Christians in Science

A definition of science is a slippery thing. One suggestion is: Science is whatever a scientist does when he's at work. But nowadays, even that gets qualified: Science is whatever a scientist *who's not a creationist* does when he's at work. In academic and scientific circles today, someone who is a creationist is, by definition, not a scientist--regardless what credentials may somehow have been obtained. A person who holds to biblical origins is stereotyped as ignorant and superstitious, incapable of carrying out the discipline of science. This intolerance insists that only those who hold to evolution as the explanation of origins are able to do science, that only they should be allowed access to funding and to the privilege of faculty positions, and that only they should be permitted to publish results of their work in science journals. Of course, this is sheer bigotry. But, sadly, the sentiment is prevalent in the West. So we offer this discussion of Christians in science (all of them creationists) to counter the prejudice. We'll argue that Christians not only do their scientific work competently, they fulfill the ultimate goal of science as no unbeliever is able to do.

First, however, it is necessary to dispel the belief that evolution is inherently scientific. Protests notwithstanding, evolution certainly is not science. What one believes about origins, whether it's secular-based or Bible-based, is just that, a *belief*. And beliefs derive from one's underlying religion. Evolution is human speculation, based on human authority, whereas creation derives from God-given revelation, and rests on the authority of the transcendent God of Israel. One's preference for evolution or creation depends on what the underlying religion is. (We argue

elsewhere on this website that everyone, including atheists, are intrinsically and necessarily religious--it's part of being human.) So to say that evolution is science and creation is not, and then to act on that idea, making policy, etc, is to discriminate on the basis of religion.

Moreover, aside from the use of technological methods and scientific jargon, at its core evolution is hypothetical at best. Terms used routinely such as primitive, transitional, natural selection, convergence, and others, have no real objective correspondence to anything observed in nature. They are mental constructs. They are only imagined to be real. And, there are the problems: How did nature alone come up with *shape*? How can science explain the shape of anything? Where is the information that determines a thing's shape? Why is there information at all? Why should common ancestry be the only allowed explanation of biological similarities, when common design is no less adequate? And how can evolutionary science explain what is now known about cell biology and genetics? Discoveries the past 10 to 20 years showing the incomprehensible complexity of the simplest cell, the known inability of mutations and natural selection to explain all that evolution demands, and the utter inability to account for the origin of life -- all these problems (and more) reveal that evolution simply does not describe reality as it's observed. It is instead speculation. Evolutionary scientists are guessing at what happened; it's a huge mental construct. It's not science.

Similarly, it is necessary to dispel the belief that creation is inherently superstitious. Creation by an eternally-existent Creator is the only rational explanation for the origin of

anything. Christian apologists have long ago shown the necessity of creation to explain existence. The Bible's creation and subsequent flood narratives, moreover, can be confirmed by scientific observation: the polonium radiohalos in rocks and the bedding features of stratified rock everywhere on earth's surface, for example, are ample testimony. These and countless other evidences uncovered by creationist scientists serve to uphold the validity, the reasonableness, of the Bible's creation narratives. Furthermore, only creation by a good God and the subsequent intrusion of evil accounts for the presence throughout human history of good and evil. It alone accounts for morality, for conscience, and for human dignity and worth. Creation also harmonizes perfectly with the revelation of a good God. Slow, cruel, wasteful evolutionary mechanisms with death and suffering for eons, denies God's goodness and so must be regarded as heresy. All pagan creation myths were based on struggle, often cosmic struggles; in contrast is the Bible's narrative in which God created with skill and ease by His authority, power and wisdom. Creation alone accounts for the order that exists everywhere in the cosmos. It explains beauty, design, will, consciousness, thought, indeed, so many things about the world we live in. Creation has enormous explanatory power. Such is not the stuff of superstition!

One more preliminary matter: the authority of the Bible. The Bible is unique in that it reveals that which is otherwise unknowable and it is self-attesting to assure readers that its content is trustworthy. In the Bible, God, who alone knows the future, predicts what will come in the course of history, and history has shown that those prophecies were true. The Book of Daniel for example, predicts to the year when Christ would be

crucified. Daniel contains minutely detailed prophecies regarding the course of secular history during the era of the Seleucids and the Ptolemies. The Book of Isaiah predicts many things about Christ that were astonishingly fulfilled when Christ came. Other messianic prophecies and their documented fulfillment in the Gospel narratives attest to the supernatural origin of the Bible. It is no mere leap of faith to trust the Bible. For God, who is just, to say that He will judge all humanity on the basis of our response to His Word means that the Word is sufficiently credible in itself that we can be held accountable for our attitude toward it.

