

# Good science and religion research paper example

[Experience](#), [Belief](#)



## I. Introduction

In this research paper, the relationship between science and religion is examined in terms of the potential for a harmonious coexistence. This is an old debate and currently it is a vitally significant one. The view of science and religion as warring enemies has historic roots. The Catholic Inquisition was known to persecute and execute people considered heretics because of their belief in science and scientific things. The Church found science as an explanation offensive. Galileo Galilei is one of the most well known of the victims of the Inquisition. He was imprisoned and forced to do penance because of his belief that the earth revolved around the sun, and not the other way around. In the latter part of the nineteenth century, there was a religious uproar in response to Darwin's 1859 publication, *Origin of Species* in 1859 and an 1860 publication *Essays and Reviews*. While *Origin of Species* is a well-known source of controversy today, *Essays and Reviews* caused the greater debate at the time. *Essays and Reviews* is a collection of essays by Oxford and Cambridge intellectuals who debated religion in terms of education, science, history, and philosophy. Angry responses to these essays came from theologians, scholars, the press, jurists, and the government. The upshot of the affair was that three of the contributors were tried for heresy. The cases against the essayists were dismissed. According to William Sweet and Richard Feist, in *Religion and the Challenges of Science* this was considered a categorical victory for science, “ the result of this litigation was viewed by many as a triumph of secular over ecclesiastical authority.” Charles Darwin certainly took this to be a win for his side. Darwin did not live to see the media extravaganza his work caused in the twentieth century,

particularly in America. Christian fundamentalists tried to prohibit lessons about evolution in public schools in Tennessee. Teacher John Scopes became the sacrificial lamb who stood trial for teaching evolution. His crime was teaching a “ theory that denies the story of the Divine Creation of man as taught in the Bible, and to teach instead that man has descended from a lower order of animals.” Textbooks, not John Scopes, were the real target of the Christian fundamentalists of the time. Scholars assert that evidence of this period in American history is still obvious in many contemporary textbooks.

## II. Science and Religion Defined

The foundation and scope of science is dependent on proving and testing theories in order to determine their validity. Evidence is the source of scientific proof. Science is an intellectual activity using evidence to investigate the physical and natural world systematically. Experiments and observations are conducted in order to test and prove theories. Hard science, also called natural science, is different than soft science, also known as human science. Examples of hard science include the fields of chemistry, physics, and biology. The hard sciences use experiments, controlled variables, and objective measurements. The soft sciences address issues that concern the human psyche and human nature, they are therefore unable to control for variables and use the scientific method in the same way as hard science. Particularly in sciences dealing with people, it is be difficult to isolate all the variables that may influence an outcome. Examples of soft science include the fields of political science, psychology, and sociology. Religions deal with beliefs. For example, a religion assumes a complete and

perfect belief that is a way of understanding and knowing. Monotheistic religions are based on knowing the word of God. Prominent monotheistic religions practiced in the world today include Islam, Christianity, and Judaism. Hinduism is a religion based on belief in reincarnation and many gods. An example of a nontheistic religion is Buddhism, which includes many variations, practices, and traditions. The knowing and understanding in religion is based on faith. People believe in religious doctrine without the physical evidence that scientists rely on for their belief in scientific principles. Faith is not proved by experiments and there is no logical proof that supports faith.

### III. Co-existence, Harmony, and Conflict

The question of whether or not science and religion can co-exist in harmony was addressed by John Locke during the Enlightenment. Locke was a practitioner of both hard and soft science, namely medicine and political science. He believed that science and religion could co-exist in harmony and that religion and the state could co-exist in harmony as long as religious tolerance was practiced by scientists and the government. This co-existence was predicated on the assumption that religion would not interfere with scientific advancement or become a threat to political stability. This philosophy is the modern foundation for the principle and policy of separation of church and state. It has caused debate ever since its inception.

It is relevant to note that historically scientists have been personally religious. In the Western world, for example, Galileo, Newton, and Copernicus were all practicing Christians. Albert Einstein, the scientist's scientist if there

ever was one, was convinced that science alone could not fuel the goals of research. Einstein was a Jew who unequivocally claimed he was not an atheist, but was a firm believer in religiosity. Einstein's many discussions on religion and God expressed a belief in the value of religion, " According to Einstein the highest principles for our aspirations and judgments are used in the Jewish-Christian religious traditions." Belief in God or gods does not preclude scientific knowledge based on evidence and experiment. In the case of Christianity and other religions, belief is based on faith in the idea that God created the world. Science works to accumulate knowledge about the world. It is worth noting that supposedly there is no conflict between the notions that God or in the case of Hinduism, gods, created the world and the quest of scientists to investigate that world. However, the relationship between science and religion in Hindi countries is at least as contentious as it is in Christian countries.

