**EVOLUTION** – Michael F. Nartker, SM, 12 March 2006

In a recent feature article in the weekly edition of *L’Osservatore Romano*, titled “An examination of Evolution and Creation,” Florenzo Facchini wrote, “The heated debate on evolution and creation that developed in the United States several decades ago has reached Europe and has set the world of culture on fire. Unfortunately, it is clouded by political as well as ideological outlooks, and this does not make for calm discussion. Certain assertions of the American “Creationists” have provoked reactions in the scientific milieu that are inspired by a certain dogmatism in the defense of Neo-Darwinism and have brought back the scientific positions typical of 19th century culture.” (1)

-The topic of Evolution has always sparked debate right from the beginning of its proposal, both from the scientists and from the theologians, setting science against religion, and religion on the defensive against science. The debate centers around the theory of Evolution as disproving the need for God’s existence, provoking organized religions into a defensive stance in justifying the belief that the world was created by God, according to the book of Genesis.

-One of the first proponents of the Theory of Evolution was **Charles Dawin** in his major work, *The Origin of Species*. Ironically, even though he never used the word “evolution” once in this major work, the theory has always been associated with and credited to him. His thesis called into question the traditional Christian idea that all life owed its specific characteristics to individual acts of divine creation, particularly the belief of the unique and privileged position of humanity as the apex of God’s creation. (2)

-One of the first major rivals to Darwin’s theory was the eighteenth-century Swedish naturalist Carl von Linne, or his Latinized name, Carolus Linnaeus. Linnaeus argued for the “fixity” of species. He believed the observed natural world represents the way things have always been in the past and will remain today. “Each species could be regarded as having been created separately and distinctly by God and endowed with its fixed characteristics.” (3) We call such a belief, “Creationism.” In a way, the “battle” between the Evolutionists and the Creationists in Darwin’s time, set the stage for later battles for the classrooms in which theory/belief would be taught to the next generation of pupils.

-The present day battle of religion verses evolution centers around the recent belief of creationists in “**Intelligent Design**,” a recent version of scientific creationism based on a literal interpretation of Genesis, as an alternative of evolution to be taught in science courses.

-Before we proceed further, let us look at the specific observations leading up to Darwin’s formulation of his theory of the origin of species, then we will look at some of the present names encountered on both sides of the “Evolution verses Intelligent Design” debate.

-The general observations include the following **four main problems**: the question of explaining how organisms adapt to their needs; the question of why some species die out; uneven geographical distribution of life forms throughout the world; and vestigial structures – such as the nipples of male mammals. From Darwin’s biological evidence he drew the following argument that a process of “**natural selection**” takes place within nature. (4)

-Darwin’s ideas were seen as hostile to Christian faith, because they called into question aspects of the Genesis creation account. However, others saw in the mysterious process of evolution nothing less than the providential guiding hand of God, leading the creation on to higher states of consciousness and development. **Pierre Teilhard de Chardin** is an excellent example of philosophers and theologians who found the idea of biological evolution profoundly attractive. (5)

-One of the main objections to the “**Theory of Evolution**,” comes form fundamental religions, simply because they say it calls into question the bible account of creation, the first account in Genesis 1:1-2:4a. Their opponents counter that “Intelligent Design” is just another attempt to avoid the scientific evidence for the evolution of species, including humans. The fundamentalists argue that “…the mechanisms of random mutations and natural selection are inadequate to account for the intricate and astonishing variety of life the world offers. Some would argue that the evidence for intelligent input is overwhelming.” (6)

-Those **proponents** of the intelligent Design are Michael Behe, professor of biochemistry at Lehigh University and author of *Darwin’s Black Box: The Biochemical Challenge to Evolution*; William Dembski, professor of theology and science at Southern Baptist Theological Seminary and the author of *Signs of Intelligence: Understanding Intelligent Design*; Jay W. Richards, whose book asserts that earth is uniquely positioned in the universe for scientific discovery in *The Privileged Planet*; Roger Nesbit, priest and Head of Religious Education in Surrey, author of many books and pamphlets, *Evolution and the Existence of God*; and John Polkinghorne, theoretical physicist, *The Way The World Is*.

