

DOES THE BIBLE TEACH SCIENCE?

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"Genesis was never intended as a science textbook."
Rev. Pat Robertson

"I don't like it when people say that the Bible is just stories," a student said as we discussed Gary Parker's presentation on creation and evolution following a Creationism Seminar. I had just pointed out instances in which Parker and his young-earth creationist colleagues had read modern scientific knowledge into Bible verses that meant something quite different, and went on to state that "the purpose of the Bible is to teach salvation, not science." In response the student made his comment. I said something in reply about the function and power of biblical stories for teaching theological and moral truths that Christians assent to. But I don't think I really addressed the concern that welled up through the passion with which he spoke. He spoke with reference to Genesis 1, and his comment reflected a common either/or notion many believers in conservative and fundamentalist churches accept: "Either the Bible is the infallible, inerrant word of God, or it is a collection of fairy tales that has no value for salvation. The latter is what the unbelieving world thinks, so we must defend the Bible as God's very word of truth." And defend it in all respects, even on such matters of science as entered into that discussion.

However false I think this choice is, the belief that these are the only choices a person can make about the Bible is so engrained in the thinking of many Christians that it is important that I address it head-on. Let me put the issue in the context of the portrait or model of the creation found in the Old Testament, which I [summarized](#) in the first essay: the earth is described as a flat, circular landmass resting on a body of water, "the deep," and overarched by a solid expanse holding up another body of water, the "upper sea" (see the several references there). Given that this "three-storied" model of the heaven and the earth no longer depicts the universe as we moderns perceive it, then does this fact not raise a fundamental question about the Bible's truthfulness? Is it valid to dismiss this biblical model as "myth" or "fairy tale," or at best "proto-science"? Or is there a sense in which one can say that this model is true?

I make this biblical portrait the central issue because so many Christians either overlook or ignore it, or they explain it away by reading into biblical texts, including Genesis 1, a different portrait--one based on modern science--which is not really there. They claim that the Bible contains accurate scientific knowledge that scientists have only discovered much later. Young-earth creationist Henry Morris, for example, claims that "fifteen or more facts of science are suggested" in the Book of Job, among them, that the earth is a spherical body rotating on its axis in space (Job 26:7, 10; 38:12-14) and that space is expanding and unbounded (Job 11:7-8; Morris 35, 40, 43). But these claims do violence to the contexts and meanings of the original Hebrew texts and are simply unsupportable (Schneider 159-169). The Bible does not teach these things. I shall elaborate on and critique such claims in a later essay.

Yet, many believers have been persuaded that the Bible does teach science: like Morris they read it as if it were a science textbook, and defend it as a source of scientific knowledge that is valid today. For many, the Bible's reliability in matters of science is so critical that they will argue, "If I can't believe the Bible when it talks about science (or creation), then how can I believe it when it talks about Jesus Christ and my salvation?"

I want to respond to this question by first considering the important issue of biblical inspiration and authority, and then the related and no less important distinction between inspiration and interpretation. Then I shall argue that this is the wrong question.

The Inspiration and Authority of Holy Scripture

Evangelical Christians hold what is commonly referred to as "a high view of Scripture." They all would agree with the first of the Statement of Principles of the American Scientific Affiliation: "We accept the divine inspiration, the trustworthiness, and the authority of the Bible on matters of faith and conduct." Alister McGrath, an Anglican theologian who has written extensively on science and Christian faith, states that for evangelicals the Bible is "the supreme authority as a source of knowledge of God and a guide to Christian living" (see [Introduction](#)).

But many evangelicals hold an even higher view than this. They believe that, being inspired by the Holy Spirit, the Bible is inerrant and infallible scripture in all respects. Whatever is divinely inspired, they assert, must of necessity be without error. This conviction was articulated in the "Chicago Statement on Biblical Inerrancy" produced at a meeting of the International Council on Biblical Inerrancy in 1978. It declares Holy Scripture "is of infallible divine authority in all matters upon which it touches." and "that Scripture in its entirety is inerrant, being free from all falsehood, fraud, or deceit. We

deny that Biblical infallibility and inerrancy are limited to spiritual, religious, or redemptive themes, exclusive of assertions in the fields of history and science. We further deny that scientific hypotheses about earth history may properly be used to overturn the teaching of Scripture on creation and the flood." Representing this absolute view of inerrancy, Baptist scholar Harold Lindsell writes, "However limited may have been their knowledge, and however much they may have erred when they were not writing sacred Scripture, the authors of Scripture, under the guidance of the Holy Spirit, were preserved from making factual, historical, scientific, or other errors" (though inerrancy does not mean that the biblical writers took dictation, a view that no biblical scholar holds, Lindsell notes). Whatever the Bible states, then, about scientific matters must be accepted as true (30-33). (I might note here that "infallibility" and "inerrancy" are considered to be functionally equivalent terms.)