The religious notion of creation usually includes a dependent notion that God or the gods are omniscient and in some cases omnipotent. God or gods have intentionally sort of stepped away from controlling all elements of the world, thereby allowing free will and nature to take their respective courses. It follows then that scientists are free to investigate the connections between elements in the world and humans in order to draw evidence-based conclusions. This relationship between creation and empirical science was addressed by Isaac Newton, author of the famous treatise, Principia Mathematica. Newton's religious writings were apparently more extensive than is widely known. In a commentary about the 2004 release of a large selection of Newton's writings on religion, Geoff Brumfiel wrote, " In the past,

many thought that Newton pursued religion only in his spare time, or that the majority of his religious work had been copied from others.” However, recent scholarship on Newton indicates that his religious writings were tied to his writings on physics and mathematics. Brumfiel concludes, “ Ultimately, Newton’s religion and science may have been tied together by belief in absolute truth. Newton used testable hypotheses to find truth in nature, and believed that his religious writings revealed the truth about God.” People who believe in God or gods may also believe that the laws of nature are a result of a master plan formed by a divine creator. Scientific observation and experiment is a way of understanding the end product of that creator.

There have been numerous efforts by philosophers, scientists, and theologians to emphasize the compatibility between religion and science. Some of these scholars attempt to prove that religion supports science; others try to prove that science supports religion. These two strategies of reconciling the implied conflict between theistic beliefs and science are different from the tolerance-based strategy proposed by scholars such as John Locke in the seventeenth century. The argument that science supports religion is usually based on one of two premises. One premise is that that there is biological evidence that supports the existence of Gods or gods because at the molecular level, scientists are confronted by “ irreducible complexity.” The irreducible complexity scientists encounter is possible evidence of divine creation, also called Intelligent Design Theory.

The premise used to prove that religion supports science is one based on a cosmological premise. Scientists generally contend that there is no evidence of intelligent life found elsewhere in the knowable universe and that this

condition can be logically extrapolated to the as yet unknown or the unknowable universe. Religion supports this scientific conclusion because it is based on the assumption that humans were created in the image of God or gods and therefore are the sole inhabitants of the universe, near and far. Furthermore, this condition is no coincidence; it is evidence of intelligent design and was deliberately intended. Cosmological evidence that religion supports science is also ascribed to the big bang theory. The big bang theory hypothesizes that the universe has a beginning and that its inception is a singular event. The exact nature of its creation is not knowable by scientists at this time; however, it has been postulated that the universe was created due to intense pressure that caused an explosion of sorts, the result of which was the universe. Because of the unknowability and inability to test this theory and the fact that science cannot explain what came before the universe, religion steps in and offers the solution of an eternal God who was responsible for setting the proverbial wheels in motion.

Robin Collins is a Distinguished Professor of Philosophy at Messiah College, a Christian institution in Pennsylvania. Collins offers an extensive and accessible collection of writing that demonstrates religion and science are compatible and that religious facts support scientific conclusions. The scientific conclusion that some sort of fine-tuning occurred in connection with the big bang and that this fine-tuning is what accounts for human existence is supported by the idea that God is the agent of that fine-tuning. Accordingly, coincidence is not an acceptable scientific conclusion as it relates to the big bang theory because the odds are so infinitesimal. It took an act of divine intervention to fine-tune the big bang in such a way as to

create humans, the earth, etc. God's actions in this case were deliberate, and the phenomenon of life on earth is attributed to God's intention.

Conflict between science and religion has been a constant in American history. The Religious History of America by Edwin Gaustad and Leigh Schmidt devotes an entire chapter to the treatment of the conflict between science and religion and their relative places in the public school system, " In the public school system, controversy in the last four decades has swirled most intensely around two concerns "(1) prayer and Bible reading; and (2) creationism or ' creation science.' The first of these has a long history since, as has been noted, public schools grew up in the midst of a Protestant ethos that not only allowed but encouraged Bible reading, praying, and hymn singing as a routine part of the schoolday." This practice changed in the 1960s when the Supreme Court ruled that prayer in public schools was a violation of the First Amendment. The reactions to this decision were to ignore it, comply with it, and for certain state legislatures, to try to over-rule it. In the 1980s the fight by religious groups against the decision took the form of student led prayer, claims that prayer in school is a form of public expression, and challenges to the curriculum. Efforts were made to eliminate books from school reading lists, Cinderella for example, because they promoted unacceptable philosophies such as " occultism, secular humanism, and evolution, disobedience to parents, pacifism, and feminism."

