

CRITICISM OF HOODBOY'S THOUGHTS ON ISLAMIC SCIENCE

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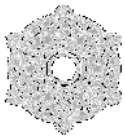
Abstract: *One of the prominent Islamic scientists who reject and criticize the development of Islamic science is Pervez Hoodbhoy. He said that the Qur'an is not a scientific book, even though it explicitly discusses various natural events. Therefore, in this article, the author will discuss the criticism of the scientist Pervez Hoodbhoy in Islamic Science. And examines the reasons for criticism and rejection as well as the responses of several other Islamic scientists to Pervez Hoodbhoy's criticism. by using a qualitative approach, which is library research. The research results show that, Hoodboy's greatest error in understanding Islamic science was first his belief that science is secular while acknowledging the existence of divinity; second, he stated that attempts to create Islamic sciences would fail because knowledge from the West raises doubt and prediction to scientific degrees in terms of methodology; third, morality and theology in any way will not be able to create new science; and fourth, there is no definition of science. Fourth, there is no acceptable definition of science among Muslims. fifth, there is only one universal science on the globe. Sixth, religion and science have different research dimensions. Seventh, questions regarding Islamic Science in the Middle Ages, and eighth, Muslim-developed doubts about Islam's character in science.*

Keywords: *Criticism, Islamic Science, Pervez Hoodbooy*

Abstrak: *Pervez Hoodbhoy adalah salah satu tokoh ilmuwan islam yang menolak dan mengkritik pengembang islami sains. Ia menyatakan bahwa Al Qur'an bukan sebagai kitab sains walaupun secara eksplisit membahas berbagai peristiwa alam. Oleh karena itu, artikel ini bertujuan untuk mengkritik pemikiran ilmuwan Pervez Hoodbhoy terhadap Islamic Science. Penelitian ini menggunakan pendekatan kualitatif yang bersifat library research. Hasil penelitian menunjukkan bahwa kesalahan terbesar Hoodboy dalam memahami sains Islam adalah pertama, pemikirannya bahwa sains bersifat sekuler padahal ia mengakui eksistensi ketuhanan, kedua, ia menyatakan bahwa usaha untuk menciptakan sains Islam akan gagal karena pengetahuan dari barat mengangkat keraguan dan pendugaan ke derajat ilmiah dalam hal metodologi, ketiga, prinsip-prinsip moral dan teologi betapapun tidak akan mampu menciptakan sains baru, keempat, belum ada definisi sains yang dapat diterima kaum muslimin, kelima, hanya ada satu sains di dunia ini dan bersifat universal, keenam, agama dan sains memiliki dimensi penelitian yang berbeda, ketujuh, keraguannya terhadap ilmu pengetahuan Islam di abad pertengahan, dan kedelapan, keraguannya akan karakter Islam dalam sains yang dikembangkan oleh muslim.*

Kata Kunci: *Kritik, Sains Islam, Pervez Hoodbooy*

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INTRODUCTION

Scientists have a very pleasant and comfortable conversation on the relationship between science and religion. These two things certainly have different explanations and logic; for example, it is said that "the relationship between science (general knowledge) and religious knowledge".¹⁵⁰ Two issues look to be intersecting, but they are two different models. Theology interprets religion or refers to "traditional religious beliefs" such as beliefs about God's omnipotence, the creation of the universe, and so on. Meanwhile, science departs from the assumption of natural travel on top of mathematical principles whose *priority is* already clear and *distinct*. The poles of science and religion are then contrasted in black and white. Such a dramatic separation occurred in the event of the inquisition of Nicolas Copernicus by the church. Until now, a gray area has emerged regarding the discourse on the connection between science and religion.¹⁵¹

The intellectual movement's core focus is currently scientific integration. This happens because of the dichotomy of science and the disintegration of the sciences.¹⁵² Armehdi Mahzar identified the impact of the development of science into four things: military impact, ecological impact, and sociological impact. But according to him, most scientists do not know the impact of the application of science and technology because they think it is not their business.¹⁵³ They feel that their main task is simply to seek the truth. While technologists acknowledge that technology is a double-edged sword that may be utilized favorably or poorly depending on the user.¹⁵⁴

In addition, so far, the relationship between science and religion has shown disharmony. Some thinkers state that the rapid development of technology is not due to the contribution of religion but rather a product of science. The dualistic conflict in the educational system,¹⁵⁵ which is currently a concern for educational observers, originates from this dichotomous view. The main problem faced is not only the impact of the development of science but also the paradigmatic problem of episteme. According to Budi Hardiman, epistemic problems are related to four main elements: rationality more than revelation, criticism more than just a naive attitude that is not free from tradition and history, progression more than just the conservation of tradition, and universalism, which underlies the three previous elements.¹⁵⁶

¹⁵⁰ 'Makalah Yang Pernah Disampaikan Pada Seminar Sains Dan Agama, Pekan Peningkatan Keilmuan Dan Keruhanian Mahasiswa Dema ISID Divisi Kampus Pusat' (Dema ISID divisi Kampus Pusat, 21 July 2007).

¹⁵¹ Mohammad Muslih, *Falsafah Sains* (Solo: LESFI, 2017).

¹⁵² Muhammad Sulaiman, 'INTEGRASI AGAMA ISLAM DAN ILMU SAINS DALAM PEMBELAJARAN', *Pancawahana : Jurnal Studi Islam* 15, no. 1 (22 June 2020): 96–110.

¹⁵³ Mochamad Muksin, 'ISLAM DAN PERKEMBANGAN SAINS & TEKNOLOGI (Studi Perkembangan Sains Dan Teknologi Dinasti Abbasiyah)', *Jurnal Teknologi Dan Manajemen Informatika* 2, no. 1 (1 May 2016), <https://doi.org/10.26905/jtmi.v2i1.617>.

¹⁵⁴ Armahedi Mahzar, *Merumuskan Paradigma Sains Dan Teknologi Islami, Revolusi Integralisme Islam* (Bandung: Mizan, 2004).