-Those ***opponents*** of Intelligent Design state that there is no conflict between the two. Others in the United States mention that the Intelligent Design proponents want to enlist the government to ensure their ideas are taught in public schools under the banner of the First Amendment protection, therefore making the issue both religious and political. Some of the opponents of Intelligent Design are John Haught, theologian and research professor in Georgetown University’s theology department; Kenneth Miller, professor at Brown University and author of *Finding Darwing’s God: A Scientist’s Search for Common Ground Between God and Evolution*; Ronald Numbers, author of *The Creationists: The Evolution of Scientific Creationism*, and Richard Dawkins, author of *The Blind Watchmaker*.

Let us look at a **history of life on earth** as presented by Florenzo Facchini in his feature article in *L’Osservatore Romano,* of whom we introduced at the beginning of this chapter. He points out that in the scientific world, biological evolution is the key to the interpretation of the history of life on earth. “Life on earth is thought to have begun in an aquatic environment about 3.5 to 4 billion years ago with single-celled beings, ***prokaryotes*** without a real nucleus. They were found not to have changed for a long time, until 2 billion years ago when the first ***eukaryotes***, single-celled with a nucleus, appeared in the waters that covered the planet.

-Multi-celled living beings were slow to arrive. Since their appearance 1 billion years ago the rhythm of evolution continued to develop slowly and was not generalized. It was not until the Cambrian period, 540 to 520 million years ago, that there was an explosive development of the principal categories of living beings.

-We may presume that for a long time conditions on earth were not suitable for the evolution of the animals and plants that live on it today. But the sequence in which fish, amphibians, reptiles, mammals and birds appeared and the great rapidity of their development is an issue that has yet to be clarified.

-In line of evolution that led to the human being developed in the latest minutes of the clock of life. About 6 million years ago the divergence developed between the direction of evolution that led to anthropomorphic ***monkeys*** and the direction that brought a bunch of forms, the ***hominids***, among which, about 2 million years ago, the evolutionary process which led to the human being can be identified.

-Prior to the modern form of the human being, of which the most ancient examples are found about 150,000 years ago, other human forms existed. These have been classified as ***Homo erectus*** and even earlier, ***Homo habilis***, to which should be added ***Homo sapiens***.

-The reconstruction of the various stages is the task of paleoanthropology, to which can be added modern bio-molecular research of ***DNA*** in order to identify similarities and differences at the genetic level that can be traced to a common ancestry.” (7)

-From the above review, two things can be noticed. The first thing is the vast amount of time for life on earth to be established, over two million years, let alone to develop and evolve into the life forms we are familiar with today. The second thing that the author himself points out is the explosive development of the principle categories of living beings over 540 million years ago. A Creationist Belief cannot explain this vast amount of time in the history of life on earth, but the Evolutionist Theory presupposes such a vast amount of time needed for the evolution of species to take place.

Darwin’s theory of natural selection raises ***four specific issues*** which are of direct religious importance. The **first issue** is that through fossil records or lack of records many species, which existed in the past, are now extinct. Certain species, which exist today, did not exist in the more distant past, but came into existence by a process of evolution. This counters the biblical accounts of creation which could only be a “once-for-all act” which permanently established an unchanging natural order. The **second issue** from Darwin’s theory suggested that the process of evolution had taken place through a massive struggle for existence, in the course of which a number of species had been eliminated through competition. This conflicts with the notion of divine providence. The **third issue** is the apparent randomness of the evolutionary process, which seems to imply that plants and animals (including humanity) came into existence by accident. How could this be reconciled with the idea of God designing the world? The **fourth issue** and the most significant religious difficulty concerns the place of humanity, which Darwin stated that humanity owed its origins and characteristics to precisely the same natural processes as those which brought other plant and animal species into being. (8)

On the Church’s teaching on evolution, Facchini gives us two wonderful quotes. The first one is from a 1985 *Speech at a Symposium on Christian Faith and the Theory of Evolution*, by John Paul II. “Faith in creation properly understood and the teaching of evolution properly understood do not create obstacles…Evolution presupposes creation; indeed, creation is placed in the light of evolution as an event extended in time, as a continuous creation.”

