Muslims Scientists' Works and The Western Approach: A Short Review

Anam Ashraf
M.Phil. (Islamic Studies), GC University, Lahore
Email: anamashraf67@yahoo.com
Hafiz Mubashar Saeed
M.Phil. (Islamic Studies), GC University, Lahore
Email: hafizmubashirsaeed@gmail.com
Muhammad Iqbal Awan
PhD Scholar, Government College University, Lahore
Email: iqbalawangcu@outlook.com

Abstract
This paper leads to a well-versed discussion regarding the role that Muslim scholars played in the development of scientific thinking and it also exhibits well the fake credits taken by the westerns un-ethically and illegally. To take this up, the analytical researching is being done because the ancient times, Middle Ages and some of the modern era have been analyzed here. A plenty of works had been done regarding the services of Muslim scientists but now it's necessary to hook up the un-ethical approach of the west towards Muslim scientific icons. This study also argues that the Muslims were not just the preservers of the ancient and Greek knowledge, but they also contributed original research works to the different fields of science. They were inspired by the Islamic view of nature that is, mankind had a duty to 'study nature in order to discover God and to use nature for the benefit of mankind'. On the other hand, this paper also probes into the western attitude of taking credit of Muslim scientific works as one of converting their names like Farabi into "Forbes", Ibn Rushd into "Averroes", Al-Razi into "Rhazes" and many others. This was only to mislead their people about Muslims and to prove the western supremacy in this field.

Keywords: Muslim Scientists, Medicine, Mathematics, Astronomy, Western people, wrong and fake credits

Introduction

This study revolves around the scientific works done by the worldly Muslim intellectuals. The relationship between Islam and Europe remained often contradictory, both academically and politically. As European powers ruled Muslim territories. Muslim scientists and scholars not only initiated the work of research and authorship in the field of science but also had great contributions in doing inventions and discoveries. Some western people

denied the practical services of Muslims under a well-thought-out plan by different ways and attributed the scientific achievements of Muslims to them or made attempts to degrade the scientific status of Muslim. According to most of the west, Muslims have not done any research, creative or critical work, but transferred the heritage of other civilizations and languages like Greek, Roman, Syrian, Persian, and Hindi into their languages.

Historical Background

From the advent of Islam to thirteenth century, Islamic world was hub of the knowledge and Europe was like a student and Muslims were their teachers. This period is about eight hundred years long. At that time Muslims ruled in Andalusia, Sicily and southern Italy. Several great Muslim scholars and philosophers were present in those areas. At that time Muslim countries were considered as the countries of knowledge and great civilizations. Muslim civilizations were observed dominating and superior civilizations and their knowledge was counted quite reliable. The Muslim works were translated into Latin and French like the books of Ibn Rushd (1126 – 1198 AD) and Jabir (d. 816 AD), Ibn Ishaq (801 – 873 AD) and Ibn Sina (980 – 1037 AD) etc. while translating Muslims works into European languages, western people misspelled the names of Muslim scientists like Farabi was made "Forbes", Ibn Rushd "Averroes", Al-Razi "Rhazes", Ibn alHaitham "Alhazen", Al-Kindi "Alkindus" and Ibn Sina "Avicenna". European students were not told that these iconic figures were not European Christians but Muslims. This was only due to the superiority of Muslims on Europe intellectually, socially, culturally and also militarily.[1]

There are some westerns who got impressed by the Islam and acknowledged the works of Muslim scientists and applauded them. Pir Karam Shah has categorized these people into the different groups.[2]

1. Seeker of pure knowledge
2. Biased Jews and Christian Orientalists
3. Atheist Orientalists
4. Professionals of knowledge
5. Justice-oriented Orientalists
6. Those who were Orientalists but saw the light of truth so came to its circle.

