

A. AWAD



## Why I teach evolution to Muslim students

*Encouraging students to challenge ideas is crucial to fostering a generation of Muslim scientists who are free thinkers, says Rana Dajani.*

Certain problematic attitudes towards science have been imported into Muslim societies as a part of rapid globalization and modernization — the rejection of the theory of evolution, for example. But this also offers an opportunity.

I teach evolution to university students in Jordan. Almost all of them are hostile to the idea at first. Their schoolteachers are likely to have ignored or glossed over it. Still, most students are willing to discuss evolution, and by the end of the course, the majority accept the idea. If Muslim students can challenge ideas on such a controversial academic topic, then they can also approach other aspects of their lives by questioning — and not just blindly accepting — the status quo. These tools and attitudes are crucial to the development of their personalities and to becoming responsible citizens.

Students in my classes often get a shock. I wear a hijab, so they know that I am a practising Muslim, yet they hear me endorsing evolution as a mechanism to explain diversity and the development of species, and citing Charles Darwin as a scientist who contributed to our understanding of the emergence and diversification of life on Earth. I am almost always the first Muslim they have met who says such things.

Some students complained to the university that I was preaching against Islam, but university officials were satisfied when I showed them that evolution featured in the university's approved textbooks and that what I teach in my lecture comes straight from these texts. I commended the students who complained for their courage in supporting what they believed, and offered to sit down and discuss their concerns with them.

In teaching, I offer a detailed explanation of the natural evolution of plants and artificial breeding. Later, we discuss antibiotic resistance, influenza vaccines and the development of HIV drugs. After these discussions, most students are willing to accept evolution as a mechanism for the emergence of all species except humans. Many quote evidence from the Koran that is interpreted to mean that Adam — and so humans — were created spontaneously. Human evolution remains taboo because the students are not ready to relinquish the concept that humans were created differently. I remind them that Muslims are warned against arrogance, and that humans are only part of creation.

Muslim scholars such as Hussein al-Jisr and Ahmad Medhat in the 1880s supported evolution. Before Darwin, al-Jahiz and others proposed rudimentary evolutionary theories in the ninth century. I point out that the apparent controversy over evolution and Islam arose only in the twentieth century, when Darwin's ideas became associated with colonialism, imperialism, the West, atheism, materialism and racism. Muslim religious scholars gradually

took a stand against evolution, which the public adopted. The scholars used Christian creationist arguments to support their stance, transferring the Western war between science and religion to Islam.

Some of my students argue that to accept evolution means denying the existence of God. I say that evolution does not discuss the origins of the Universe. No one yet understands this beginning. To me, the beginning was God. After the beginning, the rules of logic and science led to the development of the Universe and beyond.

In my experience, many Muslims are happy to consider this. I have encountered several Muslim scientists who agree with my stance, but do not say so publicly because they fear being labelled as trouble-makers. Some religious scholars also agree, but they wish to go about changing opinions gradually, so as not to raise defences and slow progress.

My take, as a Muslim scientist, is that the Koran asks humans to observe and contemplate the world while celebrating the pursuit of knowledge. It does not validate scientific findings. Science allows us to question and discover how the world works and the Koran provides the moral guidelines for doing so. If an apparent contradiction arises between a scientific finding and an interpretation of the Koran, then we can turn to both science itself (which is evolving) and the interpretation of the Koran (which is not impartial, because it is a human exercise) to account for the discrepancy. This is an ongoing and fluid process, and is part and parcel of the purpose of life for Muslims.

Whether or not a student accepts human evolution makes no difference to how I mark their exam paper. As educators, our objective is to help students to become independent thinkers. I do not want my students to write that they accept evolution just to pass an exam. I want them to show the argument they used to reach their conclusion, even if that conclusion rejects human evolution. Otherwise, I am doing what the people who decry evolution are doing: forcing an opinion on them.

My aim is to teach students to develop a rational methodology for assessing the natural world and to come up with their own opinions, hypotheses and theories and not to copy others. This becomes a call for new ways of thinking: a journey to pursue knowledge, which is one of the core tenets of Islam. If we succeed in that endeavour, we will contribute to the creation of a generation of Muslim scientists who are free thinkers. ■

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