¹⁵⁵ Mahmud Yunus, *Sejarah Pendidikan Islam Di Indonesia* (Jakarta: Pustaka Muhammadiyah, 1960).

¹⁵⁶ Budi hardiman, *Melampaui Positivisme Dan Modernitas, Dis_kursus Filosofis Tentang Metode Ilmiah Dan Problem Modernitas* (Yogyakarta: Penerbit Kanisius, 2003).

Therefore, in this article, the author tries to criticize scientist Pervez Hoodbhoy's thinking against Islamic Science. And to examine the reasons for his rejection of the Islamization of science as well as to critically examine his denial based on the thoughts of some Islamic scientists who drive the Islamization of Science. So that we can clearly examine his mindset and determine the right decision for us to make by carefully studying the two mindsets of these scientists against Islamic Science.

THE OPERATIONAL OF THE PROBLEM

But as time goes by, the dynamics of science-religion relationships appear to be strengthening. Not only among theologians but also among scientists who feel nervous about the relationship between these two questions. Among Muslims, between 1970 and 1990, there was a lot of discourse on the relationship between science and Islam. Syed M. Naquib Al-Attas, Seyyed Hussein Nasr, Isma'il Faruqi, and Ziaudin Sardar are among the names that commonly appear¹⁵⁷ On the other hand, the issue of science integration has garnered criticism and opposition. One of the leading Islamic scholars who rejected and criticized Islamic scientists was Pervez Hoodbhoy. He said that the Qur'an is not scientific literature, despite the fact that it expressly mentions different natural events.¹⁵⁸

This phenomenon will be used to formulate the problem in this paper: First and foremost, what is Pervez Hoodboy's biography? Second, how is Pervez Hoodboy's criticism of Islamic Science? The aim of this research is to discover how Pervez Hoodboy's biography might be improved and how his criticism of the concept of Islamic Science

RESEARCH METHOD

Research is conducted using a research library, so the method used in research is a literature study. This special feature was used as a basis for the development of research knowledge, among others; this research confronted researchers directly with the data or text presented, not with data from food or through eyewitnesses in the form of events; researchers only face-to-face directly with the source that is already in the library or ready-to-use data, as well as secondary data used.

DISCUSSION

Biografi Pervez Hoodbhoy

Hoodbhoy, whose full name is Pervez Amir Ali Hoodbhoy, was born in Pakistan in 1950. He grew up in Karachi, Pakistan, with a Gujarati family. Hoodbhoy spent nine years at the Massachusetts Institute of Technology, where he received degrees in electrical engineering, mathematics, and physics, as well as a Ph.D. in nuclear physics. He is now a postdoctoral researcher at the University of Washington and Carnegie Mellon University. At a fairly young age, he successfully established himself as a physicist and teacher at Quad-i-

¹⁵⁷ M. Muslih, 'Sains Islam Dalam Diskursus Filsafat Ilmu', *KALAM* 8, no. 1 (1 June 2014): 1-26, <https://doi.org/10.24042/klm.v8i1.162>.

¹⁵⁸ Muhammad Amin Fathih, 'INTEGRASI SAINS DAN ISLAM DALAM PERSPEKTIF PERVEZ HOODBHOY', 23 February 2022.

Azam University, Pakistan. He received awards from the British Association of Radio and Electronic Engineers, Abdussalam Priz, in mathematics in 1990. In the same year, he won the Faiz Ahmed Faiz Award for his contribution to education in Pakistan.¹⁵⁹

He wrote *Islam and Science: Religious Orthodoxy and the Battle for Rationality*. She is also the founder of Mashal Book in Lahore, where she spearheaded a significant translation effort to publish Urdu literature that encourages modern thinking, human rights, and women's empowerment. Hoodbhoy has written for Project Syndicate, Dawn, The New York Times, and The Express Tribune, among other publications. Hoodbhoy is widely considered one of Pakistan's most liberal and progressive intellectuals.¹⁶⁰

In terms of the Islamization of science, he, with all his scientific base, opposes the Islamization of science programs. He has the belief that a person's faith and religion will not affect the outcome of their work. He gave an example of research results from Abdus Salam, a devout Muslim, and Weinberg, an atheist, both of whom were physicists who won the Nobel Prize in 1976 in the field of combining weak electromagnetic forces that exist in nature. According to Hoodbhoy, it is foolish to believe that one's scientific beliefs are inextricably linked to religion.¹⁶¹

Hoodbhoy argued in his book *Islam and Science* that there is no such thing as Islamic science because science is fundamentally a secular enterprise. Even so, it does not mean that science does not recognize the existence of divinity. He emphasized that the initiators of the concept of Islamization of science must realize that scientific truth validation has nothing to do with spiritual authority. To find the truth, science requires observation, experimentation, and logic. As a result, a scientist can be as religious as they wish. As a result, both sciences and Islam occupy distinct domains. However, science will not emerge from the existence of God or the veracity of the Qur'an in this circumstance.¹⁶²

Pervez Hoodbhoy's Thoughts on Islamic Science

The Islamization of knowledge began in the period when the Prophet Muhammad SAW received revelations from Allah SWT and then conveyed the message of monotheism from this revelation to Islamize the beliefs of the Jahiliyyah Arabs about the true God. Muslims extended their wings and conquered the entire Arabian Peninsula from south to north twenty-five years after the death of Rasulullah SAW. Da'wah spread fast in Asia (the Caucasus), North Africa (Libya, Tunisia, Al Jazair, and Morocco), Mesopotamia (Iraq), Syria,

¹⁵⁹ Zainal Habib, *Islamisasi Sains Mengembangkan Integrasi, Mendialogkan Prespektif* (Malang: UIN Malang Press, 2007).

