Ghazali, Islamophobia and the Myth of Islamic Decline MACKSOOD AFTAB¹

One of the commonly accepted theories of Islamic history states that after an early period of rise Islamic civilization subsequently went into a long period of decline. A decline caused primarily due to a flawed theology adopted by medieval Muslims. This has recently been adopted by right-wing Islamophobic thinkers to imply that Islam is a fundamentally regressive religion. This narrative, however, is deeply flawed and runs contrary to the best historical evidence.

The Standard Narrative

This standard theory states that the first approximately 500 years of Islam were the golden age. In this period Greek science and philosophy was actively translated and studied in the Muslim world. This resulted in a spectacular flourishing of Islamic civilization. The great works of Ibn Sina in Medicine and Philosophy, Ibn Haytham in Optics, Al-Khawarzmi in Mathematics and Al-Biruni in Biology were written. Soon thereafter, Islamic theologians reasserted the primacy of revelation over reason and a sharp decline in the intellectual output of the Muslim world occurred.

The theory of Islamic decline has been so dominant and well accepted that the only question which is asked is "what caused the decline?" Many reasons are given, several of which are chronicled in popular books like *What went wrong?* By Bernard Lewis. The most popular reason cited is the rise of "conservative religious forces"² which led to a "narrow, rigid and closed"³ interpretation of Islam and actively hindered the growth of science. The chief culprit they identify is the influential Islamic theologian Abu Hamid Al-Ghazali (d. 1111 CE). One of the most influential and often-quoted Orientalist scholars E. C. Sachau writes:

The fourth [tenth] century is the turning point in the history of the spirit of Islam... But for Al-Ashari and Al-Ghazali the Arabs might have been a nation of Galileos, Keplers, and Newtons.⁴

Numerous scholars⁵, perhaps owing to this early Orientalist literature, have adopted a similar view ranging from the historian Toby Huff to the famous scientist Pervez Hoodbhoy⁶. This sentiment

⁶ To be fair, in personal correspondence between the author, Dr. Hoodbhoy has agreed to reexamine his view of Islamic intellectual history based upon new historical evidence.

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² Lewis Goldhizer, Introduction to Islamic Theology and Law (Princeton: Princeton University Press, 1981

³ J. J. Saunders. *A History of Medeival Islam.* Routledge, 1965.

⁴ Muzaffar Iqbal, *The Making of Islamic Science* (Petaling Jaya, Malaysia: Islamic Book Trust, 2009), 142.

⁵ Farida Chafri, C. S. Marshall, Glen Segell, M. T. Ansari, Fazlur Rahman, and Tamim Ansary to name a few authors not mentioned elsewhere in this article.

has translated into the standard history of science. Thus we see the Nobel-prize winning scientist Steven Weinberg writing,

Alas, Islam turned against science in the twelfth century. The most influential figure was the philosopher Abu Hamid al-Ghazzali.... After al-Ghazzali, there was no more science worth mentioning in Islamic countries.⁷

Perhaps it is only natural for Ghazali to be singled out for critique due to his stature within Islamic intellectual history. Richard Frank describes his role as:

Al-Ghazali dominates the history of Muslim thought, and even though so categorical an assertion may be subject to qualification, there is no denying that he was the most important sunni theologian at a crucial turning point in the history of orthodox Muslim theology.⁸

Although this article will deal primarily with Islamic science, Ghazali is also held responsible for the presumed "closure of the gates of ijtihad" which supposedly occurred around the same time⁹. Furthermore, he is felt to have dealt a fatal blow to the field of Islamic philosophy.¹⁰

This view has been conveniently adopted by right-wing 'scholars' who are happy to point out the intrinsic problems with Islam as a religion and its supposed inability to cope with science, complexity and modernity. This can be seen in the attitude of Steven Weinberg himself who goes on to blame modern day terrorism on this supposed development. The atheist and Islam-critic Richard Dawkins also subscribes to a similar view. Populist works such as *The Closing of the Muslim Mind: How Intellectual Suicide created the modern Islamist crisis* by Robert R. Reilly published as recently as 2010 continue to propagate this myth. In it Reilly writes,

Were it not for al-Ghazali, Averroes and rationalism might have won the battle for the Muslim mind. But it did not happen, and, as a result, the Sunni Muslim mind suffered the consequences. It closed.¹¹

Bias and Ignorance

This normative view of Islamic history has, however, been seriously challenged recently due to a reexamination of the historical literature. This renewed study of Islamic intellectual history suggests instead of a decline, a brilliant renaissance of intellectual and scientific thought took place in Islam after Ghazali.

