

Islam, Muslims and Science

One of the criticisms that the West has on Muslims is their lack of progress in science. In contrast, the West has made, and continues to make, significant contributions to science. Drawing upon its own experiences, the West believes that the primary reason for the failure of Muslims in science is because of their insistence on bringing religion into public life. Therefore, if Muslims are to progress in science, they must relegate religion to the private sphere, as the West has done.

The West's criticism is correct, though not its reasoning of the cause. For example, only two Muslim scientists have been awarded Nobel Prizes to date. Aziz Sancar was awarded the Nobel prize in Chemistry in the field of molecular biology in 2015. The 1999 Nobel Prize in Chemistry was awarded to Ahmed Zewail "for his studies of the transition states of chemical reactions using femtosecond spectroscopy." A more current example is that none of the fifty-plus Muslim states have been able to develop any kind of endogenous vaccine for COVID-19, though Muslim scientists did contribute.

However, the Western proposed solution, which some in the Muslim world also believe to be correct, needs to be examined in more detail. The current secular way of thinking in the West first became dominant in Europe in the late sixteenth and early seventeenth centuries. Before this period, European emperors and rulers used the Church to exploit their people and maintain their authority over them. As a result, the people began developing a feeling of resentment towards the Church and started speaking out against its interference in public matters. This ultimately culminated in the West adopting the Capitalist ideology, which is based upon the separation of the Church and the State.

When a group of people adopts a certain ideology, it strives to protect and spread it across the world. Colonialism, neocolonialism and liberal interventionism, for example, are some of the ways through which Western states have spread their own ideology elsewhere. Similarly, when Russia adopted Communism and became the Soviet Union, it too tried to spread its own ideology through invasions and various economic aid programs.

One of the most important tools that a state can use to protect and spread its ideology is technology. Technology, among having other benefits, allows the state to build a strong military to defend its border and carry its ideology elsewhere. So, for example, the nuclear bomb helped the United States and its allies win World War II. However, the nuclear bomb could not have been possible without significant advances in physics. Hence, in order to develop new and better military technologies, a state must produce scientists of extraordinary caliber. This essentially translates into developing and implementing effective and efficient educational policies that result in better institutions of learning, such as schools and universities.

Therefore, because of their expansionist tendencies, ideological states end up investing heavily in science and technology, primarily for military purposes. Technologies developed for military use then end up finding applications elsewhere. For example, the United States began the Defense Advanced Research Projects Agency (DARPA) to develop emerging technologies for use by the military. However, projects funded by DARPA have resulted in many non-military applications including the internet and graphical user interfaces in information technology.

Similarly, satellites were originally meant for reconnaissance and to track enemy movements. However, these satellites have now resulted in so many other applications such as communications, navigation and broadcasting.

But perhaps the best example is that of the first moon landing by humans, which, arguably, is one of the greatest technological breakthroughs of the past century. The Apollo-11 mission – as it is called – was a result of a space race between the United States and the

Soviet Union. Each state hoped to show the superiority of its own ideology by winning this race.

Thus, progress in science and technology follows naturally when a state adopts a certain ideology. The same is true for Muslims. When Islam was implemented as an ideology by the Khilafah, Muslims made significant contributions to science and technology. For example, Muslims pioneered the invention of flying machines, glass mirrors, mechanical clocks and printing presses. Muslims also made significant contributions to mathematics including algebra, decimals, negative numbers, trigonometry and logarithms. They also laid the foundations of various fields of science such as optics and modern medicine. Furthermore, Muslims made fundamental contributions to astronomy, including developing models about the solar system that directly influenced Copernicus' heliocentric model.

Muslims, in fact, continued to make advances in science and technology till as late as the eighteenth century. For example, Tipu Sultan in India made significant improvements to the missile technology. Lieutenant general Thomas Desaguliers, colonel commandant of the Royal Artillery at Woolwich, was impressed by reports of their effectiveness in the Mysorean Wars. He undertook several unsuccessful experiments to produce his own rocket weapons. After martyring him in battle, the British took several of his rockets back to Britain where William Congreve essentially reverse-engineered them to develop the so-called Congreve rockets. These rockets were then used in World War I. The same technology was later used by the United States to develop its own rocket technology, which ultimately resulted in NASA's Apollo 11 mission. Indeed, the reception lobby of NASA's Wallops Flight Facility has a display of a painting depicting the Mysorean rockets being fired by Tipu Sultan's Army at the British Cavalry.

It is clear from the above discussion that progress in science and technology is neither unique to the West nor to its ideology. Rather, any state that adopts any ideology, ultimately ends up making significant contributions to science and technology. Muslims, however, have been without a practically implemented ideology since the fall of the Khilafah in 1924, corresponding to 1342 AH, a hundred hijri years ago. Therefore, the lack of recent contributions of Muslims to science and technology is not a result of them not adopting the Western ideology, but rather a result of them not adopting any ideology comprehensively at all.

The West and some in the Muslim world believe that Muslims must leave the Islamic ideology and adopt Capitalism. They further argue that doing so will result in scientific and technological advancement in the Muslim world. However, adopting Capitalism will also mean adopting secularism and letting go of the Islamic Aqeedah. Furthermore, we know that Capitalism is based on falsehood. Therefore, any progress which is derived by adopting it is ephemeral and short-sighted, since Allah (swt) says in the Noble Quran, **﴿وَقُلْ جَاءَ الْحَقُّ وَزَهَقَ الْبَاطِلُ إِنَّ الْبَاطِلَ كَانَ زَهُوقًا﴾** **“And say: "The truth has come, and falsehood has vanished. Surely falsehood is ever bound to vanish by its very nature.”** (17.81). We must, therefore, strive for the revival of the Islamic ideology, since only then will we be able to lead the world in science and technology again, as the Khilafah did for centuries previously. Indeed, the restoration of the Khilafah (Caliphate) on the Method of the Prophethood will trigger a reverse brain drain. Then, our ablest sons and daughters, currently in the West, will return with their experience to fuel a technological revolution in the Muslim Lands, patronized by a state with a vision to lead the world by the guidance of Islam.

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