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Exploring Abu Hamid al-Ghazali's Rationality in the Context of Later Abbasid Period and its Impact on Muslim Societies

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Abstract

Endowed with reason, logic, sagacity and intellect, Abu Hamid Muhammad ibn Muhammad al-Ghazali (b.1058-d.1111) was destined to play a significant role in the history of human thought. On account of his contribution, he was surnamed as 'Islam's convincing proof', and a Mujaddid (Renewer/ Reviver) and even reckoned at par with four imams. No doubt that Islamic world produced many men of high caliber, but the uniqueness of Ghazali lies in the fact that his life and works are so interlinked and interconnected that it is difficult to conceive of the separation of one from the other. According to Macdonald, Ghazali is the equal of Augustine in the philosophical and theological disciplines. But, to Ghazali, the position of early philosophers of Islam was merely that of peripatetic, who were concerned with espousing the cause of Aristotelian philosophy. Only al-Farabi wins exception, for he, by virtue of his mysticism, approaches him with some degree of closeness. By nature, Ghazali was curious and inquisitive, who was prone to disentangle the mysteries shrouding the truth, which, according to him, had been lost in the labyrinth of doubt and suspicion. However, he is blamed to have stymied the spirit of scientific inquiry and quest for logic and thus contributed in decline of Muslim societies. This paper challenges this interpretation and tries to shift blame not on a single person but multiple factors which may have contributed to such a decline.

Keywords: Rationalism, Scholasticism, *Mujaddid*, Ilm-ul-Kalam, Muslim philosophy, civilization

Introduction

Fed up with the philosophical logomachies, Ghazali embarked upon a journey, the account of which he himself gives in the following words. He says:

> "The thirst for knowledge was innate in me from an early age. It was like a second nature implanted in me by God. No sooner had I emerged from my boyhood than I had already broken the fetters of tradition and authority and freed myself from hereditary beliefs. The diversity in beliefs and religions and the variety of doctrines in the sects which divide men are like a vast ocean strewn with shipwrecks. Each sect believes itself to be exclusively in possession of truth and of salvation. From the period of adolescence, I have again and again plunged myself into this vast ocean. Struck with the contradictions which I encountered in endeavoring to disentangle the truth and falsity of these opinions" (Field, 1909, 12-14).

Ghazali says that he was led to make the following reflection:

> "The search after truth being the aim which I propose to myself, I ought in the first place ascertain as to what are the foundations of certitude. In the next place, I ought to recognize that certitude is the clear and complete knowledge of things such as leaves no room for doubt nor possibility of error" (Field, 1909, 12-14).

Ghazali was diagnosed with emotional distress in 1095 AD. Thereafter, he devoted himself to unravelling the mysteries of Sufi experience. He was of the view that through inner contemplative faculty, one can have the direct knowledge of metaphysical reality. In many of his works, he took a swipe at the philosophers not because he hated philosophical learning, but because the dialectics and methodology employed by the philosophers had amounted to create confusion and perplexity among the common citizenry. According to him, people can be bracketed into three groups: those who subscribe themselves to the belief with unquestioning conformity; those who use reason as a barometer to gauge the authenticity of their beliefs; and lastly, there are Sufis, who, by dint of spiritual experience, can have the direct knowledge of reality. Therefore, we see that the flow of his writings was directed towards addressing the common folk, and not the expert ones (Armstrong, 2001, 76).

Ghazali's *Magnum Opuses*

Ghazali had the intellectual prowess to write on a variety of topics such as philosophy, logic, jurisprudence, cosmology and ethics. Due to lack of space, it is not possible to make a mention of all his works, only most relevant books are being introduced. Of all his works, the one that is frequently quoted by philosopher intellectuals is his masterpiece *Tahafatul Falasafa* (Incoherence of the Philosophers). In this book, Ghazali lashes out at the philosophers for building faulty premises and subsequently reaching faulty and illogical conclusions. In this work, as quoted by Macdonald, he smote the philosophers hip and thigh and turned the philosophers' own weapon against them as was done by al-Ashari earlier and proved that with their premises and methods no certainty could be reached (Armstrong, 2001, 76). Another significant work of him, carrying fathomless intellectual hue, was his magnum opus named *Ihyah-i-Ulum al-Din* (The Revival of the Religious Sciences). The over-arching and all-encompassing impact of this book, especially among Muslim intelligentsia, can be gauged from the fact that this book was ranked in authority and authenticity next only to Quran and Sunnah of the Holy Prophet (PBUH) ((Armstrong, 2001, 76)). Providing Muslims with a daily spiritual and practical regimen, the book was also designed to galvanize them into carrying out practical religious experience. All the rules pertaining to dining, bathing and sleeping habits were given a devotional and ethical tinge, so that they may no longer be construed as external directives, but ought to be performed like the ones that are in perfect conformity with the teachings of the Sha'riah. Regarding his theory of the state, it should also be pointed out that "having criticized both the actually existing clergy and the political leadership" Ghazali argued that the "Law demands obedience to God, His Prophet and to those who are in power" (Rahnema, 1994, 4-5).

