

[Open Peer Review on Qeios](#)

# From Avicenna to Salam: The Excommunication of Muslim Scholars in the Islamic World

Hossien Hossieni<sup>1</sup>

<sup>1</sup> University of Sulaimani

**Funding:** No specific funding was received for this work.

**Potential competing interests:** No potential competing interests to declare.

## Abstract

In this study, I have attempted to explain why, in the scientific realm, the Islamic world, after an impressive shine, showed a decline. I hypothesize that this was the result of philosophical and theological views of theologians like Al-Ghazali and Ibn Taymiyyah as opposed to the scientific work of Islamic scholars. The atmosphere was not conducive for the pursuit of scientific and intellectual activities among Islamic Caliphates. The excommunication of scholars by superficial theologians, Sufism, and Salafists' influences on authorities is the primary reason for the backward nature of the Islamic world. I also contend that the excommunication of Islamic scholars in Islamic societies still persists in the modern epoch. An example of this is the excommunication of Professor Abdus Salam in Pakistan.

**Hossien Hossieni**

*Department of Physics, College of Science. University of Sulaimani Iraqi-Kurdistan*

*Email: [hossien.hossieni@univsul.edu.iq](mailto:hossien.hossieni@univsul.edu.iq)*

**Keywords:** Avicenna, Abdus Salam, Al Ghazali, Islam, Ibn Taymiyyah, philosophy, Al Razi.

## 1. Introduction

Often, scientists and scholars become involved with supernatural and philosophical issues (Hossieni, et al. 2016a, 482; 2017, 117), and some have even lost their lives in the pursuit (Cattermole 1997, 640; Granada 2004,91). The Islamic world was similar everywhere, but there was an important difference. Repression of scientists' philosophical and theological opinions still persists.

When we say "Islamic world," for our purposes, it encompasses the regions under the rule of the Abbasid, Umayyad, and Ottoman empires. These empires covered the Middle East, Central Asia, North Africa, the Caucasus, and in some epochs, India and Spain (Andalusia). Of course, these areas are not the same as Islamic countries today. In the seventh

century, Islam as a religion appeared in the Arabian Peninsula during a time in which Arabic tribes could establish a large empire on the lands of both the Persian and Eastern Roman Empires (Lapidus 1975,363). This empire spread to Spain and the south of France. The empire was known as the Islamic Caliphate and sometimes the Arabic Empire. The blending of cultures gave rise to scientific development which was dependent on Greek science and philosophy (Shboul and Walmsley 1998, 255).

Many years before Islam and the Caliphate Empire emerged, the interchange of science among the Middle Eastern regions, Greece, India, and China had begun. Via Buddhism and Christianity, culture and science in different regions were interchanged. Roughly about 1500 years before Islam, even Greek philosophy, via Alexander's invasion, reached India, and Buddhist mysticism reached Europe (Lacy 1979). By the end of the 7th century, the Islamic caliphate system had been established in the Levant, and it had been spread to Baghdad by the Abbasid revolution (Hoiberg 2010). The second Abbasid Caliph, upon the advice of astrologists, established Baghdad, and in the eighth century, Baghdad had become a capital city for the Arabic-Islamic Caliphate. The Abbasids wanted Baghdad to be filled with greatness and invited traditionalists and scholars to the new capital (Saliba 1992, 45). Harun Al-Rasheed was a prominent Abbasid caliph. He attained power in 786, at which time a movement to translate Greek philosophy and science to Arabic began. Several crucial Greek works were translated into Arabic, including philosophy, medicine, general science, astronomy, physics, and chemistry. The translation movement spurred another movement in philosophy and Islamic theology in Baghdad (Osman 2011, 107).

There were two different approaches to Islamic theology. The Peripatetic school, which was based on Aristotle's philosophy, emphasized argumentation. The gonfalonier of this approach was Avicenna (Bäck 1987, 351). Another approach was the School of Illumination, which was based on Aristotelianism and New Platonism. The leader of this approach was Shahab al-Din Suhrawardi. He believed that human beings came from light and that all entities were created from, and shared, this light (Paya 2014, 265). Since Shahab al-Din Suhrawardi had used Zoroastrian myths to express his opinions, he was excommunicated by Muslim religious leaders, and a death warrant was issued for him under pressure from Muslim priests by Sultan Saladin Ayubi, the Kurdish ruler of Egypt and the Levant (Pinault 1992, 47).

