

They Call It Islamic Science Pervez Hoodbhoy (1987)

There has emerged, in recent years, a remarkable new manifestation of orthodox religiosity which is, in essence, an attempt to extend the scope of Islamization in Pakistan beyond the sphere of social concerns and into the domain of natural phenomena. They call it Islamic science.

Rising like a phoenix from the ashes of a long gone medieval age, this new 'science' seeks to establish that every scientific fact and phenomenon known today was anticipated 1,400 years ago and that all scientific predictions may, in fact, be based on the study of the Holy Book. Once again, as in medieval times, theology is being crowned as the Queen of Sciences. Generous support for this vision of science comes from certain Muslim states, patronage of important personages, and what appears to be a limitless supply of funds from individuals and organizations. These have brought into existence something which is being offered as the Islamic alternative to the challenge of modern Western science. Ordinary secular science, according to proponents of the new Islamic science, has no business being here in the Land of the Pure. Together with various other foul products of godless secular civilizations - such as capitalism or socialism or democracy - modern science also needs to be unceremoniously shipped back to the West, where it supposedly belongs.

The Scientific Miracles Conference

I had the privilege of recently observing at close range the new Islamic Science. The occasion was provided by the international conference on Scientific Miracles of Qu'ran and Sunnah, inaugurated by President General Mohammed Zia-ul-Haq in Islamabad on October 18, 1987. This large-scale affair, with hundreds of delegates from various Muslim countries, had been jointly organized by the International Islamic University in Islamabad together with the Organization of Scientific Miracles in Mecca. The magnificence of the arrangements was beyond dispute, but luckily the burden on Pakistani taxpayers was said to be limited. About half the total conference expenses around 661akh rupees (\$400,000) - were borne by the brotherly government of Saudi Arabia which often subsidizes such excellent causes. Lest it be thought that this conference was a freak occurrence, I should mention that it had been preceded by two others of a similar nature some months ago in Karachi, as well as many earlier ones. New ones are doubtlessly being planned, and will also take their due place in history.

The Scientific Miracles Conference provided me with a fascinating glimpse into the concerns and issues which the new Islamic science addresses. While the reader is urged to study for himself the published version of scholarly papers read at all such conferences, the following shortlist of rather suggestively titled papers presented at the Scientific Miracles Conference by itself speaks volumes:

(1) Chemical Composition of Milk in relation to Verse 66 of Sur at An-Nahl of The Holy Qur'an.

(2) Description of Man at High Altitude in Qur'an.

(3) Cumulonimbus Clouds Description in Qur'an.

(4) Have You Observed the Fire?

(5) Revelation of Some Modern Oceanographic Phenomena in Holy Qur'an.

Sixty-five other papers of a similar nature were also presented by the pious, bearded participants. Serious discussions supplemented the formal paper reading sessions. As a mere onlooker I felt out of my depth, finding even the titles of some sessions to be incomprehensible. For example, one of these was advertised as Panel Discussion on Things Known Only To Allah, scheduled for sometime in the evening after prayers. I was unable to attend, but subsequently have often wondered what secrets the panelists were privy to.

The Amazing Conclusions of Islamic Science

The achievements of modern science are said to be difficult to understand. Perhaps so. But achievements of the new Islamic science are even harder to comprehend. Nevertheless, the reader is urged to ponder upon certain remarkable results presented at these various Islamic science conferences and then to draw for himself whatever conclusion he pleases. A selection follows:

- Dr Mohammed Muttalib, who teaches earth sciences at the famous AIAzhar University in Egypt, presented an extremely erudite paper on the relation of geological facts and phenomena to Qur'anic verses.¹ For the ordinary type of scientist this paper was not particularly easy to understand - and frankly it still eludes me. Mountains have roots in the earth, said the good doctor, and Allah made them act like pegs which tether a tent to the ground and keep it from blowing away. Without mountains, he emphasized, the earth's rotation would cause everything simply to fly apart. It would be totally catastrophic - no mountains, no earth.

I must admit finding this conclusion a little odd. The learned author, it appears, was genuinely unaware of a phenomenon which Mr Newton was fond of calling gravity. Ordinary physics, which most of us know at least a bit about, tells us that on earth the force of gravity considerably exceeds 'the centrifugal force. Were the opposite true, we would all be sent whizzing into space with each of us being his own spacecraft. Hence, says the usual run-of-the-mill physics, even if all the mountains on earth were bulldozed flat the earth would still not disintegrate. Of course, no one advocates that such a thing should be done - it would be an aesthetic and ecological tragedy to do away with mountains. But the point is that mountains as tent pegs may make an excellent metaphor,

but has no factual significance. However, if the universe runs according to Dr Muttalib's extraordinary physics and not ordinary physics, then, of course, my critique of the doctor's thesis is without foundation.