¹⁶⁰ Ahmad Dallal, 'Pervez Hoodbhoy, *Islam and Science: Religious Orthodoxy and the Battle for Rationality* (London: Zed Books, 1991). Pp. 172.', *International Journal of Middle East Studies* 25, no. 1 (February 1993): 174–76, <https://doi.org/10.1017/S0020743800058396>.

¹⁶¹ Pervez Hoodbhoy, 'Pakistan's Higher Education System—What Went Wrong and How to Fix It', *The Pakistan Development Review* 48, no. 4 (2009): 581–94.

¹⁶² Pervez Hoodbhoy, *Islam Dan Sains* (Ban: Pustaka, 1997).

Palestine, Persia (Iran), Egypt, the Iberian Peninsula (Spain and Portugal), and India between 1258 and 1503.¹⁶³

Therefore, the mission of expanding the wings of Islamic da'wah from the mid-eighteenth century to the eleventh century had consequences. This incident coincided with the mass conversion of the original religion or local belief into Islam, resulting in the absorption of local cultural traditions and civilization.¹⁶⁴ This natural and rapid process of interaction is the beginning of the birth of "Islamization" and Naturalization, integration, or assimilation are other terms for the process of accommodating, filtering, and filtering the elements and ideals of society before absorbing them. Then, positive and Islamic elements are maintained, preserved, and developed, while elements that do not fit within the core framework of Islamic teachings are rejected and eliminated.¹⁶⁵ Seyyed Hossein Nasr, a well-known Muslim historian of science, describes this process quite well:

"There was a period of transmission in both cases, but there was also a period of digestion, ingestion, and integration, which always meant rejection." No society has ever assimilated science without part of it being rejected. It's similar to the human body. We would perish in a few days if we merely ate and the body did not reject anything. Others of the food must be assimilated, while others must be discarded."¹⁶⁶

In the 1980s, the Islamization of knowledge became a topic of discussion after In 1977, Makkah hosted the inaugural World Conference on Muslim Education and after Al Faruqi founded the International Institute of Islamic Thought (IIIT) in 1981, and published his monograph "Islamization of Knowledge: General Principles and Plans That Work" in 1982.¹⁶⁷ On this occasion, Al-Faruqi's purpose in Islamization was to re-cast information as desired by Islam or to give a new definition, arrange facts, re-evaluate results, and re-project the conclusions and goals. Al Faruqi's Islamization work plan has the objectives:¹⁶⁸

Hoodbhoy expressed his views on Islamic science:

- a. Mastering modern disciplines
- b. Mastering Islamic heritage
- c. Establishes special relevance to every area of modern science
- d. Seek paths for creative special synthesis between Islamic heritage and modern science
- e. Launching Islamic thought on a path that leads to God's law

¹⁶³ Marshall G.S. Hodgson, *The Venture of Islam: Conscience and History in a World Civilization (The Expansion of Islam in the Middle Periods)*, vol. Vol. II (Chicago: University of Chicago Press, 1977).

¹⁶⁴ Fachrurizal Bachrul Ulum Ulum, 'UPAYA PENALARAN ISLAM : TELAAH GAGASAN ISLAMISASI ILMU PENGETAHUAN DAN ISLAM SEBAGAI ILMU', *Thaqafiyat : Jurnal Bahasa, Peradaban Dan Informasi Islam* 20, no. 1 (1 June 2021): 24–41, <https://doi.org/10.14421/thaq.2021.20102>.

¹⁶⁵ Syamsuddin Arif, *Sains Di Dunia Islam: Fakta Historis-Sosiologis, Dalam Islamic Science: Paradigma, Fakta Dan Agenda, Ed.* (Jakarta: INSISTS, 2016).

¹⁶⁶ Seyyed Hossein Nasr, "Islam and Modern Science" (The Pakistan Study Group dan Muslim students Association Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts USA, n.d.).

¹⁶⁷ Mohd Yusof Hussain, *Islamization of Knowledge: The Role of Muslim Scholars, in Islamization of Human Science*, 2nd edition (Kuala Lumpur: IIUM Press, 2006).

¹⁶⁸ Mahsus Mahsus and Betty Adinda Wijaya, 'PEMIKIRAN ISMAIL RAJI AL-FARUQI MENGENAI ISLAMISASI ILMU PENGETAHUAN', *PARAMUROBI: JURNAL PENDIDIKAN AGAMA ISLAM* 5, no. 1 (4 June 2022): 11–19, <https://doi.org/10.32699/paramurobi.v5i1.2801>.

Islamization of knowledge in Al Faruqi's view it is focused on a state of synthetic analysis regarding the relation of the reality being studied to God's law. He emphasized several principles of the Islamic view as a methodology or framework of thought. The oneness of Allah, the unity of the universe, the unity of truth and knowledge, the unity of life, and the unity of humanity are these principles.¹⁶⁹ Al Faruqi also argues that truth has several conditions. First, there is no conflict between the unity of truth and reality; second, there can be no difference between God's revelation and the truth. third, the unity of truth, which has an infinite and endless nature.¹⁷⁰

This discussion resulted in two viewpoints, one supporting and the other opposing the Islamization of knowledge movement. Opposite viewpoints emerged from Abdussalam, Pervez Hoodbhoy, Abdul Karim Soroush, Bassam Tibi, Fazlur Rahman, and Louay Safi. Science, as a human activity, is not immune from refutation and falsification. The advancement of science and its development will have a major influence on the advancement of civilization. Hoodbhoy holds the view that there is no Islamic science regarding the physical world. Then the effort to make it happen is an effort that will not be worth anything.¹⁷¹

Hoodbhoy expressed his views on Islamic science:

- a. There is no Islamic science, all efforts to create it have failed.
- b. Explaining a set of moral and religious ideas, no matter how lofty, does not permit the creation of new science from the ground up.
- c. There has never been, and will never be, a definition of science that can be embraced by all Muslims.¹⁷²

Hoodbhoy's three statements about science are reasons for the futility of attempting to create a physical science based on religious principles, as happened in the Soviet Union with the failure of socialist science, which was spearheaded by the philosophy of Marxism, which inspired many Soviet scientists. So that this resulted in the decline of Soviet biological sciences for about 20 years, made many people victims due to orders to suppress opponents of their teachings, and caused great destruction to Soviet agriculture.¹⁷³

Hoodbhoy in this regard has also organized his thoughts on science. Among the concepts in modern scientific thought are:

- a. Facts-facts

Science is a collection of assumptions about the existence of facts. Like everything captured by scientists' senses or their equipment. Facts will be considered valid if observations at the same place and time produce the same value as reinforcement. Then subjective opinions must be eliminated to find these facts.