Many Islamic scholars were excommunicated because of their personal philosophical opinions, outside of their roles as scientists in physics, alchemy, astrology, or medicine (or all).

In this article, I have attempted to explain why some Muslim scholars were excommunicated and why scientific improvement in the Islamic world was halted.

## 2. Infidel and Excommunication

The Islamic religious systems and religious leaders divide human society into two major parts: Muslim and non-Muslim. Within these divisions, there are further subdivisions. For example, in Islamic law (Shariah), non-Muslim people like Jews and Christians are considered to be different from other non-Muslims (Rice 1999). In fact, in Islam, the laws for all Muslim people are possibly not equal. On one hand, one group of the Islamic religious system (e.g., group A) is not consistent

with another group (e.g., group B). In other words, they believe that it is not real Islam and is considered to be heterodox or apostasy. On the other hand, another Islamic religious system (e.g., group C) can consider B to be Muslims; however, group A considers group B non-Muslim, and C to be Muslims. For example, a religious leader and religious system of the Shafi'i school of Islamic law in the Sunni branch have accepted the Shiite branch as Muslim, but the Wahhabism law school rejected the Shiite branch as Muslims, even though Wahhabism and Shafi'i accept each other as Muslims (Sachedina 1990, 107; Schacht 1953, 23).

Salafists consider Sufis as polytheistic, and many of the leaders of the Shafi'i law school are Sufi. In all Islamic law schools, if followers reject even one of the pillars of Islam, he is considered to be an apostate and must be excommunicated by Islamic leaders (Hosseinzadeh 2015, 34).

If a non-Muslim person wants to become a Muslim, he/she should accept that there is just one God (Allah) and that Mohammed is the final Prophet of Allah. In addition to adopting this belief, there are many other requirements that must be met to convert to Islam.

The excommunication of Islamic scholars is based on them having beliefs that conflict with Islamic law. This means that most of the time, the excommunication of Islamic scientists is not related to their work in the natural sciences, but is the result of their philosophical, religious, and political opinions.

### 3. Al-Razi and Avicenna

Muhammad ibn Zakariya al-Razi was an alchemist, a polymath, and a physician. He was a Muslim philosopher who lived in the 9th and 10th centuries and was known for his study of sulfuric acid and the discovery of ethanol. He did not exactly belong to the Peripatetic or Illumination schools (Aristotelian or neo-platonic); he held his thoughts, which were influenced by Hinduism and Manichaeism (Khan and Saleem 1994, 57). Al-Razi did not believe in the Oracle and was a rationalist. He was excommunicated as a result but died from natural causes (SHIHADAH 2005, 141). Another excommunicated scientist was Avicenna. He was also a Persian polymath, a physician, and an influential philosopher who was interested in Metaphysics. He authored important books including the Canon of Medicine as well as a scientific encyclopedia, The Book of Healing (Zargaran et al. 2012, 389).

60 years after Avicenna died, he was excommunicated by Al-Ghazali, who was a writer and a superficial Muslim theologian who did not believe in deep introspection of subjects but accepted them at a superficial level. He thought that philosophy and mathematics were blasphemous subjects, so it was not surprising that he excommunicated philosophers (Frank 1992, 12).

Al-Ghazali's judicial decree was so influential that philosophy in the Islamic world stopped. In the Muslim holy text, the Quran, resurrection is physical. But Avicenna believed that this was not scientifically correct and that Resurrection should be spiritual. He contended that people's inability to interpret the Quran accurately led to the notion that Resurrection must be physical (Hekmat and Haji Zadeh 2013, 7).

An important question in Greek philosophy was if the world is old or new. Avicenna followed the Aristotelian school of philosophy and believed that the universe is eternal. Since this clearly opposed the interpretation of the Quran that God created the worlds at one time, this was the primary reason for the excommunication of Islamic philosophers (Wisnovsky 2005, 92).