- Another paper, also presented at the Scientific Miracles Conference, dealt with a matter of doctrinal importance in a manner which, to say the least, was extraordinary. Engineer Abdal Fequi of Egypt, drawing on his experience with armour piercing anti-tank ammunition gained during service in the Egyptian army in 1976, gave very impressive evidence that Allah intends us to use empty copper shells in order to destroy such men and jinns as may dare to venture in spaceships into forbidden regions of the heavens.² Now, why empty copper shells instead of ones filled with explosives? This pious engineer argues - very persuasively in his opinion that an empty cone allows for the buildup of a destructive shock wave much more effectively than a solid cone. Because Divine Wisdom is perfect in all respects - including the selection of materials for heavenly missiles therefore, empty copper shells must be the Lord's choice

This is all very well, except for one small thing which should not be taken as a disparagement. Knowledgeable people in the armament business say that copper shells are going out of fashion and the industry is going gung-ho on a certain new molybdenum alloy which contains the explosive charge better. So here is a puzzle: are the heavenly missiles really going to be made of old fashioned copper, or is it going to be molybdenum instead? A difficult question indeed!

- Munafiqat (hypocrisy) is certainly an endemic problem in our society. While many will acknowledge this, there are very few amongst us who are either talented or brave enough to apply mathematical methods to this problem. But at the International Seminar on Qur'an and Science, organized in June 1986 by the Pakistan Association of Scientists and Scientific Professions, one intrepid scientist presented a bold new scientific theory of munafiqat.³ Dr Arshad Ali Beg, a senior scientist at the PCSIR (Pakistan Council for Scientific and Industrial Research) has a mathematical formula by which, he says, the degree of munafiqat in a society can be calculated. The work of this Islamic scientist rests on an analogy between polarizing forces acting on molecules in a liquid and corresponding forces acting on individuals in a society. So, everything happens through chemical reactions such as:

Infidels + Teaching of the Prophet -> Religious Society.

Skipping the details, which the reader can find in his paper, let me quickly come to his conclusions: Western society is calculated to have a munafiqat value of 22, while Spain and Portugal have a value of only fourteen. It is a bit of a mystery that no munafiqat values are given for Pakistani society which, it is sometimes alleged, is run by crooks and munafiqs. But for all that, the reader will surely admit the novelty of Dr Beg's work and forgive minor omissions.

- It appears that a recent convert to the new Islamic science is the chairman of Pakistan's Space Organization, SUPARCO, which is the Pakistani equivalent of NASA in the US. In a paper read at the Karachi Qur'an and Science Conference, Mr Salim Mehmud proposed that an explanation for the Holy Prophet's Mairaj (ascension to heaven) be sought in Einstein's theory of relativity.. As every believer knows, the Ascension took almost no time - it is even said the chain hanging from the Prophet's door was still swinging when he returned from his meeting with God. The apparently short duration has been often interpreted - and most recently in a slick film produced by the International Islamic University - as an example of relativistic time dilation. The phenomenon of time dilation is well known to physicists: moving clocks appear to run slow.

Unfortunately, there is a slight problem with this explanation. The theory of relativity actually says precisely the opposite of what the chairman sahib thinks it says. Alas, every textbook on relativity unequivocally states that more time will elapse for a person who stays at rest, than for another who goes and comes back from a long journey at high speed. One wishes that the honourable chairman had taken some time off to study the principle of relativity properly before enthusiastically proposing it as a solution of theological mysteries. Quite possibly, our country's feeble little space programme would be better off if more attention were paid to research in mundane space science instead of spiritual dynamics.

- Published quarterly from Islamabad under the rather weighty title Science and Technology in the Islamic World, this journal is an important advocate and means of propagation of the new Islamic science. On its editorial board are the heavyweights of the Pakistani science establishment - the men who decide the fate of science in Pakistan through their policy decisions, funding of projects, establishment of new institutions, and so on. Here is a small sample of the articles which they have apparently deemed fit for publication, and which have actually appeared in this journal in recent issues:

(1) Some Qur'anic Ayaat Containing References to Science and Technology;

(2) Symmetry of Universe and the Qur'anic Principle of Creation in Pairs;

(3) Some Ahadith Containing References to Jihad;

(4) The Monograms of Two Popular Pakistani Banks and Their Probable Significance;

(5) Dichotomy of Insan (Man) and Jinn & their Destiny.