Works of Muslim Scientists

The Islamic Empire consisted of a society that was multicultural in terms of languages, customs, traditions and religion. As Muslims went forth from Arabia to conquer the countries surrounding them, they encompassed vast lands with people of different faiths and cultures. Thus the Islamic Empire produced many scientific scholars and Muslims had great contribution in the field of science. On the other hand this progress not only

restricted to Muslim community but minorities had also took benefits from Muslim's educational institutions and joined the caravan of scholars as Islamic empire consisted of people from three continents, Arabs, Persians, Turks, Africans, Indians and other Asians, and minorities like Jews, Christians and other faiths. Therefore scholars from all faiths worked under the umbrella of Islam to produce a unique culture of knowledge and learning.

Today's world inclines to entirely sideline the role of Muslim scientists in evolving the knowledge of science. While Muslim scientists contributed and laid the foundation of modern sciences. This was the era of the 'Golden Age of Islamic Civilization' which was between the 7th to15th centuries. There was great importance in the pursuit of knowledge in that era. There were scholars and scientists, such as Ibn Sina, AlKhwarizmi, and Al-Biruni, who excelled in mathematics, geography, astronomy, physics, chemistry, and medicine. Islamic scientific attainments contained an extensive range of subject zones. Added subjects of scientific inquiry contain Alchemy, Botany, Zoology, Agronomy, Geography, Pharmacology, and History. In the following paragraphs that follow each major known field of science is considered and examined for the contributions made by Muslim scholars.

1. Medicine

Muslims gained access to the Greek medical knowledge of Hippocrates, Dioscorides, and Galen through the translations of their works in the seventh and eighth centuries. These initiatives by Muslims could be seen in the different aspects of the healing arts that were developed. The translation movement of the 12th century in Latin Europe affected every known field of science, none more so than medicine. Two Muslim physicians who had been known in Europe during this period were Ibn Sina and Al-Razi. Ibn Sina devoted his life to the study of medicine, philosophy and other branches of science. Renowned throughout medieval Europe as Avicenna, he established free hospitals and developed treatments for diseases using herbs, hot baths, and even major surgery. His famous book The Canon of Medicine was translated into Latin in the twelfth century and it was used in medical schools throughout Europe until the advent of modern science. The Canon of Medicine contained all Greek medical knowledge together with Arabic interpretations and contributions. Ibn-Sina wrote some 99 books dealing with philosophy, medicine, geometry, astronomy, theology, philosophy, and art. Ibn-Sina was also known for Kitab al Shifa (Book of Healing), in which he divided practical knowledge into ethics, economics, and politics, and theoretical knowledge into mathematics, physics, and metaphysics. Al-Razi, known in Latin as Rhazes, excelled in

the powers of observations and wrote some 184 works on topics that he studied as a practicing doctor. One of Al-Razi's books, Treatise on Smallpox and Measles, was translated into Latin, then English and other European languages, and "went through forty editions between the fifteenth and nineteenth century". Furthermore, he established separate wards in hospitals for the mentally ill, thereby creating the means for clinical observations of these diseases. Al-Razi also included in his studies ideas involving human behavior and he was a pioneer in the field of psychology, thus removing the theories of demons and witchcraft associated with these diseases in the Christian world. By the twelfth century Muslim physicians had produced many works: encyclopedias, medical biographies, texts on medical ethics, and on specialist topics such as ophthalmology. Ibn An-Nafîs contradicted the theories of blood circulation as put forward by Galen. He advanced a theory of blood circulation between the compartments of the heart and the lungs, and of pulmonary circulation or lesser circulation. In 1553, three centuries later, a Spaniard Miguel Serveto (Michael Servetus) forwarded a similar theory. Ibn An-Nafîs's theory from the thirteenth century was largely ignored. But he was among the initial precursors to Harvey's scholarly work that revealed the circulation of blood in the human body. Muslims using their clinical and surgical knowledge established hospitals. These institutions were far superior to any that existed in ancient times or in lands beyond the Islamic Empire. In medieval Europe most hospitals were attached to religious orders and monasteries. In the Islamic world, during the eighth century the first hospital was built in Damascus; having separate wards for males and females, and special wards for internal diseases, surgery, orthopedics and other diseases. These hospitals were to become models for hospitals as we know them today. Important surgical treatises were written in the tenth and the eleventh centuries in Andalusia by Abu'l-Qasim al-Zahrawi (936 – 1013 AD), known in Europe as "Abulcasis". His book Kitab al-Tasrif (Book of Concessions), a medical almanac, was translated into Latin and used by Muslims and in European medical schools. The twelfth century physician in Muslim Spain, Ibn Zuhr (1094 – 1162 AD), known as "Avenzoar", wrote works especially in anatomy that had a great influence on medical practice in medieval Europe. Thus in the medical field scholars from the Islamic world had much to contribute both in terms of working with ancient knowledge and through the major developments of their own. Moreover, they verified their theories through careful observations in the hospitals that they had established.

