# Stumbling Over a Worldview: Understanding the Root and Meaning of the Controversy between Science and Religion

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#### **Abstract**

It has been presupposed that the origin of the controversy between science and religion began with Charles Darwin's publication of *The Origin of Species* (1859) and later with his second publication, *The Descent of Man* (1871). But, in truth, the real origin of the controversy between science and religion, particularly in Western Christianity, began with the speculation that the planet earth was in a heliocentric system as developed by Nicolas Copernicus (1473-1543) rather than the conceived geocentric view that was held by the Roman Church of that day. Ancient Greeks had already presupposed such an arrangement of the planets but Copernicus elaborately developed that system of thought. Others followed up on the Copernican model through scientific observation until Galileo Galilee, (1564-1642) applying the telescope to the study of the heavens, offered the truth of the Copernican theory by scientific method modeled after that of Sir Frances Bacon. In his Dialogue of 1632, Galileo offered his explication of the heliocentric formation of the solar system only to be met with fierce ecclesiastical resistance, to the end that Pope Urban humiliated Galileo and forced him to recant his work under inquisition in 1633. Thus was the birth of a long distrust between religion and science, each suspicious of the motives and directions of the other. And yet, who, even among the most religious would consider the Bible as a science book? It speaks nothing of a geocentric formation of our solar system; consequently, the Church's dispute with Galileo was senseless in its cause but profound in its effects.

Charles Darwin and his writings on the origins of species by evolutionary means including his ideas of the evolution of humankind (1871) as a species was the next watershed of debate between science and religion that rages to this moment in public school systems, churches, government offices and scientific research laboratories. But, unlike the Bible's silence on the geocentric construction of the solar system, the Bible does have something to say regarding the origins of humankind, the earth and the cosmos for that matter, as well as the One who both created and rules such a universe which raises profound religious, moral, educational, sociological as well as scientific implications that cannot be ignored by either faction in the controversy. Hence, there must be a reconnection between the disciplines of theology and science for the purposes of dialogue and understanding, especially in the area of public education and policy.

# Introduction

The term "worldview" comes from the German: *Weltanschauung*, meaning "a view of life." <sup>1</sup> A personal, scientific or even a professional worldview provides one with a perception or a framework through which an individual, or an entire group, interprets the world and how it interacts with it and makes decisions concerning issues that come from that interaction.

The worldview for Christians and Jews stem from their being a "People of the Book," <sup>2</sup> which means that they give to their Scriptures the central and essential place in their faith and life. These two religions hold their sacred writings in what is called a "closed cannon." This

The World Book Dictionary, Volume Two: L-Z, (1992), 2409.

<sup>&</sup>lt;sup>2</sup> Donald Gowan, <u>Bridge Between The Testaments</u> (Pittsburgh, PA: The Pickwick Press, 1976), 313.

<sup>3.</sup> Richard L. Mattis, "First Jewish-Roman War", <u>Ancient and Medieval Wars</u>, <u>http://www.historynet.com/wars</u> 1995.

means that their sacred writings, to which the center and authority of their particular faith holds, will have nothing either added to nor subtracted from what has been established as the sacred text, which was once and for all delivered. These Scriptures are held to be divinely inspired and are to be read, understood and obeyed. For Judaism, this view became preeminent following the loss of the Temple in Jerusalem during the first Jewish-Roman War of A.D. 66-70. In the absence of the Temple, the surviving rabbis designated twenty-four books that they regarded as sacred Scripture. Worship in the synagogue and study of the Torah became the central characteristics of the Jewish faith's original form as a "faith of the book." <sup>3</sup>