Busting Myths is a book recently published (2015) by Creation Book Publishers, edited by Jonathan Sarfati and Gary Bates. It contains the testimonies of thirty Christian scientists, all with terminal degrees from secular academic centers and who are active in research and teaching. These men and women are working in the fields of physics, astronomy, biology, chemistry, geology, engineering and genetics. Most of them had published articles (one of them had published more than 60 papers!) in secular scientific journals, and many of them had won awards for their research or scientific contributions; the scientists included in this book are professionally accomplished. The book was published to "bust the myth" that scientists cannot competently practice science if they are creationists. It's an easy read and it's informative; the following discussion shows that it certainly fulfills its intended purpose, and we enthusiastically refer readers to it.

All the scientists interviewed in the book testify that they believe the Bible and that their belief in the Bible in no way interferes

with their work. Most go further and say that in their work evolution plays no part whatsoever; it's something to be believed in academia, but it has no role in industrial science, it doesn't advance science in any way. It has no role in what the scientists interviewed term "operational science" (science based on experiments and observations). In other words, as one of the interviewee's comments, science has limits: it can study and draw valid conclusions from that which is observable, but what happened in the distant past is historical, not scientific, investigation, and so is beyond the bounds of science.

Some came to Christ and became creationists after they were already advanced in their scientific careers, others were already Christians when they went into science. Many of those interviewed said that earlier in their lives or careers they had believed in evolution, but they eventually realized its inadequacies or fallacies and chose instead to believe the biblical account of origins. More than one of the scientists interviewed said that, in their view, evolution failed to explain existence. Many emphasized that in their work they see evidence of design in nature and that giving glory to God as Creator was reasonable. Not just design, but complexity of design, was everywhere in evidence, and evolutionary explanations were simply implausible (one used the term, "ridiculous"). Some of these scientists also said they saw physical laws at work in nature, which they thought could only be accounted for by a wise Creator. One scientist, who made an important breakthrough discovery despite the opposition of others in his field, testified that his belief in God gave him the confidence that the natural world was orderly, not based on "chance," and that assumption led him to persist in his work. Something else

one scientist commented on is purpose: purpose is evident everywhere in nature, and that can only be because a purposeful God made his world that way. Another testified that he was drawn closer to God by studying His handiwork. In the view of several of the scientists in the book, evolution was so completely unrealistic that it simply had to be "believed," in other words, it was like a religion, a "faith." One scientist interviewed said his reason for doing research was to benefit patients, a motive that derived from wanting to follow Christ.

One of those highlighted in the book complains that theologians in the Church ignore the work of creation scientists. It is strange indeed that fellow Christians doing careful scientific work confirming the biblical narrative are assiduously ignored by modern compromising theologians who prefer the deep-time and evolutionary notions of anti-theistic scientists.

Of great importance is that fact that several of the scientists included in the book said that it was their belief in the Bible that enabled them better to understand the physical world. For example, geneticist Robert Carter explains that the "population bottleneck" that geneticists have observed studying the history of mitochondrial DNA, must be due to the Bible's account of the Genesis Flood. Unbeliever scientists[1] fail to provide an adequate reason for this phenomenon. The results of his studies of mitochondrial DNA in several species not only make sense in view of the biblical narrative, they confirm it. Another geneticist

[1] Unbeliever scientists are commonly referred to as "secular scientists." However, for most people "secular" implies some kind of impartiality, which is definitely not the case concerning origins. As discussed elsewhere on this website, most "secular" or "unbeliever" scientists can be identified as pantheists.

included in the book is John Sanford, who helped invent the apparatus that has made transgenic crops agriculturally possible. He states emphatically that the entropy he observes in genomes is best explained by the Fall that occurred in the opening pages of the Bible. In fact, he points out, genetic entropy must mean that deep time and popular evolutionary scenarios are falsified. Life cannot be as old as evolutionist scientists allege, or it would have long ago become extinct.

Another scientist, geologist Tas Walker, similarly states that the Bible better accounts for the physical world he studies than evolution's stories. In his work with coal, he finds boulders and other rock layers embedded in coal seams, which he states is clear evidence of flood deposition. What he finds is consistent with the Genesis Flood narrative and contrary to unbelievers' explanation for the formation of coal. Other geologists appearing in the book confirm that catastrophic geology on a vast scale, such as the Bible describes, is what is actually found in nature. So the Bible not only explains what scientists find, the observations confirm the validity of the biblical narratives.