The Intelligent Design effort seeks to offer creationism as a scientific contribution rather than a theology. Scientists object to this characterization of Intelligent Design because as a theory it does not meet the requirements of science. The first two requirements of a scientific theory are



interdependence and falsification. Interdependence is tested by way of experiments that have replicable results. These experiments are subject to falsification if they cannot be repeated. Science is therefore predicated on observation and measurement. Religious assertions cannot be tested or measured because they are based on faith. God or gods cannot be tested and measured because they are not observable. Religious doctrine does not allow for the disputation of the existence of God, therefore religious theories that spring from the assumption that there is an omnipotent God who created the universe and all humankind is not subject to the requirement of falsification. There is widespread enthusiasm around the world for reconciling the warring factions of science and religion. The United States National Academy of Sciences and Institute of Medicine published *Science, Evolution, and Creationism*, which offers that while scientific epistemology is based on empirical evidence and relies on experiment and logic, it is not the only explanation for the origins of the universe. This is an effort to reconcile the apparent conflict between biological evolution and creationism. God in the role of universe and humankind creator is a fundamental part of Christian doctrine. This includes the idea that God is the creator of biological diversity. The theory of evolution has been vehemently rejected by many Christians. The National Academy of Sciences and Institute of Medicine contend that the theory of evolution is harmonious with religion because many religious scholars believe that evolution shaped the biological diversity of things that exist today. These theologians have supplied statements affirming that evolution and religious doctrines are compatible. Furthermore, the only religious sects that reject evolution are those that adhere to strictly

literal interpretations of the Bible or other religious texts. In the seventeenth century, this type of reading was fairly common, “ in one famous calculation from the King James Bible by seventeenth century Anglican bishop James Ussher, the universe was created in 4004 BC on Sunday, October 23, at about 7: 30 a. m.” There are estimates that as many as half of Americans are prone to believe in literal interpretations of the Bible and think that the universe is a recent phenomenon. Fundamentalist Christianity’s concepts of time will continue to be problematic unless some understanding is reached about the nature of time and metaphor.

In Darwin's gift to science and religion, biologist and National Academy of Sciences member Francisco Ayala, has made an effort to reconcile the warring factions in science and religion who continue to use the theory of evolution as a basis for irreconcilable conflict. Darwin’s concept of natural selection demonstrates how biological diversity occurred over millions of years. Evolution therefore explains why there are observable flaws in humans, for example the jawbone. The jawbone would have originally been intended to be perfect when created by God, but is in fact, troublesome. Evolution is the reason why this is so. Ayala echoes the sentiments expressed by the scientific community that science and religion have different roles in education and epistemology because science investigates the material world and religion explains the meaning of life and spirituality. Hence, science and religion do not explore the same aspects of the human condition. Science investigates tangible evidence from the natural world. Religion is based on a faith that is not tied to evidence or data. Scientific conclusions are tested and subject to alteration if they are disproved by

some subsequent advancement in the field. Religion is not modified because new data or evidence is brought forth, because religion is based on spiritual forces and unearthly beings that cannot be tested by humans. Because of these differences, science and religion can co-exist harmoniously.

#### IV. Conclusion

In order to co-exist harmoniously, the domains of science and religion need to be viewed as operating in separate spheres; the conclusions that occur in those respective spheres do not influence the other sphere. It is not useful to continue viewing science and religion as locked in an eternal power struggle over correct and incorrect, that fighting stance precludes human advancement on many levels. Science and religion are better viewed as “ noble, valid, but essentially different paths distinguished by their respective fact- and value-based doctrines of authority.” Science and religion are separate, yet both are tied to the human condition. A problem that arose as a result of science extending the olive branch of irreducible complexity to religion is the responding demand by Christian fundamentalists that classes on Intelligent Design Theory become part of the public school curriculum. Writing for the Institute for Creation Research website, science writer Brian Thomas contends that creation scientists have long agreed that the notion of irreducible complexity has many examples in religion and life and supports the idea of “ interdependent parts working all together or not at all-- demands design, not chance.” To Thomas this means creationism classes should be taught in public school on an equal footing with science classes. Physicists Matt Young and Taner Edis published one of many volumes that decries the idea that creationism is like science and should be taught in

public schools. They argue that Intelligent Design Theory is undermining public school subjects including evolutionary theory, biology, and other science classes. Replacing modern science classes with religious concepts from the early nineteenth century would effectively eradicate all of the achievements done in scientific fields during the last two hundred years. Additionally, these scientists claim that it is ridiculous of creationists to claim that they have a comprehensive theory and demand secular scientists, who are constantly testing and reexamining, to produce one too. A macro-scientific theory that explains all of creation is an impossibility at this time. That is no problem, says Brian Thomas of the Creation Research Institute, public schools can simply teach students the Bible, Acts 4: 24: " Lord, thou art God, which hast made heaven, and earth, and the sea, and all that in them is." Apparently, it is possible for science and religion to co-exist in harmony, but is it possible for religious fundamentalists and secular scientists to co-exist in harmony?

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