Christianity inherited a canon of Scripture from Judaism referred to as the Old Testament and added to it its own referred to as the New Testament of Jesus Christ. For Evangelical Protestant Christianity, this canon of Scripture, both Old and New Testaments are the supreme authority (at least in theory) for which everything is done in that particular belief system as set for in the Scriptural injunction of 2 Timothy 3:15-17. This supreme, elevated view of Scripture was proclaimed during the Protestant Reformation under Martin Luther and Andreas Bodenstein (1518) which ultimately became the Protestant battle cry of "Sola Scriptura," or "Scripture Alone" as the final authority within Protestant Reformed Christianity and is to be preferred even to the authority of the whole church. This view of the final authority of Scripture would not only cause a break between the Roman Catholic Church and Protestantism in terms of the belief and practice of Christianity, but it would later play out in the ultimate understanding of mankind's place in the world in terms of evolution and that of Biblical Creation. For Protestant Evangelical Christianity, it is necessary that faith, belief and action all come from the reading, interpreting and rightly understanding God's Will (Vox Dei) through God's Word. (Verbum

<sup>&</sup>lt;sup>4</sup> Williston Walker, <u>A History of the Christian Church.</u> 3<sup>rd</sup> ed. (New York: Charles Scribner's Sons, 1970), 307.

Dei). The Bible is thus the focused lense of God's full and final word to humankind. God is the source of Scripture and the Protestant Reformation made the Bible the ultimate source of revelation and truth in knowing God and a witness to His creative and redemptive work through human history.

The scientific worldview holds itself to be religiously neutral and secular in its outlook in all things pertaining to humankind's study and understanding of science and all other disciplines related to one's interaction with the world. The scientific worldview is based on the philosophical tendencies of humanism, which is a cultural, intellectual and rational approach that fundamentally placed human beings and their values, capacities, and worth as central to all endeavors academics, intellectual and scientific. Humanism grew in influence as a subdivision of the Protestant Reformation which gave rise to thinkers not directly associated with or who were out rightly opposed to organized religion of any kind or stripe. The secularization of Western thought dates to 1648 with the Peace of Westphalia which ended the Thirty Years' War between Protestants and Catholics in Europe. It must be understood that the Thirty Years' War had nothing to do with the determining of whether there are seven sacraments or two within Christian belief, or who can interpret the Bible rightly and with what authority, or thoughts concerning the doctrine of transubstantiation, or even whose power it is to forgive sins. The Thirty Years War, in reality, was a war for territory and for economic and political power amongst the principalities and governments of the European nations against that of the central authority of the Papacy of Rome. The Peace of Westphalia represented the transition to a new phase in politics, for at that time national and dynastic considerations pushed aside theological and confessional ones.<sup>5</sup> Christian thought itself began to moderate and thus commenced a steady secularization of culture. The pattern of church dominated state and society started to see a change to a religiously neutral civilization. Within this cultural change, there instituted a transition of thought from a Christian worldview to a humanistic, scientific worldview where humankind's existence was more natural rather than theological. Humankind's position in the universe and its consequent transformation in outlook (worldview) began to reshape human thought and endeavors of learning which then began to reshape the very institutions of learning that were extant.

This new phase of thinking, called rationalism put human reason and its considerations ahead of all theological and biblical understanding. This inaugurated the rise of what would become modern science and philosophy and the natural rise of skepticism concerning biblical and religious thought. Biblical truth, spiritual revelation and ecclesiastical doctrines were replaced by rationalism. The spiritual was replaced by the scientific, religion was replaced by rationalism and the mystery of faith was replaced by a strictly physical universe with humankind's position in it something to be determined by examining and interpreting thought, history, and science through the focused lens of reason. The worldviews of religion and science and their mechanisms of understanding are now in conflict within Western Christianity and all of its subsequent domains.

The Protestant Reformation is seen by many as the bridge that crosses the span between supreme ecclesiastical authority versus that of absolute biblical authority; to the end that power of the central church is now broken apart and open to personal interpretation and subsequent belief and action within the Christian faith. The Protestant Reformation is also the bridge on which scientific and rational humanism also crosses over into what becomes the modern age of science and reason and its later battles relating to the biblical record versus that of scientific evidence concerning the origin and nature of humankind and its place and purpose in the world

<sup>5</sup> Walker, 426.

and the universe. This conflict of worldviews is most pronounced in America over the issue of creation versus evolution and its impact upon the science curriculum in public schools as well as issues concerning human embryonic stem cell research.

