for History of Science (TBTK), Turkey;

The report attempts to develop a framework to bring about the long sought reconciliation between 'Islam and Science;' and includes the Istanbul Declaration adopted by the specialised task force which was earlier assigned to study the topic. The report outlines certain general principles on how Muslims (or people of faith in general) may approach issues at the intersection of Islam and science.

¹ Prepared by Dr Moneef R. Zou'bi, DG, IAS, and IAS staff in Amman, Jordan.

The objectives of the seminar were:

- (a) To revisit the debate between Islam and science and discuss the question of whether religion and science should be separated or reconciled;
- (b) To unravel what Islam as studied by academics and researchers says about important scientific questions including the theory of evolution and other weighty scientific questions; and
- (c) To highlight values in Islam in support of scientific research, innovation and production for better life. These values are critical for building knowledge base economies in Muslim countries.

HRH Princess Sumaya bint E-Hassan, President of the Royal Scientific Society, and patron of the seminar, in her opening remarks, suggested that 'Islam and Science' issues needed to be addressed, now and in the future. They are sometimes difficult, often controversial but always essential to the peaceful reconciliation of progress with faith. HRH urged that we must accept that there will always be some degree of friction between our faith and development through science and innovation. However, she elucidated, how societies manage that friction and conflict will determine how inclusive, thoughtful and successful future progress will be and that it was vital in a globalized world that the west views the Islamic world through fresh and untainted eyes. She added that Muslims must help deliver that view of their world to westerners, otherwise 'how can we expect others to see us through the lens of learned reflection if we fail to do so ourselves.'

HRH went on to say that Muslims should begin by reminding themselves that the story of human achievement over the centuries has shown itself to be full of creativity in the east and the west; events of human enlightenment that find their counterparts in other cultures and other times.

'If we are to be true to our heritage and faith, then we must acknowledge one truth, that knowledge should be free, it must be sought honestly and analysed wisely, it must be unshackled by those who seek ownership of minds through misinterpretation of religion. It must be as the Prophet (PBUH) intended,' she concluded.

Apart from the inaugural session which included the launch of the 'Islam and Science' Report, the seminar was made up of four sessions the last of which was a panel discussion.

The first speaker in the inaugural session was Dr Athar Osama, founder of the Muslim World Science Initiative, Islamabad, Pakistan; who talked about the importance of Non-Governmental Individuals (NGIs) such as scientists, scholars, policy makers and philosophers who are concerned with the state of science and innovation in the Muslim world. He explained that the Muslim-Science.com's Task Force aimed to contribute to bringing about a revival of science in the Muslim world and to trigger the debate on 'Islam and Science' as an exercise from within the Islamic world itself, rather than an initiative imposed from outside.

Dr Fouad Mrad, Executive Director of UN-ESCWA Technology Centre in Amman, Jordan; highlighted the correlation between culture, religion and sustainable development. Quoting the 1999 UNESCO World Culture Report, he said that 'culture shapes the way we see the world. It therefore has the capacity to bring about the change of attitudes needed to ensure peace and sustainable development which, we know, form the only possible way forward for life on planet Earth.'

Prof. Mrad added that the World Commission on Culture defined culture as 'ways of living together' and argued that culture formed a core element of sustainable development.' He further quoted the World Commission by saying that: 'developing cultural values that support people-to-people and people-to-nature values has traditionally been the role of religion in most societies.' He concluded that religions have a strong influence on the culture of local community.

Dr Moneef Zou'bi, Director General of the Islamic World Academy of Sciences (IAS) in Amman, Jordan; in his statement, wondered as to what was holding back the Islamic world from achieving science-based socioeconomic development and producing world class entrepreneurs.

Dr Zou'bi elaborated that the Muslim scholars and OIC science organisations today adopt dichotomous stands vis-à-vis science and the scientific enterprise. A stand which is a hybrid of a qualitative historical component - that lacks real depth - and a quantitative indicator-based component. 'Today, the science scene in the Islamic world is blurred, rendering efforts to rejuvenate the scientific enterprise within, futile. A divide exists between essentially two schools of thought. Each has its proponents who adopt differing views within the same school of thought they represent,' he added.