The concerns of this high-powered journal evidently have little to do with conventional science and technology. But what it loses in conventionality, it makes up for in pure novelty. Take, for example, the last mentioned paper above, authored by Dr Safdar Jang

Rajput, a senior scientist with DESTO (the Defence Science & Technology Organization).

The starting point is what every reader surely knows - God made jinns out of fire at the time that He made man out of clay (or black mud, say some). For Dr Rajput, these fiery spirits are a living reality and clearly something with which he is deeply preoccupied. They even form the subject of his research. A summary of his principal results in jinnology, published in the above quoted article, is as follows:

(1) It is highly probable that the origin of jinns is methane gas, together with other saturated hydro-carbons, because these yield a smokeless flame upon burning. This conclusion is predicated on the known fact that God made jinns out of fire, together with the known fact that no jinn emitting smoke has ever been seen.

(2) The virginity and beauty of the houris of heaven is another known truth. Add to this the fact that they were created for being used. Because the users can be either men or jinns, it follows that both men and jinns are similar and isogenotypes. QED.

(3) After protracted debate, the final conclusion on the nature of jinns is the following: 'I cannot help but say that the jinns are the white races.'⁶

Dr Rajput is by no means the only highly placed Pakistani scientist for whom jinns are so profoundly important. A senior director of the Pakistan Atomic Energy Commission, Mr Bashiruddin Mahmood, in 1980 had recommended that jinns, being fiery creatures, ought to be tapped as a free source of energy. By this means, a final solution to Pakistan's energy problems would be found. [See letters attached to this appendix for a debate on this issue.]

- Incredible as it may sound, a German delegate to the Islamic Science Conference held in Islamabad in 1983 claimed to have calculated the Angle of God using mathematical topology. He states the angle to be π/N , where $\pi = 3.1415927 \dots$ and N is not defined. The reader of this book has a right to be sceptical. Can anyone even think of calculating such a bizarre thing? To allay any doubts, I suggest that the reader refer to page 82 of the Islamic Science Conference Abstracts published by Pakistan's Ministry of Science & Technology (1983). At that point, the only thing to distrust will be one's own eyes. The reader may also confirm that this lunatic was fully hosted and supported at the expense of the Pakistan government. Why, one may ask, was this man not challenged for his blasphemy? There appear to be two reasons. For one, his blatherings (at least the published ones) are so incoherent that probably no one had a clue what he was saying. And, for another, he wasn't the only guy tripping high.

Is This Science?

A person educated outside a strict orthodox environment is likely to see such papers as the incoherent babbling of defective minds. He may even suggest the services of some

good psychiatrist. Other critics may angrily denounce this new so-called Islamic science as unscientific. But this criticism could be unfair. Science can mean one thing to one set of people, and something quite different to another set. To end this confusion, it is necessary first to clearly define modern science, and then see what is being called Islamic science these days.

Modern science is a set of definite rules by which one seeks a rational comprehension of the physical universe. It derives its awesome power and authority entirely from a method that combines observation and inference. All scientific knowledge is constructed on the objective base of our sense experiences. This objectivity is made possible because experiment and logical consistency are the sole arbiters of truth - of no consequence is the scientist's mood or moral character, his political beliefs or nationality, or even his status in the world of science. On this last point, consider, for example, that Einstein was never taken too seriously when he (wrongly) set out to criticize quantum mechanics - this in spite of the fact that he was acknowledged as the greatest living physicist of the time. Whether or not one likes it, it is indisputably true that modern science is completely secular in character. There is no appeal to divine authority for verification of scientific facts; the existence of such authority is neither affirmed nor denied. However, individual scientists are sometimes deeply religious and struck by the purpose, order and precision of the universe. One need only recall that the men considered to be the founders of modern science, Galileo and Newton, were generally very religious subscribers to the beliefs and practices of the Christian Church. Nevertheless, science and religion went their separate ways after the great divide was heralded by the Copernican revolution in the 17th century.