#### Conflict of Worldviews: Divine Creation versus Darwinian Evolution

The expressions of this conflict of worldviews come to us presently through the issue of Divine Creation and all of its religious and spiritual meanings versus Darwinian evolution and its material and mechanistic explications of life which, to many, excluded any need for God at all in the equation of life here on earth. Moreover, with evolutionally thinking about the natural world, science was now in the process of eliminating all need for an individual to "understand" the origin, purpose and the ultimate meaning of life for humanity from a strictly religious point of view. In many religious people's minds, this was a proclamation and a purveyance of atheism which became an affront to a majority of Americans who held to a Bible based belief about humankind's existence as described in Genesis 1.

In brief, the nature and origin of humankind was part of a Divine work and desire which brought the whole world into being. Biblical creation speaks to the production of everything: the animate and inanimate, the material and the intellectual, the physical and the spiritual. Creation was ordered by intelligent design and ruled by such; who is God. In that orderly creation, the Bible notes that man is made in the image and likeness of God. <sup>6</sup> This notion is carried on even further within the pages of the Bible as David, the Psalmist, contemplates God's creative power and handiwork within the heavens and asks: "What is man that you are mindful of him, and the son of man, that you care for him?" You made him a little lower than the heavenly beings and crowned him with glory and honor. You made him ruler over the works of your hands; you put

everything under his feet: all flocks and herds, and the beasts of the field, the birds of the air, and the fish of the sea, all that swims the paths of the seas.<sup>7</sup> Accordingly, among those who read and hold the Bible as the word of God, humankind is at the highest form and level of the Divine Creation. God is, to the Bible believer, the Creator and ultimate friend of humankind, the preserver of the body, mind and spirit as well as humankind's cosmological protector.

In contrast to that elevated view of humankind's status and presence in the world, the materialistic evolution of humankind as applied by Darwin to the origins and nature of human beings, suggests that humans and similars have a common ancestor. (Descent of Man 1871). The differences between the mental powers of humans and that of animals became understood as one of degree rather than kind. Such issues as moral feelings, love, goodness, belief in immortality became part of the survival mechanism that would increase incrementally through the process of natural selection, which was part of the Darwinian evolutionary model. Thus, in that mindset, there was no longer a need for the Divine and there was no longer the divide between humans and the rest of nature as was previously understood in biblical religion. Species developed naturally without the need for individual special creation by God. Humankind was now relegated to a place just a little higher than the beasts rather than the biblical notion of being just a "little lower than the angels." <sup>8</sup> Through random variations and natural selection, all living things eventually came to be, including humans, by natural process and survival of the fittest. As a result of this natural explanation of life through the process of evolution, beginning first with the prospects that all species originated from ancient, single organisms or possibly a very small amount of ancient organisms, and then through a variation of forms that enhance survival and reproduction are passed on to succeeding generations through natural selection. Eventually

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<sup>7</sup> Psalm 8:3-8  $\overline{\text{NIV}}$ .

<sup>&</sup>lt;sup>6</sup> Genesis 1:27. New International Version of the Bible (Colorado Springs, CO) International Bible Society, 1984.

humans arise to the form that humans are in now. One writer put it succinctly and humorously in describing the process as, "from the goo to you by way of the zoo!" 9

This notion of scientific explanation of all things seemed to present a world where there was no God and, in fact, there may be no need for God or even a reason to ever have God. Everything had a natural explanation and all that science had to do was find the mechanisms which caused the natural occurrences to come about. Hence, with evolution and the Darwinian explications of humankind and the lack of any need for Divine activity or involvement within the evolutionary theory, science took on a visage of atheism which some denied and others completely embraced. In that light, many saw science birth itself into a new religion all its own, with humankind now as the supreme being (humanism) with reason and intellect (rationalism) becoming its divine powers.