Similarly, another brainchild of Ghazali's creative thought process was his book titled *Maqasid al-falasifa* (The Aim of the Philosophers). This book covers, in a very comprehensive and compelling way, the three main philosophical sciences of Aristotelian tradition i.e. logic, physics and metaphysics. Likewise, his other books, renowned for profundity of thought and also serving as a prelude to the upcoming debates, investigations and inquiries in the concerned fields, were *al-Munqidh min al-Dalal* (Deliverance from the Error), *Mishkat al-Anwaar* (The Niche for Lights), and *Kimiya-i-Saadat* (The Alchemy of Happiness).

Ghazali, a bete noire in the Eyes of Avid Westophiles

The intellectual nuggets of Abu-Hamid Ghazali have been a subject of heated debates and controversies among intellectual circles, particularly in ultra-liberal and positivist circles. Vociferously, he has been criticized for striking a hammer at rational thinking, positivism, collectivism, and scientific reasoning. As a result of his laying extra emphasis on subjugation of reason to revealed scripture, the scientific flow of people ebbed away, ultimately leading to the decline of Muslims in the fields of science and technology. That is why, the deriders of Ghazali blame him for strangulating science, a field in which Muslim countries are outright backward and, hence, standing low on threshold politically, educationally, economically and intellectually. However, to be pragmatic, we know for sure that truth cannot be concealed by any orchestrated propaganda.

If we study the relevant literature holistically and between the lines, we shall get to know that the misconception about Ghazali stemmed from the writings of Earnest Renan. He played the role of intervening actor between Ghazali and Ibne Rushd. In his book titled *Averroes et l' Averroisme* (Averroes and Averroism), he championed the dominant narrative explaining the decay and demise of rationalist thought in the Arab world (Gutas D,. 2002, 6). The main narrative peddled by Renan was, since Europe embraced the philosophy of Ibne Rushd, it made a gigantic stride in the field of science and technology. Contrarily, the Arab world remained stuck to the philosophy of Ghazali, that was why it remained backward and outdated in the field of all modern sciences. Following his suit, relatively significant but less provocative remarks were passed by the like-minded ilk of scholars. Philip K. Hitti renders his account by observing that "the scholastic shell constructed by al-Ash'ari and Ghazali has held Islam to the present day, but Christendom succeeded in breaking through its scholasticism, particularly at the time of the protestant revolt. Since then the west and the east have parted company, the former progressing while the later standing still" (Hitti, 2002, 432). In the same vein, Mazhar-ul-Haq quotes Ameer Ali as saying: "But for al-Ashari and Ghazali, the Arabs might have been a nation of Galileo's, Kepler and Newton" (Haq, 2009, 861).

In all such writings, he has been portrayed as a villain responsible for the strangulation of science and rationality in the Muslim world in general and the Arab word in particular. However, if we do the in-depth study of Ghazali's own works, we shall find that he was largely misconstrued by these writers. Beyond any doubt, it can be said that there existed gulf of differences between Ghazali and other philosophers on issues pertaining to philosophical, logical and metaphysical matters. For instance, in his *Tahafut*, he called into question all the doctrines of Aristotle and Plotinus and their Muslim representatives such as al-Farabi and ibne Sina. With

unmatched style of argumentation and analyticity, he disproves many of their doctrines as mere verbosity and jugglery of words. Particularly, the position of philosophers on certain doctrinal issues such as the eternity of the world, emanation of intelligences and the souls of celestial bodies from God, and ascribing to these bodies the power of possessing the knowledge of particulars, restriction of divine knowledge to that of universals only, denial of the possibility of the out of the habit happenings, impossibility of after-death revival of bodies, all such dogmas were vehemently challenged by him. What is more, Ghazali does not seem to toe the line of the philosophers even where their conclusions were true and in perfect conformity with the dogmas of religion. To him, their arguments were confused, faulty and non-conclusive such as they offered, for instance, to elucidate the unity, the simplicity, the immateriality of God and human soul, etc. Of all his disputations and wrangling, it was with regard to three of the metaphysical doctrines that he parted his ways with the philosophers. The three were, eternity of the world, denial of God's knowledge of particulars, and the denial of bodily resurrection by the philosophers. If these were mere intellectual differences, then why much ado about Ghazali? Simply put, it were the writers of orientalism, who portrayed Ghazali as a villain by ascribing to his writings being the reason behind the intellectual bankruptcy of the Muslim world. In the words of Asad Q. Ahmad:

