Religion vs Science

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The religion vs science debate, in recent years, has started to dominate the news, spreading across thousands of internet sites and forums.

The rise in religious fundamentalism has been mirrored by a rise in scientific fundamentalism. Intelligent Design vs. Evolution has become a battleground, with each side drawing lines in the sand, refusing to take a backwards step. If the media is to be believed, the rift between the two extremes is too extreme to be breached.

In the words of George W. Bush,

"You're either with us, or against us."

The media on both sides of the debate, as usual, sensationalizes and magnifies the 'When Science Meets Religion' debate. Underneath the publicity surrounding Creationism and Stem Cell research, there are eminent scientists and theologians, trying to reconcile the differences and promote the belief that science, religion and philosophy can all work together.

Many scientists are religious, and many religious leaders are scientists. The religion vs science debate involves a few extremists who strive to shout louder than everyone else does.

Before exploring the religion vs science debate, it is useful to explore the history behind the division, known as the Great Rift. For as long as humanity has believed in a creator, thinkers have tried to quantify and evaluate the truth behind religion, trying to prove or disprove a supernatural force. The only fact that we can be certain of is that nobody knows.
The Greeks

The Ancient Greek philosophers were one of the first groups to look at religion and science together. Most believed that there was no distinction between science and theology.

Great thinkers, such as Aristotle, believed that science was a process of trying to understand the natural laws behind creation. It was their view that creation was mathematically perfect, and that logic and reasoning could discern the mind of the gods.

Islamic Science

The expansion of Islam, from the 9th century until the 12th century, saw a renaissance in science, known as the Islamic Golden Age.

The Caliphs of the Islamic world believed in enlightenment, and set up 'Houses of Learning.' Cities, such as Baghdad, became centers of knowledge, containing great libraries and universities. Great advances in medicine, astronomy and agriculture were made, and were believed to be the will of Allah. There was little distinction between philosophy, science and theology, and certainly no sign of the religion vs science debate.

This holistic view brought many developments, with Muslim scientists developing processes such as citations [1], peer reviewing [2] and validity [3].

The philosophy of science was explored in, and a structure for the Scientific Method [4] was laid down, building upon the work of Aristotle. The great Alhazen, with his book of optics, laid down many scientific practices that became standard experimental method [5].

Even here, there are the first stirrings of the religion vs science debate [6], with many contemporary critics questioning whether this idea of "Islamic Science" is religious propaganda.
Whatever the answer, the Islamic scholars preserved the knowledge of the Greek philosophers and added new insights.

**The Coming of Christianity**

After the Muslim Age, 12th Century Renaissance Europe became the seat of learning, and there was no particular schism between science and religion [7].

For example, Robert Grosseteste, c.1175-1253, was an early Christian scientist who made great advances in geometry. He stated that experiments were essential to learning and the development of humanity.

Roger Bacon, a Franciscan monk (1214-1294) is regarded as one of the greatest philosophers and scientists of all time, advocating that there were distinctive 'Laws of Nature' behind the cosmos.

A series of natural and political disasters, in the 14th century, changed European demographics. This period saw the first glimmerings of a religion vs science debate that would fester for hundreds of years. Christian dogma stated that the bible should be read literally, and that challenging this view was heresy.

Many scientists suffered from this new radicalism, the most famous of all being Nicolaus Copernicus (1473-1543). He postulated the idea that the Earth revolved around the sun, anathema to the theocracy, who believed that the Earth was at the center of the universe.

Giordano Bruno (1548-1600) was burned at the stake, for expanding upon the ideas of Copernicus. He also suggested the insightful theory that other stars may have worlds revolving around them.

Of course, as in modern day debates, these extreme cases entered the history books. Despite this, there were still large numbers of scientists developing theories, and this age of science was not as dark as is commonly believed.

The Early Renaissance Period was a brief flowering of humanism before dogma overcame common sense within the Church of Rome. The religion vs science debate developed into a clash of extremists.

Galileo [8] became the next challenger to the centric views of Christianity, building upon the views of Copernicus. He spent the last years of his life, from 1634 to 1642, under house arrest, labeled a dangerous maverick. His legacy has been lauded by luminaries such as Hawking and Einstein, as the birth of Modern science. There is an argument that the Protestant Reformation was a response to this established order; an attempt to throw off some of the restrictions of Catholicism.

This so-called Religion vs Science schism was not as wide as believed, and the two areas often worked together. Protestantism, in general, was more open to science, with Napier's great work on mathematics sitting alongside his work upon the Book of Revelation.

Scientist-philosophers, such as the catholic René Descartes (1596-1650), Robert Boyle (1627-
1691), and John Ray (1627-1705), tried to reconcile religious beliefs and scientific research. They believed that the study of the laws behind divine creation was not heretical, and met with some success.

The zeal of the Inquisition, partly responsible for causing the Reformation, lessened, and the two sides became reconciled. The science vs. religion debate once again settled into the background.

Isaac Newton's work signaled the first publicized challenge to the church. His belief that there was clockwork perfection behind the universe became a landmark in physics. The first signs of a drifting apart of science and religion became apparent.

The French Revolution and Napoleon

So far, scientific development has been discussed on the level of church and science, but the French Revolution and Napoleon heralded the first major entry of politics into the religion vs science debate.

This is the first time that secularism became a major part of the landscape, fueling a rise in the prominence of science. Napoleon defended the changes of the French Revolution, and was the first major leader to advocate secularism, and a tolerance of all religions, repairing some of the damage caused during the schism. This saw a Europe wide increase in the prominence of science, and a change in the perception of religion.