-And from the *Catechism of the Catholic Church* one observes that “Creation…did not spring forth complete form the hands of the Creator” (n. 302). God created a world that was not perfect but “in a state of journeying towards an ultimate perfection…in God’s plan this process of becoming involves the appearance of certain beings and the disappearance of others, the existence of the more perfect alongside the less perfect, both constructive and destructive forces of nature” (n. 310).

-Facchini summarizes his article by stating that “we are not human beings by accident nor by necessity, and that the human story has a meaning and a direction marked by a ***superior design***.” (0) As both documents by the Catholic Church on evolution show, the Magisterium is surprisingly open to this scientific theory. One noted conservative Protestant thinker of the period, Benjamin B. Warfield, professor of theology at Princeton Theological Seminary, found the theory of evolution easily accommodated as a “natural law operating under the aegis of the general providence of God” (18188 essay). (10) Eventually called ***Evolutionary Theism***, Henry Ward Beecher (1919-87) in his work Evolution and Religion, “set out his vision of a complex evolutionary process guided by God. Was not this much more impressive and suggestive of design than a single original act of creation? (11)

Today, the difficulty in the debate between evolution and religion is mainly with “fundamentalists.” Yet there are serious problems in Scripture itself, if taken literally, concerning creation and the first parents. Most scripture scholars do not believe the authors of the Bible intended us, the reader, to take the creation stories literally. The stories were a vehicle in which the scripture authors used to present their understanding and theology of God.

-The first difficulty, which one encounters in scriptures, is at the very beginning of the Bible, in the book of Genesis, “Day One,” when God created the light and separated it from darkness. “Thus, evening came, and morning followed, the first day,” Genesis 1:5. Depending on how one interprets a “day,” usually by the sun, it would have been impossible because God did not create the “sun” until the fourth day!

-The second difficulty, which one encounters, is also at the very beginning of the Bible, in the creation of our first parents. Since there were “supposedly” no other humans, the only women that Cain and his brothers could marry would have to be his own sisters, and mother! Genetically, this would create very serious biological problems for the future of humankind, not to mention the ethical situation of incest!

-And yet, that is the fundamentalists position against evolution, that what was written in the Bible happened literally. The new position of Intelligent Design is that “the formation of certain complex structures cannot have occurred by accident but would have required special interventions by God in the course of evolution and correspond with an intelligent plan.” (12) This, of course, is not science as the fundamentalists would have us believe, and the decision of the judge in Pennsylvania, United Stated, “therefore seems correct…and the calin that it should be taught as a scientific theory together with the Darwinian explanation is unjustifiable.” (13)

In the *Catholic Telegraph*, a diocesan newspaper, the following article was published in the commentary section and was titled, “Evolution versus Independent Design.” The author, Fr. John Dietzen, answers a readers question concerning the evolution versus intelligent design controversy.

- “The physical sciences themselves will never be able to prove either the existence or non-existence of God. In Christian tradition, we hold that God is pure spirit. That means there is nothing material or physical in the Divine Being, nothing that has physical parts that can be measured or weighed or broken off.

-In that specific sense, the material universe must be a “closed system” existing and operating within itself. There could be no transfer of physical matter or energy from Creator to creature. This means that physical sciences alone, whatever more they learn about how the universe began and how it functions, cannot possibly prove there was not an intelligent Creator behind what happened.