> "Ghazali is wrongly attributed to as the reason behind the decline. The narrative of decline in the post-classical period of Islam, from the 1200s to the present, is an invention of rather uniformed orientalist scholarship. In fact, in recent research, we have discovered a rather vibrant tradition sustained well into the late 19th and early 20th centuries. With examples of Muslim scholars from the 13th, 14th, 15th centuries, all the way to the 19th, including scholars from the sub-continent, it can be argued that Science and rationalism was very much present in the post-classic period, and the simplistic narratives rampant need to be jettisoned" (Rafi, 2015).

Having said all this, let us direct our attention towards those conspicuous charges which have been levelled against Ghazali. Firstly, we shall enumerate these charges before deconstructing them one by one. Secondly, we shall succinctly give an account of post-Ghazalian Muslim scientists, who, after appearing on the horizon, rendered valuable services in different fields of science and astronomy. And finally, we shall present a historically holistic account of the decline of Muslim scientific civilization. But, before proceeding further, we first need to clarify the misconception that religion is a conspicuous irritant in the way of observation of natural phenomenon, rationality and causality. For, most of the stigma on the forehead of Ghazali is advertently attached just because of his Muslim orientation.

Religion and Causality of the Natural Phenomenon

Quran is not the book of science but of signs. There are numerous verses in the Quran, which appeal to its reader to ponder over the happenings taking place around him. Whether it be microcosm or macrocosm, or matters pertaining to earthly domains, the Quran exhorts its believers to be receptive and reflective on the message conveyed to them through scriptural agency. According to Dr. Mohammed Aijazul Khatib of Damascus university, "the Quran is full

of reflective notes on observation of natural phenomenon along with its part dealing with legislative affairs. It may be surprising that in contrast to 250 verses dealing with legislative matters, some 750 verses of the Holy Quran, almost one-eighth of it, exhort the believers to study nature, to reflect, to make the best use of reason and to make the scientific enterprise an integral part of the community's life." Some of the verses in English translation are given below.

إِنَّ فِي خَلْقِ السَّمٰوٰتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لَاٰيٰتٍ لِّأُولِي الْأَلْبَابِ . الَّذِيْنَ يَذْكُرُوْنَ اللهَ قِيَامًا وَّقُعُوْدًا وَّعَلٰى جُنُوْبِهِمْ وَيَتَفَكَّرُوْنَ فِي خَلْقِ السَّمٰوٰتِ وَالْأَرْضِ ۚ رَبَّنَا مَا خَلَقْتَ هٰذَا بَاطِلًا ۚ سُبْحٰنَكَ فَقِنَا عَذَابَ النَّارِ

> "Behold! In the creation of the heavens and the earth, and the alternation of night and day there are indeed signs for men of understanding. Men who celebrate the praises of Allah, standing, sitting, and lying down on their sides, and contemplate the wonders of creation in the heavens and the Earth, (with the thought): our lord! Not for naught hast thou created all this! Glory to thee! Give us salvation from the penalty of the fire (Al-Qur'an, *Surah Al-Imran* 3,190-191).

At another occasion, the Holy Quran says:

أَلَمۡ تَرَ أَنَّ ٱلۡفُلۡكَ تَجۡرِي فِي ٱلۡبَحۡرِ بِنِعۡمَتِ ٱللَّهِ لِيُرِيَكُم مِّنۡ ءَايَٰتِهِۦٓۚ إِنَّ فِي ذَٰلِكَ لَأٓيَٰتٖ لِّكُلِّ صَبَّارٖ شَكُورٖ ٣١

> "do not you see that the ships sail through the ocean by the grace of Allah? So that he may show you of his signs. Verily, in this are signs for all who constantly persevere and give thanks" (Al-Qur'an, *Surah Luqman* 31, 31).