Dr Zou'bi went on to say that the first school of thought is the 'modernist' school which believes that S&T is *the* means to realize socioeconomic development, without delving too much into the spiritual and ethical features of science. Decision-makers of this inclination accept quantitative techniques as the main means by which S&T is gauged. They are in harmony with the pragmatic approach, which seeks to promote pure and simple 'science,' as pursued by most science academies, national S&T agencies and bodies such COMSTECH and the IESCO. Proponents of this school include the late Abdus Salam as well as individuals such as Jamaluddin al-Afghani and Muhammad Abdu, the two influential reformers of the 19th century.

The other is the 'conservative' school of thought which argues that there is more to science than numbers, and that modern science has its own worldview. It is not at all value free, nor is it a purely objective science of reality irrespective of the subject studied. The so-called conservatives think that 'only a science that is from the source of all knowledge, from the Knower can save humanity.' Dr Zou'bi concluded that the IAS, in its quest to address this divide between the conservative and modernist schools of thought, decided to co-organize this seminar.

In the first working session of the seminar which was entitled 'Islam and Modern Science: Separation or Reconciliation,' Prof. Nidhal Guessoum, American University of Shrajah (AUS), UAE; explained that modern science has been presented in a naturalistic methodology that has kept God 'out of the picture' and brought in some challenging theories and results including for example biological and human evolution. Muslim thinkers have proposed positions vis-à-vis modern science that were reflected in Ian G. Barbour's typology of possible Science-Religion relations: integration, dialogue, separation or conflict. He argued that none of the proposed positions had relieved the tension between Islam and modern science satisfactorily and suggested that a 'harmonization' approach that reflects or at least starts from Ibn Rushd's non-conflict thesis (between revelation and reason) can constitute a way forward.

The second speaker was Mr Ehsan Masood, Editor-in-Chief, Research Fortnight, London, UK; who suggested that science and belief are often described in binary terms: being in conflict or searching for consensus. But, there is a third way, which he called 'critical engagement' as there are many ways to believe; just as there are many

approaches to research, he added. If we recognize this diversity in both realms, the dialogue will be richer and far less confrontational, Masood said.

The second session which was entitled 'Causality, Naturalism and Miracles' was chaired by Dr Hanan Malkawi, Professor of Biological Sciences at the University of Yarmouk in Jordan. The first speaker was Prof. Usama Hasan, who is a senior researcher in Islamic Studies at Quilliam Foundation, UK. Hasan talked about the success of modern science in explaining many of the workings of nature, thus raising some questions for traditional Islamic theology (*Kalam*). His presentation focused on the relationship between God and nature in two realms: (i) Causality, or the causal power of the laws of science; and (ii) Miracles and divine action in the world with regard to the *Kalam* concept of *Kharq Al 'Adah*, as well as naturalistic understanding of miracles as signs of God (*Ayat Allah*).

The second speaker was Prof. Basil Altaie, Professor of Theoretical Physics at Yarmouk University, Jordan. His lecture focussed on *Daqīq al-Kalām*, being the Islamic approach to natural philosophy which offers a wide range of possibilities to analyse and explain the most fundamental questions concerning God, Man and the world. New developments in science have opened new avenues for investigations and provided new tools for analysis; a revival of *kalām* is needed to tackle the big questions with a new *kalām*, he suggested. He presented the basic principles of the new *Daqīq al-Kalām* which is construed from the basic doctrines of the old *kalām* on natural philosophy, and presented some examples from physics and biology to demonstrate such principles and similar related phenomena.