Here is an example from modern times which vividly illustrates the above point. In 1979, the Nobel Prize for Physics was awarded to Abdus Salam, Steven Weinberg and Sheldon Glashow for having discovered the fundamental theory uniting two basic forces of nature - the 'weak' and the 'electromagnetic'. Known as the Salam-Weinberg theory, it represents one of the most profound discoveries of this century. But look at the beliefs of its discoverers! Salam quotes profusely from the Qur'an, prays regularly, and even makes some of his well wishers uncomfortable by his zealotry and devotion to the Ahmedi sect, to which he belongs. This sect was excommunicated from Islam in 1974, and legally Salam is not considered a Muslim in Pakistan. But this appears to have only strengthened his resolve. On the other hand, Weinberg is Jewish by birth. But he is an avowed atheist for whom the universe is an existentialist reality devoid of sense and purpose. An enormous ideological gulf separated these two brilliant physicists. And yet they both arrived at precisely the same theory of physics more or less simultaneously!

Falsifiability: A Criterion for Science

How can one separate true science from non-science? Alternatively, what entitles a particular set of propositions to be called a scientific theory? This is not altogether a settled matter, but one persuasive answer is to be found in the principle of falsifiability, enunciated in clear terms by the English philosopher of science, Sir Karl Popper.⁷ If we are to call this or that a scientific theory, says Popper, then it is absolutely necessary that the theory make predictions which can be checked for correctness against observation

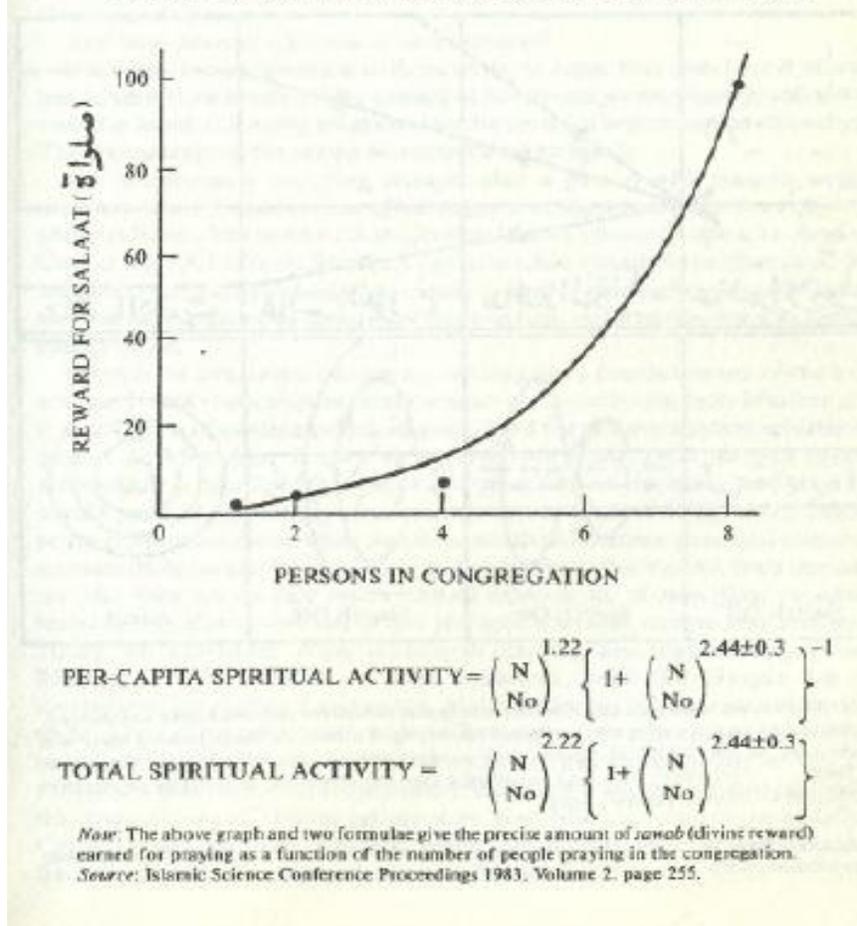
and experiment. If the theory makes no testable prediction, then there is no way to prove that it is wrong. Any unfalsifiable theory is simply not a scientific theory. This does not mean that it is bad or wrong or whatever, but merely that it is not to be considered a theory of science. Of course, many good things - maybe the best things in life - have probably nothing to do with science at all.

