

ADDRESS AND CONTRIBUTED PAPERS

CREATIONISM AND EVOLUTION: SOME PERSPECTIVES

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All of us have heard about the famous trial at Dayton, Tennessee, of the young biology teacher who dared to say a few words about evolution in the high school. After a lapse of several decades, there is again considerable interest in the subject of evolution and creationism. There has been another flurry of legislative action, law suits, books, pamphlets, and radio and television presentations against evolution. A few years back, the state of California passed a law which required that creationism be taught in the public schools. One book publishing company had a very popular textbook in biology in which the section on human origins included a picture of the British paleontologist, Dr. Leakey. In a special edition of the textbook prepared for sale in California, the publishers replaced that picture with a picture of Michelangelo's Sistine Chapel fresco of the creation of man. The source of this bit of information said that the substitution of Adam for Leakey symbolizes the two sides of this controversy over the teaching of science in the public schools. (23) It is a movement, a dialogue, a controversy which has swept the country in the last several decades.

Creationism is essentially an expression of a religious point of view. My own involvement in religious activities and scientific research over many years has given me an opportunity to assess both sides of this question.¹ And I thought perhaps some of my ideas and interpretations might be of interest to some of you. I have no intention of saying anything that would insult or antagonize anyone. What I say I want to say as kindly as I can and hopefully with as much support and background as I can present.

In order to understand creationism, we need to look into the history and the background of this idea. A recent book on church history included this statement, "Many Christians today suffer from historical amnesia. The time between the apostles and their own day is one great blank. As a consequence of our ignorance concerning Christian history, we find believers vulnerable to the appeals of cultists. Some distortion of Christianity is often taken for the real thing". (20, p. 9)

In the middle of the 19th century there were four main streams of scientific and cultural development converging at the time of Charles Darwin. The first of these was the culmination of a long period of scientific research where discoveries during the preceding three or four centuries changed completely our conception of the world. We recall such names as Copernicus, Kepler, Galileo, Newton and Lyell. We know how they changed our ideas of astronomy and geology and physics. To all of these revelations, the church reacted vehemently, imprisoning people, punishing them, persecuting and torturing them. The second

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of the great trends was the development of our understanding of the ideas of evolution. Many people seem to credit Charles Darwin with inventing evolution. But the idea of evolution, the concept of change, goes back hundreds of years. Some even trace it back to the ancient Greeks. A recent book listed 24 published authors who conceived of the idea of evolution as applied to the origin of species before 1859, a century or so before the time of Darwin. (11, p. 133) The idea of evolution, we could almost say the necessity of evolution as an idea, was well known to the scientific and intellectual community. But there was lacking the kind of data and information which would help explain the mechanisms of evolution and therefore the idea was pretty much an abstraction.

The third trend emerging at this time in history was the result of the scholarly study of the Bible within the theological community. There were new approaches to the study of the Bible. Scholars were beginning to study the Bible as they would any historical document. This included close scrutiny of the manuscript text, the language, the contemporary culture, and so on. The name given to this general approach is Higher Criticism. Higher Criticism of the Bible had been developing over several hundred years and was giving people a whole new concept of what the Bible is and how it is to be interpreted. (22) The fourth trend was unique to the United States. In the middle of the 19th century we were struggling with slavery and were trying to decide whether we wanted to perpetuate the institution of slavery or not. Those who supported slavery found support in the Bible. Those who opposed slavery likewise took their cue from the Bible. The North won; the South lost. This had a significant impact on the subsequent religious development in America in the division of the United States into a northern and a southern theology of the Bible. Andrew White, in his classic *History of the Warfare of Science and Theology* says, "Nothing during the American struggle against the slave system did more to wean religious and God fearing men and women from the old interpretation of scripture than the use of it to justify slavery". (24, ii, p. 368)

Into this explosive mixture of ideas and trends came Darwin's book, *The Origin of Species*, on November 24, 1859. All of the 1,250 copies were sold out the first day. Darwin's book on evolution made plausible and possible that which before seemed to be a complete abstraction.

Darwinism was seen by some to be a threat to religion and the authority of the church. The reaction in England was immediate and rather intense. In the United States, the civil war delayed the public response for several decades, but inevitably it came. There was a big conference of evangelical church leaders in New York in 1873. During this "Evangelical Alliance" there were several sessions of papers and speeches on "Christianity and its antagonists". There were a number of papers on Darwinism and the effect that this would have on the church. And there was considerable debate, much of it unscheduled.

