

Lutheran Mission Matters



Volume XXIV, No. 3 (Issue 49) November 2016

Science vs. Religion or Religion vs. Religion?

David O. Berger

Abstract: Metaphysical assumptions underlying science vary through time and by culture. Perceived conflicts between “modern” science and Scripture are most likely to involve theories of origins of life and the universe. Basic to the issues at hand is understanding that certain underlying assumptions and philosophies, such as uniformitarianism and materialism, are not science but belief systems. Christians do well to draw attention to the ever-changing paradigms of origins, contrast them with the unchanging Word found in Scripture, and let the Spirit do the “heavy lifting” of creating faith.

Does the perception of a conflict between modern science and God’s Word as recorded in the Scriptures present difficulties for evangelism and mission work? The short answer is, “It can, but it need not.” A helpful first step is to define at least two key terms: “perception” and “modern science.”

Perception implies a perceiver, whose understanding of the world is born of a mixture of knowledge and often hidden or unacknowledged assumptions. Increasing both knowledge and awareness of underlying assumptions in regard to theology (Scripture) and science should help to minimize perceived conflicts and to see both as gifts of God—complementary, not conflicting.

A definition of science is essential and may be addressed in several ways: What do scientists do? What is science for? Why do people engage in scientific pursuits? A short list would include the following: (1) observe, measure, and analyze the properties and interactions of matter and of physical phenomena; (2) use the results to (a) predict events and trends, e.g., the location of a spacecraft two years after launch, tomorrow’s or next week’s weather; (b) develop useful products, e.g., steam engine, vaccines to prevent disease, solar panels to generate electricity, communication devices. To be sure, we must not ignore the human drive to acquire knowledge for the sake of knowledge, that is, to understand the natural world regardless of the immediate usefulness of that knowledge.



David O. Berger, professor emeritus, Concordia Seminary, maintains an abiding interest in the relationship of science and Scripture. Previous to serving as director of library services at the seminary, he was on the faculties of Concordia College and High School, Portland, Oregon, and Concordia University Wisconsin. bergerd@csl.edu

If we date modern science (N.B. “modern” implies that science changes through time) from roughly the late Middle Ages or early Renaissance in the West, its initial fundamental assumptions were that the universe was created by a Supreme Intelligence (God) and that the laws that govern its operations are intelligible, discoverable, and useable by man, a rational being and the crown of His creation. The assumptions related to creation by God gradually lost ground with the approach of the so-called Enlightenment, as reason became increasingly unmoored from its Source. In the last half of the nineteenth century—the “age of Darwin”—reason had not only become unmoored, but it was eventually assumed to have evolved along with the brain through purely material or physical processes. Yet, scientists who held—and still hold—this view continued to operate with the assumption that the human mind, a mass of matter formed by material processes, can stand apart from its material origin and substance and examine physical phenomena, understand them, and make use of the findings (more on materialism below).

All this is “broad brush” history, and significant exceptions to Enlightenment thinking persisted in scientists who remained rooted in their scriptural Christian faith: Faraday, Maxwell, Mendel, Babbage, Carver, Millikan, to mention a few prominent names from the post-Enlightenment and the age of Darwin.

Origins: Science of a Different Kind

Note that our informal definition of science does *not* include conjectures about the origin of life and the universe, commonly known as the theory of evolution or origins science. While one can make inferences about the material world in the past based on observations of material phenomena in the present, they remain just that: inferences, in the realm of conjecture. To be sure, some inferences are more reliable than others. For example, paleontologists might learn about the dietary habits of earlier inhabitants of a region by examining cave wall paintings or the remains of animal parts near what appear to be cooking facilities. They might arrive at defensible conjectures about sacrificial customs from engravings on or near what appear to be altars. Yet, these will remain conjectures, albeit conjectures that might approach reasonable certainty.