This falsifiability principle can be illustrated, to give one example, with Aristotle's theory of the natural place. Aristotle believed that a stone falls to the earth because the earth is the stone's mother, and the stone wishes to fall into its mother's lap - which is obviously the most natural place for the stone to be. Now we can ask two questions about this. First, is this a scientific theory? Second, was Aristotle right or wrong? As for the first question, the answer is No. Aristotle's theory does not tell us how a stone's speed increases with time, whether lighter or heavier objects fall at different speeds, and so on. It explains why bodies fall, but makes no predictions which we could actually check against experiment. Because there is no way to prove it false, therefore it is definitely not a scientific theory. As for the question of being right or wrong, the answer is surprising: nobody knows. The reader may feel quite sure of his answer. But can he prove that a stone has no affection for Mother Earth?

So now let's apply the criterion of falsifiability to various theories of the new Islamic science. A number of such theories were described earlier, and the reader is invited to apply the criterion to those as well. But here are some more.

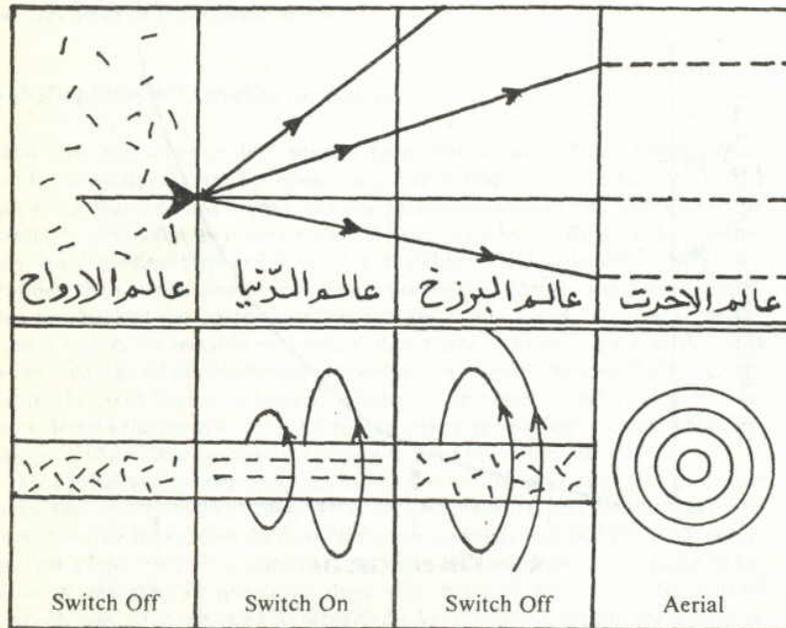
- Look at Figure 2. It contains a formula by which you can calculate the total sawab (reward) earned for namaz, as a function of the number of people praying alongside you. The author of this formula is Dr M. M. Qureshi, a leading member of the Pakistani scientific establishment, ex-chairman of the PCSIR, ex-chairman of the physics department at Quaid-e-Azam University, Pakistan's representative to various international bodies, and so on. Is the doctor sahib correct? Nobody can really say; we shall have to wait for the Day of Judgement to find out. But the theory is definitely not one of science: no experiment can be devised to prove that this doctor's formulae and graph are wrong.

Figure 2: The Quantity of *Sawab* (Divine Reward) Earned by Prayer



- Now look at Figure 3. A senior director of the Pakistan Atomic Energy Commission, who has been entrusted with designing major parts of a nuclear reactor theorizes in his book entitled *Mechanics of the Domsday and Life After Death* how the universe transits from the World of Spirits to the Final Day. He shows that this is closely similar to the establishment of a magnetic field in a current-carrying conductor with subsequent radiation of waves from an aerial. Application of Popper's criterion to this example is left as an exercise for the reader. [Note: the diagram reproduced here contains an inadvertent mistake, but this has not been removed. Please see the exchange of letters attached to this appendix where this mistake is the subject of some acrimony.]

Figure 3: The Universe: Its Beginning and Its End



Note: An Islamic scientist describes his conception of how the universe began and will end, making an analogy with the passage of electricity in a wire. At the beginning there was disorder in the World of Spirits, just as electrons are disordered in a conductor. Then . . . And finally, the soul is radiated into the Final World just like an electron radiates off electromagnetic waves.

Source: *Mechanics of the Domsday and Life After Death*, by S. Bashiruddin Mahmood, published by the Holy Qur'an Research Foundation, Islamabad.

What Islamic Science Actually Is

Let me now try to resolve what the new Islamic science actually is. There will be no disagreement, even from its advocates, that its purpose is basically religious. Observe, for instance, that the 70 papers accepted for the Scientific Miracles Conference had first been refereed by bearded theologians of the International Islamic University at Islamabad for their theological correctness. But no panel of scientists was asked to referee any paper for its scientific correctness.