The participants at this assembly soon began to move into two different camps in terms of their reaction and response to the impact of Darwinism and everything that went with it. One group seemed to say that the discoveries of science are inevitable. We've faced this before and the church must recognize truth wherever it finds it. The church ought to concentrate its efforts on individuals, their personal life, the relationships of people. The most eloquent speaker for this faction was Henry Ward Beecher. Those who took that general point were thereafter referred to as liberals.

There were others at the conference who felt that they were giving up too much and that they shouldn't sacrifice their great Biblical truths. They felt that

evolution, and Darwinism specifically, was the enemy of the church and that loyal Christians should rise up and combat it. The chief spokesmen for this point of view were Jonathon Blanchard, president of Wheaton College, and Dwight L. Moody, popular evangelist of that day. Those who took this stance could be referred to as conservatives.

Now at this point in church history there were also several other very active movements. There was a wide-spread interest in prophecy. There were the millenarists who looked forward to an early, bodily return of Christ to the earth. There was the Sunday School movement in the 19th century. And there was the Revival movement. So a lot of things were happening. Many of the more conservative persons from various of these movements began gradually to separate themselves more and more from the main line church members and began to have their own conferences. One such conference, referred to as the Niagara Bible Conference, in 1890 adopted a series of 14 planks or statements which became their creed, their statement of faith. The *first* of these 14 planks in 1890 was a statement affirming the literal, word for word, inerrant inspiration and transcription of the Bible. (13)

This represented a significant but very subtle change in the views that people had held before about the Bible. It was not unusual up to this time to find many people who would say, 'yes, I believe the Bible. I believe it literally. I believe it word for word'. But they were describing the mechanism of their own faith. This new point of view seemed to ascribe some characters to the book itself. It seemed to affirm some new properties of the Bible quite separate from the point of view of anyone reading it.

In 1910 there appeared a publication, a paperback booklet called *The Fundamentals of the Faith*, that was followed by 11 more during a 5 year period. (2) These books, *The Fundamentals*, were sent free and unrequested to all protestant ministers in the United States. The project was financed by a couple of wealthy businessmen. The people who gathered around the ideas in these books began in 1920 to refer to themselves as "fundamentalists", while others began to call the movement "fundamentalism".

By this time the fundamentalists' platform had been reduced to about 4 or 5 major points, the first one of which was always an affirmation of the literal, inerrant form of the Bible. Inevitably, scientists who belonged to the fundamentalist movement began to be aware of some of the dilemmas of their situation. So in 1941 there was organized the American Scientific Affiliation. In order to belong to the ASA, a scientist had to commit himself to the following statement or creed (in part): "I believe that the Bible is uniquely inspired of God, is inerrant in the original writings, and that it gives me a true revelation of God. Since God is the Author of the book, as well as the Creator and Sustainer of the physical world about us, I believe there can be no discrepancy between biblical statements and scientific observations when both are properly interpreted. . . . I consider the present text of the Bible to give reliable evidence of the exact words of the original Scripture save where clear manuscript evidence shows that an error of transmission has occurred. This Bible I accept as my final authority in matters of faith and conduct". (1)

In 1963, another organization arose called the Creation Research Society. Members have to commit themselves to this statement: "1. The Bible is the written word of God, and because it is inspired throughout, all its assertions are historically and scientifically true in all the original autographs. To the student of nature, this means that the account of origins in Genesis is a factual presenta-

tion of simple historical truths. 2. All basic types of living things, including man, were made by direct acts of God during the Creation Week described in Genesis. Whatever biological changes have occurred since Creation Week have accomplished only changes within the original kind". (14, p. 608)

And so a scientist within the fundamentalist movement commits him/herself first of all to accept the literal interpretation of the Bible and then tries to fit all scientific data and discoveries into that system. Henry M. Morris, one of the chief spokesmen of the creationist movement today, says point blank, "There is not the slightest possibility that the facts of science can contradict the Bible". (16, p. 15)

Duane Gish, the creationists' chief authority on fossils, says that man and the dinosaurs were created together and lived together on the earth at the same time. How do we know this? The Bible says so, says Gish. "The Bible tells us that God made man and the dinosaurs (included among the beasts of the earth) on the 6th day of creation". (9, p. 13)