For a moment, just imagine the profoundness of the argument peddled in this verse. Apparently, the verse seems to be of didactical purpose, but its argumentative significance is far-deep, encouraging the readers for further insight and digging. This verse peddles contingency argument. According to contingency argument, there are two beings namely, necessary and contingent. As per this argument, necessary being does not depend on others and is inevitable for other's existences, while contingent beings cannot explain themselves and are dependent upon others. In the case of boats and ships sailing through water, the water has no reason to support the boat, nor the boat has any reason that it will not sink. Yet both are performing their functions. All this speaks about an intelligent creator who is solely managing all the affairs. Similarly, Moses's casting his staff on the back of the water and the subsequent splitting of water into distinct paths for the people of Israel, and the Prophet Muhammad's ordering for a trench to be dug up as a war strategy, all such events speak volume about the potency and efficacy of cause-and-effect relationship. However, whether such relationship is ontologically necessary or not, it is still debatable. Thus, it can be concluded that religion does not preclude from inquiry into natural phenomenon, nor does it gloss over robust cause-and-effect relationship.

Litany of Charges against Ghazali

Now, let us catalogue the litany of charges against Ghazali, and then deconstruct them in the light of writings of the modern scholarship. The charges against him are listed below:

1. Denial of law of causality.
2. Harboring waxing bitterness towards philosophical thinking and philosophers.
3. Placing reason as subservient to the religion.

4. His instrumentalist vision stymied scientific flow in the Muslim world.

1. Denial of law of causality?

All the bodies, whether they are earthly or celestial, follow a pattern designed for them since they came into existence. Behind this pattern, there is a moving factor of cause and effect relationship. Both are inseparable, and therefore, every happening is interpreted in the light of robust cause-effect co-relationship. Of the charges levelled against Ghazali, one was that Ghazali denied the law of causality in his magnum-opus, *Tahafat-ul-Filasaafa* (Incoherence of the Philosophers). al-Ghazali remarked: "A piece of cotton placed in a flame does not darken and smolder because of heat, but because God wants it to darken and smolder" (Al-Ghazali, 2000, 167). This line is often quoted by so called ultra-liberals and advocates of scientism as a reference line to build a case against Ghazali, who was, according to them, against scientific knowledge and rational thinking. Based on these lines, the champions of scientism blame Ghazali for denying the law of causality, which, in turn, amounts to the denial of science, as its edifice is laid on the solid pillars of causality. Here, it is pertinent to mention that there is a difference between science and scientism. The former has never made any claim of reaching the ultimate reality, whereas the latter cherishes the view that ultimate reality can be gained through scientific knowledge and inquiry. If we take the matter holistically, we will get to know that there are many more realities in the internal and external settings of the universe which are yet to be found. So far their unknown nature does not necessitate that they do not exist at all. We can say that they do exist, but they are far from comprehension and understanding right now. Cutting to the chase, the lines penned down by Ghazali ignited a spark of immense intensity among the scientific intelligentsia. Without getting to know the deep insight contained in these lines, they dubbed him as irrational and science illiterate.

Out of many staunch critics of Ghazali, two of them are being mentioned. One is Pervez Hoodbhoy, physicist, a university professor and social activist and the other is Steven Weinburg, a reviewer on Richard Dawkin's book, *The God Delusion* (2006). Pervez Hoodbhoy, in his book, *Islam and Science: Religious Orthodoxy and the Battle for Rationality*, lashes out at al-Gazhali and dubs him as an articulate and effective opponent of physical causality (Hoodbhoy, 1991, 105). The writer would have us believe that Ghazali strangulated human reason and made it slavishly subservient to revealed knowledge and, in the present times, we are still reeling in the devastating blow inflicted by Ghazali on human reason. If we study the book, we will know that it peddles classical narrative carrying objectionable premises. In this book, the role of Muslims has been confined to that of translators and intelligent postmen, nothing more. And the writer admires Hunayn bin Ishaq, a celebrated translator, who himself was a Christian and not a Muslim. The crown argument in the book is, Islamic golden civilization dwindled because of the religious literature produced by Ghazali. In the same vein, Steven Weinburg in his review of *The God Delusion* writes, "Alas! Islam turned against science in the 12th century. The ubiquitous figure was philosopher Abu Hamid Ghazali, who argued in his incoherence of philosophers

against the laws of nature, on the grounds that it will put God's hands in chains. After his death, there was no science worth mentioning in the Islamic world."