True or not, with God being omitted from any and every discussion concerning the origins of humankind, its existence and evolution into what man has become, for those thinking solely from the biblical perspective, this is indeed atheism. The concerns surrounding biblical and ethical authority within Scripture is now in direct conflict with such a methodological thinking of pure science. It appeared to undercut all moral and ethical considerations within the realm of human relations and ranked humankind, from its very origin, to the lower life forms which the Bible teaches that mankind was above by Divine, special order. Materialistic evolution of humankind as applied by Darwin's theory is in direct conflict with the teachings and understanding of Evangelical Christianity whose final authority in all matters is the Protestant Reformation's anchor of faith and belief, "Sola Scriptura".

<sup>&</sup>lt;sup>8</sup> Psalm 8:5. The King James Version of the Bible (Indianapolis, IN) B.B. Kirkbride Bible Co. 1964

<sup>&</sup>lt;sup>9</sup> Frank Paretti, "God's Way Or My Way", Focus On The Family Daily Broadcast, September 1990.

# The Worldview Conflict Expands Into Cosmology

With the seeds of non-theistic involvement planted within the mind of the scientific community concerning human origin and existence, it soon became obvious that the same mechanical devices could be or was solely responsible for the formation of the entire universe as well. Thus, the evolutionary concepts that dominated earthly existence soon expanded into the realm of cosmology. The astrophysical study of the history, structure and constitute dynamics of the universe and its components were also devoid of any mention of a Divine presence or a "guiding hand" that developed the universe into what it is or what the Psalmist admired in his musings. That lead to the next apparent question posed to non-theistic science as to where exactly did the universe come from and the components that make up the physical realm which exists? Again, the conflict with the words of Genesis comes into view where the Bible says, "In the beginning God created the heavens and the earth."

So long as the universe had a beginning, then it could be supposed that there had to be a Creator. The Genesis record states that God created all that there is in six days. Add to that the dating and the age of the earth by some biblical literalists who worked backwards through the biblical chronology of the generations of the people mentioned in the Scriptures, it was proposed that the earth was not all that old as compared to the geological studies and evidences that dated earth's existence well into the millions of years old. Thus another worldview conflict arose between science and the Bible regarding origins of the universe and its very foundations and functions.

In the light of this information, many biblical interpreters of Genesis began to settle on the Day-Age theory or the Gap theory of creation. Briefly, according to the Day-Age theory, each of the six days of creation represented a vast geological epoch. According to the Gap

theory, there was a vast period of time between the creation of heaven and earth and the rest of Creation. 11 In response to biblical thought and interpretations of the universe and its existence, theoretical physicists such as Stephen Hawking holds to a self contained universe; "so long as the universe is really completely self contained, having no boundary or edge, it would have neither beginning nor end: it would simply be. What place, then, for a creator?" <sup>12</sup> As for humankind in such a cosmological interpretation of the universe, Hawking's stated view is: "We are insignificant creatures on a minor planet of a very average star in the outer suburbs of one of a hundred thousand million galaxies. So, it is difficult to believe in a God that would care about us or even notice our existence." <sup>13</sup> In contrast to that thinking, Christian theology presents the God of the Bible as One who oddly concerns Himself with individuals as well as the rise and fall of families, kingdoms and nations that exist on the earth throughout all of its history. To be fair, Hawking and his like in the scientific community are emblematic of what is considered to be the atheistic scientific mindset to which Christians object. Yet there can be no sweeping generalizations about the entire scientific community as a whole. There are religious scientists to be sure. Just as there are theologians of strong religious and biblical convictions who hold to a form of theistic evolution where the idea that God guides or directs evolution and this involvement can span over a very broad range and time.

The Roman Catholic Church adheres to a biblical understanding and theology that is neither literal in interpretation nor disputes the finding of scientific research on the grounds of biblical statements. In terms of the Catholic stance on evolution, Pope Pious the XII in 1950 gave conditional support to the theory of evolution and in 1996, Pope John Paul the II declared

<sup>10</sup> Genesis 1:1 NIV

Lawrence Principe, "Darwin And The Responses From Evolution", <u>Science And Religion</u>, The Teaching Company Limited Partnership, 2006, Lecture 10.

Lee Strobel, The Case For A Creator, (Grand Rapids, MI: Zondervan, 2004) 118.