Historical science, such as that used in theories of origins, depends on special approaches to verifying and falsifying conclusions, sometimes referred to as abductive reasoning. No laboratory experiment can duplicate and verify changes over long spans of time. Instead, to establish that an event in the past had a specific cause, the evidence must demonstrate, first, the presence of the cause and its capacity to produce the effect and, second, an absence of other possible causes that could have had the same effect. It is a high hurdle, and one can see that certain assumptions are likely to come into play.

One such assumption is that natural laws and processes operate, and have operated over time, in much the same way and at the same rates as they do today, i.e., the present serves as the key to the past. The term “uniformitarianism” is often used for this assumption. For example, certain dating methods, such as radiocarbon and radiometric, are based on the assumption of a specific rate in the decay of an element over time, as well as on an assumed original amount of the element in the material being analyzed. A companion assumption or, more accurately, philosophical position, is “materialism” (sometimes referred to as “naturalism”), a form of monism that holds that matter (and energy, a form of matter) is the fundamental substance in nature and that all phenomena, including mental phenomena and consciousness, are, and always have been, in essence, interactions of matter and operate within the bounds of physical laws. It is largely these two positions that underlie theories of origins.

The philosophical stance of materialism, however, forces certain questions about origins. Are matter and energy eternal? If not, what is their source and how did they come into existence? If yes, why is there something rather than nothing? Did life forms on Earth arise spontaneously from a combination of inorganic elements under fortuitous conditions? If so, how can that be demonstrated or repeated experimentally? If not, what is their origin? What are the odds that highly complex, information-rich, self-reproducing life forms originated spontaneously from inorganic materials? Does empirical evidence support gradual development over time into higher forms through random mutations or does it support intelligent design? If the latter is proscribed and the former assumed, can interpretation of the data be objective?

Science, Assumptions, and Philosophical Positions

To pause here, we should note that perceived conflicts between modern science and the Bible are almost certain to be, at the root, conflicts between (1) the assumptions and philosophical positions that underlie certain interpretations of data and observable phenomena and (2) the biblical record, specifically of Creation and the Flood. It will be helpful to consider briefly how evolutionists interpret data and arrive at conclusions. In doing so, bear in mind that materialism (or naturalism) is not science, but a philosophical (some would say, religious) position.

Perceived conflicts between modern science and the Bible are almost certain to be . . . conflicts between (1) the assumptions and philosophical positions that underlie certain interpretations of data and observable phenomena and (2) the biblical record, specifically of Creation and the Flood.

I must admit that much of my understanding, like that of most non-scientists, of the story (or stories) of evolution is based upon accounts for the educated reader in such publications as *National Geographic*, *Scientific American*, and *Smithsonian*. Others may get their perspectives on evolution from such American TV science popularizers as Bill Nye or Neil deGrasse Tyson.

One recent issue of *Smithsonian* included an article on small animal fossils in Arizona that reveals basic features of evolutionary thinking:

“The *Revueltosaurus* had been held up as the best record of a late-Triassic ornithischian [bird-like] dinosaur,” says Sues. “It was the crown jewel. And then, all of a sudden, poof! It just disappeared.” The *Revueltosaurus* revelation led Park and others to reclassify other creatures that had been regarded as early dinosaurs, and so the number of officially recorded dinosaur fossils from the Triassic period has plummeted.

A few sentences later, we read:

It’s not clear why these small, sleek dinosaurs eventually evolved into enormous Jurassic beasts. “We really don’t know yet,” says Sues. The transformation seemed to happen around 200 million years ago, just after another massive extinction. “We think that extinction was due to an unprecedented episode of volcanic activity.”¹

Two characteristics of evolutionary theory and the scientific research connected with it are manifested in this brief excerpt:

1. Discovery of new data or re-interpretation of previously examined data requires revising prior conclusions.
2. Non-uniform, e.g., catastrophic, events in nature are needed to explain otherwise inexplicable phenomena.