All this is but one-dimensional approach adopted by bred-brains of rationality, who harbor ulterior motives towards Islamic scholarship, only to downgrade their role in the trajectory of scientific studies. Muslim figures are portrayed by these so-called champions of scientism, as if they were a slumbering folk oblivious to knowledge, discovery and inquiry. A pragmatic and careful study is needed to delve into the matter, whereby an actual conclusion can be drawn. As of their saying that Ghazali denied the law of causality, we will say that these lines carry an answer in themselves. Ghazali attributes the burning of cotton as an act of God, who caused it to darken and smolder, for he is the ultimate cause of all causes. All causes sprout from the ultimate cause, and that ultimate cause is God himself. Let us put our premise to a test. The most acceptable explanation about the creation of the universe can be any of the three. Firstly, it was created by the nature or matter. Secondly, it was created by God. Thirdly, it was some alien who created it. Supposedly, if it was created by nature, then how nature, which is blind and ruthless, acquired wisdom and intelligence to create it. For, everything around us gives explanation by itself. There is harmony, symmetry, organization, discipline and balance among all the existing things which speak volumes about an intelligent hand behind all perfection. If for the sake of argument, we suppose an alien behind all this, that is rationally and scripturally unproven. Not even a layman can think like this. Now, the only acceptable explanation left with us is, God created this universe, and he is the ultimate cause of all the causes and effects thereof.

In fact, Ghazali was a staunch proponent of causality. For this, take Klam cosmological argument as an example. It was William Lane Craig who revived the Klam, cosmological argument during the 20th and 21st centuries. According to him, the real founder of this argument was none other than a Muslim scholastic philosopher Ghazali. This argument is a deductive argument. Hence, if its premises are true, the conclusion follows necessarily. What does this argument say?

1. Everything that begins to exist has a cause.
2. The universe began to exist.
3. Therefore, the universe has a cause.

What is more, even the modern scholars exonerate him Ghazali from being an avid opponent of causality. For instance, R.M Frank denies such charges against him, writing:

> "In *Mihakk* and in *Mustafa*, he lists a number of causal effects that are known by experience, among them a fire's causing combustion, its rising upwards, eating's causing satiety, the intoxicating effects of wine, the laxative effects of scammony, and the magnet's attraction of iron, things knowledge of which has to be founded in experience, since the judgement is general and what is given to the sense as such is merely the particular instance of an event. In this context, he says that causes and effect are concomitant one to the other" (Frank, 1994, 18).

Likewise, Frank Griffel rejected the classical narrative negatively portraying Ghazali as a villain and strangulating the science and rationality in the Muslim world. He puts his account thus:

> "Abrahamov studied *The Revival of the Religious Sciences*, *The Book of the Forty*, and al-Ghazali's commentary on the Ninety-Nine noble names. Abrahamov concluded that in these three works, al-Ghazali uses language that assumes that causes do have efficacy on other things. To be sure, it is God who creates the causes and maintains and regulates their influences. Yet in these works, al-Ghazali suggests that the influence of causes is indeed real and not just an illusion" (Griffel, 52).

These foregoing accounts corroborate the fact that Ghazali did not deny causality.

2. Harboring waxing bitterness towards philosophical thinking and philosophers?

Ghazali was charged with smiting the philosophers' hip and thigh and also gainsaying of philosopher's philosophical logomachies. There is no doubt that Ghazali accused the philosophers of building wrong premises and arriving at faulty conclusions. But, such accusations pertained to intellectual issues, and all this should be construed as such and nothing more. The deriders of Ghazali often quote shortened versions from his books, and thus put the entire debris of blemish on him. For instance, they quote lines from Al-Munqidh Min al-Dhalal (*The Deliverance from the Error*), one of the Ghazali's majestic works, to the effect that Ghazali was a staunch opponent of philosophers and philosophical thinking. They quote the one, but hoodwink the other.

The central message of fore-going deriders of Ghazali is that the knowledge of philosophy can be categorized into six major sections. They are mathematics, logic, physics, theology, politics and moral philosophy. Again mathematics comprises of knowledge like geometry, calculations and cosmography. These sciences have nothing to do with the matters of Shariah, for they neither prove nor disprove any of the religious dogmas. The knowledge of these sciences stand proven through irrefutable plausible evidence, and hence, after thorough deliberation, there remains no place of doubt in them. But, such knowledge is apt to give birth to two evils of very grave natures. The first evil is that a person doing the brown study of these sciences, after having been left gobsmacked by the subtlety and clearness of its proofs, cultivates devotional attachment to them, and as a corollary would think of them as self-evident as mathematical knowledge itself. But the saga does not end here. For, such a person, when he listens about infidelity and rubbish coming from the tongues of philosophers, all of that explicitly contrary to the teachings of religion, he would surmise in himself that had the religion been all about truth, these echelons of knowledge would not have eschewed it for good. Resultantly, there is disbelief and infidelity on the part of this layman.

