

Sister Science Makes a Monkey Out of Herself - Evolution Revisited

By Jim Seghers

The December 16, 2000 issue of *American Catholic* featured an article titled "Creationism and the Catechism" with the subtitle "Observations of a Sister Scientist." Joan Acker, H.M, ironically a Humility of Mary sister, wrote the article. The good sister opens by lamenting the fact that the second edition of the [*Catechism of the Catholic Church*](#) "continues to treat early Genesis accounts in a Tridentine fundamentalist light, completely avoiding any references to modern biblical exegesis or evolution." The ideas presented in this article are deeply flawed on three counts: first, an inadequate understanding of science and its relationship to faith; secondly, a highly questionable knowledge of the evidence for and against evolution, and lastly, a false conception of the Catholic Faith.

Science.

Science is the field of study dedicated to the gathering and classification of observable facts in order to formulate general laws about the natural world. Science in its purest form seeks to discover why something in the world happens as it does. Curiosity, the desire to know, is the driving motivation. Thus the scientist makes observations, forms hypotheses, does experiments, and eventually develops theories and laws that explain why. Applied science, on the other hand, is motivated to discover what is useful. It uses science to make something better. Once the nature of science and faith are understood, it is immediately clear that there is no innate conflict between genuine faith and true science.

For one reason they function on two different levels. Faith is rooted in God's revelation that communicates realities that cannot be known otherwise, much less discovered or evaluated according to observable scientific principles. Science, in contrast, focuses on what is observable and replicable. Faith asks is a proposition true, that is, does it conform to the truths that Jesus handed to the Church through the apostles? Science asks does this conclusion seem to explain why something happens, that is, is it more probable than alternative explanations? Science has never demonstrated the absolute truth of anything. It arrives at probable conclusions and relative truth. Other evidence may increase or decrease its probability. Faith centers on absolute truth because its focus is on the divine being of Truth. Faith is rooted in realities that are not observable, whereas science is exclusively based on what is observable.

Consider the following illustration. Engineer Jose Asté Tonsmann has devoted over 20 years scientifically studying the image of the Virgin Mary on the rough maguey-fabric of Juan Diego's tilma. The fibers used by the Indians deteriorate after 20 years. No one can offer a scientific explanation why the tilma and its image has lasted almost 470 years. Scientists in the 18th century showed that it was impossible to paint such an image in a fabric of its texture. Subsequently, Richard Kuhn, the 1938 Nobel Prize winner in chemistry, determined that the image did not have natural, animal or mineral colorings. Given that there were no synthetic colorings in 1531, the image is inexplicable. In 1979, Philip Callahan and Jody B. Smith studied the image with infrared rays. They discovered to their surprise that there was no trace of paint, and that the fabric had not been treated with any kind of technique. Callahan and Smith also discovered that the image changes in color slightly according to the angle of viewing. This phenomenon is known as iridescence. It is a technique that cannot be reproduced with human hands. Employing a digital process used by satellites and space probes in transmitting visual information, Tonsmann magnified the iris of the Virgin's eyes 2,500 times. What he discovered was microscopically detailed pictures of at least 13 people.¹

Do these scientific findings "prove" that the Virgin Mary appeared to Juan Diego on December 9, 1531? No! Do they lend credibility to the belief that the Mother of God appeared to Juan Diego. Absolutely! The

¹ Zenit from *National Catholic Register*, "Science Sees What Mary Saw From Juan Diego's Tilma," January 28-February 3, 2001, p.2.

data leads to the conclusion that the reality of image of Mary on the tilma is scientifically inexplicable. This evidence makes the decision to believe in the miracle a rational choice. It doesn't "prove" it.

The capabilities of science are badly muddled by Sister Scientist. Consider the following statements. "Its [the Church's] failure to engage today's religious/scientific culture adequately is an embarrassment both rationally and spiritually. ... Are our bishops today scientifically equipped to help their flock understand how contemporary theology requires fresh expression in evolutionary terms?"² Catholic theology is the study of God and his relationship to the human race together with the consequences of that fundamental relationship. It is embedded in and dependent upon divine revelation not the scientific method.

Evolution.

There is little doubt that in the United States the subject of evolution is the most politically charged and emotionally polarizing scientific theory. At the extremes are those who consider evolution irreconcilable with faith and their equally determined opponents who believe that evolution demolishes the myth of God's existence. Both groups, of course, operate from erroneous assumptions.