2. Chemistry, Pharmacology and Pharmacy

In chemistry, the works of Jaber ibn Hayyan and Al-Razi formed the basis of modern science. Jaber, know as Geber in Latin, described in his

works the preparation of many chemical substances: the sulphide of mercury, oxides and arsenic compounds. Al-Razi in his book Secret of Secrets know as Liber secretorum bubacaris, described the chemical processes and experiments he conducted. Hill has stated that Al-Razi's book Secret of Secrets 'foreshadows a laboratory manual' it deals with substances, equipment and procedures. Muslim chemists developed recipes for products that had industrial and military applications. The discovery of inorganic acids during chemical experiments had valuable industrial applications in the centuries that followed. In the fields of pharmacology and pharmacy Muslims made notable progress. These fields involved scientific investigation into the composition, dosages, uses and therapeutic effects of drugs. Having translations of Dioscorides' De Materis Medica, along with knowledge from Syria, Persia, India and the Far East, Muslim scholars and physicians showed great innovative skills. They developed the procedures for the manufacture of syrups and juleps, and established apothecary shops. Ibn al-Baytar's book Al-Jami'fi al-Tibb (Collection of Simple Diets and Drugs) contained detailed records of the plants in the lands along the length of the Mediterranean coast between Spain and Syria. In addition, he systematically compared this knowledge with that of the scientists of previous eras. His book on botany was used until the Renaissance by Europeans.

3. Mathematical Sciences

The mathematical sciences as practised in the Islamic world during this period consisted of mathematics, algebra, and geometry as well as mathematical geography, astronomy and optics. Muslims derived their theory of numbers ('ilm al-a'dad) in arithmetic from translations of the Greeks sources such as Books VII through to IX of Euclid's Elements and the Introduction to the Science of Numbers by Nicomachus of Gerasa. Moreover, they acquired numerals from India (Hindu) and possibly China and made their use widespread. Mohammad Bin Ahmed in the tenth century invented the concept of zero or sifr. Thus replacing the cumbersome Roman numerals and creating a revolution in mathematics (Badawi, 2002). This led to advances in the prediction of the movement of the planets and advances in the fields of astronomy and geography.

Muslim mathematics had inherited both the Babylonian sexagecimal system and the Indian (Hindu) decimal system, and this provided the basis for numerical techniques in mathematic. Muslims built mathematical models using the decimal system, expressing all numbers by means of ten symbols, and each symbol accorded the value of position as well as absolute value. Many creative methods of doing multiplications were developed by Muslims; methods of checking by casting out nines, and decimal fractions

