Book Review


Over the last hundred years we have witnessed a tremendous surge in scientific research and knowledge, a surge possibly unparallelled in the history of human civilization. Though some may propose the detachment of science from theology and philosophy as the reason for the speed and alleged success of science, it is fairly evident that due to this detachment our philosophical and theological doctrines have been unable to keep pace with the rapid changes in science. This has, in turn, created boundaries and conflicts between science and other modes of inquiry. Religion has truly suffered the most as questions that not too long ago were the bread and butter of religion have been slowly transferred over to the realm of science: questions concerning the origin of the universe and the creation of man. Philosophy, too, has had to give up its traditional doctrines of realism and determinism under challenges from particle physics and evolution. Some would think that science, the epitome of human rationality, will finally attempt to answer all questions that might arise in the human mind, slowly replacing all other “non-scientific” doctrines and teachings.

In the face of this growing popular belief, it seems reasonable for many religious scholars to jump on the scientific bandwagon, i.e. accept the changing scientific theories and try to show their consistency with religion. In the Islamic literature, this has taken shape in various attempts to allegedly prove the existence of Qur’anic verses that support every highly regarded scientific theory: from Einstein’s theory of relativity to Darwin’s theory of evolution, from embryology to particle physics. This might be termed Bucailist \(^1\) or apologetic literature.

\(^1\) This kind of literature is often named after Maurice Bucaille, since his The Bible, Qur’an and Science is seen by many as a seminal work in the field, and is also one of the most popular works in the area. However, this kind of literature has a long history in Islamic civilization. The most evident are the attempts of medieval Islamic scholars to reconcile Hellenistic medicine with the medical recommendations of the Prophet (peace be on him). For an example see, Jalal al-Din

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While many scholars have been awe-struck by the rise of science, others have instead tried to meticulously analyze the reason behind the whirlwind success of science. With the heralding of reason and rationality, scientists, scholars, historians, philosophers and sociologists have naturally tended to focus their studies on the distinctiveness or alleged unique character of the “scientific method”. Unfortunately, the last five decades of intense debates in the philosophy of science have only made the “scientific method” more difficult to define and characterize. More importantly, since the sixties, historians and sociologists of science have questioned the rationality of science, specifically whether scientists are right in elevating their own research and publications as more rational than other, allegedly superstitious and rhetorical works. All these different modes of analyzing sciences have pointed to the night impossible of neatly demarcating science from non-science or nonsense. Thus, the claim that the findings in science are more valid because they are more rational has lately become increasingly difficult to sustain. As a result, one has to turn perhaps to the truth content of science and argue for some sort of realism for scientific theories. However, the waters there are even murkier for the scientist’s case, as evidenced by the continuous discarding of theories through the history of science, and oft-times a lack of ontological continuity between successive theories: the well-known Kuhnian problem of incommensurability.

As such, the problem that faces the scholar interested in defining the relationship between Islam and science is similar to the problem of the scientific realist. Just as the scientific realist would not want to commit naïvely to the ontology of every scientific theory, the Muslim also need not endow every well-respected scientific theory with the status of an eternal truth by linking it with verses from the Holy Qur’an. For, if the scientific theory is later shown to be false — a very likely possibility considering that most of the theories of the past which were once held as established facts have now been discarded — the scientific realists or the Bucailists are then left in an unenviable position of taking back all they had ever said relating to that theory, thereby decreasing the credibility of their respective positions.

This worry has led many to abandon scientific realism amongst the philosophers, and in the Islamic camp, has led scholars to oppose the Bucailist

‘Abd al-Rahmān al-Suyūtī’s Tibb al-Nabī, tr., Ahmad Thomson (London: Taha Publishers, 1994). In this paper, I have chosen to use the term Bucailist because it does not carry the same negative connotations as the phrase “apologetic literature”. For such literature see Adel M. A. Abbas, His Throne was on Water (Beltsville, MD: Amana Publications, 1997); Abdullah M. al-Rehaili, This is the Truth: Newly Discovered Scientific Facts Revealed in the Qur’an and the Authentic Hadeeth (sic); website http://www.it-is-truth.org. See also, M. Bucaille, The Bible, the Qur’an and Science: The Holy Scriptures in the Light of Modern Knowledge, tr., Alastair D. Pannell (Indianapolis: American Trust Publications, 1979).
programme entirely. Instead, these scholars propose a model for Islamic science not as a truth-seeking activity, but rather, as a pragmatic, application-oriented activity. Ziauddin Sardar is one of the most prominent proponents of this view.

