

SCIENCE AND RELIGION

Bracing for Islamic Creationism

Salman Hameed

Early in 2007, biologists and anthropologists at universities across the United States received an unsolicited gift of an 850-page, colored *Atlas of Creation*, produced by a Muslim creationist, Adnan Oktar, who goes by the pen name of Harun Yahya (*Science*, 16 February 2007, p. 925). The atlas was a timely notice that, although the last couple of decades have seen an increasing confrontation over the teaching of evolution in the United States, the next major battle over evolution is likely to take place in the Muslim world (i.e., predominantly Islamic countries, as well as in countries where there are large Muslim populations). Relatively poor education standards, in combination with frequent misinformation about evolutionary ideas, make the Muslim world a fertile ground for rejection of the theory. In addition, there already exists a growing and highly influential Islamic creationist movement (1).

Biological evolution is still a relatively new concept for a majority of Muslims, and a serious debate over its religious compatibility has not yet taken place. It is likely that public opinion on this issue will be shaped in the next decade or so because of rising education levels in the Muslim world and the increasing importance of biological sciences.

Views of Evolution from Scholars

Just as there is no monolithic Islam, there is no “official” opinion on evolution. There are indeed verses in the Koran that talk about the creation of the universe and of the living beings on Earth, but specific details are often not laid out. For example, the Koranic narrative of creation includes a 6-day account of creation. The length of each day, however, is not clearly specified. One day has been defined as “a thousand years of what you count” (32:5) or as “a day the measure of which is fifty thousand years” (70:4). The resulting ambiguity leaves open the possibility of a very old Earth. Indeed, young-Earth creationism is wholly absent in the Muslim world, and a universe billions of years old is

commonly accepted. On biological evolution, Islamic scholars and popular writers hold a wide range of opinions that represent a broad spectrum of culture and politics, from secular Turkey to the conservative monarchy of Saudi Arabia and the Muslim diasporas in Europe and in the United States.

Opposition to evolution is often not centered on any particular verse from the Koran, but rather on the social and cultural threat that the theory poses for Muslims. Adnan Oktar borrows his “science” heavily from the Institute for Creation Research and, more recently, from the Intelligent Design movement in the United States (2). His organization, based in Turkey, has produced anti-evolution documentaries, hundreds of pamphlets, and books and has made them available for download, free of cost, from his Web site (harunyahya.com). Because the idea of an ancient Earth is not controversial among Muslims,

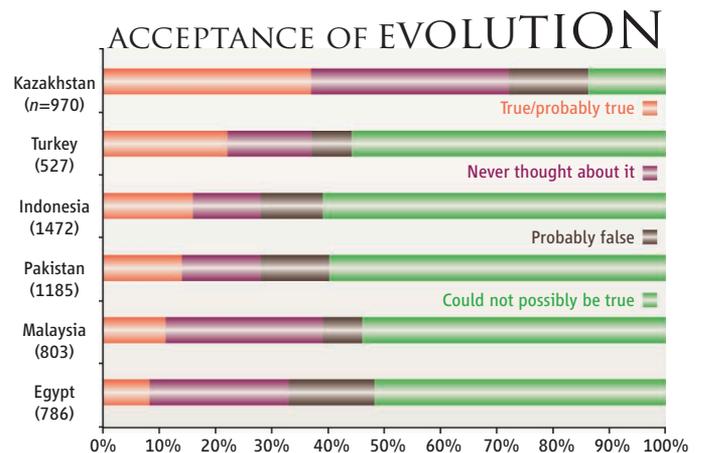
he is comfortable presenting biological creationism in a universe billions of years old. Instead, the focus of his opposition is on the social and cultural threat posed by evolution in the form of materialism and atheism.