I believe that many Berea College students who are committed to a conservative or fundamental understanding of Christian faith would agree that the Bible is infallible and inerrant in all respects. Others, however, may side with the great many evangelicals, including Bible scholars, who do not. The Chicago Statement and Lindsell's *The Battle for the Bible* (1976) just quoted are actually responses to a recurring dispute over inerrancy that has continued for well over a century among evangelicals. But let me go back much further in time in order to place this issue in a broader historical context.

From the early years of the Christian church until the beginning of the seventeenth century, the most respected theologians who thought about and wrote on the nature of biblical inspiration and authority and also about the doctrine of creation held a common position about the relationship between the Bible and science. In the early seventeenth century, Cardinal Baronius expressed this principle succinctly:

"The intention of the Holy Spirit is to teach us how to go to heaven, not how the heavens go" (quoted in Galileo 186)

Baronius had the conflict over the Copernican theory in mind. He was challenging the argument that this theory must be wrong because the Bible teaches that the sun moves, not the earth (e.g., Josh 10:13, Ps. 19:6; 96:10). Baronius' statement is fully in accord with the perspective of those who developed the classic Christian theology of creation ([essay II](#)). Augustine of Hippo, Thomas Aquinas, and John Calvin were one in their conviction that Christ is the center of Scripture, and that what the Holy Spirit through Scripture means to teach is the message of salvation through Christ. The Bible's teachings about God and the Christian life may be confidently accepted as completely true and trustworthy.

In the century following the Reformation, as the theological and other conflicts that arose between Catholics and Protestants intensified, persons on both sides began to emphasize the literal sense of the Bible. And some began to argue that the Bible is without error or deceit not only in what it teaches about God, Christ, salvation, and the Christian life, but that it is also infallible in whatever statements it makes about any area of human knowledge, including science (Bray 196-197). This position gathered strength during the nineteenth century, when scientific discoveries and theories about the age of the earth and evolution as well as the development of modern biblical criticism seemed to call the authority and trustworthiness of the Bible into question. Some influential conservative theologians such as the American Presbyterians Charles Hodge (1797-1878) and Benjamin B. Warfield (1851-1921) argued with great force that the Bible is free from error in every respect. However, other influential evangelicals, such as Scottish scholar T. M. Lindsay (1843-1914), rejected absolute inerrancy and defended a notion of limited inerrancy; still others, like James Orr (1844-1913) rejected inerrancy as a necessary defense of the Bible's inspiration and trustworthiness (Rogers and McKim 285-292, 344-348, 385-391).

Evangelicals who believe that the absolute inerrancy encoded in the Chicago Statement is too sweeping a position and ultimately unsupportable could take comfort both in the historic position of the church and the positions of Lindsay and Orr. Some would agree with a notion of limited inerrancy as Stephen Davis articulates it: The Bible is infallible on all matters pertaining to faith and conduct, in that it makes no false or misleading statements about them. In other words, the Bible can be confidently believed in whatever it says about God, salvation, and the Christian life. However, one would go too far to claim that it makes no erroneous statements on any matter whatsoever (Davis, in Andrew 4). Others, holding that "infallibility" and "inerrancy" are functionally equivalent terms, reject the distinction Davis makes.

But even the supporters of absolute inerrancy recognize that this doctrine is hedged with certain essential qualifications. Paul Feinberg, an articulate defender of inerrancy, acknowledges that inerrancy "is not presently demonstrable," because of the limitations of human knowledge. Those who read the Bible, however learned, do not have all of the data that is necessary to correctly understand the meaning of the text without qualification (1984, p. 142). He also admits that there is "no explicit statement in Scripture to the effect that it is without error" and that even Matt. 5:17-20 and John 10:34-35, sometimes cited in support of the doctrine, "do not explicitly teach inerrancy" (1979, p. 289, 285, cited in Seely, 1989, p. 149, n. 22). Furthermore, inerrancy, strictly speaking, applies only to the autograph copies originally made by the inspired writers. But no autographs exist, and every surviving copy is defective because of errors introduced by the copyists; even the most carefully edited version will not reproduce the originals (Feinberg, 1984, p.142-143). It is such factors as these that have convinced many evangelicals that inerrancy in a practical sense is a meaningless concept. Furthermore, it is a theological not a biblical concept, a human not a divine declaration. It is not a necessary requirement for faith in the divine inspiration and authority of the Bible.