Yet, to abandon truth as a goal for Islamic science and to dismiss the entire Bucaillist project off-hand, is not the only alternative left for scholars interested in bridging Islam and science, contrary to what Sardar may believe. An interesting development in the literature on scientific realism has been Rev. Ernan McMullin’s appeal to turn to the historical sciences (e.g. geology and archaeology) to better formulate, assess, and possibly solve the problem of scientific realism. The idea is that though most anti-realists have no qualms about denying the reality of neutrinos or quarks, few would question the existence of dinosaurs or tectonic plates. Yet, the form of argument that leads one to postulate the existence of neutrinos or dinosaurs is identical. Similarly, perhaps it is time for scholars interested in issues between Islam and science to also turn to the historical sciences in order to flush out their arguments more clearly and thoroughly. Fatoohi and al-Dargazelli’s History Testifies to the Infallibility of the Qur’an, provides us with precisely that opportunity: to delve into the historical sciences in order to develop a model for Islamic science that is sympathetic to the Bucaillist project without being naïve, uncritical or downright apologetic.

Fatoohi and al-Dargazelli’s project may rightly be called Islamic archaeology, as opposed to Biblical archaeology, and thus can stake a claim as part of the Islamic science project. They start with the premise that the Qur’ān is the true word of God, and hence, can only contain accurate information about all historical events. Since the exodus of the Children of Israel has received much attention from Biblical scholars, Fatoohi and al-Dargazelli, naturally, try their hand at providing an alternate, Qur’ānic account of the exodus, that they claim to be accurate and consistent with current archaeological and historical findings. The underlying tone of the work is clearly polemical and missionary as they want to elevate the status of the Qur’ān over that of the Bible as an eternal truth. As we know, that is usually the goal of most Bucaillist works too, including Maurice Bucaille’s The Bible, the Qur’an, and Science.

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2 Being heavily influenced by sociologists of science, Sardar not only rejects the notion that Islamic science should be truth seeking, but he also discards rationality as a goal for Islamic science. See, Ziauddin Sardar, Explorations in Islamic Science (London: Mansell Publishing, 1989), 154.

The most important lesson one can learn from Fatoohi and al-Dargazelli is how one formulates the question or scientific puzzle in Islamic science. For Muslims, Islam is the true way of life, and every act of a Muslim should be an act of obedience to God, a striving in the cause of God. This also includes the knowledge that he attains. Hence, the actual problems for this Islamic scientific treatise are formulated using the Qur’ānic account of the exodus, one may legitimately wonder about the identity of the Pharaoh of the exodus. Were there two Pharaohs in the life-time of Moses or just one? How long did the Pharaoh of Moses’ time live? Was he drowned in the Red Sea? Was his body ever found, i.e. was he mummified, or should his body be missing from the mummies of the Pharaohs? Fatoohi and al-Dargazelli formulate and answer all these questions using the Qur’ān, and in the process, demonstrate how external, empirical history and archaeology can be made subservient to the Qur’ān and to the Islamic framework in general. Let me outline one such question in some detail: the identity of the Pharaoh of the exodus.

In chapter seven, Fatoohi and al-Dargazelli try to establish the identity of the Pharaoh of the exodus. They show that in the Qur’ān, the Pharaoh of the exodus is also the Pharaoh at Moses’ birth. Moreover, by only using the Qur’ān, they establish that the Pharaoh must have reigned for a considerable length of time (from just prior to the birth of Moses to the Pharaoh’s drowning in the sea). Only then do they turn to the historical and archaeological records to identify this long-reigning Pharaoh. The choice is narrowed down to Rameses II using the Qur’ānic account of the story of Joseph and other historical material (chapter 5). However, the identification of the Pharaoh of the exodus is further facilitated by referring to one of his distinct titles in the Qur’ān, “Pharaoh of the awtād” [89: 10] (pp. 114–141).

The word “awtād” in Arabic has several meanings: “violence”, “power”, “pegs” and “secure building” or “high buildings”. Each one of these meanings has been identified by some Muslim exegete at some point since the revelation of the Qur’ān. However, the usual consensus has been that the word “awtād” refers to pegs, since that would be consistent with the numerous verses that refer to the Pharaoh ordering people to be crucified (p. 135). Further still, the Qur’ān uses this word when describing mountains as well. Since the Qur’ān states that mountains prevent the earth from tumbling, the Qur’ānic exegetes were being consistent by interpreting “awtād” as pegs. However, Fatoohi and al-Dargazelli illuminate an interesting fact about the Qur’ān. The two words for “mountains” in Arabic are “rawāsī” and “jibal”. When the Qur’ān refers to the stabilizing role of mountains, it uses the word “rawāsī” to refer to them, while the Qur’ān uses the word “awtād” in the context of the word “jibal” (pp. 136–137). This interesting difference between the use of the two words, and
the different contexts in which they are used, lead the authors to assert that “awtād” means “buildings” in the title “Pharaoh of the awtād” (p. 137).