(Anawati, 1976). Thus Muslim scholars contributed and laid the foundations of modern mathematics and the use of mathematics in the fields of science and engineering (Høyrup, 1987). Thabit bin Qurrah not only translated Greek works but also argued against and elaborated on the widely accepted views of Aristotle. In arithmetic there emerged the concept of irrational numbers with Islamic mathematicians starting from a non-Euclidean concept. Both Umar Khayyam (1048 – 1131 AD) and Nasir al-Din al-Tusi (1201-1274 AD) contributed to research on this concept which did not have its origins in Greek mathematics. Eastern Muslims derived numerals from Sanskrit and they were the first to develop the use of the "zero", written as 0 by the Western Muslims and '·' by Eastern Muslims. Whereas these Eastern Muslims had initially used the Arabic alphabets as numerals, by the ninth century Western Muslims had invented and replaced them with "al-arqam al-gubariyah-1,2,3,4,5,6,7,8 and 9 based on a number of angles equal to the weight of each symbol". Thus the zero with the numerals made it possible for the simple expressions for numbers to have infinite values, thereby helping solve particular problems. Translations of mathematical treatise in Spain subsequently transferred this knowledge to Europe. Al-Khwarizmi (780 – 847 AD) wrote the first book of algebra, the word 'algebra' transliterates into the term aljabr. Al-jabr represents the two basic operations used by al-Khwarizmi in solving quadratic equations. In the latter half of the twelfth century, the first part of al-Khwarizmi's Kitab al-Jabr wa al-Muqabalah was translated and made available in Europe.[3] Another famous contributor to this field was Umar Khayyam, who studied cubic equations and algebra came to be regarded as a science in its own right. Subsequently in later centuries Italians took over his methods and extended them. Thus the Muslims not only developed the methods of solving quadratic equations they also produced tables containing sine, cosine, cotangent and other trigonometrically values. Al-Battani (d.929) systematically developed trigonometry and extended it to spherical trigonometry, with important consequences for astronomy, geography and exploration beyond the known world, thus making the construction of better maps and the reconceptualization of the structure of the planet Earth. Arabic geometry absorbed not only materials and methods of Euclid's Elements but also the works of Apollonius and Archimedes. The book, On the Measurements of Planes and Spherical Figures, written on Archimedean problems by the three sons of Musa bin Shakir in the ninth century became known in the West through the translation by Gerard of Cremona. In seventeenth century Europe the problems formulated by Ibn al-Haytham (965-1041) became known as "Alhazen's problem". Again his work that was translated into Latin made Europeans aware of alHaytham's remarkable

achievements in the field of Optics (Kitab al-Manazir). Among his works were included a theory of vision and a theory of light, and was called by his successors of the twelfth century "Ptolemy the Second". Furthermore by promoting the use of experiments in scientific research, al-Haytham played an important role in setting the scene in modern science.

Al-Haytham's contributions to geometry and number theory went well beyond the Archimedean tradition. Al-Haytham also worked on analytical geometry and the beginnings of the link between algebra and geometry. Subsequently, this work led in pure mathematics to the harmonious fusion of algebra and geometry that was epitomised by Descartes in geometric analysis and by Newton in the calculus. Al-Haytham was a scientist who made major contributions to the fields of mathematics, physics and astronomy during the latter half of the tenth century. John Peckham in the late-thirteenth century used al-Haytham's Kitab al-Manazir and Witelo's Optics too has echoes of Kitab al-Manazir. Witelo work was used by Johannes Kepler. Roger Bacon, the founder of experimental science, probably used the original Arabic works of al-Haytham as well as Latin translations (Meyers, 1964). Much work was under-taken by Islamic mathematicians regarding the theory of parallels. This theory consisted of a group of theorems whose proofs depended on Euclidean postulates. The Islamic mathematicians continued their research for over 500 years on these postulates in order to obtain proofs and not just the acceptance of them. However, after these problems were transmitted to Europe in the twelfth century, little further research was done until the sixteenth century. Muslim scholars contributed not only to the use of logic in the development of mathematical ideas and relationships, but also to a workable system of numeration that included zero and led to the solution of equations. Muslims had thus begun the work that led on to mathematical modelling and its application for the purpose of testing their theories. This knowledge and approach was slowly transferred to Europe through Spain and Sicily.

