

Jennifer Wiegand

### Science and Faith: The Two Pillars of Truth

Humans have an innate desire and need to believe in a higher power. Yet with every new scientific discovery and theory, the unquestioning faith of many who are religious is shaken. They have generally responded in a variety of ways, from ignoring the scientific evidence and adhering to a strict and unyielding dogma, to abandoning all forms of faith and religion, to trying to reconcile the two. Perhaps no other topic has generated a more heated debate between religious leaders and scientists in modern times than Charles Darwin's theory of evolution. Some have responded to this debate by blindly rejecting the scientific theory and ignoring its evidentiary support. Others have rejected religion as a relic of the past, adhering to a belief in science in lieu of a belief in God. In *The Language of God*, Francis S. Collins, reputed geneticist and head of the Human Genome Project, takes the approach of reconciliation and makes a persuasive argument that "the principles of faith are ... complementary with the principles of science" (Collins 3).

Rejection of science in the name of God is nothing new. One of the earliest examples of resistance to scientific advances on religious grounds was the unwillingness to accept the idea of a heliocentric solar system in the 17<sup>th</sup> century. This opposition existed mainly because people have always seen themselves as at the center of everything, and any theory that put them in a less central position threatened to alter their entire concept of how the universe worked. In harmony with this view, Aristotelian Greek astronomy positioned the Earth at the center of the universe. In the early 16<sup>th</sup> century, when Nicholas Copernicus first started promoting an idea of a heliocentric

model for the solar system, his theory was discarded, primarily because it “went against the grain of previous thinking and violated many of the religious teachings of the time...” (Chaisson 39). A century later, Galileo Galilei invented his own telescope, which provided the scientific evidence that Copernicus’ theory was correct. In the years that followed, Galileo went on to publish several books which explained the scientific basis for the theory. The Church responded by torturing Galileo until he retracted his statements and imprisoning him for the remainder of his life (Chaisson 39). Even in the face of scientific proof, rather than accept that their religious dogma might be flawed, the church and its followers chose to denounce anyone who challenged their beliefs as heretics and treat them as enemies of the church.

The main reason for the hostility of the ideas of Copernicus and Galileo was that they “relegated Earth to a noncentral and undistinguished place within the solar system and universe” (Chaisson 39). This belief had become intrinsically woven into the religious dogma of the time, and even with the solid scientific evidence proving geocentricity wrong, people still clung to the idea. The same mindless rejection of scientific discovery in favor of pre-existing religious beliefs can be seen in the modern skepticism of evolutionary theory.

People have always sought answers to things that they cannot explain. Religion historically provided those answers, explaining abstract ideas in simple, concrete terms. Over the years, these explanations and simplifications have evolved into truths of their own, and now come into conflict with the other mechanism for discovery and explanation. This other mechanism is science, the exploring of the natural world in an attempt to determine the absolute truth and reality. Religion was originally a result of

humanity's "ignorance of natural phenomena, ... fears of death, and ... puzzlement over the nature and source of dreams" (Joshi 11). Therefore, as science found answers to some of these previously unanswerable questions about life, people rejected the discoveries out of hand. "These conclusions are rejected not because they are false, but because they are unpalatable" (Joshi 10).

Religious fundamentalists reject the theory of evolution because they view it as a threat to their story of creation. However, people dismiss the theory for other reasons as well. Some worry that evolution teaches that there is no purpose to life, and, therefore, no meaning for existence and no reason to do anything. Life without purpose, it is believed, leads to anarchy and chaos, because without purpose to the universe, there is no reason to obey the moral laws of society. These opponents of evolution fear that the "real risk is that evolution tells people that God is dead," and without a belief in an ultimate authority or eternal punishment people would "behave as if all is permitted" (Miller 189). Although there may be some truth to this theory of a chaotic and immoral society, the people who put forth such fears fail to consider that morality is a choice which is not necessarily tied to religious beliefs. "The widespread assumption that religious belief is necessary for the maintenance of moral standards arises not so much from any assessment of the empirical evidence as from a tacit or explicit acceptance of the proposition that if there is no God there is no reason to be moral" (Ayer 103). This may explain why some religious followers equate godlessness with immorality.

Another reason to reject evolution as a scientific theory stems from man's need to believe that human life has special meaning, that humans were created with a specific purpose. Along with the desire to have meaning, people want to think of themselves as

the chosen ones, both as individuals in the human world, and as humans in the animal world. Religious zealots condemn followers of other religions as infidels or non-believers because they want to believe that theirs is the only correct and true religion. By this same token, many religious followers reject evolution because it negates the idea that God created humans, and humans alone, to carry out his divine will. They fear that if the world underwent an evolutionary process for millions of years before humans even existed, then there is nothing special about humanity. Just as they did in the Copernican era, people initially reject ideas that threaten their uniqueness and higher status above everything else, and therefore they question the theory of evolution. Opponents of evolution have been described as declaring that “evolution threatens that sense of specialness we enjoy in a world where we have come to view ourselves as the centerpiece of creation” (Miller 58).