Although in both Avicenna and Al-Razi's excommunications they did not experience physical harm, their work was listed as prohibited.

## 4. Abdus Salam

There have been a few Muslim scientists who have received the Nobel Prize in scientific fields (physics, chemistry, medicine). Pakistani professor Mohammad Abdus Salam received a Nobel Prize in physics in 1979, Ahmed Zewail, an Egyptian professor, received his prize in Chemistry in 1999, and finally Aziz Sancar (Sinjar), originally from Turkey, won his prize in Chemistry in 2015 (Weber 1988; Kademani 2001; Kroll 2015). Unlike the other prize winners, Abdus Salam was not only a scientist but also a social reformer (Ahmad 2008). Especially after he was awarded the Nobel Prize, he attempted to bring science to the third world and Muslim countries (Salam 1966). Abdus Salam was born in Jhang, Punjab, British India (now Pakistan), in 1926. He finished basic education and college in Punjab and received his Ph.D. in Theoretical Physics from the Cavendish Laboratory in Cambridge, and founded the Theoretical Physics Group at Imperial College in London. He contributed greatly to the improvement of theoretical physics. He won a joint Nobel Prize with Glashow and Weinberg for his work on the unification of the weak nuclear and electromagnetic forces. He was the first Muslim scientist to win a shared Nobel Prize in 1979 (Fraser and Anger 2008). Abdus Salam, by using the pecuniary and spiritual value of his Nobel Prize, established the International Center for Theoretical Physics in Trieste, Italy, to help third world scientists (Lewis 1979). But this great scientist in his home country, Pakistan, was not popular, since he belonged to the Ahmadi sect (Fraser and Anger 2008, p.5). The Pakistani parliament decided to legally put this sect out of the Islamic circle in 1974 (Khan 2003). Abdus Salam was against that decision and left Pakistan but maintained his connections with Pakistani institutes and scholars (Tandberg 2012).

## 5. Excommunication stopped science improvement in the Islamic world

During Europe's scientific enlightenment, history scholars were suppressed through excommunication, repentance, and even death for holding scientific opinions that contradicted the Church's formal view of science and philosophy (Russell 1935, 7). But in the Islamic world, the situation was different; the cause of excommunications was philosophical and theological opinions. That was the main reason why scientific improvement in the Islamic world fundamentally stopped. When al-Ghazali, Ibn Taymiyyah, and other superficial theologians were excommunicated, philosophy was greatly impacted, especially at a time when science and philosophy were deeply intertwined. For example, physical science was known as natural philosophy. Putting philosophy on the theological blacklist meant that the big questions that they were trying to answer, which would have created change and improvement in science, were forbidden (Nadvi 2012, 213).

Why did a medieval renaissance, synchronous with Europe's Renaissance, not occur? Maybe some people tie this with colonialism. However, an independent country like Persia, for the first time in 1811, tried to establish an academic connection with European countries and sent two students to the UK, one for studying medicine and the other for painting (Amirahmadi 2012, 112).

Professor Abdus Salam believed that during the 12th Century, creative thinking was replaced by Sufism and a dogmatically based religious belief system. This process started many years before the Mongols' attacks on Islamic civilization, and some claim that this is the cause of the backwardness of the Islamic world (Salam 1995).