It is evident that neither the premises, nor the conclusions, of the new Islamic science are the least bit in doubt. It seeks to reaffirm what is already known, not search into the unknown. No new mathematical principles are sought, no experiments will be designed for its verification, and no new devices or machines will ever be built on account of it. The new Islamic science, like Creationism in the West, is a reaction against modern science. It is not a new direction of science.

And how Islamic is Islamic science anyway?

It is a perilous proposition in these terms to argue that one thing is more or

less Islamic than another. The demon of fanaticism sleeps slightly, and always sword in hand. It is easily awakened by the sound of arguments on this subject. The imprimatur of the ulema is not to be taken lightly.

But it remains a worrying thought that a person who tries to write a mathematical formula for munafiqal reduces a religious concept to an object of cheap ridicule. The work of that German lunatic who calculated the Angle of God at the 1983 Islamic Science Conference has already been discussed. Was that a service to Islam? And what should be said of that highly placed Pakistani scientist who advocates using fiery jinns as fuel, and hence solving Pakistan's energy crisis?

In truth the new Islamic science is nothing but a fraudulent use of the word science. It seeks to capitalize on the science practised by the early Muslims. But it shares none of qualities which immortalized the achievements of scientists in Islam's Golden Age. If they were alive today, the great men of Islamic scholarship -like Ibn Sina, Omar Khayyam, Ibn al-Haytham, and others would probably be deeply embarrassed to see what is being called Islamic science. These scholars, while deeply committed Muslims, practised science of an essentially secular kind. Mouthing empty platitudes was not their business, nor did they try to find mathematical equivalents of munafiqal or sawab. Instead, they discovered important physical laws and created new concepts. Today we remember Nasir-ud-Din-al-Tusi for his trigonometry, Omar Khayyam for his solution of cubic equations, Jabir Ibn Hayyan for the ingenuity of his chemical apparatus, AI-Jazari for his intricate machines, and so on. Their science dealt with reality. This is why their place in world history is secure. And this is also why orthodoxy never forgave them, and to this day denounces them as heretics and unbelievers. It is an almost forgotten fact today that these heroes of Muslim culture were most often threatened not by infidel Christians and Mongol hordes but, instead, by a virulent anti-science section of the orthodox Muslim ulema.

Its Political Roots

What, then, really lies at the root of the new phenomenon which goes under the name of Islamic science? What political forces sustain it, and to which social classes does it appeal the most? Will the phenomenon survive, or is it a bubble about to burst? These are difficult questions and require much thought. In lieu of a comprehensive analysis, all I can do here is make some observations.

First, the new Islamic science has been fathered by the global resurgence of orthodoxy in Muslim countries; it is not peculiar to Pakistan by any means. Egypt, Saudi Arabia and Malaysia are also particularly active centres. However, it is not confined by national boundaries and is particularly to be found amongst immigrants settled in the West. It evidently provides a form of psychological defence against the continuous battering by modern science in its many manifestations. For this reason, one must not expect the phenomenon to disappear in the decades to come.

Next, we note that the proponents of this bizarre science are not the traditional ulema but instead, holders of high-level degrees in scientific fields. Most of them have studied in the West, although almost none of them have any significant professional achievements to their credit. Islamic science provides a refuge from the challenge of doing difficult science. This suggests that Islamic science may have relatively little to do with a revival of the Faith. While this return to a medieval Dark Ages way of thinking does have a few genuine adherents - mostly in the educated middle classes - by and large it is a game which is being played for personal profit and advancement. Charlatans and incompetents among scientists are assured of being in good favour with the authorities if they sing the right tune. Appointments, promotions, travel money, etc. form the stakes. Of no small importance is the Saudi factor; this infinite reservoir of hard cash has worked wonders. At its root, the new Islamic science, at least in my own country, originates from the historic compromise between the orthodox ulema and those who govern Pakistan in the name of Islam. For the ulema, Islamic science permits an extension of the domain of religious law into the area of natural phenomena. and thus a means of challenging the growing dominance of secular science. For the ruling elite, however, it is part of a calculated and cynical manipulation of religious sentiment. Without state patronage there would be no Islamic science.