¹⁶⁹ 'PERSPEKTIF PEMIKIRAN PENDIDIKAN ISLAM INTERNASIONAL ISMAIL RAJI AL FARUQI | Jurnal Tahsinia', accessed 30 May 2023, <https://jurnal.rakeyansantang.ac.id/index.php/tha/article/view/327>.

¹⁷⁰ B. Ulum, *Islamisasi Ilmu Pengetahuan Tinjauan Atas Pemikiran Syed Naquib AlAttas*, 2021.

¹⁷¹ Pervez Hoodbhoy, *Ikhtiar Menegakkan Rasionalitas Antara Sains Dan Ortodoks Islam*, Terj. Sari Meutia (Bandung: Mizan, 1996).

¹⁷² Dallal, 'Pervez Hoodbhoy, Islam and Science'.

¹⁷³ Pervez Hoodbhoy, *Ikhtiar Menegakkan Rasionalitas Antara Sains Dan Ortodoks Islam*, Terj. Sari Meutia.

b. Law

The discovered facts are then classified, and the relationships and relations are explored and analyzed with each other until a binding relationship, known as law or principle, is discovered. Laws and principles can only be systematic if they are studied and observed.

c. Hypothesis

The hypothesis is a temporary conjecture that shows the initial understanding of what has been seen, studied, and researched and will be tested through experiments.

d. Theory

The theory is a conceptual structure that is central to thought and provides a comprehensive picture of its domain of validity. A scientific theory must also meet the following criteria:

1. All known experimental or observational evidence must be consistent with the hypothesis.
2. The theory must provide anything novel, in the sense that it can predict facts that are not yet known but can be tested.

e. Induction and deduction

Like everything captured by scientists' senses or their instruments.¹⁷⁴

f. Scientific Method

After we have specified the necessary concepts, we may define what is known as the scientific process. The scientific method essentially refers to a system that consists in systematic steps such as problem identification, the study of all the literature related to all the problems, and organizing and analyzing the data according to the existing understanding conditions; if the problem is very new, experiments are conducted to produce new clues; the simplest and most satisfactory hypothesis formulation when the clues have been obtained; and concluding the various implications. When there are exceptions, the hypothesis is confirmed or retested; when there are no exceptions, the hypothesis becomes law, and the law remains.

Hoodbhoy contends that religious orthodoxy and an attitude of intolerance are two aspects to blame for the decline of Islam's once-renowned institution of knowledge. Science will survive if there are appropriate practitioners in the form of a community who can work with the support of experimental infrastructure and entire literature and who can openly criticize each other in each discipline. As it is known, the scholars in the golden age of Islam, such as Ibn Rushd and Ibn Khaldun, were great scientists who were very influential.

Hoodbhoy's clear criticism is contained in some of his thoughts. First, according to Hoodbhoy, in this world, there is just a single science that is universal. There is no such thing as Islamic science, Hindu science, Christian Science, Jewish science, Confucian science, or other sciences that are ridden with certain ideologies. He believes that when science is

¹⁷⁴ Pervez Hoodbhoy.

tainted by religious dogma, it becomes extremely dangerous, since how can Islam, as a religion that possesses the truth, be juxtaposed with a scientific theory whose reality varies with time, development, and scientific research?¹⁷⁵ Second, according to him, religion and science have different research dimensions. So the scientists who continue to force the formation of Islamization will not reach the truth. Many of the defenders of Islamic science direct their research to problems that are outside the realm of science. For example, the speed of angels, the temperature of hell, and so forth.

Several experts, including a Nobel laureate in physics, Abdussalam, contend that there is only one science that is universal, spanning religions and states, with international problems and methods, and thus will not be connected to any one religious ideology.¹⁷⁶ If it is tied to science, the truth will be oriented toward the secular, rather than a specific religion. Abdussalam divorced the Islamic view of life as a metaphysical basis for science. Abdussalam eliminates the possibility that one's view of life will be related to the thoughts and activities of a scientist. As conveyed by this concept by Alparslan Acikgenc, a scientist will work according to the perspective related to the framework and outlook on life he has.

Apart from Abdussalam, several figures support his steps, including Fazlurrahman, who opposes Islamization since it is regarded as deceptive and will elevate Islamic values over current science. Pervez Manzoor is of the same mind, claiming that "contemporary science is not science at all, but an erroneous thought."¹⁷⁷ Parvez argues that

"Empirical data, no matter how disciplined and systematic it is, cannot achieve the status of knowledge in Islam. Therefore, he called for the Islamization of secular science disciplines. In essence, it is satisfied to do self-centered things... Islamic disciplines that have been imbued with metaphysical-materialistic and secular ethics are the same as plastic surgery.[30] 178If this can be done, the result will be a continuous dichotomy between secular and Islamic sciences.

The other scientist who supports his rejection is Bassam Tibi. He rejects the Islamization of knowledge based on his questions about Islamic thinkers who do not reject Western technology but reject Western science.¹⁷⁹ So it can be concluded from the arguments of the intellectuals above that they strongly adhere to the statement stating that science is neutral and universal. That's why they so firmly reject this project of Islamizing knowledge.¹⁸⁰

¹⁷⁵ Pervez Hoodbhoy, *Islam Dan Sains*, 123–24.