Regarding the former, in a recent article on the discovery of human remains in a cave in South Africa, David Strait of Washington University is quoted as asserting that

Of course, we should try to do things well, but science should operate by falsifying possibilities. We narrow down the possible truths to get a better idea of what happened in the past, and there is always the possibility for new data to emerge that change everyone’s thinking.²

It is fair to inquire about the *modus operandi*: Aside from agreement on the basic assumptions that only material explanations of origins, including the origin of life, are allowed and that the universe and life evolved over billions of year, on what specific supporting details of field findings and interpretations do evolutionary geologists and paleontologists in their respective disciplines universally agree? What happens when new data falsifies the interpretations on which they have previously agreed? Can any interpretation or conclusion be regarded as definitive?

Note that *constant change*, resulting from the discovery of new data or revised interpretations of existing data, is considered a positive characteristic of how evolutionists work and think. Consider fossils, for example: Fossils are present-day artifacts, but what can they tell us about the past? Some animals and plants have died and been preserved in various states of completeness. Some fossils are of extant animals or plants; others are of extinct fauna and flora. Those with soft bodies required an event that resulted in their rapid burial and influx of sediment and minerals to preserve their form before decay set in. That much might *reasonably be assumed* from how fossils form and appear today. (Yes, fossils can, and usually do, form rapidly and still form today.) However, interpretations of fossil data that entail *age or inferences about intra- or inter-species evolution in time past will always be in the realm of “falsifiable” (changeable)*, i.e., neither verifiable nor repeatable by experiment under laboratory conditions.

New data have also resulted in major reinterpretations of how evolution supposedly works, e.g., punctuated equilibrium, to explain observed large gaps in (assumed) development within a species or from one species to another. That is, the understanding of how evolution itself progresses is subject to change. A helpful principle to remember in this context is that Scripture is God’s unchanging Word. Historical science, specifically evolutionary theory, entails constant change resulting from discovery of new data and reinterpretation of existing data.

Scripture is God’s unchanging Word. Historical science, specifically evolutionary theory, entails constant change resulting from discovery of new data and reinterpretation of existing data.

In contrast to historical or origins science, falsifiability in the hard sciences and technology focuses on observable, quantifiable results. For example, tests reveal that a certain chemical compound is more effective in treating a disease than a compound currently in use. Experiments indicate that an organic substance may eventually replace some silicon applications in computers. A question of “truth” is not involved (cf. Strait’s comment above). Rather, falsifiability answers questions such as, “What works? What doesn’t work? What works better?”

Not All Data and Evidence Are Equal

Regarding the falsifiable “possible truths” of evolution, it seems that certain alternatives to these truths, i.e., alternative interpretations of the data, are to be rigorously excluded, especially from public institutions of education. If falsifiability is a central feature of the scientific method, why are some causes, e.g., the catastrophe of a worldwide flood, excluded from the “possible truths” to explain

certain geological phenomena? Is it that some geological evidence, or interpretation of the evidence, does not qualify simply because there is also a corroborating historical record (evidence) in a biblical narrative? Many geological phenomena and fossils—both their formation and the composition and locations of large beds—may be more reasonably explained by a cataclysmic worldwide flood than by uniform processes over millions of years; yet such an explanation is categorically excluded by those who insist on a uniformitarian materialist approach to historical science. Is that a mark of objectivity?

How are we to explain the increasing evidence for intelligent design (ID), e.g., in the irreducible complexity of the internal operations of a cell? Could there be a purely material cause for the intricately coded information in DNA, the transmitter of heredity? The more that is discovered about the structure and workings of a cell and the details of heredity and reproduction, the more difficult it is to ascribe the amount and complexity of information stored in cells to purely material causes. The scriptural assertion is clear in this regard: “For since the creation of the world His invisible attributes, His eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse” (Rom 1:20). Indeed, this assertion rings truer today than ever before. It is hard not to conclude that exclusion of certain evidence is based on fear that not only interpretation of the details is falsifiable, but also that the very assumptions and philosophical positions that underlie evolutionary theories are falsifiable as well.