Thus, evangelical Christians are themselves divided over the extent to which they ascribe inerrancy to Scripture, and disagree over the extent to which the Bible should be considered authoritative in matters of science, history, economics, political theory, and other areas of human knowledge and practice.

Interpreting the Bible

There is one more important qualification I should point out to the believer committed to biblical inerrancy: *it does not guarantee an objective reading of the text*. The Bible still must be *interpreted*, that is, one still has to determine what a biblical text *means*. Evangelical Bible scholars agree that the most basic method of interpretation is the grammatical-historical method. It involves, first, determining correctly the vocabulary and sentence structure of a passage in order to understand what the words and sentences of a passage meant when they were first written down. Second, it involves the task of identifying and understanding the historical and cultural context in which a particular passage of Scripture was originally written. The two elements of this method go together: the grammatical meaning of the passage is illuminated in part by its historical and cultural context. For example, the historical and cultural context of Genesis 1 includes (1) the ancient cosmological model summarized at the beginning of this essay, and (2) the creation stories of Israel's neighbors that Genesis 1 challenged and rejected. This context makes it possible for the modern reader to understand what the Genesis narrative meant to its original audience.

But how might the modern reader interpret and understand the three-storied cosmology portrayed in the Bible in light of the modern scientific world-picture? Conservative Baptist theologian Bernard Ramm, in his influential book, *The Christian View of Science and Scripture*, addressed the issue in our context. A major stumbling block to any rational discussion of the relations between the Bible and science, he noted, is "the psychological problem...that so many Christians *fail to differentiate interpretation from inspiration*."

First, one must realize that *revelation is not interpretation, and conversely, interpretation is not revelation*. **Revelation is the communication of divine truth; interpretation is the effort to understand it.** One cannot say: "I believe just exactly what Genesis 1 says and I don't need any theory of reconciliation with science." Such an assertion identifies revelation with interpretation. The problem still remains: *what does Genesis 1 say or mean or involve us in?* Our mutual problem is not this: is Genesis inspired? On that we agree. Our problem is: what does Genesis 1 mean - how do we interpret it? To profess belief in its divine origin does not necessarily help us in understanding how it relates to science" (Ramm 54, his italics).

We must not, Ramm says, "identify our interpretation with the infallibility of revelation." ASA member Keith Miller, a field geologist and member of the Evangelical Free Church, likewise comments on this distinction: "I accept the Bible as authoritative and true in what God intends it to communicate. However, simply accepting the truth of the Biblical writings does not indicate the meaning of those writings.

Just as our observations of the natural world must be interpreted within some explanatory framework, scripture also must be interpreted. There is no such thing as an objective reading of scripture.

The question for the Christian is then - What is the best interpretive framework for any given passage of scripture?" (www.kcfs.org/kmiller.html). For our purposes the question is: What interpretive framework can offer the most fruitful way to understand the truthfulness of biblical cosmology in the light of modern scientific knowledge?

One such framework is provided by two significant concepts that have influenced how Christians over the centuries have read, i.e., interpreted, the Bible in the light of scientific "readings" of the creation. The first is the concept of the **Two Books**, the Book of Nature and the Book of Scripture. This notion was articulated by one of the earliest Church Fathers, Tertullian (c. 160-c. 230 AD), whom Galileo Galilei (1564-1642) cited approvingly in his 1615 treatise on the use of biblical quotations in matters of science. Galileo agreed with Tertullian that both nature and scripture proceed alike from the creating Word of God. Therefore, the truths that each reveal when properly read and interpreted cannot contradict one another (Galileo 182-183). Sir Francis Bacon (1561-1626), who promoted the scientific method of induction called by his name, referred to this same concept when he wrote, "Let no man...think or maintain that a man can search too far or be too studied in the book of God's Word or in the book of God's Works, divinity or [natural] philosophy," and added that one should not "unwisely mingle or confound these learnings together" (quoted in Hummel 165). Bacon agreed with Galileo that if one establishes by sure empirical and logical processes the truth of something in nature that appears to be in conflict with a biblical passage, then the problem is not with what the biblical text *says* but with the *interpretation* placed upon its words (Galileo 186-187).