"evolution more than just a hypothesis." <sup>14</sup> At the same time, both Popes oppose materialistic interpretations inherent in such evolutionary thinking concerning human souls. The souls of humans exist and are not a product of evolution. <sup>15</sup>

More to the point concerning human character and moral development between materialistic evolution and that of theistic involvement in humankind's nature; with God left out, human character must be explained or excused solely and uniquely by external influences. Heredity, environment, psychological stimuli: are the societal involvement factors and forces that shape the human being. With God involved in the soul which exists with humankind, character is and can be explained more by internal factors such as self negation and self will, to the end that man can determine his own destiny and his own future.

Much of the controversy between science and religion has come down to the conflict involving the extremes. The point being that there are fundamentalists on both sides of the issue. From the realm of religion, where biblical fundamentalism espouses a literal six day creation interpretation of Scripture at the negation of all other thought and evidence that may suggest or point in a direction that may be scientifically contrariwise. The same can be said about the scientific community with its outspoken fundamentalists of atheism and the atheistic held view of the universe, the world and the origin and nature of humankind. It often appears to be the case is that both such sets of fundamentalists use their views to further personal or political agendas that go well beyond their stated principles of science or theology. Whatever the actual case may be, the clash of the two worldviews have ended up on the battlefield of education in the public school systems beginning in the early 1920's and continuing on and off until this present day.

<sup>13</sup> Strobel, 118.

<sup>&</sup>lt;sup>14</sup> Principe, Lecture 10.

#### **Conflict of Worldviews In Public Education**

As Galileo served as a lightening rod for controversy with his explication of the heliocentric formation of the solar system, which began to pit science against ecclesiastical authority in the 1630's, Charles Darwin's theory of evolution served the same function in the 1920's and forward as public schools, particularly in the realm high school education, began to teach science. Part of modern science curriculum included in public was Darwin's theory of evolution. The famed Scopes Monkey Trial of 1925, which has been depicted on stage and screen in every way imaginable except accurately in terms of its set-up, purpose and ultimate reality, presented what is considered to be atheistic science and its proponents against that of literal biblical faith as found in Protestant Evangelical Christianity under the subset of Christian Fundamentalism. In brief, Christian Fundamentalism arrives on the American scene at the beginning of the 20<sup>th</sup> century holding to issues concerning the biblical record as being both literal and inerrant in its reading and teaching. The American culture began to change in that era from one of more rural populations to one of a more urban populace. Plus the fact that modern public education was now expanding to more and more of the rural areas through the process of compulsory high school education as established through the various states. In the state of Pennsylvania, the Commonwealth always operated what is called "free education," that being that every child was provided a free education through public funds gathered through various tax forms. No child would be prohibited a formal education due to parental inability to pay tuition. Up until 1895, all children in Pennsylvania were required to attend school up to the eighth grade. In 1905, Pennsylvania passed a law requiring all geographic areas within the state to provide to all children a high school education. Therefore, a high school education was now also

<sup>15</sup> Principe.

compulsory according to state law and regulations.<sup>16</sup> Into that compulsory education of the 1920's came the teaching of modern science and that included teaching the Darwinian evolution model as the source of humankind's formation and existence. As portrayed in the microcosm of the Scopes Trial in Tennessee, many religious people in many places objected to the teaching of their children the apparently atheistic view of evolution as fact over against the much held belief of Biblical Creation as told in the Genesis story. The public school system was now involved in the worldview conflict between science and religion which involved unwilling participants in terms of required attendance and the paying of tax monies for educational support for the public school system which offered teachings that were contrary to personal religious belief to the point of being repugnant and inflammatory to a portion of the public. The result was a serious toning down of evolutionary teaching within much of the public school curriculum.

That would change with the emergence of the scientific and technological matters dealing with the space race of the late 1950's and the early 1960's between the Soviet Union and the United States. This time, the federal government desired to improve and update science education with its Biological Sciences Curriculum Study that improved high school biology textbooks and which contained a more complete study of the theory of evolution. Again, a new wave of resistance and court cases desiring the banning of the study of evolution from public school education which ultimately lost in the United States Supreme Court in 1968. But the battle continues to this day with the introduction of creation science and the attempt of equal time teaching of Intelligent Design within the public school curriculum. All such efforts have created great conflicts within public education and the communities that support and fund it. School boards of public school systems are often caught in the crossfire of those seemingly

<sup>&</sup>lt;sup>16</sup> Pennsylvania School Boards Association, Research Division, March 1, 2007.