The third session which was entitled 'Evolution and Cosmology' was chaired by Dr Lian Otay of the King Hussein Cancer Centre, Jordan. The session included a presentation by Dr Rana Dajani, Associate Professor, Faculty of Science, Department of Biology and Biotechnology at the Hashemite University in Jordan. Dr Dajani talked about the controversy of the compatibility of biological evolution and religion in general and Islam in particular. Biological evolution is a fact, Dr Dajani claimed. Yet, because many misunderstand the science behind the theory, lack of freethinking, ignorance and the existence of parties with a hidden agenda, the controversy between evolution and Islam has become main stream. She went on to say that: 'as a Muslim molecular biologist, for me there is no incompatibility between biological evolution and Islam.' She added that she intended to draw upon her experience as an educator who teaches evolution to present the topic in a new light taking into consideration all the students' and community's feedback. 'This work is very important and is a significant contribution to the development of scientific thought especially in the Muslim world,' she added, as it will advocate the compatibility of biological evolution with Islam. She went on to propose the reinterpretation of holy texts in the light of modern scientific discoveries and to encourage freedom of thought to address such controversial issues.

Prof. Jamal Mimouni, Professor of Physics, University of Constantine, Algeria, was the last speaker of the day. He addressed the topic of modern cosmology and talked about the centuries-old enterprise of attempting to describe scientifically the history of the universe. Such a study he added was characterized by structural fragility. He then addressed the issue of cosmology in view of previous historical theories and concluded that humans should continue to ponder on some fundamental issues related to the universe and the place of Man in it.

The fourth session was entitled 'Islam Science Relationship: The Way Forward' and took the form of a panel discussion with Dr Fouad Mrad as facilitator and Prof. Nidhal Guessoum, Dr Athar Osama and Dr Moneef Zou'bi as panellists.

The facilitator Professor Mrad reminded panellists of the declared objectives of the panel namely to propose possible educational and cultural deliverables that may result from the event adding that a record of the seminar would be provided to schools and universities as a tool to raise scientific awareness of youth of the topics addressed. A summary of the seminar would be prepared and shared among the stakeholders and civil society, particularly through the web and various e-platforms.

He went on to propose that a route-map of action can be developed by answering the *www* questions, i.e. the What, Who, When questions. Mrad added that he had compiled a list of keywords from the day's three sessions.

The key message from session 1 according to Prof. Mrad was that harmony between modern science and religion is a reality that is manifested in a stable nexus based on science, education and Islam. In addition, the concept of critical engagement was offered as an alternative to the binary world of conflict or non-conflict between religion and science.

From session 2, the key message was that *Daqiq Al Kalam* (Muslim historic roots of *Fikh*) provided the bases for reasoning and logic in addressing livelihood challenges. Also in session 2, there were explicit recommendations for the Muslim youth to study modern science and not to shy away from questioning theology and philosophy.

The 3rd session highlighted the important nature of the Qur'an depicting it as a book of 'signs' rather than a book of science. In addition, science was defined as the answer to 'how' question while religion provided the answer to the 'why' question. Furthermore, the session showcased cosmology as a developing science in a state of continuous development like most other sciences. The session stressed the importance of exploration for the Muslim youth rather than have them remain as sideline observers.

In his annotation, Prof. Nidhal Guessoum stressed that the harmonization of science, culture, tradition and religion in particular would establish a strong foundation for dignified living and thinking. He followed that by proposing a possible role for the peaceful and reflective treatment of religion in the stressed age of connectedness.

Dr Athar Osama on the other hand emphasized the important role of education especially at the school level and cited many examples that demonstrate the importance of allowing school children space for free reading, critical thinking and experimental learning.

Dr Moneef Zou'bi iterated the low standing of Muslim countries in general in the domains of science, technology and innovation in the last 30 years. He differentiated between STI input and output KPIs and the impact of STI on sustainable development. He also highlighted the important role science role models and champions can play in Muslim societies and stressed the importance of implementing STI policies - when developed and adopted - for development.

In wrapping up the proceedings, Dr Mrad suggested that technopreneurship values for Muslim youth needed to be developed and disseminated through adequate channels and platforms. He also suggested that practical recommendations and practical educational materiel for high school and university students needed to be distilled from the event with the help of the ISESCO, particularly with respect to production and dissemination. He also proposed that through the network of Ministers of Education of Muslim countries we can spread awareness and policy-science interface messages based on the discussions of the seminar.