"God's two books" became a commonplace in Christian thought and is often cited today by those writing about the relationship between religion and science (Hummel 104-108). Even the great nineteenth-century champion of inerrancy, Charles Hodge, agreed with Galileo and Bacon, and put the matter even more baldly. He insisted "in common with the whole Church, that this infallible Bible must be interpreted by science," a proposition he considered "all but self-evident" (cited in Noll). Hodge used the Copernican revolution, the very issue Galileo dealt with, as the classic example of this view: "For five thousand years [sic] the Church understood the Bible to teach that the earth stood still in space, and that the sun and stars revolved around it. Science has demonstrated that this is not true. Shall we go on to interpret the Bible so as to make it teach the falsehood that the sun moves round the earth, or shall we interpret it by science and make the two harmonize?" (cited in Noll).

Those who promoted the "Two Books" concept were concerned to defend the integrity of both the study of nature and the study of scripture, but when the language of the latter seems to contradict the former, as in the classic example Hodge used, how then does one rescue Holy Scripture from such a contradiction? How does one "make the two harmonize," as Hodge put it? The learned readers of Scripture invoked another important element in their interpretive framework, the principle of **Accommodation**.

Accommodation is the notion that the Holy Spirit inspired the biblical writers to describe phenomena of nature in a way that was understandable and accessible to ordinary and unlearned people.

The theologians whose views on creation we surveyed in the second essay sometimes invoked this principle. St. Augustine followed it in his interpretation of the "six days" of Genesis (cf. *De genesi ad litteram* 4.33.52). Thomas Aquinas likewise used it when he interpreted Genesis 1 in light of Aristotelian science (cf. ST 1, 68, art. 2). John Calvin, in his commentaries on Genesis and Psalms, was quite clear in stating that the sacred writers described nature simply as it appeared to their senses: "The Holy Spirit," he wrote, "had no intention to teach astronomy; and in proposing instruction meant to be common to the simplest and most uneducated person he made use by Moses and other prophets of the popular language..." (quoted in Hummel 176). He noted that the author of Genesis 1 "did not treat scientifically of the stars" but referred to them "in a popular manner," and he invited readers interested in learning science to come not to Genesis 1, but "to go elsewhere" (quoted in Seely, 2001, p. 33). Galileo was thoroughly orthodox in this respect when he wrote: "These propositions [regarding the phenomena of the heavens] uttered by the Holy Ghost were set down in that manner by the sacred scribes in order to accommodate them to the capacities of the common people" (Galileo 181). Thanks to this widely accepted principle, theologians could hold that the sacred writers accurately and truthfully, and thus without error or deceit, described the creation as they perceived and understood it. But they were describing the natural phenomena within their ordinary human understanding, using the common language of everyday speech; they were not being guided by the Holy Spirit to make revelatory statements about the nature of the universe.

Accommodation remains a principle for interpreting biblical statements regarding the natural world among some biblical scholars today. Evangelical Bible scholar and ASA member Paul Seely is one:

Since the purpose of Scripture is to give divine revelation in the area of faith and morals (1 Tim. 3:16)--yet, even in this area, accommodation to the primitive cultural morality of the times is sometimes allowed into inspired Scripture [e.g., Deut. 24:1-4, cf. Mark 10:5, RJS]--it is evident that accommodation in the area of natural knowledge, *which is outside the purpose of Scripture*, is entirely possible. Also, Scripture strongly suggests that God has delegated the discovery of natural truth to humankind (Gen. 1:26-28). It would only be consistent then if his divine revelation of spiritual truth did not include revelation of natural truth but was given in terms of the scientific understanding of the times (Seely, 2000, p. 77, my italics; cf. Seely, 1989, p. 2-4)

In suggesting that as part of dominion stewardship God has delegated the discovery of truths about nature to human beings as they explore the world around them, Seely alludes to the distinction between the two books of Scripture and Nature and their proper spheres, and asserts that one is not to treat Scripture as a source of revealed knowledge about nature.