⁷ The Times Literary Supplement. January 17, 2007

⁸ Richard Frank, "Al-Ghazali's Use of Avicenna's Philosophy," Revue des Etats Islamiques, (1987-89): 55-57.

⁹ By scholars such as Joseph Schacht, A.R.Gibbs and Toby Huff.

¹⁰ By scholars such as A.J. Arberry and Herny Corbin

¹¹ Reilly, Robert. The Closing of the Muslim Mind. 2010: 127.

The theory of decline was largely a byproduct of Orientalist literature. Their interests lie not in a genuine study of Islamic civilization, but a focus on its role in the subsequent rise of western civilization. Professor Berggren identifies the problem when he writes that the "treatment of medieval Islam as a civilization deserving of attention only for its role as a channel through which the great works of the Greeks were carried safely to the eager minds of the European Renaissance" results in "selective and tendentious reading of medieval Arabic texts to show how Islamic science prefigured that of modern times."¹²

The assumption that Greek science was the impetus behind rise of Islamic science has also been recently seriously questioned. The beginnings of Islamic science predated the translation movement. For example, George Saliba points out that it would be impossible to translate Greek scientific texts unless a highly sophisticated scientific vocabulary already existed in Arabic, implying a preexisting robust scientific tradition.¹³ Evidence also points to the fact that Islam's engagement with Greek thought was always a critical one, not a passive and accepting one.¹⁴ This is true even when we look at the so called "neo-platonic" thinkers such as Ibn Sina who was highly critical of Aristotle, openly rejecting many of his ideas.¹⁵

In fact, this moving away from the Greek tradition, "de-hellinization" within Islam as the sciences become more and more "Islamic" is seen by many as a move against reason¹⁶. However, here again this is largely based upon the assumption that "Islamic" implies anti-reason, and not on any empirical evidence. The evidence on the contrary suggests a rich tradition of Islamic science developing within the context of a rational Islamic theology¹⁷.

Much of the published research into Islamic science exists from the period prior to the scientific revolution in the West since this was naturally of most interest to western scholars. This attitude has resulted in a sharp drop off in the amount of academic research into the later Islamic period. Therefore, until recently we knew very little about what happened to Islamic science after the supposed decline took place. In a lecture delivered at MIT, Syed Hossein Nasr emphasizes the same point when he writes,

¹² J.L. Berggren. *Islamic Acquisition of Foreign Sciences* in Tradition, Transmission, Transformation. (ed. Jamil Ragep). 1996: 266-7.

¹³ George Saliba. Islamic Science and the Making of the European Renaissance. Cambridge, MA: MIT Press, 2007.

¹⁴ A.I. Sabra. The Appropriation and Subsequent Naturalization of Greek Science in Medieval Islam." *History* of Science 25, pp. 223–43.

¹⁵ Jules Janssens. "Al-Ghazali's Tahafut: Is it really a rejection of Ibn Sina's philosophy?" *Journal of Islamic Studies* 12, no 1, (January 2001): 1-17.

¹⁶ Robert Reilly, *The Closing of the Muslim Mind.* ISI Books, Wilmington 2010: 121.

¹⁷ A false confrontation between Mutazalite and Asharite theologians is presented in the history of science on the basis that the former championed reason where as the later revelation. George Maqdisi and others have pointed out that, in fact, both traditions are fundamentally propagating forms of a rational theology.

There are over three thousand manuscripts of medicine in India which have never been studied by anybody. This is [only] the tip of the iceberg. There are thousands of manuscripts in Yemen which we don't even know about.¹⁸

Professor Dimitri Gutas points out that the patronage of science and the resulting scientific works in the later Ottoman period have been "almost completely unresearched." ¹⁹ The respected historian of Islamic science, Muzaffar Iqbal writes:

So far we know of at-least 1000 scientists who worked between the eighth and eighteenth centuries; there are thousand more about whom we have no information or whom we merely know the names and their works' titles. There are over 200,000 manuscripts in Iran alone, of -which about three-quarters are as yet uncatalogued.²⁰

What Decline?