But the state is only a half willing partner. It is true that top government functionaries finance its activities and give grandiose speeches at its major meetings and conferences. But privately they scoff at the very idea of Islamizing science. They accept the superiority of modern analytical methods; get their medical problems treated by doctors rather than traditional hakims; and invariably send their children to English medium schools rather than Urdu medium schools or madrassahs. The fact that Pakistani universities have, with official connivance, succumbed to rule by fundamentalist students is not liked. But the cost is bearable to the rulers because, once their children are old enough, they can be sent to American universities.

In private, Pakistani military officers and bureaucrats view the mullah as an object to be both ridiculed and feared. Ridiculed, because he is seen as an anachronism rooted in a medieval world, with worries and concerns hopelessly irrelevant to modern times. And feared because, should his sanction disappear, the legitimacy of ruling this land in the name of Islam will evaporate.

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A Response

The above article elicited outrage from at least one of the Islamic scientists mentioned in it. It seems but fair to give his point of view here. and my own subsequent reply.

This with reference to the article 'They Call It Islamic Science' by Pervez Hoodbhoy in your January '88 issue. Through this article the writer has done a great injustice not only to the undersigned (and various other authors working on the Holy Qur'an and Sunnah of the last Prophet of God (PBUH) with reference to modern developments of knowledge)

but also to your esteemed readers. He has distorted and misquoted facts from my book and tried to make a mockery of a very serious topic.

For example, if you refer to Box 2 [see Figure 3 above] of his article, it is a distorted version of Diagram No. 25 from my book *Mechanics of the Doomsday and Life after Death*, published by the Holy Qur'an research foundation. To prove his point of view, Mr Hoodbhoy has changed the original text. He writes: 'An Islamic scientist describes his conception of how the universe began and will end, making an analogy to the passage of electricity in a wire. . . and finally the soul radiates off into the final world just 'as an electron radiates off electromagnetic waves.'

Your readers should know that Mr Hoodbhoy has cheated them by presenting something which is not in the book. I would like to reproduce the exact copy of the page which has been falsified by Mr Hoodbhoy. This figure shows graphically the Islamic concept of the soul and not the 'conception of how the universe began and will end', as wrongly stated by Mr Hoodbhoy. The electrical analogy of the switching on or off of the electrical current shown in this diagram is with reference to the phenomenon of human life, and does not refer to the start and end of the universe as he has falsely stated.

Thus Mr Hoodbhoy is guilty of dishonest reporting, with no regard even for an elementary level of morality. But this is not all: he has not spared even some other respected personalities. For example, Mr Hoodbhoy has mockingly referred to the paper of the SUPARCO chairman, Salim Mahmood, about the science of cosmology. stating that the chairman sahib has proposed an explanation of the Holy Prophet's mairaj (ascension to heaven) be based on Einstein's theory of relativity, and then distorting the actual text of the relevant paragraph to support his thesis.

Anyone who compares the two texts will be able to see clearly the difference between what was said by the SUPARCO chairman and how it has been interpreted by Mr Hoodbhoy. What Mr Mahmood is actually arguing is that present scientific knowledge is still incapable of explaining such miraculous events. Not only is Mr Hoodbhoy dishonest in his report, he also has the cheek to make derogatory remarks about Mr Mahmood and the government department he is heading.

And as if this were not enough, Mr Hoodbhoy has also referred to a paper by engineer Abdal Fequi of Egypt on earth sciences, presented at the International Conference on Scientific Miracles of Qur'an and Sunnah. The text of the paper has no relationship with what Mr Hoodbhoy maintains has been said in it. He has also made a mockery of the conference and its organizers, where this and seventy other papers were represented by various learned personalities and scientists.

One can disagree with a philosophy, but no one has the right to make fun or cast aspersions on personalities or cheat the general public by misreporting. Mr Hoodbhoy has gone so far as to call people working on Islam and science 'lunatics'. This is crossing all limits of decency. But should one expect any honesty or decency from anti-Islamic forces?

S. Bashiruddin Mahmood
Chairman, Holy Qur'an Research Foundation
Islamabad

My Reply to Mr Mahmood

After reading Mr Bashiruddin Mahmood's response to my article, I plead guilty to a monstrous error and humbly beseech the reader of this magazine for his forgiveness. In truth, the word 'universe' was inadvertently substituted for the word 'soul'. If any reader was misled by this, then I apologize. By confusing one absurdity for another, I made a mistake fully as serious as forgetting to cross a 't' or dot an 'i'.