Ibn Khaldoun, an excellent Islamic historian during the 14<sup>th</sup> century, wrote: "We have heard of late that in the land of the Franks, and on the northern shores of the Mediterranean, there is a great cultivation of the philosophical sciences. They are said to be comprehensive, the people who know them numerous, and the students of them very many. Allah knows better what exists there, but it is clear that the problems of physics are of no importance for us in our religious affairs. Therefore, we must leave them alone"(Ibn Khaldon 1966; Salam 1994, 9). This Sufi and Salafist thinking was experienced by an Islamic scholar in the 15<sup>th</sup> century. Around 1470, Saifuddin Salman, a young astronomer from Kandahar, wrote to his father: "Admonish me not, my beloved father, for forsaking you thus in your old age and sojourning here at Samarkand. It is not that I covet the musk-melons, grapes, and pomegranates of Samarkand; it's not the shade of the orchards on the banks of Zar-Afshan that keeps me here. I loved my native Kandahar and its tree-lined avenues even more and pine to return. But forgive me, my exalted father, for my passion for knowledge. In Kandahar, there are no scholars, no libraries, no quadrants, no astrolabes. My star-gazing excites nothing but ridicule and scorn. My countrymen care more for the glitter of the sword than for the quill of the scholar. In my own town, I am a sad, pathetic misfit. It is true, my respected father, that so far from home, men don't rise from their seats to pay me homage when I ride into the bazaar. But someday soon, all Samarkand will rise in respect when your son will emulate Biruni and Tusi in learning, and you too will feel proud" (Salam 1966, 461).

At this time, an inconvenient bad relation between science and Islam relates to Evolution. The Islamic point of view of the origin of species is nearly the same as Christianity and Judaism, but in Islamic countries, the hostility against Evolution is very intensive. For instance, in a semi-secular country, e.g., Turkey, where moderate Islamists are in power, evolution is discarded from high school books (Gumrukcu 2017). This shows that Political Islam does not provide the convenience for Muslim scholars to work on the origin of life.

Another example that shows repression on scientists because his or her even personal life is important is Maryam Mirzakhani, the Iranian genius of mathematics. She was the first Iranian and the first woman to be awarded the Fields Prize. After her death, her hijab (headscarf) and marriage with probably a non-Muslim man became a big issue for the Iranian media and the authorities (Samuel 2017)

So it is not strange that in a religious society, philosophy and philosophers have been excommunicated, and scientific growth has been halted. In Islamic society, after a temporary scientific development, a superficial religious leader dominated society and government. The Muslim scientists were conspicuously absent in clarifying the origin of the

universe, and if probably one of them from a philosophical view said something different from the formal Islamic view, he/she was excommunicated by the Islamic community.

## 6. Conclusion

I have presented why the roots of science in the Islamic lands became dry.

Many people emphasize that Islam as a religion appreciated science and scientists, but I postulate otherwise. The Islamic religious system does not encourage asking big, significant, and fundamental questions because those questions were answered by the Quran and the Hadith. The vital question is “why are we here?” This question divides into two main other questions on the origin of the universe and the origin of life. Although they are philosophical questions, the answers are in the scientific realm. Islam, like most other religions, has no problem with technology and encourages Muslim people to access them to build a powerful Islamic society. However, it is known that technology is the fruit of science, and the origin of science in general, and especially physics, depends on scientists’ activities to clarify the origin of the universe. In Islamic culture, the word of scholars had more use for religious leaders and theologians and not for researchers of the natural sciences. The researchers in Islamic culture were assumed to be technicians, not scholars; they must serve the religious system. Ibn Taymiyyah, a weighty scholar and theologian to follow Al-Ghazalli and other superficial Muslim scholars, said chemistry and philosophy should be forbidden because chemistry is a branch of witchcraft and philosophy asks something that makes questions on Islamic beliefs (Goodman 1978, 83). That was a deadly blow to the feeble body of science. Material science and pharmacy are based on chemistry. The language of science in that epoch was philosophy, and the way of its development was philosophical thinking. That judgment cut science’s tongue and dried their roots. Perhaps one can say that the unlawfulness of philosophy was related to whether the universe is old or new, whether it has always been there or if it started at a certain point, or if it was resurrected physically or spiritually. Whether we believe in one religion or not, those are the most important questions in science. What is the origin of life? Where did the universe come from, and finally, what is its destiny? These are the subjects of cosmology and quantum biology (Hossieni 2016b, 482) (Davies 2004, 69). In ancient times, scholars’ discussions revolved around whether the Universe was old or new? But nowadays, thanks to the theory of relativity, we know that the Universe has a starting point as the “big bang,” and that this means the Universe is new. If Avicenna believed the resurrection should not be corporeal, it definitely goes back to his scientific background.