Geneticist Dudley Eirich comments that scientists should be drawing upon Scripture in their work. For example, Genesis states that humans have been given dominion over nature, so cloning of plants, animals and microbes is not immoral. But humans were not given dominion over other humans. Therefore human cloning should be off-limits. Controls on what scientists attempt to do should derive from our Creator; not everything technologically feasible necessarily should be done.

In an Appendix to *Busting Myths*, one of the editors, Dr. Sarfati,

discusses the role Christianity had in the founding of modern science. He points out that as a consequence of the Protestant Reformation in Europe, exegetes began interpreting the Scriptures in a careful, detailed manner, drawing conclusions from what was observed in the text and then organizing the matter systematically. And that methodology prompted naturalists to use the same hermeneutic with God's natural revelation, namely study it empirically in careful detail and then interpret and organize their observations into a system. Thus the methodology of modern science derives in part from a prior recognition of the authority of the Bible. Dan Graves, in his *Scientists of Faith* (Kregel, 1996), presents the biographies of certain Christian scientists in history, going back even before the Reformation. Graves similarly shows that the emergence of modern science depended on prior Christian beliefs. Atheistic scientists probably won't accept this, but science as we know it is based on or stems from God's revelation. The assumptions scientists hold (mostly unconsciously) as the basis for doing science depend on biblical truths: Because creation derives from a purposeful God, it is orderly, constant or uniform in its processes, and there are cause and effect relationships in nature. God had built into His creation certain laws by which nature was maintained, and scientists could discover and study those laws, and even use them for the benefit of mankind.

Many Christian scientists other than those included in *Busting Myths* give similar testimony that the Scriptures deeply influence their work. Let's examine the life and work of two of these. First is Matthew Maury. For centuries, sailors were aware that there were currents in the seas. But no maps depicting them were ever made so it wasn't possible to take advantage of them.

Maury was a Christian. He loved and believed the Scriptures. One particular verse in the Psalms that mentioned "the paths of the seas" fascinated him (Psalm 8:8). He understood that the Bible, sourced in God, was inerrant. That means it must be accurate. So if the Bible comments on the "paths of the seas," they must be there. And he determined to find them. In 1842 he was made superintendent of the Depot of Charts & Instruments of the Navy Department in Washington, where thousands of ships' logbooks were deposited. Maury systematically and painstakingly studied these logs, observing how ships' courses were deflected due to winds and surface currents. He analyzed and organized thousands of observations, and then published the results in 1847, the first chart of the surface currents of the North Atlantic. He also collected data from sea-going ships on a real-time basis. In 1855 he published *The Physical Geography of the Sea*, the first book on oceanography. Immediately, sailors began to use his charts to shorten the time required for sea passages. Ocean travel was revolutionized. Today, these "paths of the seas" are known to flow great distances not only on the surface of the seas but deep in the oceans as well (like submarine rivers). A global network of these permanent currents is driven by winds, by the Coriolis effect, and by other forces. Maury's study of the seas also led him to believe there was a Northwest Passage between the North Atlantic and the Pacific, and with the recent melting of Northern ice, ships are attempting to sail it. Scientists at the time criticized Maury because of his piety, which they arrogantly thought should not be part of science. But Maury did exceedingly careful empirical work on the assumption that the Bible was scientifically accurate, and the outcome both confirmed the assumption and benefited civilization.

A second example of a Christian scientist whose work was profoundly affected by the Bible is Russell Humphreys. A physicist, Humphreys made several notable contributions while working at Sandia National Laboratories in New Mexico in the decades from 1979 to 2001. During this period, he also developed remarkable theories of the earth's origins by taking key Bible passages at face value. He noticed, for example, that there are 17 places in the Bible that mention how God stretched out the heavens, so he concluded that the universe has been expanding. Unbeliever cosmologists agree, but they usually also assume that the matter in the universe is unbounded and has no center. Humphreys instead adopted the assumption based on the Bible that matter is bounded and therefore has a center. By inserting an expanding universe whose matter is bounded into Einstein's equations of relativity, Humphreys discovered that there was a reasonable explanation for how light from distant stars could arrive very quickly in terms of time on earth. In his 1994 book, *Starlight and Time*, Humphreys explains how the stars can be so distant yet the cosmos is young, as the Bible indicates. Other results of Humphreys' work included a simple explanation for the microwave background radiation that is usually cited as proof of the Big Bang. Dr. Humphreys also developed a theory for the magnetic fields of the earth and other planets. His starting point was the texts of Genesis 1 and particularly 2 Peter 3:5-6 that suggested to him that all the matter in the universe was originally water. Based on his theory, he made predictions that were later verified by interplanetary probes. Not unexpectedly, unbeliever scientists have criticized Humphreys' work, but he has answered his critics (see, for example, www.trueorigin.org/ca_rh_03.php).