On the substance of the matter I feel quite unrepentant. Mr Mahmood says his analogy of the passage of electric current through a wire with the transformation of the soul is based on Islam. That may well be his understanding of Islam, but it certainly is not mine. Nowhere in the Holy Qur'an, or in any of the Ahadith, have I seen mention of electrons, magnetic fields, electromagnetic waves, and aeriels. Mr Mahmood's bizarre speculations have, so far as I can see, no basis in Islamic texts. As such they represent a grotesque caricature of a religious idea. Let him be warned that good Muslims do not like their religion to be made fun of, or used for nonsensical purposes.

Mr Mahmood comes to the defence of SUPARCO chairman Salim Mahmood, claiming that the chairman had made no attempt to link the Holy Prophet's mairaj (ascension) with Einstein's relativity.

This is false, and what I had said is correct. The text of the chairman's speech, which Mr Mahmood offers as vindication of his point, is on the contrary an explicit attempt to connect the mystery of the ascension with relativity. That text betrays a certain incoherence and dislocation of thought, but even after repeatedly reading it, I can find no reason to believe that my understanding was at fault.

As for Mr Fequi and his research on the nature of divine missiles, the reader is welcome to look at his published paper, which is available from the Islamic University. I do not see how there can be any question of inaccuracy - I simply wrote down in my article what is present in that paper.

In closing, I should like to remind the reader of this magazine that Mr Bashiruddin Mahmood, chairman of the Holy Qur'an Research Foundation, is known for far more than making electromagnetic analogies of the human soul. His real fame derives from a published paper wherein he suggests that jinns, whom God made out of fire, should be used as a source of energy in a world beset by an energy problem.

I am pleased to be the target of Mr Mahmood's vilification, because this means my article successfully hit a nerve-centre of obscurantist nonsense. Though he alleges it, I had no intention of calling all those who work on Islam and science either frauds or lunatics. Far from it. But can it be denied that people of this type are busy scrambling these days to get on to the bandwagon which they call Islamic science?

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The heated controversy over the claims of 'Islamic Science' was picked up by a few international newspapers and magazines. In particular, the *Wall Street Journal* came out with a special investigative article on the subject of Islamic Science, published on the front page of the issue of 13 September 1988. A portion of that article, which is of especial interest in view of the exchange reproduced above, is given below:

Across town in a quiet neighbourhood, S. Bashiruddin Mahmood, director of the Holy Quran Research Foundation, has become a sort of eminence grise in Pakistan. By day, Mr Mahmood, a nuclear engineer, designs leak detection systems for nuclear plants. By night he concocts Islamic theories.

Those who dare criticize such attempts say that in 1983, Mr Mahmood turned up at an Islamic science conference and read a paper saying that djinns - Koranic creatures made of fire - could be harnessed to solve energy shortages. Mr Mahmood denies that he said it. 'Absolute nonsense', he insists during a chat.

What then did he say?

Choosing his words carefully, Mr Mahmood explains that djinns are made out of energy, and that King Solomon figured out how to put them to work for him. 'I think that if we develop our souls we can develop communication with them', he says. Mr Mahmood isn't surprised that some people frown on his Islamic cause. 'Every new idea has its opponents', he says, 'But there is no reason for this controversy on Islam and science because there is no conflict between Islam and science.'

References

1. Mohammed Mutallib, 'Geology In The Light of Quranic Verse', presented at the First International Conference on Scientific Miracles of Qur'an and Sunnah, 1987, available in published form from the International Islamic University Islamabad.
2. Muhammad Abd Alkader Al Fequi, 'Views on the Scientific Miraculous Aspect of the Holy Qur'an in Relation to the Earth Sciences" presented at the Scientific Miracles Conference, op. cit.

3. M. Arshad Ali Beg, 'Qur'an and Scientific Interpretation of *Munafiqat*', published in proceedings of the International Seminar on Qur'an & Science, (Karachi, Pakistan Association of Scientists and Scientific Professions, 26 June 1986), pp. 46-55.
4. Salim Mahmood, *Elm-e-Falkiat*, published in proceedings of International Seminar on Quran & Science, (Karachi, Pakistan Association of Scientists and Scientific Professions, 17 June 1987), p. 42.
5. Safdar Jang Rajput, 'Dichotomy of *Insan* and Jinn & Their Destiny', published in *Science and Technology in the Islamic World*, Vol. 3, No. I, (Islamabad, Jan. March 1985), pp. 28-48.
6. Ibid., p. 35.
7. K. R. Popper, *The Logic of Scientific Discovery*, (London, Hutchinson, 1968), *passim*.

