

Chapter Six

The Qur'an and Science

Imad-ad-Dean Ahmad

Cognition is a gradual process one labors over to understand something. Perception, on the other hand, is instantaneous – we cannot control perception in the way we can control the rational faculty. Yet, when the rational faculty is trapped inside a particular paradigm, we are locked into a narrow range of possible understanding. Such are the obstacles to the acceptance of revolutionary new scientific ideas for a paradigm shift. To have a new way of understanding Islam and glean new insight from the Qur'an, we must prepare to undergo a paradigm shift. As such, when approaching the Qur'an and science, we must adhere to the *tawhīdī* premise, which requires a rejection of the distinction between the sacred and the secular. Nature is as much the book of Allah as is the Qur'an.

We can categorize and evaluate the variety of approaches to the relationship of the Qur'an to science as metaphoric, literalist, and procedural. The strictly metaphorical approach can overshadow the fact that, with the passage of time, the metaphors in the Qur'an have become more meaningful while the metaphors in, for example, the Bible, become harder to understand as time goes on. In the case of the Qur'an, many allusions that would have been confusing in the Prophet's time have become meaningful in our own time. A strictly literal approach ties the eternal truths of the Qur'an to the changing models of science. Scientific theories constantly change and evolve. Science provides intellectual models for understanding the natural world, and those models are never absolute truth. They are always our best understanding at the moment, and they keep changing. The Qur'an is not a scientific textbook. It does not instruct us how Allah created the universe. It instructs us that He designed it, and He urges us to investigate its construction. Therefore, the Qur'an is pro-science.

There are several attributes of Islamic civilization that encouraged the development of modern science. Reason is not a sufficient source of knowledge. There is also experimentation and observation – precisely what the Qur'an addresses when it commands us to look for Allah's signs in the heavens and on earth. Authority is a source of knowledge. *Wahī* – transmission from particularly reliable sources – is also important. When our reason, our experience, and the reliable sources

all agree, then we can say that we have knowledge with as much certainty as human beings are capable. Only Allah knows anything with absolute certainty.

The Qur'an has commanded us to read, meaning to acquire knowledge from exogenous sources. Induction requires the rigorous testing of theory by experiment and empirical observation. In terms of universality, the Qur'an teaches, and we believe, that all truths come from Allah. Therefore, because Allah sent messengers to every people, all people have access to the truth, and we are not limited to the knowledge of our own history. We have the abolition of priesthood and every Muslim, male or female, has a duty to seek knowledge from the cradle to the grave.³² Islam does not despise material success or advocate asceticism. A materially successful society is one that will conduct research in the hard sciences. In an academically free environment, science inevitably moves forward. Conversely, academic freedom is necessary for scientific progress. For Muslims, academic freedom is the corollary of our individual responsibility and duty to Allah.

However, only one element behind Islamic science does not derive directly from the Qur'an, and this is the issue of proper citation. Islam played a major role in the development of citation in hadith science. While authority plays a role in science, in modern science authority may be questioned. Therefore, when citing authority, it should be identified clearly and accurately. Hadith science set forth a model that was followed by the other sciences.

Emerging ideas that are somewhat established in the scientific world may not yet have totally seeped into the consciousness of the masses. Although the idea that the earth circles the sun was quickly established for scientists, common people did not adopt the idea for a couple of hundred more years. Those who may laugh today to think that people believed the sun went around the earth should ask, is it self-evident that the earth goes around the sun? The Qur'an mentions the *ghayb* and the *shahādah* – the hidden and the manifest – or the unseen and the seen.

Chaos theory commonly known as the “Butterfly Effect” points to the fact that physical systems are extremely sensitive to small changes in the initial conditions. When combined with quantum mechanics, this hypersensitivity of physical systems to small changes can be analogous

to the discussion of religious issues, such as human free will and divine intervention. Quantum mechanics seems to undermine the premise that everything is determined from its initial state. Everything in the universe seems to interact with everything else.

Quantum mechanics has said that the wave involved here is a wave of probability of the particle's position and momentum, and that the position of a particle and the momentum of a particle do not actually exist until they are observed. There is only a probability that the particles are in a particular place or a probability the particle is at a particular momentum. The only way you can ever hope to know the position or momentum of a particle is to observe or measure it. However, when you observe it you affect the thing observed, i.e. you change it. Therefore, if you ask the question, what is it if I do not observe it? Is the moon there when nobody is looking? We do not know.

Not everything is physics. The *shahādah* is the consequence of the *ghayb*. The *ghayb* may not be physical. In chaos theory, a quantum difference such as whether a synapse fires or not can lead to different chains of events in the macroscopic world, such as whether to embrace someone or to turn away from him. These are questions of human will. There are implications for the divine will when we speak about the entire universe. If Allah wants to answer your prayers, He can answer your prayers without contradicting the physical laws He has decreed, because quantum mechanics only tells you how things are going to probably behave in the collective. It says certain things are improbable to a certain degree. Quantum mechanics tells you how Allah usually does things, but then in any given instance, Allah might do something else and it is not a violation of the laws of physics. It is very consistent with the laws of physics.

Rather than view the religious as sacred and the scientific as profane, the work of understanding the manifest, the explicate and the *shahādah* is as sacred as the work of understanding the word and meaning of the holy text. The book of nature is also a holy text, and understanding it is also an act of worship.