When society excommunicates scholars and they are considered for the banished black list, they lose influence on society. Although some scientists, namely Al-Razi and Avicenna, historically influenced, their beliefs were suppressed in Islamic countries. This implies a delicate relationship between religion and science.

## Acknowledgments

Thanks to my friend Saro San for his help and our mutual effective discussion.

## References

- Ahmad, M. 2008." PRESENTATION OF THE ABDUS SALAM IMPERIAL COLLEGE PHYSICS GRADUATE PRIZE", Int. J. Mod. Phys. A, 23, 3831, DOI: <http://dx.doi.org/10.1142/S0217751X08042511>,
- Amirahmadi, H. 2012. "The Political Economy of Iran under the Qajars: Society, Politics and Foreign relation 1799 to 1921", L.B. Tauris &Co Ltd New York, page 112
- Bäck, A. 1987." Avicenna on Existence", Journal of the History of Philosophy Volume 25, Number 3, pp. 351-367, DOI: 10.1353/hph.1987.0036
- Cattermole, G.N. BM. BCh.1997." Michael Servetus: physician, Socinian and victim", J R Soc Med; 90: 640-644.
- Davies, P.C.W.2004." Does quantum mechanics play a non-trivial role in life?", Biosystems, Volume 78, Issues 1–3, Pages 69–79
- Frank, R. M. 1992. " Creation and the Cosmic System: Al-Ghazālī and Avicenna", Heidelberg, p.12
- Fraser, G., Anger, C.2008. " Abdus Salam: The First Muslim Nobel Scientist", Oxford University Press
- Gillian Rice, G.1999." Islamic Ethics and the Implications for Business", Journal of Business Ethics 18: 345. doi:10.1023/A:1005711414306
- Goodman, LE.1978. "Did Al-Ghazali Deny Causality?." Studia Islamica 47: 83-120.
- Granada, MA. (2004). "Aristotle, Copernicus, Bruno: Centrality, the Principle of Movement and the Extension of the Universe" *Studies in History and Philosophy of Science Part A35* (1):91-114.
- [Gumrukcu, T.2017. "Turkey to stop teaching evolution theory in high schools: education board", Reuters, JUNE 23, http://www.reuters.com/article/us-turkey-education-evolution-idUSKBN19E1RA](http://www.reuters.com/article/us-turkey-education-evolution-idUSKBN19E1RA)
- HEKMAT, N., HAJI ZADEH, M.2013." THE RESURRECTION IN AVICENNA'S PHILOSOPHY", KNOWLEDGE (JOURNAL OF HUMAN SCIENCES) SPRING-SUMMER, Number 68/1; pp. 7 - 35
- Hoiberg, Dale H., ed. (2010). "Abbasid Dynasty".*Encyclopedia Britannica. I: A-Ak – Bayes (15th ed.)*, Chicago, IL
- Hosseinzadeh, V. 2015."Salafism and its Socio-Intellectual Foundations", Humanities & Social Sciences Reviews (HSSR), vol. 3 (1), pp.34-37
- Hossieni, H. 2016a. "On God's Supernatural Role in Hawking's Literature", Scientific GOD Journal, Volume 7, Issue 8, pp. 482-491
- Hossieni, H., Fatah, J. M. A., Kaki, S. & Khalil, A. 2016b. "Heisenberg Uncertainty Principle & Kant Philosophy: Why Hawking Thinks Philosophy Is Dead", Journal of Consciousness Exploration & Research,, Volume 7, Issue 10, pp. 775-785
- Hossieni, H., Fatah, JMA., Kaki, S. and Kamal, K. 2017." From quintessence to spookiness: evolution of supernatural in physicist mind", European Journal of Science and Theology 13, 1, 117-125
- Ibn Khaldun, The Muqqamidah translation by f. Rosenthal, Routledge and Kegan Paul, London 1958, reprinted in The Muslim World on the Eve of Europe's Expansion edited by J. Saunders, p. 131-134 published Prentice Hall, Englewood Clif N. J. 1966
- Kademani, BS., Kalyane, VL. and Kumar, V. (2001) Scientometric Portrait of Nobel Laureate Ahmed Hassan Zewail, - Malaysian Journal of Library & Information Science,