Many highly qualified scientists who profess the Christian faith reject the philosophy of materialism and the uniformitarian assumptions that underlie theories of evolution, as well as interpretations of data that posit a universe billions of years old and gradual development of life forms from a “primordial soup” to rational beings. Are these scientists to be marginalized in academe? Some have been. Is that how real science operates? Or are such actions a sign that a materialistic approach to the origin of life and the universe is really a belief system (religion) masquerading as science that must be defended at all costs?

Finally, some scientists, such as progressive, or old-earth, creationist, Hugh Ross, propose various “hybrid” approaches to evolutionary interpretation of data and the scriptural Creation and Flood accounts (see Addendum II below). The result is most often to give credence to certain aspects of origins science, such as multi-billion-year age estimates of the earth and universe, while rejecting other aspects, such as “amoeba to man” organic evolution. A principle to keep in mind is that thorough-going, i.e., materialist, evolutionists are not interested in compromise by accepting certain aspects of the Creation and Flood accounts in Scripture, much less an omnipotent Creator. Compromise *is* expected, however, of those who would reconcile non-theistic origins science (macro-evolution) with Scripture.

The Bottom Line

It should be clear that there is no reason for the Christian to be intimidated by ever-changing interpretations of data based on philosophical positions and assumptions that leave God out of the picture of origins. Ultimately, however, regardless of apologetic arguments and evidence that challenge the materialistic historical science of origins, effective and convincing as they may be, for the Christian, the authority is Scripture, where the accounts of Creation and the Flood are consistently referred to—notably by Christ, Himself—not only as historical events, but as *acts of God with profound significance for the Gospel message and the life of faith*. The Creation account in Genesis reverberates powerfully and meaningfully throughout the Old and New Testaments. Genesis 3 lays the foundation of the Messianic (Christocentric) content of the Scriptures and the saving work of Christ, the last Adam. Baptism is linked to the Flood and the preservation of Noah and his family in the Ark (1 Pt 3:20–21).

Regardless of apologetic arguments and evidence that challenge the materialistic historical science of origins, effective and convincing as they may be, for the Christian, the authority is Scripture, . . . not only as historical events, but as *acts of God with profound significance for the Gospel message and the life of faith*.

In evangelism, as in other realms of the life of the Christian, God's revealed Word speaks for itself. It, not the present, is the key to the past. Indeed, it is the key to the present as well. It is the final authority. While Christians may be able to refute faulty assumptions and break down philosophical barriers to "clear the way," so to speak, for witnessing to and proclaiming the Gospel, it is the power of the Spirit in the Word that does the heavy lifting in creating faith.

Verbum Domini manet in aeternum

Endnotes

¹ "Dawn of the Dinosaur," by Brian Switek, *Smithsonian*, 46:11 (April 2016), 86. Hans-Dieter Sues is Curator of Vertebrate Paleontology and Chairman of the Department of Paleobiology at the Smithsonian Museum of Natural History.

² Kate Wong, "Mystery Human," *Scientific American*, 314:3, (March, 2016), 37.

Resources

The number of resources on the subject of the biblical versus materialistic treatment of origins can be overwhelming. Below are a few helpful places to begin. The Kelly volume, written by a systematic theologian with a strong grasp of science, is one of the most helpful. Meyer's treatment of ID includes a bonus: a clear,

relevant overview of the history and philosophies of science. In addition to the recent booklet issued by the LCMS Commission on Theology and Church Relations, titles by two Lutheran authors, Klotz and Zimmerman (both scientists and theologians), are somewhat dated but still relevant. Another current Lutheran author to consider is Dr. David Menton (Professor emeritus, Washington University School of Medicine). Some of his writings are in the Ham volume cited below.