These lines are often quoted to build a case against Ghazali. But the succeeding passage of the very same book, wherein Ghazali clarifies his position, strikes at the root of all such allegations which have been levelled against him. The second passage reads thus:

The second evil comes from the devoted but ignorant Muslim. For, he thinks the best defense of Islam lies in there and then rejection of exact sciences. Therefore, he accuses philosopher master of going astray, and rejects his theories, even those pertaining to the solar and lunar eclipses, outright. These accusations spread far and wide, and when they fall on the ears of philosopher

who thinks that his theory was based on irrefutable evidence; he is led to the suspicion that Islam has ignorance and denial of scientific proof for its basis. Therefore, grossly mistaken are those Muslims who think, in the outright rejection of mathematical sciences, there lies the victory for Islam and Muslims. Factually speaking, Islam is not incompatible with these sciences; it has neither affirmed nor negated these sciences; nor is there any possibility of confrontation between these two. The holy prophet himself said: the sun and the moon are not eclipsed because of the life and death of anyone, nay, but they are the signs of the power of God. When any of you happen to see such visuals, he must seek refuge in Allah. Again I say, do not in any way condemn the astronomical calculations which define the orbits of these two bodies, their conjunction and opposition according to the particular laws (Al-Ghazali, 1958, 67-72).

Nowhere do these passages give any impression that smack of vengeance, hatred and animosity towards philosophers as well as philosophical knowledge. Just he was cautioning the poor readers against the jugglery and intricacies of philosophical knowledge, as there was likelihood that uniformed and no so well-versed people may fall a prey to such logomachies. Indeed, it was Ghazali because of whom the philosophy imbibed a rationalistic hue (*Maqoolat*). Suleman Nadvi, while giving an account about the educational condition of Spain and the philosophical teachings of Ibne Rushd, writes:

> "After the death of Hakam, the philosophy remained deprived from royal patronage for centuries. It remained so unless the government of Almohad (*al- Muwahhidun*) was established by Muhammad Bin Tumart. He was an apprentice of Ghazali and an erudite par excellence. By that time, the royal religion of Spain was of Malakites in terms of jurisprudence *(fiqh*), and Hanbalites in terms of deeds *(Aqaid*). But, once the government of Almohad was established, the Asharite religion was declared the religion of state. In Asharite religion, because of Imam Ghazali, the philosophy had imbibed rationalistic tinge and hence, there remained not more prejudice against philosophy" (Nadvi, 1936, 31).

3. Placing reason subservient to scripture?

Unlike Rene Descartes, Ghazali saved himself from committing the fallacies of ontologism. Descartes doubted sense perception, but believed in the primacy of reason. But, Ghazali, like Immanuel Kant in later times, did cast doubt on the capacity of reason as the ultimate tool of reaching the reality. According to Ghazali, there are many metaphysical realities which cannot be gauged by reason alone. Reason, with its limited capacity, can only process the data received by sense perception. If sense perception, somehow, fails or falters in collecting and transferring the data, reason will judge in the light of data it received. In later times, Immanuel Kant in his *Critique of Pure Reason* and *Critique of Practical Reason* wrote in the similar way. Thus, al-Ghazali proved the impossibility of building up metaphysics on reason alone in his book entitled, *Incoherence of the Philosophers*. In the words of Macdonald, "He smote the philosophers hip and thigh; he turned the philosophers own weapon against them as was done by Al-Ashari earlier and proved that with their premises and methods no certainty could be reached" (Sheikh, 1962, 81).

According to Ghazali, scripture, on the other hand, being a sacred note from the high-above, carries the insignia of infallibility. Since revealed scripture is infallible, that is why it

merits itself to be placed above reason and in its light, the individual conduct be molded and fashioned. In the light of scripture, we can reach ultimate reality of matters pertaining to metaphysics.