<sup>&</sup>lt;sup>17</sup> Lawrence Principe "Fundamentalism and Creation.", <u>Science And Religion.</u> The Teaching Company

opposing worldviews. Generally, public school board's interests lie in promoting, maintaining and advancing public education in the best manner possible which is, at the same time, affordable to the tax base that elected them to the board. Issues of science and religion and the conceived conflict of worldview is something that most school boards inadvertently stumble over in the process of discharging their duties as school board directors in choosing the best updated material that would constitute a school district's science curriculum.

#### **But Not Always**

The two most current incidences of school boards actually getting directly involved in the religion and science debate took place in Dover, Pennsylvania, and the other in Cobb County Georgia.

In Dover, Pennsylvania, the majority of the school board members voted to add a statement to their biology curriculum that students would be made aware of the gaps/problems in Darwin's theory and of other theories of evolution including, but not limited to, intelligent design. The case went to the United States District Court, Middle District of Pennsylvania where the argument was heard. In the ensuing process, a new school board election was held and none of the members of the school board who voted for the intelligent design policy statement were reelected. The newly seated school board, all of whom rejected the policy, took office. The findings in the court case also went against the proposed new policy and deemed it a disguised policy meant to introduce a thinly veiled religious belief system under the mantle of Intelligent Design.

Limited Partnership, 2006 Lecture 11.

<sup>&</sup>lt;sup>18</sup> Georgia Citizens for Quality Science Instruction, "Tammy Miller, v. Dover Area School District", <u>National</u> Center for Science Education, October 18, 2004: 51

The other case took place in Georgia where the Cobb County Board of Education put a warning sticker on their science textbook that stated that evolution is a theory, not a fact, regarding the origins of living things. It stated that such material should be approached with an open mind, studied carefully and critically considered. The sticker was dated March 28, 2002. A four year court battle ensued with the predictable results that certain board members were not reelected. The stickers were eventually removed and the controversy abated after a great deal of energy, time and money was spent. <sup>19</sup>

# **Conclusions**

The Oxford Round Table that convened in March of 2007 asked if there is any common ground between science and religion. Of course, the usual suspects that raise such a question and cause the debate between the two disciplines are creation and evolution and their perceived roles in understanding humankind in terms of origin, nature and ultimate purpose in being. Extremists on both sides of the issue seem to be the catalysts that spark the fire that ignites both communities and their faithful adherents. Many believers of the hyper literalist view of Biblical Creation often depict the scientific community as inherently atheistic and anti-religion and anti-God in their entire worldview. And indeed there are those individuals within the framework of science who are just that way and have become famous for espousing such sentiments. On the other hand, many who are often associated with the so called "fundamentalist, right-wing Evangelical Christianity" are equally castigated as being uneducated, unlearned, antiscientific Bible believing individuals who refuse to be taken down to the level of being "smart apes". Those are indeed, the extremes. It is also those extreme views that often get the press and the

Georgia Citizens for Quality Science Instruction, "Selman vs. Cobb County Board of Education," <u>National Center for Science Education</u>, December 21, 2006: 55-56.

news coverage which fuels the controversy and the debate even further than it should go. The facts in the matter go much deeper and are far less black and white among the members of both communities within science and religion. In fact, such controversies did not always exist in their present descriptions. For many, the study of science and the understanding of Christian belief were fully compatible and compliant in personal faith.

