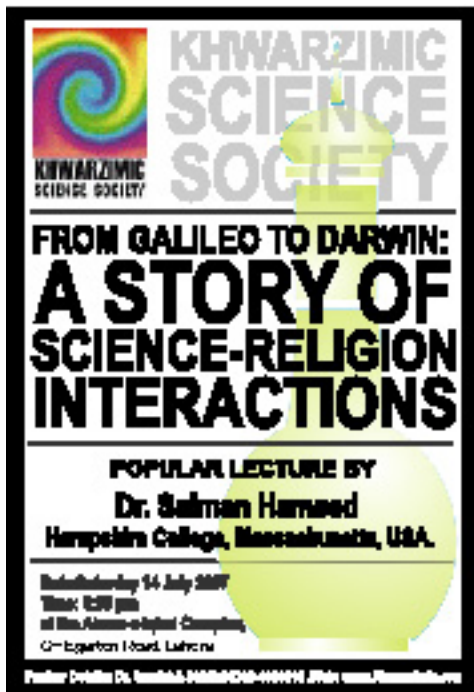


## Report of the Seminar: FROM GALILEO TO DARWIN: A STORY OF SCIENCE AND RELIGION INTERACTIONS

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Are science and religion friends or enemies? Do they overlap? Are they in harmony with each other? Or are they poles apart, often in bitter conflict? Debates of creation and evolution, reason and faith, revelation and observation, determinism and free will and



certainty and doubt have all contributed in creating a magma of uncertainty, often erupting in the form of fierce polemics. Religionists often blame science for the materialism, environmental degradation, frustration and spiritual emptiness that is slowly but steadily engulfing our human selves. Some factions within the religious circles make no distinction between scientific advancement and godless, secularist free thought, even though they do not hesitate in reaping all fruit of technology their money can buy them. On the other hand, free thinkers often downplay the important role religion, faith and revelation play in human societies and tend

to think of religious associations as mere blips of emotional hyperactivity in the neural consciousness. This sometimes leads to a sense of “fulfilled atheism”, castigating religion as an evil, divisive and anti-human force.

Within this complex maze of ideas and counter-ideas, it becomes difficult reaching at a satisfying answer. Of course, there can never be one answer. However, careful thinking can point us into the direction of some safe opportunities. The first step is to understand how science and religion interact and how they, as a double-edge sword carve our daily lives, our mentalities and our collective wholes.

The Khwarzimidic Science Society (whose introduction was ran in the Technobiz June 2007 issue) has now made “science and religion” as one of its major themes for the years 2007 and 2008. The Society (KSS) is determined to untie or at least, expose the many knots in this ongoing discussion between science and religion.

There are different shades of this discourse. There is the historical perspective that treats science and religion as two of the most phenomenal historical currents molding human civilization. Then one can delve into this question from an epistemological view-point: both religion and science considered as different aspects of a knowledge base, coming from different sources. Relevant to the epistemological debate is also the power struggle between reason and revelation. Similarly, the ontological angle asks questions such as the purpose of human existence and why we are here, where did we come from and where are we heading to? Science and religion, again feature in this ongoing mishmash. Modern science, especially the revolutionary advances in quantum mechanics, relativity and genetics have added many more dimensions to this discursion. This has brought to light many new phenomena such as non-locality, the expansion of the universe, parallel worlds, anti-matter, the genetic makeup of living species, cloning and stem cells. These advances have all challenged our modes of consciousness, our associations with the habitat and our everyday lifestyles. The KSS aims at unfolding all these dimensions.



An opening public lecture on this subject was organized by the KSS on 14 July at the Aiwan-e-Iqbal Complex in Lahore. The speaker was Dr. Salman Hameed, an astronomer by training and research and now Assistant Professor of Humanities at the Hampshire College, United States. Dr. Salman received his early education in Karachi before he moved to the United States where he completed his Ph.D. in astronomy from the New Mexico State University. His interdisciplinary research interests encompass modern creation movements in the Muslim world, reconciliation efforts over sacred places and objects such as the Mauna Kea in Hawaii and the spread of paranormal beliefs in college students. A critical thinker, a fond lover of astronomy and the sciences

and an eloquent speaker, Dr. Salman made an exciting and thrilling evening for the KSS and all the audience, who came in the numbers, despite an impending street unrest due to the ousted Chief Justice's visit to Lahore. The participants comprised students, members of religious schools, lawyers, businessmen, medical doctors, bankers, scientists and of course, the team from Technobiz comprising the Editorial Members Shahid Khan and Saleem Shahab. The main organizer of the event was the President of the KSS, Dr. Saadat Anwar Siddiqi, an enthusiastic supporter of the cause of science popularization. The session was chaired by Prof. Dr. Khalid Rasheed from the School of Science and Engineering LUMS, a chemist by profession and a historian of religion through interest.