Whilst modern debate centers upon Darwinism, this overlooks the contribution of other scientists who reconciled their religious beliefs with their scientific mind. A host of scientists managed to reconcile their religious beliefs with science, and made some groundbreaking discoveries. For example, Gregor Mendel [9], an Austrian monk, first proposed the basis of heredity (1822-1884).

Physics, especially, saw little sign of the religion vs science debate. For example, Faraday (1791-1867), and Planck (1858-1947), two of the greatest physicists of all time, are fine examples of religious scientists. Their attitude shows that the whole evolution vs creationism debate is a red herring.

Robert Millikan (1868-1953), a Nobel Prize winner in physics, wrote excellent work reconciling religion and science. The first advocate of the Big Bang theory was a Roman Catholic priest, Georges Lemaître (1894-1966). His work about a 'creation event' at the beginning of the Universe pre-dated Hubble by two years, and even had Einstein revising his view of the universe. Of course, this example of faith and secularism working together is clouded by the needless debate between creationists and evolutionists.

Evolution - When Science Met Religion

At last, we arrive at the 'Theory of Evolution' and 'Natural Selection' [10].

This argument dominates the media, yet so few scientists and theologians actually care. Most are quite happy to reconcile and respect differences, but the extremist Christians, mainly in the US, have prevented any rationality. Extremist scientists have responded in kind, and the
religion vs science debate is now raging vituperatively.

Without going too much into the specific theory, the Darwinists believe that life evolved as a series of genetic mutations and genetic drift. The Creationists, who have tried to reconcile their ideas into a scientific format, called Intelligent Design, believe that that every word of the bible is literal truth. They state that the world was created in 7 days.

This debate is well documented, so there being little value in resurrecting and reopening most of the wounds. However, there is little doubt that Intelligent Design is founded upon shaky ground, based around a pseudoscientific view [11].

Mainstream Christianity long since accepted that evolution fitted in with the views of the universe, but the extremists try to upset the status quo. On the one side, the vocal religious right, mainly in the US, promises Hell and damnation for those who do not believe their version of the truth.

On the other side, equally extremist views, put forward by Dawkins and his ilk, further alienate the moderates. By reading the media, it would seem that there is little room for compromise between the two sides, especially when prominent politicians become involved.

This, in fact is not true. Whilst science and religion are always going to disagree upon some points, the vast majority of theologians and scientists are quite happy to respect each other's beliefs. They do not subscribe to the religion vs science propaganda, which usually possesses a hidden agenda.

Abortion issues and stem-cell research [12] are another two emotive areas used as a political football, yet are more of a debate between politicians than religion vs science. Ethics [13] is one area of science where the input of religion may be valuable. This needs to be moderated religion, able to evaluate facts and give balanced and reasonable views rather than fiery rhetoric.

Here are some figures:

10 000 American members of the clergy signed a petition stating that they "believe that the timeless truths of the Bible and the discoveries of modern science may comfortably coexist." 1

40% of scientists express belief in a God or Supernatural force.2

40% of scientists claim to be religious, a sizeable minority, so the divide is artificial, and does not exist outside the media circus.

There are some interesting contrasts between scientific fields. Cosmologists, psychologists, and paleo-biologists study the gaps in science, and look for symmetry in the universe. It is little surprise that the number of religious mathematicians is greater than the number of religious biologists.

The religion vs science debate is not as intense as some sources would have us believe. Many people reconcile science and religion, but their voices are drowned out by flimsy rhetoric and fuzzy logic. The Intelligent Designer advocates often use pseudoscience [11] to try to disprove evolution, but their theory fits few of the accepted protocols.
The idea is dressed up as a scientific theory, but serves only to alienate and divide. Extremist scientists, on the other hand, claim that there is no God, but can offer little comprehensive proof.

In reality, the main fuel behind this debate is neither science nor to religion, but politicians, seeking easy votes. George Bush has shown his credentials, preventing reasonable discussion about stem-cell research, and preventing the distribution of condoms throughout the Third World for combating AIDS.

This has allowed the evangelist's narrow views to propagate, whilst also allowing extreme atheists such as Dawkins to shoot science in the foot. Well-oiled publicity machines support these two extremes and manipulate the media. They drown out the voice of the majority moderates, on both sides of the religion vs science debate.

The Catholic Church and the Anglican Church support scientific research, and their only input involves ethics, such as cloning and stem cells. These are areas where, it could be argued, they are entitled to have an opinion. They stay out of the evolution debate.

Most Christians, in the UK, see the bible as metaphorical and full of allegory rather than literal truth. Despite this, creationism is slowly seeping into the UK, despite the fact that the UK Evangelical Christian Church accepts that creationism is probably flawed. On the other hand, Dawkins is fueling this fire, and his self-publicity mission may actually be pushing moderates to the other extreme, just so that he can sell more books.

**Summary - Religion vs Science is Blown Out of Proportion**

To summarize, religion and science have always had an uneasy relationship, with one side or the other usually in the ascendancy.

Recent developments have started to drive a wedge between the two, even if most people see no problem with accepting the beliefs of the other side. Pseudoscience [1] and junk science [14] are increasingly portrayed as fact, with the extremists upon both sides drowning out reasoned debate.

Unfortunately, most of this is fueled by politicians rather than scientists and theologians, ensuring that the vast majority of the media is filled with sensationalist tripe.

Perhaps the most balanced view is from "Abdu'l-Bahá, son of the founder of the Baha'i faith:

"Religion without science is superstition and science without religion is materialism."

Notes - there is a lot of debate about whether the term 'Islamic' Science is valid, the counter argument being that there is no 'Hindu' Science or 'Jewish.' That debate is beyond the scope of this article here we are using Islamic as an adjective, in the same way that we might speak of 'Victorian' engineers or the great 'Russian' chemists at the start of the 20th century.

**Sources**

(1) The Clergy Letter Project (Dead Link)