Books

- Axe, Douglas. *Undeniable: How Biology Confirms our Intuition that Life Is Designed*. New York: HarperOne, 2016.
- Chaffey, Tim, and Jason Lisle. *Old Earth Creationism on Trial: The Verdict Is In*. Green Forest, AR: Master Books, 2008.
- Ham, Ken. *The New Answers Book 4: Over 30 Questions on Creation/Evolution and the Bible*. Green Forest, AR: Master Books, 2013.
- Hunter, Cornelius G. *Darwin's God: Evolution and the Problem of Evil*. Grand Rapids, MI: Brazos Press, a division of Baker Book House Co, 2004.
- Hunter, Cornelius G. *Darwin's Proof: The Triumph of Religion over Science*. Grand Rapids, MI: Brazos Press, 2003.
- Kelly, Douglas F. *Creation and Change: Genesis 1.1-2.4 in the Light of Changing Scientific Paradigms*. Fearn, Ross-shire: Mentor, 2010.
- Klotz, John W. *Genes, Genesis and Evolution*. St. Louis, MO: Concordia Pub. House, 1972. Lutheran Church—Missouri Synod. *In Christ All Things Hold Together: The Intersection of Science & Christian Theology / a Report of the Commission on Theology and Church Relations, the Lutheran Church—Missouri Synod*. 2015. Available free online: <http://www.lcms.org/ctcr/resources> [under “Other Resources”]
- Meyer, Stephen C. *Signature in the Cell: DNA and the Evidence for Intelligent Design*. New York: HarperOne, 2009.
- Morris, Henry M. *That Their Words May Be Used Against Them: Quotes from Evolutionists Useful for Creationists*. Green Forest, AR: Master Books, 1997.
- Morris, John David, and John Clement Whitcomb. *The Global Flood: Unlocking Earth's Geologic History*. Dallas, TX: Institute for Creation Research, 2012.
- Sarfati, Jonathan D. *Refuting Compromise: A Biblical and Scientific Refutation of Progressive Creationism (Billions of Years) as Popularized by Astronomer Hugh Ross*. Green Forest, AR: Master Books, 2004.
- Whitcomb, John Clement, and Henry M. Morris. *The Genesis Flood: The Biblical Record and Its Scientific Implications*. Phillipsburg, NJ: P & R Publishing, 2011.
- Zimmerman, Paul A. *Darwin, Evolution, and Creation*. Saint Louis, MO: Concordia Pub. House, 1972.
- Zimmerman, Paul A. *Creation, Evolution, and God's Word*. St. Louis, MO: Concordia Pub. House, 1972.

Periodicals

- Creation Research Society. *Creation Research Society Quarterly*. [Ann Arbor, MI]—scholarly, technical articles
- Institute for Creation Research. *ICR Acts & Facts*. [San Diego, CA]—popular treatments

Internet resources (very selective)—(https:// requires copying and pasting address)

<http://creation.com/>

<http://www.discovery.org/id/>

Copyright 2016 Lutheran Society for Missiology. Used by permission.

View Lutheran Mission Matters 24, no. 3 (2016) at <http://lsfm.global/>.

Membership in LSFM is available at <http://lsfm.global/joinlsfm.htm>.

E-mail lsfmissiology@gmail.com to purchase a print copy of a single issue.

<http://www.icr.org/creation-biology>

<https://answersingenesis.org/creation-vs-evolution/>

<https://world.wng.org/2016/06/challenging-darwin> (*World Magazine* overview of recent publications that take the scriptural record of origins seriously)

Addendum I—Excerpts from a Web Site Provide Examples of Evolutionists’ Thinking

Some evolutionists are sensitive to the religious and moral implications of materialistic evolution, even if their attempts to explain and assure those who accept the biblical account of Creation often lack specificity or accuracy. Readers are urged to access the selection of remarks below in context online and interact intellectually and scripturally with the claims and positions. A sample interaction (the author’s) appears in italics under Miller’s comment on Genesis.