As this research is being conducted a new view of Islamic intellectual history is developing. Evidence points to continued vibrancy and rigorous scientific activity flourishing for centuries after Ghazali. Recently, Professor Ekmeleddi Ihsanoglu has documented that significant scientific activity continued in the Ottoman Empire well into the eighteenth century.²¹ Professor Jamil Ragep at McGill has documented the accomplishments of Muslim scientists in the later period including hundreds of students engaged in creative theoretical and practical science at the great observatories at Maragha and later in Samarqand. He writes,

During the past half century or so, an ever-increasing body of scholarly work has shown that science in Islam not only continued after al-Ghazali but in fact flourished for centuries thereafter. Over the next five centuries or so, one can document the production of thousands of scientific and philosophical texts in both the eastern and western Islamic world that are attested by tens of thousands of extant manuscripts.²²

Many important discoveries occurred in this later period such as: "discovery of the pulmonary transit (of blood from the heart to the lungs and back), precise determinations (up to fifteen decimal places) for Π and sin 1°, and map-projection techniques of remarkable accuracy and sophistication." He points out that recently the quasi-crystalline Penrose pattern has been discovered in the architecture in Isfahan centuries before it was described by Penrose in 1975. He writes, "Given that less than 5% of the available material has been studied, it would seem that future research will bring

¹⁸ Hossein Nasr. "Islam and Modern Science." Lecture at MIT, Cambridge, MA , 1997.

¹⁹ Dimitri Gutas. *Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early Abbasid Society.* New York: Routledge, 1998: 175.

²⁰ Iqbal, Muzaffar. *The Making of Islamic Science*. Petaling Jaya, Malaysia: Islamic Book Trust, 2009: 145-146.

²¹ Ahmed Dallal. Islam, Science, and the Challenge of History. New Haven, CT: Yale University Press, 2010: 154

²² Jamil Ragep. *When did Islamic science die? (and who cares)*. Newsletter of the British Society for the History of Science. No. 85. February 2008.

to light many other discoveries." Much of the works recently studied relate to Astronomy. Professor Lindberg in his *Beginnings of Western Science* writes,

Current archival research in the history of Islamic astronomy reveals decisively that at least this specific discipline flourished well into the sixteenth century—producing a continuous flow of knowledgeable, sometimes brilliant, astronomers, scatters throughout greater Islam. As for the other sciences thousands of Arabic, Persian and Turkish manuscripts remain in libraries from Europe to the Middle East, unexamined. What they may contain we have no way of knowing until we look.²³

Echoing the same findings Abdelhamid Sabra (Emeritus professor of Arabic science at Harvard) and Hogendijk extends the period of growth into the nineteenth century. They write,

The Islamic tradition in the exact sciences continued well into the nineteenth century, and abundant source material is available in the form of unpublished manuscripts in Arabic, Persian, and other languages in libraries all over the world."²⁴

Yale professor George Saliba terms the post-Ghazali period the real golden age of Islam. He describes the brilliant scientific production in this period as nothing short of a renaissance. This leads Saliba to ask if Ghazali was responsible for the decline of science, then how does one explain the:

Production of tens of scientists in every discipline, who continued to produce scientific texts that were in many ways superior to the texts that were before the time of Ghazali. In the case of astronomy, one cannot even compare the sophistication of the post-Ghazali texts with the pre-Ghazali ones, for the former were in fact far superior both in theoretical mathematical sophistication, as well as in blending observational astronomy with theoretical astronomy.²⁵

Although it is beyond the scope of this article, it is worth pointing out that similar progress after Ghazali can been seen in other fields. For example, with regards to Islamic law professor Wael Hallaq writes,

It is our common, but rather inaccurate, belief that during the first three centuries of Islam, the highest and final stage of legal thought had been reached. It may be astonishing, therefore, to realize that the sophistication of technical legal thought was in fact achieved after these centuries...²⁶

²³ Lindberg, David. The Beginnings of Western Science. Chicago: University of Chicago Press, 2007: 191.

²⁴ Jan P. Hogendijk and Abdelhamid Sabra op. cit., vii. in 2003 Enterprise of Science in Islam. MIT Press, 2003.

^{25.} Saliba, *Islamic Science*, 241.