4. His instrumentalist vision stymied scientific flow in the Muslim world?

Ghazali is alleged to have brought about the fall of Muslim civilization in the field of science and technology. Such allegations, if well scrutinized through historical lens, will prove out to be flimsy, shaky, inadequate and unsubstantial. They can be disproved in a number of ways. Firstly, no civilization deserves to be called a civilization, if the works of a single individual, regardless of who it is, can bring it crashing down. Civilization is a complex phenomenon, and its decline can be attributed to a host of other factors let alone a single individual's fault. Secondly, nowhere in the writings of Ghazali, there is an unequivocal reference which may be construed as discouraging masses from acquiring the knowledge of science. Conversely, there are many remarks highlighting the importance of science, especially of mathematics and arithmetic. According to him,

> "Mathematics and arithmetic are exact sciences with no connection with religious or metaphysical principles. Thus, proving religious truths with mathematical tool is absurdity, and such an attempt gives more harm than good to religion. These sciences are based on demonstrative proofs and their implications cannot be denied or affirmed in any religious connotation" (*The Dawn*, 2008).

Ghazali's divergence from the path of philosophers was accentuated by a necessity of keeping religious beliefs non-intermingled with philosophical complexities and subtleties. For, intermingling religion with philosophy may cause the former to be more sophisticated and inaccessible to the common minds. The problem with the philosophers was that they used the language of Aristotle, resorted to apodictic proofs, employed syllogistic rules for demonstration, and wrote in a grammar that was mainly abstruse, high sounding and worded and therefore, un-intelligible to the common citizenry. Therefore, he advised common minds against indulging in philosophical debates about established religious principles. From this, it cannot be construed that he preached anti-science views. Thirdly, had his views acted as a stumbling block in the way of Muslim journey towards the science, there would have been no Muslim scientist worth a name, after him.

On the contrary, we find a long list of Muslim scientists who appeared on the horizon well after the death of Ghazali. There was a flourishing scientific production in the Muslim world, whether it was mathematics, science, astronomy, cosmography, medicine, or optics, even after the death of Ghazali. To name a few, Athir al-Din al-Abhari (c.1240), Muayyad al-Din al-Urdi (d.1266), Nasir al-Din al-Tusi (d.1274), Qutub al-Din al-Shirazi (d.1311), Ibn al-Shatir (d.1375), al-Qushji (d.1474), Shams al-Din al-Khafri (d.15550), Kamal al Din al-Farisi (d.1320), Ibn ul-Baitar (d.1248), and Ibn al-Nafis (d. 1288), all of them came centuries after Ghazali (Saliba, 2007, 21). Moreover, the 13th century witnessed the foundation of Maragha observatory in 1259 A. D. under the aegis of Nasir al-Din Tusi, and this grand experimental project came to

be a successful completion. Lavishly funded, Maragha had a large staff together with an extensive library and its principal astronomer, Naisr al-Din Tusi (b.1201-d. 1274), compiled and composed many thought-provoking and ground-breaking works in mathematics and astronomy. He is reported to have written more than one hundred and fifty works in Persian and Arabic, covering a wide range of topics such as astronomy, geometry, arithmetic, astrology and metallurgy. Tusi systematically defended the metaphysical writings of Avicenna against the attacks of unorthodoxy levelled by theologians, in particular the criticism of Ghazali (Rahnema, 1994, 69). His fame can be gauged from the fact that he has been given the title of third teacher, after Aristotle and Al-Farabi (b.872-d.950). Apart from experimental purposes, the site also served as a university where students from far flung areas would throng in vast multitude. On account of its principal's major contribution, Ibne Khaldun deservedly called Nasir-ul-Din al-Tusi as the greatest of the Persian scholars (Blake, 2016, 65).

How did the Decline Come About?

After all, if Ghazali was not responsible for the decline of Muslims' scientific civilization nor it was the outcome of conflict between religion and science, then how did the downfall come about? Contrary to the classical narrative, the decline has to be understood in terms of socio-economic and political shifts that took place by the end of the 15th century and the beginning of the 16th century. The major event, which turned the whole world order topsy-turvy, was the discovery of the new world. This discovery augmented the disruption of Euro-Asian trade routes, which paved the way for the influx of raw material and essential goods to be brought in the European countries. Here, in order to enhance our understanding about the phenomenon of decline, we need to take into account the political developments taking place in the Muslim world. For the first time, we find that there was a split of political power within the Muslim world, which came about during the middle of the sixteenth century. As a result of this split, there came into existence three great Muslim empires. Quite interestingly, they all happened to cling to the citadel of political power at the same time, and with the exception of the Ottomans, decline was the fait accompli of the two, Safavids and the Mughals, and it too came to pass at the same time.