¹⁷⁶ 'Abdus Salam: A Migrant Scientist in Post-Imperial Times on JSTOR', accessed 30 May 2023, <https://www.jstor.org/stable/4417701>.

¹⁷⁷ Muqowim Muqowim and Zulkipli Lessy, 'Augmenting Science in the Islamic Contemporary World: A Strategic Attempt at Reconstructing the Future', *Al-Jami'ah: Journal of Islamic Studies* 57, no. 1 (29 June 2019): 197–230, <https://doi.org/10.14421/ajis.2019.571.197-230>.

¹⁷⁸ Filsafat Sains dalam Al-Quran: Melacak and Kerangka dasar Ilmu dan Agama, *H.M. Hadi Masruri Dan H. Imron* (UIN Malang Press, n.d.), 15–16.

¹⁷⁹ Bassam Tibi, "Culture and Knowledge: The Politics of Islamization of Knowledge as a Postmodern Project: The Fundamental Claims to De-Westernization.", *Culture and Society* 12, no. 1 (February 1995): 3.

¹⁸⁰ Nursri Hayati and Irwan Shaleh Dalimunthe, 'Integration of Science Based on Philosophy Review (Study Aspects of Ontology, Epistemology, and Axiology)', *ITQAN: Jurnal Ilmu-Ilmu Kependidikan* 13, no. 2 (16 November 2022): 169–82, <https://doi.org/10.47766/itqan.v13i2.670>.

Third, the sharpest criticism is Hoodbhoy's question about the success of Islamic science in the Middle Ages, whether it was Islamic science or Muslim science. As we all know, what are the most important facts about Islamic civilization? This was conveyed by a founding figure in the discipline of history.¹⁸¹ who emphasized the facts of Islamic civilization in his work "Introduction to the History of Science" as follows:

*"from the second half of the eighth to the eleventh century, Arabic was the scientific, the progressive language mankind... It will suffice here to evoke a few glorious names without contemporary equivalents in the West: Jabir ibn Hayyan, al-Kindi, al-Khawarizmi, al-Farghani, al-Razi, Thabit ibn Qurra, al-Battani, Hunain ibn Ishaq, al-Farabi, Ibrahim Sinan, al-Masudi, al-Tabari, Abdul Wafa, Ali ibn Abbas, Abul Qasim, Ibn al-Jazzar, al-Biruni, Ibn Zarqali, Omar Khayyam!... If anyone tells you that Middle Ages were scientifically sterile, just quote these men to him, all of whom flourished within a relatively short period, between 750 and 1100.,"*¹⁸²

From the statement above, it can be inferred that the five-century glorious period of Islamic civilization in scientific knowledge produced many intellectuals with enormous works. On the other hand, the West is currently in the Dark Ages. Then he stated three principal things:

- a. Is the science established by Muslims specifically Islamic in nature, so that it may be called Islamic science? Is it because science is universal that it is more proper to refer to it as Muslim science?
- b. Is it accurate that the thesis claims that the Arabs were primarily responsible for the development of knowledge during the Golden Age? What is the significance of non-Muslim and non-Arab scholars?
- c. Did contemporary Islamic society's great institutions absorb, assimilate, and integrate rational science?¹⁸³

Hoodbhoy then draws conclusions based on these three primary questions, and it appears that science in this case remains a highly esoteric matter reserved to the educated higher strata of Islamic culture.¹⁸⁴ The following is the conclusion:

- a. The application of science, which here refers to a methodical process based on very few theoretical ideas, had little impact on the technology of the day. Because science does not generate economic interests or skills, there is no compelling need to promote it to society.
- b. b. Court favours, while generally commendable, meant that scholars' primary responsibility was to satisfy their benefactors. Ordinary folks can only provide so much information.

¹⁸¹ Eugene Garfield, George Sarton, *The Father of the History of Science. Part 2. Sarton Shapes a New Discipline, Information Scientist*, vol. 8, n.d., 48.

¹⁸² George Sarton, *Introduction to the History of Science*, vol. Vol. 1 (New York: Krieger, n.d.), 17.

¹⁸³ Pervez Hoodbhoy, *Ikhtiar Menegakkan Rasionalitas Antara Sains Dan Ortodoks Islam*, Terj. Sari Meutia, 154.

¹⁸⁴ Pervez Hoodbhoy, 'The Rocky Road to Modernity: An Assessment of Pakistan's 75 Years', *The Round Table* 111, no. 6 (2 November 2022): 656–71, <https://doi.org/10.1080/00358533.2022.2148391>.

- c. The absence of a good institutional framework for science development stems from the disappearance of rational science and the major curriculum of educational institutions (madrasas).
- d. The works of each of the prominent philosophers—Al-Kindi, Ibn Sina, Al-Razi, Ibn Rushd, and others. and so on together show contempt for and fear of the foolish times. They enthusiastically advocate for the differentiation of teachings that are delivered to the community and selected races. This is critical for their protection and the careful application of piety (pretense), for it wouldn't be harder to allow a militant mullah to stir the populace against the philosophers. Ibnu Rushd mentioned in point four that there are three degrees of humans in terms of their ability to receive the truth, namely the general population. This level is more literal and biblical, can only understand things by basic examples, and is classified as rhetorical (khitabiyah). Second, those who have learned to think dialectically outperform the Khitabiyah group. According to him, the Mu'tazilah, As'ariyah, and Maturidiyah are included in this group or level since he has been able to ponder, give arguments for dispute, and paraphrase a statement. Third, philosophers give further interpretation to Qur'anic texts. This group has reached the pinnacle, or burhani, which is the activity of philosophers in discerning the truth of things.¹⁸⁵

Hoodbhoy contends that it is logical to conclude that knowledge is an exclusive domain of educators supported by intelligent aristocracy, and plays little or no role in society. In addition, Islamic science has survived for so long and even surpassed Greek and Christian science in the Middle Ages, or even modern science, and how this science is defended is something that needs to be understood and studied.¹⁸⁶

Criticism of Pervez Hoodbhoy's Thoughts on Islamic Science

So here are some of Pervez Hoodbhoy's ideas that should be criticized:

First, he claims that nothing is labeled Islamic science because science is mostly a secular enterprise. However, this does not exclude scientists from acknowledging the reality of the divine.¹⁸⁷

It is clear from his thinking that he believes in the existence of the divine but rejects the viewpoint of Islamic science, and indeed, the dualistic Western character and civilization have contaminated the notion of knowledge.