Johannes Kepler, (1571-1630) was a Copernican in the understanding the heliocentric model of our solar system. He is one of the most important astronomers and mathematicians of his era. He is cited as the discoverer of some of the important laws of planetary motion. He is the one who cited the fact that the planets orbit the sun in an elliptical orbit with the sun at one focus of the ellipse. This is clearly a scientific mind working on a scientific project seeking a scientific truth. But Kepler was very explicit in saying that his work in uncovering the laws of nature was to give glory to their Creator. Kepler once wrote, "God is praised through my work in astronomy." <sup>20</sup> Such a thought and mindset of a blend of science and religious belief strikes us as odd by today's standards. The conflict between science and religion within our 21st century understanding seems not to allow such intellectual and spiritual freedom. Kepler was just one of many scientists in his day that saw no separation between the study of science and the belief in God. Isaac Newton, Blaise Pascal and many others of the era within the 17<sup>th</sup> century scientific community saw science and religion as completely compatible, almost inseparable. What happened between then and now which seemed to have forced science and religion into warring camps?

The complexion of religion and its authority as well as science and its rise to prominence certainly changed over time as has been previously discussed. There can be no blanket explanations that fit all the questions as to the "how and why" of the process which led to where

science and religion find themselves now in apparent opposing camps. There are some focal points within history in which the interactions between science and religion became very strained, to the point of open conflict. Two of the best known have been cited: Galileo and Pope Urban over the heliocentric makeup of our solar system which eventually brought arrest and imprisonment for Galileo and the hands of the Roman Church; and the issue of evolution versus Biblical Creation, where Darwin's theory is seen as a direct challenge to biblical authority and the introduction of atheism to the world through science.

Current events within our 21st century seem to show a true conflict of worldviews between science and religion, particularly involving the theory of evolution and the origin of humankind. That conflict revolves around how the Bible is interpreted among different circles and traditions within Christianity. Some Christians who do not hold to a literal interpretation of the Creation story as described in Genesis, see the Bible speaking in a religious, poetic form that offers the truth of the Who and why of Creation and not the how and when. This alleviates much of the controversy concerning the real meaning of human existence. As long as it is understood that God did create all things, then the method and the timing bears little consequence to one's personal faith and religious convictions. In the light of that understanding, many people of faith within the realm of biblical adherence would want their children to learn the dominant theories in biology as taught in the public schools. To remove the teaching of evolution from public school education would most certainly create gaps in the knowledge of modern science which may handicap the student later down the road in pursuit of a higher education beyond high school. That prospect, from a public school board perspective, is unacceptable. The school board is charged with providing each student a full and complete education that ultimately prepares the graduating student with all the educational tools needed to move into the future toward whatever

<sup>&</sup>lt;sup>20</sup> Principe, Lecture 1

endeavor the student chooses. Leaving a key element out of the study of biology no way enhances the student's academic qualification or preparedness. The study of evolution must stay in the realm and curriculum of public education.

In terms of what the scientific community as a whole actually embraces in terms of a personal belief in God or holds as an understanding of the Christian faith is almost impossible to speculate. Many polls have been taken by a variety of pollsters which survey the religious belief among Americans in general, and the scientific community in particular. Depending upon who asked what question and how it was asked, endless variations of belief appear among all groups questioned. The point is, not all scientists are atheists, neither are all biology teachers who teach evolution atheists, nor are all people who hold to evolution as the means of the present day appearance of Homo sapiens atheists. At the same time, a point was raised at the March 2007 Oxford Round Table on Religion and Science when I asked the science community that was present in the Oxford Forum as to how many of them ever had one formal course on Christian thought or theology or the Bible, or even a religious studies course of any kind as part of their undergraduate or graduate education. The response was none. In the same respect, anyone who attended a public high school in the United States was introduced to, if not indoctrinated into, the thought and theory of Darwinian evolution through the compulsory public high school education system. In other words, those of us in theology received the "catechism" of Darwinian evolution in our public education. At least a summary of the basic principles of that thinking are present in the understanding of those of us in theology that enter into the dialogue with science over the issues of faith, science and evolution. Such is not the case formally in the other "camp", where in America, the separation of Church and State prohibits the public school from ever introducing the biblical understanding behind the case for Creation. It

would at least be a help for the science community to grasp some basic religious concepts behind why some individuals in the religious "camp" think, and unfortunately negatively react to evolution and its formal teaching in the schools as they do. For some in the religious community, the teaching of evolution is an assault on their very belief system.