-They may discover much that changes our conceptions of how God functions in this world. That has happened often, particularly in the past 400 years, and is happening today. In the end, however, when all relevant scientific evidence is gathered, the most science can declare is that no physical evidence exists of any outside divine activity which started the whole thing. As I explained above, not only would we agree with that, but we would also say that’s the way it must be.

-If a cosmologist or astrophysicist or biologist, therefore, were to claim that no Creator is needed to explain the universe, he would have jumped outside the field of natural sciences and be speaking as a philosopher or theologian, speaking no longer within his competence as a physical scientist.

-We must also admit that we can never prove, from physical evidence alone, that there is a God, a personal, intelligent Creator. Our physical reach extends only to the edges of the physical universe. We need something else to go beyond that.” (14)

-Therefore, the Creationists through their “Intelligent Design” can never prove, form physical evidence alone, that there is a God, a person, intelligent Creator. Neither can the Evolutionist (or Neo-Darwinist) prove the existence or non-existence of God.

Therefore, this leads us to a wonderful article titled *Beyond Copernicus: Science’s Evolution of Religious Belief*, where we come full circle to the touch of God in Creations.

-“All of the early scientists, Copernicus, Kepler, Galileo, Newton, were strong believers in God. Some historians have argued that science originated in the Christian Wet because of its belief that a rational creator would create rational laws to govern nature. This creator’s freedom to make any kind of world required that scientists carefully inspect the world to determine these laws. Thus, was born the fertile cooperation of observation and theory that gave rise to science.

-In the centuries after Newton, the rapidly expanding roster of sciences, geology, chemistry, biology, disclosed a marvelously designed world and this design was fashioned into an argument for a designer.

-Darwinian evolution, however, undermined the design argument by calling attention to both bad design in nature, and mechanisms by which design could arise without a designer. Over the next century, many would argue that Darwin had so weakened the argument for the existence of a creator God that atheist zoologist Richard Dawkins could write in the 1980 that “Darwin made it possible to be an intellectually fulfilled atheist.”

-Darwin’s biological work, however, didn’t touch upon the remarkably deep and intricate design of the physical universe. **Elegant mathematical laws** spoke quietly of a rational undercarriage to the universe. The **Big Bang** pointed to a mysterious and transcendent beginning to the universe. And the **anthropic principle** brought the ancient argument from design roaring back with a newly articulated vengeance. Was God the “fine-tuner” of the universe?

-Recent work on **multiple universes**, or multiverses, has weakened the anthropic argument by suggesting that there may be many different universes and some will appear designed for life. But critics point out that there is no evidence for these alternate realities, with some suggesting that the design of the physical universe is compelling evidence for the existence of God.” (15)

By now, one may be sure that an end to the debate of evolution versus creation is just in sight. But, then again, others may just as well be sure that there is another twist to the debate just around the corner.

**For Further Reading**

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Dawkins, R. The Blind Watchmaker: Why The Evidence of Evolution Reveal A Universe Without Design. New York: W.W. Norton & Co., 1986.

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1. Fiorenzo Facchini, “An Examination of Evolution and Creation,” L’Osservatore Roman, N. 4 (25 January 2006), 10.
2. Alister E. McGrath, Science & Religion, An Introduction, (Oxford, 1999), p. 25.
3. Ibid., p. 21.
4. Ibid., p. 22-23.
5. Ibid., p. 192.
6. Owen Gingerich, “Disrupting the Design Debate; Taking the ID Debate Our of Pundits’ Playbooks,” Science & Theology News, v. 6, no. 3 (November 2005), p. 27.
7. Fiorenzo Facchini.
8. Alister E. McGrath, p 189.
9. Ibid.
10. Alister E. McGrath, p. 193.
11. Ibid.
12. Fiorenzo Facchini.
13. Ibid.
14. John Dietzen, “Evolution Versus Independent Design,” The Catholic Telegraph, (26 August 2005), p. 6.
15. Karl Giberson, “Beyond Copernicus: Science’s Evolution of Religious Belief,” Science & Theology News, v. 6, no. 4.