All quotations below are taken from the LiveScience web site at the links below:

(1) “The questions of purpose are not part of science. How you interpret the results of science is up to you, and it’s based on your theological and philosophical inclinations.” [Lawrence Krauss, a physicist at Case Western Reserve University in Ohio]

<http://www.livescience.com/9355-intelligent-design-ambiguous-assault-evolution.html>

(2) “While denying that [intelligent design] is religiously motivated, ID proponents often portray evolution as its own kind of religion, one that is atheistic and materialistic, whose converts no longer cast their eyes towards heaven but who rather seek to build heaven here on Earth using their scientific knowledge.

“The implication is that by destroying the idea that Man is the paragon of God’s creation, evolution robs life of meaning and worth. And by limiting God’s role in creation, evolution opens up the terrifying possibility for some that there is no God and no universal moral standard that humans must follow.

“Barbara Forrest [philosopher at Southeastern Louisiana University] thinks this is just silly. ‘Where did immortality come from before Darwin figured out natural selection?’ she asked. Far from robbing life of meaning, Forrest believes that it is *because* of evolution that we are capable of living meaningful lives.

“‘It’s evolution that gives us the advanced nervous system we have so that we can interact with our environments at a highly conscious level,’ Forrest said.

“Miller thinks such claims are also self-fulfilling. ‘You have essentially told people that if that Darwin guy is right, there is no God, there is no morality, there is no law you are obliged to obey,’ Miller told *LiveScience*. ‘I don’t know of any evolutionary

Copyright 2016 Lutheran Society for Missiology. Used by permission.

View Lutheran Mission Matters 24, no. 3 (2016) at <http://lsfm.global/>.

Membership in LSFM is available at <http://lsfm.global/joinlsfm.htm>.

E-mail lsfmissiology@gmail.com to purchase a print copy of a single issue.

biologists who would say that, but I do hear a lot of people on the other side saying it.”

What’s at stake

“On its website, the American Association for the Advancement of Science (AAAS) stated that allowing ID into public schools will ‘undermine scientific credibility and the ability of young people to distinguish science from non-science.’

“[Kenneth] Miller thinks the stakes are much higher than that.

“In addition to sowing confusion about what constitutes proper science, ID has the potential to drive people away from science. If classrooms are allowed to become theological battlegrounds, then schoolchildren will basically be told that science is hostile to new ideas and that scientists believe in a ludicrous theory that negates the very existence of God.

“‘Evolution is not opposed to religion unless people make it so,’ Miller said. ‘The message of evolution is that we are just as Genesis told us, we are made out of the dust of the Earth and that we are united in this web of life with every other living creature on the planet, and I think that’s a fairly grand notion.’”

<http://www.livescience.com/9355-intelligent-design-ambiguous-assault-evolution.html>

[Regarding Miller’s take on what Genesis “told us”]: First, Moses wrote that God created plants and animals with His Word. God’s fashioning of man from the dust of the Earth, rather than “[uniting] him in this web of life” with other creatures, makes man unique. Man—male and female—was created in God’s image. Adam was formed from the dust and brought to life by the very breath of God (Gn 1:27; 2:7). The creation of Eve from Adam is also unique (Gn 2:21–22). That human beings and animals share certain physiological characteristics reflects the economy and unity of God’s creative work. DOB]

(3) “Several parents won a lawsuit against a Pennsylvania school district in 2005 that had added the controversial theory of ‘intelligent design’ to its curriculum. Unlike the theory of evolution which is taught at most schools as a fact-based science, ‘intelligent design’—as argued by the plaintiffs—was nothing more than a philosophy predicated on the Judeo-Christian belief that the logical sequences found in nature are not random happenings or surprising mutations, but deftly managed events created by a greater omniscient and omnipresent intelligence with a specific plan. In short, the work of God.”

<http://www.livescience.com/11316-top-10-intelligent-designs-creation-myths.html>

Copyright 2016 Lutheran Society for Missiology. Used by permission.

View Lutheran Mission Matters 24, no. 3 (2016) at <http://lsfm.global/>.