We'd be remiss in our discussion of Christian scientists if we failed to discuss the life and work of awe-inspiring Michael Faraday. Son of a blacksmith, the young Faraday essentially had to educate himself. This included attending lectures by the famous chemist, Humphrey Davy, which inspired him to pursue a career in science. When he was 18 years old, he read and committed himself to living by the recommendations of the renowned hymn-writer, Isaac Watts, including the importance of observing facts, keeping a notebook, and not quickly forming grand theories from too few observations. Most of his life, Faraday was a member of a small Presbyterian-type assembly, and in that assembly he taught Scripture and gave pastoral care. He accepted the Bible as authoritative and placed no confidence in reason or human ideas. Likewise in his work, authority came from facts that derived from experimental observations, and not from human speculation. He described his work as reading what the Creator had built into nature, and he found it delightful to do because of his love and devotion to God. He was a humble person, matching his piety, and he had a great passion for science. He particularly found fulfilling his attempt to study nature's laws, which from the Bible he understood had come from God. That's why, although he began his work in chemistry, he was always preoccupied with the study of electricity, magnetism and light. His understanding that creation was directly by God's Word gave him the insight that the forces (or energy) that acted on matter were always conserved, and they also were "consistent." His belief that God had made the natural world to run efficiently and economically inspired the thought that these different forces also were unified. These novel ideas served as the foundation for what physicists today term force

fields, or field theory. Faraday also sensed an obligation to teach others what God had wrought in His creation, so that all would glorify God, yet also expecting that if scientific knowledge were publicly known it would in some way benefit humanity. These are the reasons he often gave public lectures explaining his (and others') discoveries.

Faraday was one of the very greatest of scientists of all time. A litany of all he accomplished and the awards and honors that deservingly accrued to him are easily found in many sources, including the Wikipedia entry on the internet. To mention just one achievement, he invented electric dynamos, which we use today to generate electricity. But for a delightful and enlightening discussion of how Faraday's work and his faith were integrated, we refer readers to Ian H. Hutchinson's outstanding if rather long essay, "The Genius and Faith of Faraday and Maxwell," which is easily found on the internet. Hutchinson argues that Faraday's faith was no mere "idiosyncrasy," it wasn't something incidental to the work of an otherwise great mind; to the contrary, Faraday's faith was at the center of his work, it controlled his work, it stimulated and gave meaning to it. Faraday believed that science "conveys the gifts of God to man."

And finally a medical doctor adds the following to our discussion: "When I joined a group practice years ago I made it clear from the outset that I was a Christian and a creationist. That meant that I had a testimony to maintain--not just my own, but that of Christ. My words and actions reflected on my Savior. So I had to be authentic. I quickly realized that I was not as astute at making diagnoses as some of the other physicians in

the group. To compensate, I resolved that I would at all times be the most knowledgeable doc in the group. I kept up to date in all medical matters, did research and published it, taught, and wrote books -- all with the intent of being the very best I could be for the sake of Christ. Excellence in all I did became an obsession because my beliefs, my Bible, my Jesus were on display. My work caring for patients was for the glory of Christ."

What do we learn from the foregoing? First, we see that creationist scientists are as capable of doing science as any other (unbeliever) scientist. Perhaps more so if they are moved by their testimony and devotion to Christ to pursue excellence in their work. Second, we see that biblical beliefs introduce a new awareness of the world we inhabit, a different framework or system of organizing facts that corresponds more accurately to reality. Assuming the truth of Scripture because it derives from God, they find that the Bible supplies a model by which reasonably to interpret that which is observable in the natural world. And because God upholds His creation thru His providence, every facet of the natural world therefore in some way points to Him. Third, we see that Christian scientists have a motive for wanting to help people, to see people benefit from their research, the same motive of love for others that impelled Christ to heal and to bless. And finally and perhaps most importantly, we see that Christian scientists are specially privileged to be able to worship the God who brought all of the cosmos, all of nature, into being. He is majestic, glorious in His Being, a skilled Workman evidenced in every detail of His handiwork, and science is a unique way of seeing and delighting in His perfections.