4. Astronomy

Muslim scholars considered astronomy as one of the mathematical sciences. Muslims came across ancient astronomical manuscripts and translated them into Arabic. They then undertook observations to verify the calculations in these scientific works. The Greek astronomer Ptolemy had developed an astronomical theory about the movements of the moon and planets; and had placed the earth at the center of the universe. In order to compensate for errors in observation he had attributed additional movements to the planets. Al-Khwarizmi was one of the first scholars to produce a detailed astronomical table (zij). This astronomical table provided the means of calculating the positions of the stars and planets. Subsequently,

each astronomer wrote his own zij, trying to make it more accurate than those prepared before (Beshore, 1998). AlFarghani, in the ninth century wrote a detailed account of Ptolemy's Almagest and his book was used throughout Europe and central Asia for the next 700 years (Beshore, 1998, p. 24). This work was the beginnings of the empirical verification of scientific ideas and relationships. Muslim philosophers and astronomers had inherited the Ptolemaic planetary system that hypothesized the principle of uniform circular motion allowing the planets to move in epicycles. However, Muslim astronomers eventually came to reject this theory in that the epicyclic movement violated the principle of uniformity of motion. In the thirteenth century, Al-Tusi, a Persian astronomer put forward his concept known as the "Tusi Couple", a hypothetical model of "epicyclic motion that involves a combination of motions each of which was uniform with respect to its own center". This model was applied by Ibn al-Shatir to the motions of the heavenly bodies in the fourteenth century. Ibn al-Shatir's formulations were the beginnings of verifying theoretical astronomy through systematic observations. Ibn al-Shatir's theory of lunar motion was very similar to that attributed to Copernicus some 150 years later (Sabra, 2002). Currently researchers are investigating whether it was possible, that Copernicus visiting the Vatican library in Rome had seen Ibn al-Shatir's fourteenth century manuscript illustrating his concept of planetary motion (Saliba, 2002). The reason for this supposition being a diagram in Copernicus' Commentaries that was remarkable similar to Ibn alShatir's schematic diagrams. Whereas Ibn al-Shatir's concept of planetary motion was conceived in order to play an important role in an earth-centered planetary model, Copernicus used the same concept of motion to present his sun-centered planetary model. Thus the development of alternative models took place that permitted an empirical testing of the models. Whether there was a clearly identifiable connection between the works of these two men today remains unclear, but what needs to be noted is that Muslim innovations in astronomical theory contributed to the historical development of astronomical science. These innovations provided new directions for investigations during the ages of the Renaissance and Enlightenment in Europe. Another development that was attributed to al-Tusi, the thirteenth century astronomer, was that he treated trigonometry as a separate field from spherical astronomy. Thus astronomers could calculate distances and directions of points on the celestial spheres more efficiently, using this new body of mathematical ideas and relationships. Muslims also built large observatories in Maragha and Samarkand, and later at Delhi and Jaipur, and in Turkey. They improved on the Greek sundial and astrolabe, adding features by means of which they could calculate the timings of Muslim

prayers and the direction to Mecca. The medieval astrolabe could be calibrated for use at different geographical locations to calculate yearlong celestial time keeping data, and other astronomical information. These medieval astrolabes reached Europe in the late Middle Ages and were mentioned in many texts, and were included in an essay by Geoffrey Chaucer. Celestial globes, astrolabes, quadrants, and sundials all evolved and developed in Islamic countries, and when the compass arrived in the Islamic lands, it too was adapted by the Muslims. However they may not have initiated the use of the compass, because it would seem the origins of the use of the compass have not clearly been identified, and may have originated in China. Thus Muslim scholars worked in all major branches of astronomy: theoretical and computational planetary astronomy, spherical astronomy and time keeping, instrumentation, and folk astronomy. King (2004) did extensive research on Muslim instrumentation and stated that "medieval European instrumentation was highly indebted to the Islamic tradition, and now it is clear only after ca.1550 did European instrument-makers make technical innovations that had not been known to Muslim astronomers previously".