So firm is this belief in the literal inspiration of the whole Bible that Kenneth Taylor would say, "If the Bible is not true about creation, then what parts of scripture are true, and how can one decide which are true and which are not". (21, p. 7)

It is interesting to note that Darwin, speaking of himself during his seminary days (and he was in the seminary and planned at one time to become a minister), said, "I did not then in the least doubt the strict and literal truth of every word in the Bible". (5, i, p. '39)

It should be pointed out that the idea of verbal inspiration and literal inerrancy of the Bible is by no means universal among Christians or among church groups in general. It might be observed, for example, that the Bible was not available to the members of the church for nearly three quarters of the entire existence of the church. Until the invention of printing, only a few scholars in the monasteries and some priests had access to the Bible. There is no particular internal evidence, that is, scriptures within the Bible, that speaks to this point and supports this particular concept. In fact, just the opposite is true, in my judgement. The New Testament speaks many times about God revealing himself through a person, Jesus, and never through a printed book. In fact, the phrase "Word of God" as used in the Gospel of John (chapter 1) referred to Jesus, a living, walking, talking human being, and not to a written, printed word.

The New Testament records numerous confrontations between Jesus and the leaders of the early church who insisted on a literal emphasis of *their* scripture (the Old Testament) to the exclusion of all other sources of religious truth, even the Son of God himself. In the Sermon on the Mount (Matthew, chapter 5-7), Jesus, in reference to at least six different subjects, said, "You have heard that it was said of old. . . . but I say to you . . ." On another occasion, Jesus was confronting the fundamentalists of his day, when he told them bluntly, "You search the scriptures, for you believe *they* give you eternal life, and the scriptures point to me. Yet you won't come to me so that I can give you this life eternal". (John 5:39, LB)

The first crisis to hit the young church was an argument over the literal authority of the Old Testament. Dozens of scriptures in the Old Testament stated clearly and unequivocally that God expected all males to be circumcised. Yet Christian preachers like Paul and Barnabus did not feel that they should lay this burden on non-Jews who wanted to become Christians. But the fundamentalists among them insisted that "the Gentiles must be circumcised and required to obey the law of Moses" (Acts 15:5, NIV). After long debate, the delegates to this first church

council meeting voted unanimously *not* to continue to promote this commandment from the Old Testament. This vote had the full approval of the Holy Spirit, if we are to believe the Bible on this account (Acts, chapter 15).

If the Bible is literally and absolutely true, then it is literally and absolutely true that the church, not single, isolated individuals, but the whole church, has the authority, indeed the responsibility, to determine what parts of the Old Testament have special relevance to the contemporary situation and what parts of the Old Testament should be discarded.

The Science of the Creationists

Creationism is by no means a uniform, monolithic kind of position. There is considerable diversity among those who call themselves creationists. For example, when it comes to estimating the age of the earth, some early Biblical scholars estimated that the earth was about 6,000 years old. Bishop James Ussher dated creation in the year 4004 B.C. Melancthon, a contemporary of Luther, dated it in 3963 B.C. John Lightfoot, Vice-chancellor of the University of Cambridge, said that man was created by the Trinity on October 23, 4004 B.C., at nine o'clock in the morning. (24, i, p.9) Most modern creationists hold to a date about 10,000 years ago, apparently in direct contradiction to the arithmetic of the Bible. Kenneth Taylor maintains that "the Bible permits millions of years as easily as thousands, and is not helpful in deciding this question as to when Adam was created". (21, p.31)

Part of the problem of dating the creation revolves around the concept of the "days" of the creation narrative. Some creationists insist on a literal, 24 hour day. A Jehovah's Witness publication says, "each creative day was at least 7,000 years in length". (3, p.7) Taylor says again, ". . . each day in Genesis was millions of years duration. . . . Man is perhaps up to a million years old. So we are talking about days 100,000,000 years long." (21, p. 49) And Harry Rimmer asks, "Are the Days of Genesis literal days of twenty four hours each, or are they periods of time? To that question we can only reply, 'We do not know' and then set forth the evidence that shows also why we *cannot know*". (19, p.12)

So, take your choice!