Consumption of science, as a Muslim, is a spiritual idea that is not apart from God's instruction. God-given knowledge is achieved through wisdom, authority, and comprehension.¹⁸⁸ As a result, the description of the scientific process as the end of the soul to the meaning (arrival of the soul to the meaning) Allah's knowledge is a source of knowledge.¹⁸⁹ As scientists, humans must go through both active and passive procedures.

¹⁸⁵ Pervez Hoodbhoy, *Ikhtiar Menegakkan Rasionalitas Antara Sains Dan Ortodoks Islam*, Terj. Sari Meutia, 165.

¹⁸⁶ Pervez Hoodbhoy, 'Pakistan: Cash Infusion of Limited Use to Universities', *Nature* 461, no. 7266 (October 2009): 874–874, <https://doi.org/10.1038/461874b>.

¹⁸⁷ Pervez Hoodbhoy, *Islam Dan Sains*, 123–24.

¹⁸⁸ Syed Muhammad Naquib Al-Attas, *Prolegomena to the Metaphysics of Islam: An Exposition of Fundamental Elements of the Worldview of Islam*, 37.

¹⁸⁹ Syed Muhammad Naquib Al-Attas, 189.

Actively seeking and accumulating information, and passively absorbing His knowledge as a gift. If this is the case, humans will be able to perceive both physical and spiritual phenomena at the same time. According to Al Attas, the four principles of Islamic epistemology are senses, authority, reason, and intuition.¹⁹⁰

Second, he claims that there is no Islamic science and that all attempts to develop one have failed.¹⁹¹ This is because Western knowledge creates concerns and predictions regarding the scientific level of methodological topics. This indicates that doubts are employed as a good and unique epistemology for acquiring knowledge. Then he did not believe that this science was equivalent to Islam because their science was based on cultural tradition strengthened by philosophical inquiry relating to secular life that made men rational people, rather than revelation.

Third, he shows that no matter how lofty a set of moral and theological ideas is, it cannot be used to construct a new science from the start.¹⁹² The process of Islamizing science does not imply creating a new science from scratch, because science has been well structured and formulated in some aspects, but science born in the West has experienced some variations due to its formulation not being based on revelation but on cultural traditions reinforced by philosophical foundations and arguments related to earthly life centered on man as a rational being.¹⁹³

The Islamic science that will be realized as a result of science's Islamization was clearly defined by Al Attas during the Second World Conference on Islamic Education in Islamabad:

This concept is the concept of the liberation of man from the magical, mythological, animistic, and cultural traditions (which are contrary to Islam) and from the secular concepts of thought and liberation from the physical impulses that tend to be secular and unfair to the reality of himself or his soul, because the man in his physical being tends to forget the truth of himself as being stupid to the true purpose and to act unfairly to it ¹⁹⁴

Ismail Raji Al-Faruqi also affirmed that Islamization means giving new definitions, reassembling scientific data, reviewing and reassessing the conclusions that have been reached, and defining new directions associated with Islamic ideals..¹⁹⁵

Fourth, he argued that there has never been and will never be a concept of science that is acceptable to all Muslims.¹⁹⁶ She has refined the concept of a grip in all facets of life as an integrated Muslim. The principles of tauhid, shariah, and akhlak are the bedrock of Islamic science. Then there is no need to define Islamic science. (Aufklarung)

¹⁹⁰ Budi Handrianto, *Sains Islam: Makna Filosofis Dan Model Islamisasi Dalam Islamic Science: Paradigma, Fakta Dan Agenda*, Ed, 65.

¹⁹¹ Pervez Hoodbhoy, *Ikhtiar Menegakkan Rasionalitas Antara Sains Dan Ortodoks Islam*, Terj. Sari Meutia, 138.

¹⁹² Pervez Hoodbhoy, 139.

¹⁹³ Hamid Fahmy Zarkasyi dan Fadhilah Rachmawati, "Kontribusi Cendekiawan Muslim Dalam Membangun Peradaban Islam," *TASFIYAH* 4, no. 2 (Agustus 2020): 84.

¹⁹⁴ Wan Mohd Nor Wan Daud, *The Educational Philosophy and Practice of Syed Muhammad Naquib Al-Attas*.

¹⁹⁵ Dr. Syamsuddin Arif, M.A., "Islamisasi Ilmu."

¹⁹⁶ Pervez Hoodbhoy, *Ikhtiar Menegakkan Rasionalitas Antara Sains Dan Ortodoks Islam*, Terj. Sari Meutia, 143.

Fifth, according to Hoodbhoy, there is only one science in the world that is universal. There is no Islamic science, Hindu science, Christian Science, Jewish science, Konghucu science, or other science riding on a particular ideology. He argues that when science rides on a religious ideology, it would be very dangerous because how could Islam, as a religion containing the truth, be compared with the theory of science, whose truth changes with time, development, and the study of scientists¹⁹⁷

According to Al Attas, the Islamization process is a separation of key elements and concepts that shape Western culture and civilization. Then, based on these core elements, Islam should be the foundation of the true religion. Because it's true that the core concepts of science are perfect concepts, not doubts. It is Islamic science as a universal science that seeks to keep him away from all sorts of things that are far from Islamic values, and everything that is far from the values of Islam means that it has been far from the truth, while the goal of science is to reach the truth. Then the science of Islam as a permanent universal by continuously upholding its truth based on the foundations of akidah, syariah, and akhlak

Sixth, religion and science have separate research dimensions, according to him. Then the scientists who continue to force Islamization will not arrive at the truth. Many supporters of Islamic science have directed studies toward matters that are not scientific in nature. For example, the speed of angels, the temperature of hell, and so on.¹⁹⁸

This idea arose because the science they were familiar with was limited to the rational-empirical-positive fields, whereas science in the Islamic perspective transcends them by incorporating not only the empirical fields but also the nonempirical fields, such as metaphysics, which are the source of revelation. Because the hood boy has limited comprehension of science, he believes that Islamization is a compulsion.¹⁹⁹ However, Islamization is the restoration of science to the genuine truth. Science has a greater scope in Islamic terms than it does in Western terms.