After a touching recitation from the Holy Quran by Qari Ahmad Hashmi from the Tanzeem-e-Islami and my introductory speech, Dr. Salman started off with his unusually candid and gripping style. As he progressed through his presentation, he made mention of several interesting historical and nuanced philosophical points.

The major motivation for undertaking a careful study of this subject in Pakistan and within Muslim communities, Dr. Salman argued, was that science did not belong to the east or the west and is divested of any uniquely geographical content. As such, modern day science is also *ours*, it is a shared heritage of humankind.



Dr. Salman's entry into the presentation was that science and religion are humanity's most important assets and undeniably, play a vital role in shaping what we are today. He then went on to make a disclaimer – the view point he presented is not the *only* viewpoint. Such a straightforward admission coming from an excellent researcher

in the field seemed a great plus point of the speaker. He then pointed out recent cover stories of the leading magazines that carried stirring emotions such as “God versus science”, “The God gene”, “The Evolution Debate” making way for a justifiable reason to study this subject with a keen and devoted outlook.

Dr. Salman discussed in detail the row between Galileo and the Catholic church. Historical evidence suggested that Galileo's excommunication was a result of personal failings on part of the Pope and not of a purely dogmatic insistence on scriptural inscriptions, played out by the inquisition conducting the trial. An important subtlety was that Galileo believed that the sun was at the centre and the earth went around the sun, but his proof based on the phases of Venus and the tides on earth, was in fact *wrong*. So although his conjecture was correct, it was correct because of the wrong reasons and could not sufficiently convince the inquisition. Galileo was in fact a deeply religious person, just like Newton and Darwin and even Copernicus who was an ordained priest.



A lot of time was then spent on Darwin's theory of evolution with its singular most important ingredient, natural selection. Dr. Salman presented the fact that hundreds of thousands of scientists worldwide believe in the scientific possibility of natural selection and

this advocacy cannot simply be discounted or undermined. Natural selection, like all theories has its strengths but also its weaknesses, what are called the “gaps”. Opponents of natural selection base their arguments on the existence of these gaps, using them as an alibi that



“natural selection must definitely be wrong because these gaps *do* exist and hence the viewpoint that all species were created by divine commands *without* any need or room for natural selection must be correct.” Dr. Salman used the terminology “God of the Gaps” for this style of argumentation used in supposedly proving creationism. Dr.

Salman discussed that such an approach lacks scientific rigour and cannot qualify as an assertive proof for creationism.




The speaker is on a roll!

Dr. Salman seemed to support the “non-overlapping magisteria model” (NOMA), that the Books of Scripture and Science are separate and must be kept separate as such in all investigations. The Book of Scripture tells “how to go to the heaven” but the book of Science tells “how the heavens go!”

The speaker, who was extremely involved with the presentation by now and seemed to enjoy every bit of, then went on to survey the various popular outlooks on the subject of how



science and religion should interact. Included were the viewpoints of the creationists such as Harun Yahya who not only reject natural selection but also label Darwinianism as an evil Nazi ideology; Syed Hossein Nasr and affar Iqbal who want to divest science of its western character and preach a thorough rewriting of science

in the Muslim context, or Hoodbhoy who advocates a purely secular vision of science, regarding religion as an serious impediment in human development.

I felt that the conclusion was the most enticing part of it all where Salman showed the earth as a tiny speck in the backdrop of the rings of Saturn, indicating our littleness in the vast chasms of the heavens. Religion and science have immense potential of enriching one another. Science reveals to us our spatio-temporal inferiority in the scheme of elements, our relationship with our universe and religion also makes prominent a feeling of natural attachment and a sense of wonder for our surroundings. Religion could also provide us with the ethical and moral guidelines to use scientific achievements in a humane and environment-friendly manner.



Followed by a healthy round-of-applause, the KSS organizers arranged a lively questions and answer session. Shahid Khan, Executive Editor of the Technobiz was then invited to the podium where he spoke about the role Quran can play as an invitation call for the study of science. Dr. Basit Koshul,

Professor at LUMS also presented a very cogent critique of Dr. Salman's wonderful exposition and mentioned that the NOMA is not the only model for understanding science and religion interactivities. Another very important model that seems more insightful and advantageous is the "integrationist" model and he pointed out that that the speaker, apparently unknowingly, supports this latter model when he talks about science enriching religion and vice versa.

Finally the Chair of the session Prof. Khalid Rasheed talked about Galileo's discovery that the time period of a swinging chandelier in a cathedral is independent of the amplitude of its swing. He praised the Khwarzimid Science Society and its efforts. Finally, the President Dr. Saadat Anwar Siddiqi concluded the session with a gracious thanks to the audience, the speaker and the Iqbal Academy who let the KSS use their excellent facilities.