One of the points that creationists have emphasized in their discussions is the fact that in rocks older than the Cambrian Period we do not find any fossils. They would date the beginning of creation with the Cambrian Period, but with a much shortened time scale. But in the last three or four decades we have found fossils in pre-Cambrian rocks, some as old as 3.5 billion years. (6, p. 41-50) Hundreds of fossils of microorganisms of many sorts, both prokaryotic and eukaryotic, have been found. In spite of that, creationists have maintained until just recently that this is not true. John N. Moore said in 1970 that ". . . not a single indisputable fossil prior to the Cambrian Period has been found". (15, p.6) And Gish said almost the same thing in 1972, ". . . not a single indisputable fossil has ever been found in the Precambrian rocks". (23, p. 728) However, by 1978 Gish was willing to say, "Not a single, indisputable metazoan fossil has ever been found in Precambrian rocks". (10, p.62)

Original Creation of Species

Another observation on the quality of the creationists' science has to do with their concept of the "species" and just what really was created. Due chiefly to the work of Linnaeus, each species of plant and animal was conceived as created originally in its present form and had persisted without change from the beginning. (8, p.295) As Darwin put it in an essay, ". . . until recently the great majority

of naturalists believed that species were immutable productions and had been separately created". (4, p.v)

This might have been easy to believe when there were only a few thousand species. Linnaeus described some over 4,000 species himself during his lifetime and at the end of his taxonomic career he was beginning to raise questions as to whether all of those species had been created in that exact form. But he didn't dare speak out on that subject. (18) But with hundreds of thousands of species, or a million species, and some say as many as ten million species of plants and animals, it becomes very difficult to conceive of all of these species having been created at one time and persisting unchanged since that time.

Creationists gradually conceded that the original creation was some level of higher category, above the species level, which then produced variations, even closely related species. Morris said that ". . . the creation model . . . postulates that all the *basic kinds* of plants and animals were specially created and did not evolve from other kinds at all . . . the term kind is used to denote the originally created entity, within which variation could take place . . . the 'family' (in the Linnaean sense) is a good approximation [of the basic kind]." (17, p.29, emphasis added)

So, what was created according to Morris, was a series of primordial families that eventually diversified to form a variety of genera and countless species. If this is true, then we might consider that all of the orchids, belonging to the family Orchidaceae (about 15,000 species) are all descended from the first original orchid "kind" created in the beginning. This sounds very much like "descent with modification" (Darwin's words).

Gish follows this same use of the "basic kind" as the original created entity, including "all the variants which have been derived from a single stock". (10, p.34) He says that mammals represent a "basic kind". This is an entire class. But then he says that lemurs, monkeys, apes and men are the "basic kinds" (these are families). In the very next sentence he insists that gibbons, orangutans, chimpanzees and gorillas are each different basic kinds (these are genera). Among the invertebrates Gish lists protozoa, sponges, jellyfish, worms, snails, trilobites, lobsters and bees as "different kinds". Remember, these are the originally created entities that have produced a great variety of modern descendents, all "derived from a single stock" (Gish's own words).

Take worms, for example. The original primordial worm ancestor has produced such a variety of modern descendents that zoologists have classified them into 16 different phylums, including Mesozoa, Platyhelminthes, Rhyncocoela, Nematoda, Nematomorpha, Rotifera, Gastrotricha, Kinorhyncha, Acanthocephala, Annelida, Echiurida, Sipunculida, Priapulioidea, Phoronida, Pogonophora, and Hemichordata. This includes the development of acoelomate, pseudocoelomate and eucoelomate descendents from the original "kind" of worm. There is also included in this geneological sequence both protostomate and deuterostomate forms.

Either Gish did not mean what he said, or he doesn't know what he is talking about. The kindest thing one can say here is that Gish displays extensive unfamiliarity with invertebrate taxonomy.

Creationism as a Science

I have presented creationism as an outgrowth of a minority religious viewpoint rather than a scientific hypothesis. Even the most avid promoters admit that creationism is not a scientific study.

Taylor writes that ". . . the creationist [does not come] to his conclusion

from evidence acceptable under the usual laws of scientific proof". (21, p.10) And Gish says in his book, "We do not know how the Creator created, what processes he used, for He used processes which are not now operating anywhere in the natural universe . . . We cannot discover by scientific investigations anything about the creative processes used by the Creator". (10, p.40)

Henry Morris, the head of the Institute for Creation Research, and perhaps the chief spokesman for the creationism movement, says, "Creation cannot be proved. Creation is not now taking place, so far as can be observed. Therefore, it was accomplished sometime in the past, *if at all*, and thus is inaccessible to the scientific method. It is impossible to devise a scientific experiment to describe the creative process, or even to ascertain whether such a process can take place. The Creator does not create at the whim of a scientist". (16, p.5, emphasis added)

Yet these writers refer to their proposition as "scientific creationism", and this impresses lots of people. They ask state legislators and judges to mandate that creationism should be included in science courses in our schools. And legislators and judges often fear to do otherwise.