Some prominent Islamic scholars teaching in Western institutions also reject evolution. For example, Seyyed Hossein Nasr, a professor of Islamic studies at George Washington University, does not consider evolutionary theory to be more than an ideology: “The theory of evolution is the peg of the tent of modernism. If it were to fall down, the whole tent would fall on top of the head of modernism. And therefore it is kept as an ideology and not as a scientific theory which has been proven” (3). A similar view is found in the works of Muzaffar Iqbal, a biochemist by training, who is the editor of the Canadian journal *Islam & Science: Journal of Islamic Perspectives on Science*. In a recent editorial, he wrote that

To avoid a vast rejection of evolution in the Muslim world, scientists can present the theory as the bedrock of biology and can stress its practical applications.

the logical implication of evolution is “nothing but the destruction of the sanctity of species.” Rejecting evolution, he concludes, “Not only does each species preserve its characteristics, but it also receives Divine command ... and acts accordingly, the Koran tells us. The ant and the honeybee have always been the ant and the honeybee and will always remain so” (4).

There are many others, however, who accept various interpretations of evolution.



Acceptance of evolution in six Muslim countries. The data were gathered from 1996 and 2003, as part of a study of religious patterns in Muslim countries (8). The number of participants for each country is given in parentheses.

Often, this acceptance is justified in the context of the Koran or by crediting the theory to medieval Muslim philosophers. For example, the South Asian philosopher and poet, Mohammad Iqbal, while accepting evolution reluctantly, credited 9th century philosopher, Al-Jahiz for the idea of evolution and Ibn-Maskawaih, in the 11th century, as the “first Muslim thinker to give a clear and in many respects a thoroughly modern theory of the origin of man” (5). Indeed, a few medieval Muslim philosophers elaborated on the theories of common descent known at the time, but none postulated any process similar to natural selection.

Human evolution, however, is usually excluded from this scheme. Some, though, have come up with creative ways to reconcile Islam with evidence for early hominid species. For example, Maurice Bucaille, famous in the Islamic world for his book

School of Cognitive Science and School of Natural Science, Hampshire College, Amherst, MA 01002, USA. E-mail: shameed@hampshire.edu

claiming that many of the modern scientific discoveries were already mentioned in the Koran, accepts animal evolution up to early hominid species and then posits a separate hominid evolution leading to modern humans (6). These evolutionary ideas are a far cry from the theory of evolution as accepted by biologists all over the world.

There are also many Muslim academic biologists and medical doctors that accept evolution in ways that are similar to religious scientists in the West. Although limited in numbers, this educated class represents an influential minority for policy decisions.

Opinions of the General Population

We do not know much about general views about science in Muslim countries, let alone on the specific question of evolution. A recent survey of public acceptance of evolution in 34 countries did include one Muslim country, Turkey (7). The study found that about 25% of adults in Turkey agree with the statement, "Human beings, as we know them, developed from earlier species of animals," well below the United States (at 40%). The result is all the more worrisome, because Turkey is one of the most educated and secular of Muslim countries.

A recent sociological study analyzing religious patterns in Muslim countries (Indonesia, Pakistan, Egypt, Malaysia, Turkey, and Kazakhstan) included a question about evolution as an example of an idea that challenges a "fundamental religious belief widely held by Muslims" (8). The respondents were asked: "Do you agree or disagree with Darwin's theory of evolution?" Only 16% of Indonesians, 14% of Pakistanis, 8% of Egyptians, 11% of Malaysians, and 22% of Turks agree that Darwin's theory is probably or most certainly true (see chart, page 1637). The former Soviet republic of Kazakhstan, already showing differences in religious patterns with other countries in the study, had the highest fraction that accepted evolutionary theory. In fact, only 28% of Kazakhs thought that evolution is false, a fraction much lower than that of the U.S. adult population (~40%) (7).

These results paint a depressing picture. However, the question regarding evolution relies heavily on the definition of evolution as understood by individual respondents. This is especially a problem when many, perhaps most, in the Muslim world confuse evolution with atheism and consider it inherently against religion.