Seventh, Hoodbhoy questions if Islamic science was truly Islamic or Muslim science in the Middle Ages.²⁰⁰ Islamic science has been successful from the time of the Prophet (peace and blessings be upon him). This is evident from the Islamic procedure undertaken by the Prophet Muhammad SAW against the Arab population at the time. He was able to reconstruct the entire Jahiliyah Arabic order in 23 years by using the teachings of the Qur'an as the first basis of Islamic law. He was successful in altering their perceptions of man, the universe, and global life. Friends, customs, and worshippers continue to spread Islamic knowledge, allowing Muslims to achieve the pinnacle of knowledge. They sifted ancient Greek philosophy to be fitted to Islamic thinking using their extensive knowledge of

¹⁹⁷ Pervez Hoodbhoy, *Islam Dan Sains*, 123–24.

¹⁹⁸ Pervez Hoodbhoy, 123–24.

¹⁹⁹ Budi Handrianto, *Sains Islam: Makna Filosofis Dan Model Islamisasi Dalam Islamic Science: Paradigma, Fakta Dan Agenda*, Ed, 60–61.

²⁰⁰ Eugene Garfield, George Sarton, *The Father of the History of Science. Part 2. Sarton Shapes a New Discipline, Information Scientist*, 8:48.

Islam. As a result, certain aspects of ancient Greek philosophy were adopted and discarded.²⁰¹

The fact that practically all translation works were done by scientists linked with the translation institute known as Bayt al Hikam during the Abasiyah era demonstrates that the triumph of science in the Middle Ages was Islamic science, not only Muslim science. Ibn Massawayh, the leader of Bayt al-Hikmah, translated Greek books in medicine, geometry, mathematics, and astronomy. Translations of foreign works were done very selectively at the time for noble objectives.

Khalilah wa Dzimmah, translated by Abd al-Bin Muqaffa' of Persia, is simulated and removed from the elements of his imagination and leaves only lessons of ethics, morality, and wisdom in accordance with the teachings of Islam. An attempt to integrate several aspects of Aristotelian and Neoplatonic philosophy with Islamic worldviews was made by Al Kindi and Al Farabi. Al Kindi asserted that the first was created out of nothing, which was contrary to the Greek idea that nothing emerged from nothing. He's also trying to reconcile faith and reason.²⁰² The other scholars were Ibn Sina and Abu Ali Al Husain Ibnu Sina, who sought to Islamize Aristotelian and Platonic thought. Besides, there is Abu Hamid Muhammad Al Ghazali, whose work *Tahafut al Falasifah* is a criticism of Aristotle's metaphysics as well as a rejection of the twenty Aristotelian ideas that Al Farabi and Ibnu Sina accepted. Further, Shihab ad-Din Yahya, As Suhrawardi, was a wise man who established the doctrines of peripatetic philosophy in Persia. He tried to integrate Neoplatonic thought, especially the "mystic emanation theory" and the wisdom of the ancient Persians. In the Qur'an, Isaac refers to the fear of the truth through the Light of God, which is described in the Quran as "the attacker of the heavens and the earth."²⁰³

Eighth, he questions whether the science developed by Muslims has an Islamic character and hence deserves to be called Islamic science. Is it better to call it Muslim science because science is universal? Is it true that the Arabs were the first to develop Golden Age science? What is the significance of non-Muslim and non-Arab scholars? Were medieval Islamic society's main institutions truly embracing, integrating, and internalizing rational science?²⁰⁴

The same doubts were expressed by Bertrand Russell, who questioned the originality of Islamic contributions to philosophy. But on the other hand, he does not doubt the originality of Muslims' contributions to mathematics and chemistry. Because he judged Muslim philosophers only as interpreters and migrants from Ancient Greece to Western Europe.²⁰⁵ Nurcholis Majid, in his statement in response to this doubt, judged the extent of the intellectual adventure of the classical Muslim philosophers, but they remained the philosophers who held firmly to their religious teachings. They're philosophers who are left

²⁰¹ Ismail Ismail and Mukhlis Mukhlis, "Dari Islamisasi Ilmu Menuju Pengilmuan Islam: Melawan Hegemoni Epistemologi Barat," *Ulumuna* 17, no. 1 (2013): 65-96, <https://doi.org/10.20414/ujs.v17i1.174>.

²⁰² Mohd Yusof Hussain, *Islamization of Knowledge: The Role of Muslim Scholars, in Islamization of Human Science*, 50.

²⁰³ Mohd Yusof Hussain, 51.

²⁰⁴ Pervez Hoodbhoy, *Ikhtiar Menegakkan Rasionalitas Antara Sains Dan Ortodoks Islam*, Terj. Sari Meutia, 154.