At the opposite end of the spectrum, scientific proof which reveals obvious flaws in religious dogma has led some people to abandon religion altogether in favor of atheism or agnosticism. Many see religion as an anti-science that undermines all rational discovery and thought with mindless belief in clearly erroneous convictions. Atheists renounce all aspects of religious belief, saying that religion

subjugates [people] without making them better; that it produces a herd of ignorant slaves whom panic terrors keep under the yoke of tyrants and priests; that it makes fools who know no other virtue save an appalling submission to futile customs, to which they attach a much greater value than to the actual virtues and moral duties whose existence has never been made known to them. (d’Holbach 273)

Many atheists look down on religious believers as sheep following blindly behind a human-created myth. Ingersoll called religion “the abyss of degradation” because it relies on slavery to a God that is feared by his slaves (80). These beliefs about the nature of religion stem from an exposure to religious people that exhibit such characteristics. This is not true of every religious follower, but it is easy to generalize when the most vocal and most militant of the religious advocates are also the most ignorant. The stronger the religious people adhere to their beliefs in the face of scientific proof to the contrary, the more they tend to make the atheist theory look correct. This results in the polarization of the two world views even further.

Unfortunately, both those who reject religion in favor of scientific theory and those who reject scientific theory in the name of religion simply fail to see that religion and science are intrinsically related. If all people were purely rational, without believing anything of the beauty and profoundness of the natural world, there would be no reason to try to discover the mechanism behind it. There would be no point in making scientific discoveries if life were as meaningless as some make it out to be. The desire to know why the world works is the same impetus behind both science and religion, and without both, the balance between rationality and spirituality would be tipped. As Collins observed, “science is not threatened by God, it is enhanced” (233).

Collins’ idea of reconciliation between faith and science is a theory he calls BioLogos. This comes from the Greek *bios*, meaning life, and *logos*, meaning word. “‘Biologos’ expresses the belief that God is the source of life and that life expresses the will of God” (Collins 203). In his theory, Collins tries to bring science and religion together by fully embracing evolutionary theory while still acknowledging the human

uniqueness that is so desired and needed. He states that humans evolved from the great apes, yet we are unique from every other animal in our spirituality that “includes the existence of the Moral Law... and the search for God that characterizes all human cultures throughout history” (200). He relegates creation stories like Genesis to “poetry and allegory rather than a literal scientific description of origins,” (206) explaining that the conflict between faith and science arises only when such symbols are taken to mean something that they were not intended to. Collins states that one reason his theory makes sense is that it does not “apply human limitations to God” (205). Therefore, what seems random and cruel to mere humans could be part of a divine plan of a being that is outside of both space and time. He touts his theory as one which “provides answers to many otherwise puzzling questions, and ... allows science and faith to fortify each other like two unshakable pillars, holding up a building called Truth” (210).

Collins is not the first eminent scientist to attempt to reconcile the scientific principles of the day with religious beliefs. In the last century, Albert Einstein struggled with balancing science with religion, offering his observations about the necessity for religion as well as the reasons behind it. Einstein explains that there are three reasons for religion, each a step higher than the one before it. The first is fear. The most primitive people feared for their lives on a daily basis, so they naturally turned to higher beings to whom they could appeal to keep them safe. This religion of fear was based on a god that had many human characteristics, and that could be pleased with sacrifices and prayer. The second type of religion that Einstein describes is called moral religion. Einstein sees this religion as stemming from the need for a benevolent and loving God who can provide a moral compass to guide behavior in society. People need a moral code to live

by, so they create a set of divine guidelines that agree with the moral values of the time. Those who follow these moral principles receive the comfort of knowing that they are loved by God. The third and last of Einstein's religions is based on a far more advanced human need, the need to find balance and meaning in the universe. He refers to this as "cosmic religion." God is not a being with wants, needs or other anthropomorphic characteristics, and there is no church or dogma that can teach the cosmic feeling to others. This cosmic religion is more a belief in the harmony and balance of the natural world than in a specific deity. It is the religion that Einstein himself adopted as his own. Einstein charges that any thinking person should have "no use for religion of fear and equally little for a social or moral religion," and that "a man's ethical behavior should be based ... on sympathy, education, and social ties and needs" and therefore "no religious basis is necessary for morality" (Einstein 36-39). Einstein's concept of cosmic religion is an attempt to reconcile science with religion, and his choice to embrace this cosmic faith reveals that Einstein himself valued both in his effort to achieve balance in his life.

One of the main reasons it is difficult to reconcile faith and science is that science is continually changing and developing, while religion remains relatively constant. Throughout history, scientists have made new discoveries that disprove old beliefs, and still more discoveries that disprove previous ones. This is the nature of the scientific process. The trouble lies with the fact that often, in an attempt to combine contemporary scientific thought with religion, the church will incorporate scientific theories into its core belief system. Therefore, when a new scientific discovery is made that disproves some of the basic beliefs in a religion, the foundation of that religion is threatened, and rather than examine the foundation, the science is denounced. This is the danger in attempting to

encompass modern thought into religious tenets. As Collins put it, “today’s harmony can be tomorrow’s discord” (59).

If religion is to have any place in our increasingly technological and scientifically driven society, a balance between science and religion will have to be achieved.

Religious orthodoxy based on literal interpretation of historical texts has no place in the modern world, because there are too many easily disproven flaws in the ancient religious dogmas. Be it Einstein’s “cosmic religion” or Francis Collins’ BioLogos, there will have to be some reconciliation between the two fields, if both are to survive. Religious people will need to let go of their dogma and accept that while science has flaws, it cannot be discounted solely on the discrepancies between it and religious teachings.

Correspondingly, scientists who completely reject the idea of God will at least need to respect the basic human need for religion and its value to society.

If both sides continue to remain intractable and self-righteous in their beliefs, then new scientific developments will continue to meet with fierce resistance, while religion will be perceived as less and less relevant to an ever-changing world. As long as the focus remains on which side is right and which side is wrong, there can be no common ground. Certainly neither society nor human development would benefit by the embracing of one of these disciplines to the exclusion of the other. As Einstein observed, “science without religion is lame, religion without science is blind” (Einstein 46).

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