Teaching of Evolution

Although the survey results may point to a dire situation, the reality on the ground is more complicated. Evolutionary biology is included in the high-school curricula of many Muslim countries. In fact, science foundations of 14 Muslim countries, including Pakistan, Iran, Turkey, Indonesia, and Egypt, recently signed a statement by the Interacademy Panel (IAP, a global network of science academies), in support of the teaching of evolution, including human evolution (9). In general, however, biology (as is true for all other subjects) is often taught in a highly religious environment. For example, in Pakistan, where there is no separation of state and religion, the goal of the national biology curriculum for grades 9 to 12 is to "enable the students to appreciate that Allah ... is the Creator and Sustainer of the universe" (10), and the textbooks include the relevant Koranic verses on the origin and creation of life. Biology textbooks in Pakistan contain a chapter on evolution, and evolutionary theory is presented as a fact of science. Nevertheless, the epigraph for the evolution chapter in the 12th-grade biology textbook is the Koranic verse, "And He is Who had produced you from a single being" (6:98). Apart from this epigraph, there are no religious references about creation or evolution in the remaining chapter or in suggested questions at the end (11). Although evolutionary theory is presented as a fact, the IAP statement notwithstanding, human evolution is missing from these textbooks. The follow-up chapters to evolution, instead, emphasize the practical aspects of biology such as health, environment, and biotechnology.

Asghar and Alters recently interviewed 18 science schoolteachers in Pakistani schools located in Karachi and Lahore and found that all favored using religious explanations about the creation of life, but most presented both scientific and religious perspectives while teaching biological evolution (10). Most (14 out of 18) accepted, or at least held as possible, the evolution of organisms; but at the same time, 15 out of 18 rejected human evolution. All agreed that there is no contradiction between Islam and science.

These contradictory attitudes were also reflected in a recent study of 25 Muslim university students from Turkey and Morocco studying in various disciplines in Holland (12). Although most accepted microevolution, almost all rejected macroevolution and connected the idea to atheistic aspirations and to the impossibility of chance and muta-

tions leading to complex species. However, none expressed antiscience attitudes or foresaw any significant tension between Islam and science (12).

Communicating Evolution

The message about evolution in the Islamic world needs to be framed in a way that emphasizes practical applications and show that it is the bedrock of modern biology—thereby capitalizing on the existing proscience attitude (13). The national academies of Muslim countries will need to tailor the specifics of the message according to the political and cultural realities of their respective countries. Religion in the Muslim world plays a much larger role in the social and cultural landscape, and thus, our discussions with the general public need to take that into account. As scientists, we should present, without compromise, the best available science. Evolutionary ideas about human origins may face serious obstacles, but a peaceful religious accommodation is also possible. However, efforts that link evolution with atheism will cut short the dialogue, and a vast majority of Muslims will reject evolution.

A general respect for science affords scientists a high prestige in the Islamic world. Research scientists, especially biologists, should take advantage of this and write for Muslim audiences in the form of newspaper and magazine articles. At the present time, Harun Yahya is the loudest voice in the debate over evolution in the Islamic world. At this critical juncture, we cannot afford to leave the initiative with Muslim Creationists.

References

1. R. L. Numbers, *The Creationists: From Scientific Creationism to Intelligent Design* (Harvard Univ. Press, Cambridge, MA, 2006).
2. T. Edis, *An Illusion of Harmony: Science & Religion in Islam* (Prometheus Books, Amherst, NY, 2007).
3. S. H. Nasr, *Islam Sci.* 4(2), 181 (2006).
4. M. Iqbal, *Islam Sci.* 4(2), 89 (2006).
5. M. Iqbal, *The Reconstruction of Religious Thought* (Lahore Printing Press, Lahore, India, 1930).
6. M. Bucaille, *What Is the Origin of Man?* (Al-Falah Islamic Books, Lahore, 1989).
7. J. D. Miller, E. C. Scott, S. Okamoto, *Science* 313, 765 (2006).
8. R. Hassan, *Muslim World* 97, 437 (2007).
9. IAP statement on the teaching of evolution (2006), www.interacademies.net/?id=6159.
10. A. Asghar, B. Alters, *Proceedings, National Association for Research in Science Teaching (NARST) Conference*, New Orleans, LA, 15 to 18 April 2007.
11. Punjab Textbook Board, *Biology 12* (Lahore, Pakistan, 2003), p. 222.
12. D. Koning, *ISIM Rev.* 18, 48 (2006).
13. M. C. Nisbet, C. Mooney, *Science* 316, 56 (2007).