Historical and archaeological facts probably guided the interpretation of the word that Fatoohi and al-Dargazelli finally accepted, for Rameses II is historically known to have been obsessed with the construction of buildings. However, their interpretation of the word was undetermined by their awareness of the historical facts. In other words, history did not dictate the choice of the meaning of the word. The meaning of “awtād” as “buildings” was, and has always been, suggested within the historical tafsīr tradition itself.

What does this extensive study of the early history of the Children of Israel teach us about an integration between Islam and science? For one, I believe it shows us how one can work within an Islamic ethical and spiritual framework and follow the strict guidelines of the tafsīr tradition for interpreting the Qur’ān and use the Qur’ān, at least, to formulate the research problems (if not to solve it as well), and incorporate a known body of empirical material to pursue a truth-seeking, Islamic scientific project. The project is truth-seeking in that one set of interpretations leading to an account can differ, and hence, be preferred or rejected for another account based on another set of interpretations (e.g. rejecting Bucaille’s earlier account of the exodus for Fatoohi and al-Dargazelli’s account). The fact that one account corroborates different verses and facets of the Qur’ān with the empirical findings better than the other, implies that one can be preferred to the other on rational grounds, especially since both accounts form part of Islamic science at large.

Moreover, there is a fundamental difference between Fatoohi and al-Dargazelli’s study and standard Bucailist works. Whereas Fatoohi and al-Dargazelli formulate their scientific questions using the Qur’ān, Bucailist works take everything of an accepted scientific theory for granted, including its thesis, method of research and presentation, and then proceed to find verses in the Qur’ān that can corroborate the scientific evidence. It is this importing of wholesale scientific theories in the Qur’ān that is detrimental to the Islamic science project, since once those theories are proved false—a very likely scenario given the history of science—it leaves the status of the truth of the Qur’ān in limbo, until one finds a new way of reconciling the Qur’ān with newer findings and explains away the previous interpretation. In Fatoohi and al-Dargazelli’s book, however, the fear that newer archaeological findings will refute current theories and render the Qur’ānic interpretation false is minimized. For, the whole research programme is based on the Qur’ān itself and only minimal results are from the research done outside the Islamic paradigm are introduced.
On the other hand, Fatoohi and al-Dargazelli’s work is still a part of the Bucaillist project in many respects. Firstly, the same missionary undertone belies it as other Bucaillist works: the idea that the Qur’an is the true word of God, and one can arrive at that conclusion rationally by seeing how consistent it is with all knowledge that we arrive at rationally. More importantly, the idea that the goal of science and all human knowledge is to arrive at an approximation of the truth about all matters, also underlies Fatoohi and al-Dargazelli’s work. Finally, like the Bucaillists, Fatoohi and al-Dargazelli also hold that the Qur’an is to be consulted not only in moral and spiritual matters, but also in scientific matters, whether they be natural or historical. In this respect, the goal of Islamic science is to determine the actual meaning of the Qur’anic verses that relate to scientific phenomena in order to increase our spirituality.

We are required, however, to exercise caution in the confidence of our interpretation of the Qur’an. After all, it is only an interpretation and may prove to be wrong at some later time in the future. It is here that I must separate myself from Fatoohi and al-Dargazelli. The missionary tone of their work entails that they believe they have possibly arrived at the actual meaning of the verses that describe the exodus. Although I agree that their account is more rational and grasps the real history of the exodus far better than any preceding account, I would still want to be critical about whether they have captured the whole truth with regard to the account of the exodus. After all, the truth embodied in the Qur’an comes from God, whereas the knowledge that we glean from the Qur’an is heavily influenced by the social culture of our time. To claim that at a given point we have deciphered the true meaning of a particular verse(s), is to lose the essential virtue that keeps Islamic science on a God-fearing path: humility. Or, as Averroes would say: “Only Allah knows best”.

Nahyan Fancy


The relationship between science and religion has gone through many stages from total rejection to tentative acceptance to efforts at building interface between science and religion. The current attempts at meaningful science-