To ever say that all Christians hold to the same tenets of belief about everything within the faith is to be facetious. With two hundred or more denominations and sects within Christianity itself, there certainly is enough evidence to refute that claim. Be it Protestant or Catholic, Reformed or Evangelical, Congregational or Connectional, they all have certain theological differences and doctrines within their particular belief systems. What those differences are seem to be constantly changing and continually being modified to greater or lesser degrees. Yet there remain certain orthodox or essential beliefs to which all Christians embrace; one is a belief in God who is the ruler of the universe. For Christianity and Judaism, the role that Scripture holds in terms of authority vary significantly within the different faiths and within the different communions of the Christian Church. From the literal understanding to the poetic interpretation of the Genesis concerning Creation, there is a common held belief that however human beings came to be, God was at the beginning and humans have a soul which makes people different than all other orders of life on this planet. However the Bible is interpreted, the real point of the Creation story is that God created and humankind has a specific purpose which cannot be found in evolution alone. Humankind appears in Scripture as God's crowning act of creative work. We are God beings; created in His own image and likeness. Humans possess an ability to think, understand and love. <sup>21</sup> We have creative skills that show imagination in design, music, art, writing and communication. These are part of the Creator's

<sup>&</sup>lt;sup>21</sup> Adam Hamilton, Confronting The Controversies, Biblical Perspectives On Tough Issues. (Nashville,TN. Abingdon Press.) 2005 45.

gifts to humans that bear His own likeness. Creative gifts given to humankind that bears the Image of God. (Imago Dei) We can see the future and we know our end. We have a conscience and we have a will. We have a soul. These are also Divine attributes and they mark our human nature as different from all other living things and above all other living things in this world.

The Christian response to evolution ranges from complete acceptance to complete rejection and almost every combination of faith and science blend in between. Is evolution the enemy of the Christian faith? It certainly depends upon the outlook of the individual who may see it as such. If an absolute literal interpretation of the Genesis account of creation is necessary to hold together all biblical truths as presented in Scripture, then there is that possibility. If one domino falls in that scheme of literal biblical interpretation then certainly they all must eventually fall. But, if evolution presents a possibility of one process God may have used to create and sustain life on our planet, then a dialogue of understanding between science and religion may ensue. Science can and does explain how some things in the natural world may be understood and work. Evolution may provide the best explanation, at least for now, as to how and why things look the way they look and act the way they do.

For people of faith, there is no doubt that the best place to teach fundamental beliefs is at home within the bounds of family and church or synagogue. The influences and insurances given in that atmosphere will, by far, outlast any doubts offered through scientific study and questioning that student will come across in their formal public education.

# Finding the Common Ground for Dialogue

The Bible and science agree that the universe and everything in it had a beginning point.

They agree that first there was nothing and then there was light, and from this beginning all the

galaxies of the universe were formed. Science calls that the Big Bang. Before the Big Bang, the Bible says there was God, the Creator of the Big Bang, the First Cause of everything existing and the Engineer of all things that are and are yet to come. The how and when of the universe is in the field of science. The "Who" and the why that lies behind the Creation of the universe lies within the range of theology. Scientists should avoid making theological and metaphysical claims when they are unqualified to do so. The same admonition goes to those whose faith and belief systems gives ready, religious answers to scientific questions that simply do not suffice. Science and faith should not automatically stand counter to each other. Scientific discoveries often can serve a higher purpose, leading us to the truth about God our Creator and our relationship with Him. In April 2006, at a lecture dealing with astrophysics and theology, the lecturer, who was both an astrophysicist and an ordained United Methodist clergyperson, stated that he often learns more about God in the laboratory than in church.<sup>22</sup> Then there is common ground on which to meet, discuss and understand the human experience through both science and religion. Let the dialogue continue.

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<sup>22</sup> Dr. David Wilkinson, Wesley Research Lecturer In Theology And Science at Durham. The Albright Lectures, Pittsburgh Theological Seminary, April, 2006.