Influence of Muslim Scientists on Europe

Now after elaborating the Muslim's works on science it is mandatory to describe that what this work has influence on Europe. Muslims were not only the preservers of Greek and ancient knowledge but also Contributed inventive works to the different fields of science. At the end of the tenth century, knowledge had begun shifting from the Islamic world to Europe. Thompson (1929)[4] in his article "The Introduction of Arabic Science into Lorraine in the Tenth Century" explained that Arabic science being presented in the schools of Lorraine at the end of the tenth century and by this means into Latin Europe. Thus an academic avenue through Spain to Europe was opened by the extension of the Islamic Empire. During the twelfth and thirteenth centuries in Spain and Sicily, the spread of scientific knowledge continued with the formation of an Arabic-Translation program. After the Norman kingdom in 1060, it's Latin, Greek and Muslim subjects survived in more favorable situations than those in Spain[5] for the development of intercultural and intellectual interchange. The knowledge of bygone days was revived in its original Greek forms and the main developments noted in Arabic later that were translated into Latin[6], in corners of Europe before the Renaissance.

It has been seen that Muslim scholars started in the beginning with the translating texts, as well as producing the essential language tools in Arabic for the translations of the works of the Greeks, Persians, Indians and

all ancient knowledge. But having acquired the knowledge they set about not only integrating, examining and analyzing but also adding significant and innovative contributions to that knowledge. From the end of the tenth century, this knowledge began to shift back to Europe through the translations of Arabic forms of Greek knowledge and the original Greek treatises.[7] Modern sciences, today works with principles and models that must be verified empirically, in the fields of arithmetic, space science and medicine. The Muslims established the measures and procedures for testing knowledge both empirically and logically. However, an important characteristic of the work of Muslim scientists was its experimental character. Muslim scientists were involved specifically in the applied sciences, in the manufacturing of apparatus, in testing theories by undertaking observations, and analysis of results through mathematics.[8] These notions and measures were all exist in Europe through the influential works of Muslim scientist before the periods of Galileo, Descartes and Newton. There are two kinds of the western people. one who those who took the credits of Muslim's work and the second who accepted Muslim's work and applauded it. We will explore history of people both categories.

Western People who took the credits of Muslim's works

Western people have shown dishonesty by trying to give the impression that Muslims have no role in the development of scientific knowledge despite acquiring knowledge from Muslims. Rather it is the creative mind of the West. "Roger Bacon was no more than one of the apostles of Muslim Science and Method of Christian Europe; and he never wearied of declaring that knowledge of Arabic and Arabian Science was for his contemporaries the only way to true knowledge. Discussions as to who was the originator of the experimental method, like the fostering of every Arab discovery or invention on the first European who happens to mention it, such as the invention of the compass to a fabulous Flavio Gioja of Amalfi, of alcohol to Arnold of Villeneuve, of lenses and gunpowder to Bacon or Schwartz, are part of the colossal misrepresentation of the origins of European civilizations. The experimental method of the Arab was by Bacon's time widespread and eagerly cultivated throughout Europe; it had been proclaimed by Andelhard of Bath by Alexander of Neckam, by Vincent of Beauvais, by Arnold of Villeneuve, by Bernard Silvestris, who entitles his manual *Experimentarius*, by Thomas of Cantimpre, by Albertus Magnus".[9]

Orientalist negatively influenced the Muslims and their work and efforts for knowledge. They hid the services of Muslims from the world. Roger Bacon is considered the Father of science in England was a student

of the Arabs. Arab historians do not say that their books remained locked in Alexandria, Athens and Constantinople for six hundred years. The Arabs took them out and translated them into Arabic and these translations reached to Europe. Today's west does not mention the Muslim sciences and arts. Galileo, Kepler, Bruno Gerard and Roger Bacon were actually imitators of Arabs. Today's students do not know that Influenza is derived from Arabic word 'Inzal-ul-Anf' and Earth from 'Arz'.[10]