Membership in LSFM is available at <http://lsfm.global/joinlsfm.htm>.

E-mail lsfmissiology@gmail.com to purchase a print copy of a single issue.

Addendum II—The RTB (Reasons to Believe) Model of Hugh Ross

Hugh Ross (PhD in astronomy, University of Toronto) might be classified as an old-earth, or progressive, creationist in that he accepts the multi-billion-year estimates of the age of the universe and Earth and understands the days of Creation as eras during which “God successively transformed Earth and the solar system through six major creative stages in preparation for human habitation. During this time he successively layered increasingly advanced plant and animal life to maximize support for humanity’s global expansion and civilization” (Ross, Hugh. *More Than a Theory: Revealing a Testable Model for Creation*. Grand Rapids, MI: Baker Books, 2009, p. 76). Ross has written several books and maintains a web site that provides more information about his approach to interpreting the scriptural accounts of the Flood (a local event) and Creation.

<http://www.reasons.org/>

From the “Reasons to Believe” web site:

“While in college, Hugh committed himself to faith in Jesus Christ. After his study of big bang cosmology convinced him of a Creator’s existence, curiosity led him to test religious ‘holy books’ for scientific and historical accuracy. Only the Bible passed the test, therefore persuading him of Christianity’s validity. Later, Hugh was surprised to discover how many people believed or disbelieved in Christ without checking the evidence. Prompted by family, friends, and colleagues, he founded Reasons to Believe in 1986, to bring scientific evidence for Christianity to light.

“More than 25 years later, Hugh leads a team of scholars who keep tabs on the frontiers of research with the goal of demonstrating that sound reason and scientific findings—including the very latest discoveries—consistently support rather than erode, confidence in the biblical God. Hugh shares this message through numerous books—including *Navigating Genesis*, *Hidden Treasures in the Book of Job*, and *Why the Universe Is the Way It Is*—as well as articles, videos, and podcasts.”

[*Note that Dr. Ross was convinced by “big bang cosmology . . . of a Creator’s existence” and that his approach is to test the Bible for scientific and historical accuracy. These assumptions and methods underlie his “Reasons to Believe” model of blending the scriptural Creation account and evolution. For a sampling of primary sources, see below. Critiques of Ross’s approach may be found in the books by Chaffey and Lisle and by Sarfati in the list of “Resources” above. DOB*]

Selective Bibliography:

Ross, Hugh. *Creation and Time: A Biblical and Scientific Perspective on the Creation-Date Controversy*. Colorado Springs, CO: NavPress, 1994.

Copyright 2016 Lutheran Society for Missiology. Used by permission.

View Lutheran Mission Matters 24, no. 3 (2016) at <http://lsfm.global/>.

Membership in LSFM is available at <http://lsfm.global/joinlsfm.htm>.

E-mail lsfmissiology@gmail.com to purchase a print copy of a single issue.

Rana, Fazale, and Hugh Ross. *Origins of Life: Biblical and Evolutionary Models Face Off*. Colorado Springs, CO: NavPress, 2004.

Ross, Hugh. *Creation As Science: A Testable Model Approach to End the Creation/Evolution Wars*. Colorado Springs, CO: NavPress, 2006.

Ross, Hugh. *More Than a Theory: Revealing a Testable Model for Creation*. Grand Rapids, MI: Baker Books, 2009.



Finally, a recent overview of the fraught relationship between scriptural revelation and the realm of scientific theories and interpretation may be found in the essay cited below. While original sin is the ostensible topic, the treatment encompasses broader theological themes. One caveat is that the author uses the terms “science” and “scientific” without reference to the underlying metaphysical assumptions that affect interpretation of physical data.

Madueme, Hans. “The most vulnerable part of the whole Christian account: original sin and modern science,” in *Adam, the Fall, and Original Sin: Theological, Biblical, and Scientific Perspectives*. Grand Rapids, MI: Baker Academic, 2014, pp. 225–249.