Theories of evolution attempt to explain the origin of human life. Although the possibility of an evolutionary process goes back at least as far as St. Augustine, the modern preoccupation with evolution finds its beginning with the publication in 1859 of Charles Darwin's work *On The Origin of Species by Means of Natural Selection or the Preservation of Favored Races in the Struggle for Life*, usually abbreviated as *The Origin of Species*. Currently, there are four positions regarding evolution.

1. **Direct Creation** - God directly created a man and a woman without using an evolutionary process.
2. **Direct Creation** - Genesis teaches how and in what order God directly created the first man and woman.
3. **Theistic Evolution** - God formed the body of the first man and woman through an evolutionary process, but individually and directly created each human soul.
4. **Materialistic Evolution** - The material universe by itself produced an original form of life from which all living creatures evolved including humans.

A faithful Catholic may hold any of the first three positions and remain in alignment with the teachings of the Church. In his address to the Pontifical Academy of Sciences in October, 1996 Pope John Paul II reiterated the Church's teaching regarding evolution. "In his encyclical *Humani Generis* (1950), my predecessor Pius XII had already stated that there was no opposition between evolution and the doctrine of the faith about man and his vocation, on condition that one did not lose sight of several indisputable points. Pius XII stressed the essential point: If the human body takes its origin from pre-existing living matter, the spiritual soul is immediately created by God."

The second position of direct creation, namely, that the Bible teaches how and in what order God created, is often favored by Protestant Fundamentalists. However, it is not well grounded in Sacred Scripture in spite of its appeal to the Book of Genesis. The scientific explanation of how God created is irrelevant to the biblical accounts. Sacred Scripture simply does not teach science, as Pope Leo XIII elucidated in his 1893 encyclical *Providentissimus Deus*.

Materialistic Evolution is totally objectionable from an authentic Catholic perspective because it denies the essential role of God in the creation process, and it rejects the existence of a single man and a woman from whom the entire human race descended, which makes meaningless the concept of original sin and the need for the promised redeemer. Materialistic evolution is at its core a form of nature worship or

² Joan Acker, "Observations of a Sister Scientist: Creationism and the Catechism," *America*, December 16, 2000, pp. 6-7.

pantheism. The proponents of this philosophical materialism frequently masquerade their views as science. These pop scientists, among whom are Richard Dawkins and Carl Sagan, start from a very unscientific premise: there is no God. Clearly the driving force is ideology not scientific data.

Evolution is based on the premise that life started out in very simple forms that over hundreds of millions of years became more complex. Darwin recognized that if one species eventually led to another there would exist intermediate varieties of fossils of in between species. He admitted that the lack of evidence that supported intermediate varieties "is probably the gravest and most obvious of all the many objections which can be raised against my views."³ It is important to recognize that no scientist has ever observed evolution, nor has evolution ever been produced in a laboratory. This lack of evidence did not deter Darwin's conclusions because he was convinced that the missing intermediate links would be discovered in fossil records.

In 1978 Dr. David Raup, the curator of the Chicago Field Museum of Natural History and an expert on the fossil record wrote the following. "Well, we are now about 120 years after Darwin, and knowledge of the fossil record are greatly expanded...ironically, we have even fewer examples of evolutionary transition that we had in Darwin's time. By this I mean that some of the classic cases of Darwinian change in the fossil record, such as the evolution of the horse in North America, have had to be discarded or modified as the result of more detailed information."⁴ The fossil records do not show anything like a gradual evolution. The evidence shows that species replace earlier species. Dogs remain dogs, and humans remain humans. As a matter of record the fossil records do not compellingly document a single transition from one species to another. In short the missing link is still missing.

The two most famous figures in hominid paleontology today, Richard Leakey and Donald Johansen disagree over man's ancestry. Richard Lewontin, professor of zoology and genetics at Harvard, concludes: "We don't know anything about the ancestors of the human species. ... Despite the excited and optimistic claims that have been made by some paleontologists, no fossil hominid species can be established as our direct ancestor."⁵

Gerard J. Keane published *Creation Rediscovered* in 1991, which compiled many of the major criticisms of Darwin's theory of evolution delivered by some of the world's most respected scientists. One contributor was Dr. Maciej Giertych, head of the Genetics Department, Polish Academy of Sciences, Institute of Dendrology, Kornik. Dr. Giertych, one of the world's leading authorities on genetics, wrote in the book's forward: "The closer one looks at the evidence for evolution the less one finds of substance. In fact the theory keeps on postulating evidence, and failing to find it, moves on to other postulates (fossil missing links, natural selection of improved forms, positive mutations, molecular phylogenetic sequences, etc.). This is not science. A whole age of scientific endeavor was wasted searching for a phantom. It is time we stopped and looked at the facts. Natural sciences failed to supply any evidence for evolution."