²⁶ Hallaq, Wael. "Was the Gate of Ijtihad Closed?" International Journal of Middle Eastern Studies 16, no. 1 (March 1984): 3-41.

Professor Saliba points out those Orientalist scholars could not see the originality in the post-Ghazali books, even though they read them carefully, simply because they were not looking for any such originality. The phenomenon is best seen in the context of the commentary literature, which is often construed as redundant learning, lacking in originality. In reality, Saliba argues, commentaries served a purpose similar to modern-day periodicals advancing knowledge in their respective fields and were in some ways superior to them, requiring a synthesis of all prior knowledge.²⁷

Contrary to the early Orientalist literature instead of demolishing science, Ghazali's theology actually secured a place for science within an Islamic framework. The metaphysical basis for this requires a separate article. Suffice it to point out that neither Ghazali's denial of necessary causality, nor his support of Ashari theology in anyway undermined prospects for rational inquiry within the Islamic context²⁸. In fact, these positions actually stimulated scientific activity.²⁹ Ahmad Dallal summarizes its consequences when he writes,

After Al-Ghazali, the need to invoke religion to vindicate science considerably decreased, not because science was not accepted but because it did not need vindication.³⁰

Unlike in Europe where scientists were often persecuted by the Church³¹, Islamic theologians actually created an environment which allowed science to flourish. This is not to say that there were never any religious objections to science in Islam, indeed there were occasionally.³² However, as professor Gutas points out these were relatively isolated incidents, the exception and not the rule.

If Muslims were so advanced, then one may ask, why then were the Europeans able to colonize and dominate the Muslim world? Historians such as Ahmad Dallal argue this was largely due to an economic imbalance created by Europe's discovery of the resource rich New World combined with emerging capitalism and the strategic deployment of new technologies. The willingness of the Europeans to use these powerful technologies for the unprecedented exploitation of human and natural resources also played a role. This late decline was not necessarily due to a structural or intellectual deficiency within the Islamic world.³³ In other words, traditional Islamic civilization's ultimate demise late in the 19th century was largely due to factors extrinsic, not intrinsic, to its intellectual fabric.

²⁹ Professor Jamil Ragep points out that it had a specific impact on stimulating alternative cosmologies by Astronomers such as Ali Qushji (15th Century) whose work had a decisive impact upon Copernicus.

³⁰ Dallal. Islam, Science, 156.

³¹ This commonly held assumption has also been recently challenged by some historians.

³² Ibn Khuldun is often quoted to cite some of these, but scholars have argued that even these are often taken out of context.

³³ Dallal. Islam, Science, 153.

^{27.} Saliba, *Islamic Science*, 237-240.

²⁸ Ibrahim Kalin, Islam and Science. Oxford Islamic Studies Online. Retrieved August 1, 2013, from http://www.oxfordislamicstudies.com/Public/focus/essay1009_science.html

Conclusion

Historical research now underway exposes the biases of the very influential early Orientalist scholarship on Islamic history and completely undermines the arguments of right-wing Islamophobic "scholars," who would like to insist that something inherent about Islam's theology resulted in its own demise. Professor Lindberg summarizes the issue as follows:

The truth is that the image of decline in the twelfth to fifteenth centuries is not the product of research in manuscript archives, but an assumption made in the absence of research and encouraged for its usefulness as a tool in religious polemics over the relative merits of Islam and Christianity: which religious culture wins the natural sciences sweepstakes?"³⁴

Much research still needs to be done in to Islam's rich scientific and intellectual heritage which clearly flourished well beyond its supposed golden age. The research needs to be historicized and done in an objective manner keeping in mind Islam's own worldview. It is premature, even absurd, to ask, let alone answer, questions such as "what caused the Islamic decline?" A false question propagated by those with little genuine interest in Islamic history. Professor Nasr writes, "Muslims have not yet developed their own historiography of science."³⁵ As this develops, many of our assumptions regarding the history of Islam might be overturned. This may lead Muslims to seek to revive elements of its intellectual heritage. Indeed, we might more rightfully ask, "what was it about Islamic civilization that caused science, philosophy, medicine, and law to flourish in its lands for well over 1000 years?"

³⁴ Lindberg, Beginnings of Western Science, 191.

³⁵ Hossein Nasr. "Islam and Modern Science." Lecture at MIT, Cambridge, MA , 1997.