- Khan, AM.2003." Persecution of the Ahmadiyya Community in Pakistan: An Analysis Under International Law and International Relations", Harv. Hum. Rts. J. – HeinOnline
- Khan MS. and Mohammad Anwar Saleem, MA. 1994." Muslim Philosophy and Philosophers", pp. 57-62, ASISH Publishing House, NEW DELHI
- Kroll, D. 2015." This year's Nobel Prize in Chemistry sparks questions about how winners are selected", Chemical & Engineering News, cen.acs.org
- lacy L. 1979." How Greek Science Passed to the Arabs", Routledge&Kegan Paul Ltd. London , Chapter 1-8.
- Lapidus, I.M. 1975."The Separation of State and Religion in the Development of Early Islamic Society, International Journal of Middle East Studies", 6(4), pp. 363–385. doi: 10.1017/S0020743800025344
- Lewis, M., "Abdus Salam – Biographical", Nobelprize.org (1979)
- Nadavi, SS. 2012." Muslims and Greek Schools of Philosophy":, Vol. 51, No. 2 pp. 213-221
- Osman, G. (2017). Translation and interpreting in the Arabic of the Middle Ages: lessons in contextualization. International Journal of the Sociology of Language, 2011(207), pp. 107-125. Retrieved 30 Aug. 2017, from doi:10.1515/ijsl.2011.005
- Paya, A. 2014." Islamic Philosophy: Past, Present and Future", Royal Institute of Philosophy Supplements, Volume 74, pp. 265-321
- Pinault, D." Variations on the Esoteric Tradition in Poetry and Theosophy: Examples from Attar, Hafez, and Suhrawardi of Aleppo", The Shiites, Springer (1992), pp 47-52
- Russell, B.1935. "Religion and Science", oxford university press, pp. 7-19
- Sachedina Z.1990." Islam Procreation and the Law", International Family Planning Perspectives Vol. 16, No. 3, pp. 107-111
- Salam, A. 1995." ISLAM AND SCIENCE-CONCORDANCE OR CONFLICT?", Review of Religions, theislam.org
- Salam, A.1966." The isolation of the scientist in developing countries", Minerva 4: 461. doi:10.1007/BF02207978,
- Salam, A., Dalafi H. R.1994." Renaissance of Sciences in Islamic Countries", p.9-world scientific publishing
- Samuel, S.2017. "Why Iran Broke Its Strict Hijab Rules for the 'Queen of Math", <https://www.theatlantic.com/international/archive/2017/07/maryam-mirzakhani-hijab-iran/533916/>
- Saliba G.1992."Bulletin d'études orientales", T. 44, SCIENCES OCCULTES ET ISLAM (1992), pp. 45-67
- Schacht J.1953.1953." New Sources for the History of Muhammadan Theology", Studia Islamica No. 1, pp. 23-42
- Shboul A. and n Walmsley A., 1998."Mediterranean Archaeology" Vol. 11, IDENTITIES IN THE EASTERN MEDITERRANEAN IN ANTIQUITY: Proceedings of a Conference held at the Humanities Research Centre in Canberra 10–12 November, pp. 255-287
- SHIHADDEH, A.2005. "FROM AL-GHAZĀLĪ TO AL-RĀZĪ: 6TH/12TH CENTURY DEVELOPMENTS IN MUSLIM", Volume 15, Issue 1, pp. 141-179,
- Tandberg, OG.2012. "Abdus Salam (1926–1996)–More Than a Nobel Laureate", erudition, VOLUME 1, ISSUE 1, SEPTEMBER, pp. 23-30
- Weber, RL.1988. "Pioneers of science: Nobel prize winners in physics", Taylor & Francis.
- Wisnovsky, R.2005." Avicenna and the Avicennian tradition", Cambridge University Press. pp. 92--136



- Zargaran, A., Mehdizadeh, A., Zarshenas, M.M.2012." Avicenna (980–1037 AD)", J Neurol 259: 389.  
doi:10.1007/s00415-011-6219-2, pp 389–390