In his 1996 book *Darwin's Black Box: The Biochemical Challenge to Evolution*, Michael Behe, professor of biochemistry at Lehigh University, acknowledged that for most of his life he accepted the standard arguments for evolution. However, he asserts that the scientific evidence of enormous cell complexity argues persuasively that biochemical machines must have been designed. They couldn't occur by random selection and Darwin's gradualistic paths. Using examples of vision, blood-clotting, and cellular transport Behe shows that the biochemical world comprises an arsenal of chemical machines, made up of finely calibrated, interdependent parts. It's revealing that the hysteria among evolutionists that followed the publication of Darwin's Black Box has resulted in personal attacks of Behe without grappling with his scientific data and conclusions.

³ *The Origin of Species*, 6th edition, 1962, New York: Collier Books, p. 462

⁴ Field Museum Bulletin of January 1979.

⁵ George Sim Johnson, "The Death of Darwinism," *Lay Witnesses*, Vol. 16, No. 7, June 1995, p. 15.

Dr. Paul C. Fox, M. D. describes a journey similar to Behe. He writes: "I was an agnostic, in large measure because years of indoctrination in the public schools and by the media had left me convinced that Darwin's theory of evolution was true beyond question ... My cozy and convenient world was shaken when I began to study biochemistry in the first year of med school. Exposed to the full intricacy of even the most 'primitive' bacterium, I began to have the uneasy feeling that all this complexity at such a fundamental level could not be the product of mere random events, even events over billions of years. This suspicion, as I began to look into the matter, ripened into the conviction that life originated by design rather than by chance. Design meant a Designer. And so began for me the long and convoluted search that led me first to Theism, then to Christianity, and in the end to Catholicism."⁶

These are not isolated examples of the scientific criticism of evolution. In *Beyond Neo-Darwinism* written in 1984, two American biologists, Careth Nelson and Ron Platnik asserted that Darwinism has been tested and found false. Michael Denton argued in his book, *Evolution: A Theory in Crisis in 1986*, that discoveries in molecular biology are at complete variance with Darwinism. The reality is that there exists a whole chorus of scientists challenging the theories of evolution.

It is not the aim of this essay to disprove the theory of evolution, but rather to call into question the naïve acceptance of evolution as scientifically established as exhibited by Sister Science. Amazingly, she states that although "today's scientific evidence for evolution is compelling" it is "subject to revision in its mechanism (the how), it [evolution] is a generally accurate account of the way life developed on earth."⁷ The whole point of evolution is to explain the "how" or "mechanism" of life. If it can be subject to revision it clearly cannot be scientifically established.

In October 1996 Pope John Paul II delivered a message to the Pontifical Academy of Sciences in which he discussed the theory of evolution. He referred to the "theories" of evolution because of "the diversity of explanations regarding the mechanism of evolution." Taking an objective analysis of the scientific data available, the Holy Father correctly pointed out that there is some evidence for evolution. However, he did not affirm that evolution is more probable than the alternative explanation, the immediate creation of the human race, which also has scientific evidence to support it.

Sister Science praises Pope John Paul II's statement that "evolution is more than just a hypothesis" without grasping its meaning. Evolution is more than a hypothesis. It is a theory, that is, a group of interrelated hypothesis, which are designed to explain a wide variety of observations. The validity of a theory depends on the factual evidence that supports it, not on the passion of its supporters.

Theology.

The good Sister's grasp of science in general and evolution in particular is faulty. However, her understanding of the Catholic faith is appalling. She employs put-down phrases like: "Tridentine fundamentalist light," and "creeping fundamentalism" to ridicule those who uphold Catholic doctrine. The reality is that conciliar definitions were formulated with great care and precision precisely because the Council Fathers intended its words to be taken literally. The Council of Trent, which she disparaged, is Ecumenical Council whose decrees are guarded by the gift of infallibility.

"The infallibility promised to the Church is also present in the body of bishops when, together with Peter's successor, they exercise the supreme Magisterium, above all in an Ecumenical Council. When the Church through its supreme Magisterium proposes a doctrine 'for belief as being divinely revealed,' and as the teaching of Christ, the definitions 'must be adhered to with the obedience of faith.'"⁸

⁶ Paul C. Fox, M.D. "Genes as Gods," *New Oxford Review*, September 1999, pp. 40-41.