Just as the discovery of the so called New World, which expedited the westward orientation of the European exploration in different enterprises, the age of discovery witnessed a dogged search for more resources to tap, more lands to discover and more labor to enslave. To the utter dismay, all these developments amounted to hemming in the Muslim world. Hence, the Muslim world found itself disconnected and isolated. While every European royal house was receiving a lion's share from resources, the Muslim world was languishing for the attainment of the same. In this regard, the Portuguese factor was also not less important. Their sailing around Africa enabled them to spread their trade in the south-eastern direction at first, and eventually to the east where Portuguese and later Dutch colonies began to sprout as far down as southern India, up to the north of the Indian ocean till the southern edges of the Arabian Peninsula itself, and farther east by the Dutch till the eastern edge of the known world. Resultantly, these colonial explorations tilted the balance of economic power in the favor of the West, at the expense of the Muslim world. However, there were some windfall profits pocketed by the Islamic world, but

given the temporality of such gains, the Islamic world found itself on the losing side. From that time onward, their role came to be defined in terms of consumers and dependents during the phase of colonialism. And all these are, says George Saliba, the hallmark of the age of decline (Saliba, 2007, 250-251). While the Islamic world declined in the field of production of scientific knowledge, Europe became an avant-garde of knowledge production. The inflow of wealth and the availability of manpower, which mainly came after the discovery of new world as well as the age of discovery, helped Europe establish the scientific institutions. The significant ones were the Academia de Lincei, founded in 1603, the Royal Society of England in 1662, and the Academie des Sciences of France in 1666.

Conclusion

In the light of above-mentioned historical accounts, it can be concluded that the narrative negatively portraying Ghazali needs to be jettisoned. All that the West came to know about Ghazali was through the agency of scholar Earnest Renan. Whether advertently or inadvertently, it was he who misunderstood his criticism of philosophers and branded him as anti-rationalist and opponent of natural sciences. To Renan, Ghazali was one of those bizarre minds who embraced religion only to defeat rationality. The accusations of Renan gained currency to such an extent that, even to this day, the western conception of Ghazali is antagonistic and underrated. However, there came a slight shift in the European understanding about Ghazali, differently from the way they thought him previously. This shift came during the last decade of the twentieth century. The works of Michael E. Marmura and Richard M. Frank rejected the hitherto prevalent views about Ghazali. Both rejected that Ghazali held exoteric and esoteric views. Marmura explained causal connections as direct actions of God and Frank termed them as expression of secondary causality. As a result of their contribution, the West came to know that Ghazali was not harboring unscientific and irrational views.

References

Al-Ghazali, Abu Hamid. (2000). *Tahāfut al-Falāsifa*, Translated and annotated by Michael E. Marmura. Utah: Brigham Young University Press.

Al-Qur'an, *Surah Luqman* (31:31).

Armstrong, Karen. (2001). *Islam: A Short History*. London: Phoenix Press.

Blake, Stephen P. (2016). *Astronomy and Astrology in the Islamic world*. Edinburgh: Edinburgh University Press.

Claud Field, M.A., *The Confessions of al-Ghazali*,(London: John Murray, 1909), 12-14.

D., Gutas. (2002). "The Study of Arabic Philosophy in the Twentieth Century: An Essay on the Historiography of Arabic Philosophy". *British Journal of Middle Eastern Studies,* 29, 1.

Daily Dawn "An Ongoing Debate," (August 30, 2008).

Frank, R. M. (1994). *al-Ghazali and the Ash'arite School*. Durham and London: Duke University Press.

Griffel, Frank. *The Western Reception of al-Ghazali's Cosmology from the Middle Ages to the 21st Century*. Yale: Yale University Press.

Haq, Mazharul. (2009). *A Short History of Islam.* Lahore: Bookland.

Hitti, Philip K. (2002). *History of the Arabs*. New York: Palgrave Macmillan.

Hoodbhoy, Pervez. (1991). *Islam and Science: Religious Orthodoxy and the Battle for Rationality*. London: Zed Books.

Khalil, Mufti Muhammad (trans.). (1958). *Al-Ghazali: Al-Munqadh Min al-Dhalal*. Hyderabad: Saeed Art Press,1958.

Nadvi, Syed Suleman. (1936). *Maqālāt-e-Shiblī* Vol. 5,. Azamgardh: Darulmusannifin.

Rafi, Haneen. (2015). "The Golden Age of Islam Reinterpreted". Daily *Dawn.*

Rahnema, Ali. (1994). *Pioneers of Islamic Revival.* London: Zed Books.

Saliba, George. (2007). *Islamic Science and the Making of the European Renaissance*. Massachusetts: The MIT Press.

Sheikh, Saeed. (1962). *Studies in Muslim Philosophy*. Karachi: Pakistan Philosophical Congress.