²⁰⁵ Bertrand Russell, *A History of Western Philosophy* (New York: Simon and Schuster, 1964), 427.

behind by religious motives and are encouraged to hold their beliefs accountable. The minds of these Muslim philosophers are still within the boundaries of Islam's unquestionable rationality, as philosophy desires. A philosophical thing that demands rationality does not contradict Islam.²⁰⁶

Russell, on the other side, recognizes Islam's ingenuity and originality in science. The Islamic civilization has significant advantages over other civilizations, especially the Greek civilization, due to its wisdom. A historian named Max I. Dimoun agreed with him: Greeks lag considerably behind Muslims in science. He claimed that the main achievement of the Muslim philosopher was to shatter the Greek civilization's deadlock. They blazed a new trail for post-Renaissance European intellectuals, allowing modern science to flourish.²⁰⁷

With this, Islam's contribution to science must be unmistakable. Islam has an impact on practically every field of scientific inquiry, as seen by the Arabic terminology employed as terms in the West. For approximately four centuries, Islam was at the pinnacle of science, particularly during the Abasiyyah period. As is well known, the West was in complete darkness during these periods, even until 1000 B.C., because the Western civilization relied solely on Islamic knowledge. The influence of improvements in Islamic science has had the greatest influence on the Western world towards the Renaissance as the reflecting point of the modern century.²⁰⁸

Islam is the only religion that does not teach people to defy or worship the Prophet Muhammad, the "bearer of his religion." In this sense, Russell praised Islam while criticizing Christian theology of the Trinity and the concept of incarnation.

Russell recognized Islam as the most open religion. It is because Islam's teachings are full of hope for life and other people. Very different from a closed Christian. This is illustrated by the Orthodox Christian perspectives of the past, which have frequently prompted occurrences that are antithetical to the bulk of society's ethical and moral standards. The Maya and Inca races were destroyed as a result of Christianity. Anyone who criticizes orthodoxy or discriminates against civilians is a threat to Christians. As a result, Christianity is seen as having an important role in the advancement of science.²⁰⁹

However, faith remains the most crucial aspect of Islam. Faith is constantly spoken in numerous facets of life. Charity and faith are inextricably linked in Islam. A Muslim's actions defend his faith, and he will not be termed a believer unless his actions indicate it. Furthermore, Islam teaches the value of science. Science holds a significant position. As a result, religion, knowledge, and compassion are the components that comprise the Muslim consciousness.

In Islam, science is frequently related to the exhortation to think, contemplate, reflect, and so on. There are numerous calls for humanity to seek and discover the truth.

²⁰⁶ Nurcholis Majid, "Iman Dan Pengembangan Ilmu Pengetahuan: Sebuah Tinjauan Historis Singkat," n.d., accessed September 20, 2019.

²⁰⁷ Max I. Dimont, *The Indestructible Jews* (New York: American Library, 1971).

²⁰⁸ Nurcholis Majid, "Iman Dan Pengembangan Ilmu Pengetahuan: Sebuah Tinjauan Historis Singkat."

²⁰⁹ Nurcholis Majid, *Ensiklopedi Nurcholis MajidMadjid*, 2nd ed., Hubungan Organik Iman Dan Ilmu, n.d., 882.

Some aspects make Islamic science discussion sloppy because Islam is confronted with the reality of Muslims who have become less reliant on scientific advancement in recent years.²¹⁰ This scenario encouraged the revolutionary movement to pursue a lag in scientific advancement.²¹¹ Muhammad Abduh was a Muslim figure who was concerned with the advancement of science in the Islamic world. He claimed that the West advanced because religion was abandoned, but the East regressed because religion was abandoned. So, in Islam, modernization and a scientific mindset imply consistency in the implementation of religious orders, whereas in the West, they imply a departure from religion.²¹²

The Muslim spirit in scientific achievement is the result of their disloyalty. This tauhid idea does not support a mythical perspective. Tauhid educated Muslims to recognize that man is God's most noble creation. The man should gaze up to God as the source of all things, equal to man, and down to the universe. The universe is accessible for us to study and comprehend its laws in order to comprehend the Sunnatullah and Takdirullah. As a result, it is logical for current Western scholars to assert that because Islam has dominated science, research has given rise to innovations that make humans' daily lives easier. Thus, Russel agreed that science has had two branches since the time of Islam (Muslim Arabs). first, to enable us to know many things, second, to allow us to do many things.²¹³

CONCLUSION

Hoodboy's greatest error in understanding Islamic science was first, his belief that science is secular while acknowledging the existence of divinity; second, he stated that attempts to create Islamic sciences would fail because knowledge from the West raises doubt and prediction to scientific degrees in terms of methodology; third, morality and theology in any way will not be able to create new science; and fourth, there is no definition of science. Hoodboy's greatest error in understanding Islamic science was first his belief that science is secular while acknowledging the existence of divinity; second, he stated that attempts to create Islamic sciences would fail because knowledge from the West raises doubt and prediction to scientific degrees in terms of methodology; third, morality and theology in any way will not be able to create new science; and fourth, there is no definition of science. Fourth, there is no acceptable definition of science among Muslims. fifth, there is only one universal science on the globe. Sixth, religion and science have different research dimensions. Seventh, questions regarding Islamic Science in the Middle Ages, and eighth, Muslim-developed doubts about Islam's character in science.

The greatest factor that affects his thinking is, first, his understanding of Islam and its essence. Second, his knowledge of the history of Islam does not enable him to understand the meaning of haqiqi in it. So with this research, it is hoped that we will be able to

²¹⁰ Nurcholis Majid, "Iman Dan Pengembangan Ilmu Pengetahuan: Sebuah Tinjauan Historis Singkat."

²¹¹ Ach. Maimun Syamsuddin, *Integrasi Multidimensi Agama Dan Sains* (Yogyakarta: IRCiSoD, 2012), 69.

²¹² Nurcholish Madjid, *Ensiklopedi Nurcholish Madjid*, vol. IV, Rasionalitas Dan Islam (Jakarta: Democracy Project, 2011), 2840.

²¹³ Bertrand Russell, *The Impact of Science on Society* (London: : Unwin Paperbacks, 1985), 29.

consolidate our position on the truth of science. So that the Muslims can continue to advance and develop knowledge by following the guidance of the Qur'an and the Sunnah.

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