⁷ Acker, "Observations of a Sister Scientist," p. 8.

⁸ [*Catechism of the Catholic Church*](#), # 891 citing [*Dei Verbum*](#) 10.2 and [*Lumen Gentium*](#) 25.2.

For Sister Science divine revelation as expressed in Sacred Scripture and Sacred Tradition and interpreted by the Church's Magisterium cease to be the indispensable means to know what we are to believe and how we are to behave. Indeed, the body of doctrine safeguarded from the time of the apostles is discounted as "yesterday's theology." In its place she would substitute "modern biblical exegesis" and "science." In this light the acid test for pastors becomes their knowledge of science and their acceptance of evolution together with the latest fads of biblical interpretation, not their understanding and living the faith Jesus handed on to the apostles and their successors.

Sister Science reveals little grasp of Church history when she asserts: "At present the magisterial authors [of the [Catechism of the Catholic Church](#)] seem to be shinning the light of faith only backward toward Tridentine interpretations of early Genesis, instead of aiming its beams ahead on discoveries made in scriptural exegesis and science over the subsequent 450 years." She doesn't go back far enough. No, the Church shines the light of faith 1,600 years past Trent all the way to Jesus and the apostles.

Included in "yesterday's theology" are "Man in Paradise," "the Fall" and "Original Sin and Its Consequences," which Sister Science considers "roadblocks to the truth that religious faith and the teaching of evolution can unquestionably coexist and even bring satisfying and enlightening theological perspectives."

In her ill-conceived assault on the account of the creation and fall of man in Genesis, Sister Science dismisses truths that have been defined by the Church matters of faith, that is, they are divinely revealed truths and must be believed.

1. Our first parents in Paradise sinned grievously through disobedience.
2. Through Original Sin our first parents lost sanctifying grace.
3. Adam's sin is transmitted to his posterity, by descent through natural generation.

Sister Science implies that the doctrine of Original Sin passed on by one man, Adam, finds its origin in "Augustine's interpretation of the fall in the fifth century." This is erroneous. Consider the following second, third, and fourth century Fathers who taught the same doctrine to say nothing of Augustine's contemporaries: St. Theophilus of Antioch (d. 185-191), St. Irenaeus (d. 202), Tertullian (197-212), and St. Hippolytus of Rome (224), Origen (244), St. Cyprian of Carthage (251/252), St. Methodius of Philippi (311), Aphraats the Persian Sage (343), St. Ephraim (373), St. Athanasius (d. 358), St. Cyril of Jerusalem (c. 350). Even more at fault is Sister's failure to recognize that the reality of Original Sin stemming from the sin of Adam is clearly expressed in the New Testament.

"Then as one man's trespass led to condemnation for all men, so one man's act of righteousness leads to acquittal and life for all men. For as by one man's disobedience many were made sinners, so by one man's obedience many will be made righteous (Rom 5:18-19). "For as by a man came death, by a man has come also the resurrection of the dead" (1 Cor 15:21). Because she rejects original sin, Sister Science diminishes the meaning of Jesus' passion and death. "His crucifixion was the form Christ's redeeming death took [not mankind from sin] when he surrendered himself in time to the free will of humans [not surrendering in obedient love to the Father]. Undoubtedly, these are passages that Sister Science would reinterpret (reject) in the light of her uncritical grasp of science and modern biblical scholarship.

The purpose of Sister Science's article is to promote a national catechism written from her defective "evolutionary perspective" in order to "purify religion from obsolete dogma." She would replace the certainty of Magisterial decrees with the shifting sands of probable scientific conclusions and the impoverished opinions of some modern biblical scholars. In her construct the name Peter means putty not rock. Sacred Scripture would no longer be viewed as a reliable witness, but the pious fairy tales of unsophisticated bygone ages. Theology would be reduced to the discussion and analysis of contemporary opinions and the study of human experiences. Religion and worship would degenerate into the glorification of the self.

The Catholic Church is not a democracy. The Pope is not a CEO. The bishops do not constitute the legislature, and theologians, exegetes and scientists are certainly not the Supreme Court. The role of Catholic educators is to elucidate the faith not deconstruct it. The Church's mission is to pass on what has been handed down, not what seems personally valid according to the latest craze of modern relativism. The humble saint and Doctor of the Church, Teresa of Avila, once suggested that her age would benefit from adding to the litanies the petition: "From sad faced saints and silly devotions, deliver us, O Lord." Perhaps a contemporary petition might also prove helpful: "From ill conceived science, awful theology and foolish ideas, deliver us, O Lord."