Many people appear confused and uncertain because we refer to the "theory" of evolution. To the average person, a theory denotes something very tentative, not grounded in fact, not proved. Most biologists would regard evolution as an established fact, while the various theories are proposed explanations of how the process took place.

President Reagan, during the campaign in 1980, fell into this trap when he said, "Well, it is a theory, a scientific theory only, and it has in recent years been challenged in the world of science and is not yet believed in the scientific community to be as infallible as it once was believed". (6, p.28) He no doubt picked up a lot of votes when he made this statement before a fundamentalist audience in Dallas, Texas.

Creationists talk often of a "creation model". But most of the creationist literature consists of arguments against and criticism of the data, evidence and interpretation of data presented in evolution literature. If one removes the anti-evolution portions from the creationists' books, there isn't much left.

A model in this sense would be a description, as far as is known, of the events and sequences of events during and since the creation. It is what one might have observed and recorded with a hidden camera. There never has been much of a creation model developed along these lines.

Creationists delight to use words which attribute the most outlandish and ridiculous positions or expressions to their opponents, the evolutionists. Thus, a fundamentalist preacher in Maryland said recently, "The Lord is our Creator. He is our maker, and we should pay attention to what he says. He knows we need to operate. Someone came to me and said, 'I heard you believe God created the world in seven days, each twenty four hours long. Is that right?' I said, 'No, that is not true. I believe he did it in six twenty-four hour days, and rested on the seventh. I believe in a God who has power.' The Bible clearly teaches that God made the heaven and the earth in six days. The morning and the evening were the first day, and when he came down to the seventh day, he rested. The liberals believe in a powerless God, who cannot do anything. They say he can't save a soul, can't heal anybody, can't create a world, can't take you to heaven, and that he doesn't even have a heaven. Their God doesn't have any power. It takes him a billion years just to get a frog. Then another million years to get a monkey, and another million to get a liberal, and they still have the monkey. These pseudo-scientists sit around and try to explain how, through some kind of houdinism, why a head of cabbage didn't develop a brain like a man's head.

That is the kind of stuff they come up with. They would say, well, a head of cabbage ought to have as much smarts as a man. The sad thing is, they try to pawn this off on our little boys and girls. You have to be a stooge to believe that. You need special training". (7)

Even Henry Morris challenges evolutionists to discover ". . . what is the directing program that instructs a population of worms to develop themselves into a population of, say, crocodiles?" (17, p.21)

There are no scientific arguments against creationism because it is a religious belief, held by those whose primary faith commitment is the acceptance of the Bible as the verbally inspired, inerrant, direct Word of God.

There can be no religious arguments against evolution because science is based on observable, repeatable and testable empirical data. It does not depend on revelation.

Revelation is always current and contemporary; it is always new and exciting. When we attempt to memorialize the revelation, we inhibit further spiritual growth and development and force other persons into an arbitrary and sterile relationship to that revelation. In the so-called "transfiguration experience" of Peter, James and John on the mountaintop, the disciples wanted to create three monuments, one to Moses, one to Elijah, and one to Jesus, honoring Him as one of the three great leaders of their people. A voice seemed to say to the disciples: don't do it! "This is my beloved son; listen to him". (Mark 9:2-7) Don't build these monuments. Jesus is with you now; listen to him now!

In the play, *Inherit the Wind*, which dramatized the famous Scopes trial in Tennessee in 1925, the two attorneys, Brady and Drummond (representing William Jennings Bryan and Clarence Darrow) meet in a private, intimate setting. "We were good friends once", said Brady. "I was always glad for your support. What happened between us? There used to be a mutuality of understanding and admiration. Why is it, my old friend, that you have moved so far away from me?" Drummond replies slowly, "All motion is relative. Perhaps it is you who have moved away—by standing still." (12, p.60)

We can never go back!

We can never go back before Darwin, when nobody ever heard of natural selection, and gene mutation, and ecology. We can never go back to the geology before Lyell, or the physics before Newton, or the astronomy before Copernicus.

We cannot stand still, either in our religion or our science. We can only try to find new ways of living out our love for God and our fellowmen. We can only continue to learn more about our world and the way it works.

We can never go back!

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