Furthermore, words that are still found in different European languages are basically derived from Arabic language. For instance, Admiral (Ameer-ul-Bahar), Magazine (Makhzan), Sugar (Shakkar), Cypher (Sifar "zero"), Guitar (Sitaar) etc. The West borrowed the foundations of every field of knowledge and thought then laid the foundation of their existing civilization on it. Instead of being benevolent to Muslims, they distorted and hid the facts. The West has always refrained from accepting the Islamic Spirit under the pressure of the Church. Western Scholars have had Arabic translations from Jewish translators. First of all, it was the Jewish community who removed the Islamic concept from these sciences as much as possible. Then when it reached to the Christians, they changed it and relate it with themselves. Ibn Adun says; "Books should not be sold to Christians because they translate them and attribute them to their Bishops".[11]

Acceptance of Muslims' services by the westerns

Some westerns accepted the services of Muslims as it is crystal clear that Muslims were the inventors, researchers, explorers and the teachers of the West. There were both schools of thought; one who acknowledged the services of Muslims and the other who did not.

One of those orientalists who acknowledged the services of Muslims is George Sarton. Reviewing the educational and practical activities of Muslim George Sarton in his book, 'Introduction to the history of Islam' writes, it is known that we have come from darkness to light or from a dream world to an extraordinarily awake and active world. Furthermore, he says that the deeds of the Muslim scholars of that time are great and glorious. From the second half of the eighth century to the end of the eleventh century, Arabic was the scientific and progressive language of mankind.[12]

On the other hand, there is a list of Orientalists who did not acknowledge the services of Muslim scholars and scientists. Orientalists claim scientific objectivity and honesty in all their writings but sadly, many of them deny the scholarly services of Muslims considering Islam and Muslims as their enemies. Andre Servier, in his book, 'Islam and the Psychology of Muslims' denies the authenticity of Arabic language

civilization and Muslims who have made great strides in the field of philosophy and science have been hailed by the Greeks.[13] For instance, he thought that Al-kindi was a Syrian-Jewish who has converted to Islam. He liked Aristotle and his commentators in his writings. He further says that Abu-ul-Qasim, Ibn-e-Zuhr and Ibn-e-Bitar were of Spanish descent.[14] Actually, the West refused to recognize the merits of Muslims because it is full of biases and prejudice against Muslims. Orientalists were of the view that East and West cannot alike in any field. As Rudyard Kipling in his poem, *"Ballad of East and West' writes, Oh, East is East, and West is West, and never the twin shall meet"*.[15]

Conclusion

Thus, the study enlightened the scientific works of Muslims in a plenty of walks of life. It has been said that Muslim scholars and scientists started with translating ancient languages to Arabic then their researches helped them to discover and invent different scientific tools procedures and terms. But the biased West, with the help of Orientalist movement, not only rejected the services of Muslims but also tried hard to obliterate the educational services of Muslims. Orientalism badly influenced Islam and Muslims by adopted different methods to degrade the status of Muslim Scholars. Such as, firstly they call the Muslims the imitators of Greece, secondly, they changed Muslim scientists' names in the way that they looked like European names, thirdly they attributed Muslims' services to Europeans, and lastly they created ambiguities in their work. So science, which is monopolized by the people of the West, is in fact the beacon of the Muslim family. Science has been indebted to its Muslim ancestors for centuries for the development and survival of its existence. But unfortunately, due to the prejudice of the orientalists, despite the investigations and revelations of the Muslims, their work is nowhere to be seen. If the people of the West examine carefully from the point of view of realism and truth seeking, leaving aside prejudice, then no other than Muslims can be seen in this field.

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