Understanding the nature of scientific truth

The "two books" concept remains for many theologians and believing scientists a fruitful metaphor for understanding the relationship between biblical and scientific knowledge. And some continue to find value in the notion that the inspired scriptures were accommodated to the limitations of ordinary readers and believers with respect to matters that fall within the sphere of science. There is also a way to articulate the relationship between the Bible and science that is consonant with accommodation, even as it invites the believer to understand the nature of scientific truth in a different way than it is popularly understood. One of the insights that historians and philosophers of science have given to our generation is that the theories and models that scientists construct to make sense of natural phenomena are always provisional. They are true as long as they continue to offer the best account of the operations of nature; it is their superior explanatory power and the fruitful results of scientific research they lead to that make them convincing. Yet, even though they may be so compelling as to be accepted as true for hundreds of years, they may still be replaced or modified whenever new knowledge provides the impetus and necessity to construct new models to portray nature and new theories to explain its operations. Our knowledge of God's universe remains incomplete; the sum of human knowledge about the natural world is always increasing; the full and final description and portrait of the universe has yet to be constructed; the end of the operations of science remains beyond human vision.

Thus, as meaningful a model as the ancient Near Eastern peoples had constructed to account for the phenomena they observed in the heavens and upon the earth, it was bound to be superceded, just as every subsequent model of the universe has been replaced or significantly modified, to the present day. It is here that our contemporary understanding of scientific truth joins hands with the principle of accommodation. The ancient biblical model needs to be understood as a time-bound conception of human knowledge and understanding that provided a context for the sacred writers' revelations about God, and not as a timeless statement about the nature of the universe. Personally, I do not believe that God would expect believers to think otherwise. The human writers of Scripture were not inspired to use any description or model of the universe other than the one they and their audiences were familiar with. As the great conservative Baptist theologian Augustus Strong wrote, "Inspiration might leave the Scripture writers in possession of the scientific ideas of *their time*, while yet they were empowered correctly to declare both ethical and religious truth" (Strong 226, my italics).

The timeless theological truths about Christ the creator and savior do not depend for their validity upon the time-bound world-view in which these truths are set.

The drama of salvation could have been enacted on any cosmological stage. Thus, no believer should be troubled that the biblical cosmological model, while true for its time, has been superceded by subsequent models. This fact should not in

any way undercut a person's belief in the inspiration and authority of the Bible as a revelation of truths about God, Christ and salvation.

Believing the Bible

Which brings me back to that earlier question: "If I can't believe the Bible when it talks about science (or creation), then how can I believe it when it talks about Jesus Christ and my salvation?" This is another way of saying, "If I can't believe the Bible when it talks about science, then I can't believe it when it talks about Christ and salvation." But the question and the "all or nothing" thinking that lies behind it are simply wrong-headed. First of all, this line of thinking puts the cart before the horse. If "the purpose of the Book is to point to Jesus Christ, not just the historical person, but the ever-present living Word of God" (Seely), as theologians have taught for centuries, then one's belief in the Bible needs to be based on the message of faith and salvation in Christ that it proclaims and the effect those words of truth have on one's life. All else is secondary, and no interpretations regarding its other topics, including those having to do with nature, should be held up as criteria for believing in its inspiration and authority. Furthermore, this way of thinking confuses the Bible's theological proclamations about creation with the cosmological model of the creation that forms the backdrop to these theological truths; it assumes wrongly that what biblical texts state about the nature of the heavens and the earth are timeless scientific descriptions; and it implicitly confuses interpretation with revelation.

Finally, I have to say that this stance has done a great disservice to believers and to the Bible itself because of the false dilemma it creates. Having been taught that what the Bible teaches about creation is valid scientific truth today and is opposed to certain theories of modern science, and having become convinced that the latter are true, many have gone where intellectual integrity has led them and abandoned faith in the Bible and in the message of salvation it teaches. That is one unfortunate outcome. The other outcome is that it has led some believers to reject out of hand any modern scientific theory or model, for example Big Bang or evolution, which conflicts, not with what the Bible says about God and nature, but with a human interpretation that is confused with revelation. The operations of nature as modern science depicts them, then, are perceived as threats to belief, and science is treated as an enemy of faith.

I think both of these outcomes are contrary to the will of God and are equally tragic. They set up an unnecessary conflict between science on the one hand and the Bible and Christian faith on the other; they perpetuate a dissonance between the kinds of knowledge revealed in each of "God's two books" rather than seeking to bring them into consonance; and they have brought about a cultural conflict, particularly in the United States, that I believe has harmed both the work of science and the cause of Christ. They also bring the Bible into disrepute among those who are not Christians who encounter believers rejecting sound scientific concepts because they are "not biblical."

An important distinction

I want to conclude with some remarks on an important and related issue. There are persons, including many members of the scientific community, who promulgate a philosophical belief system, a form of materialism that incorporates modern scientific ideas, which stands in fundamental conflict with Christian belief. Much of the opposition by many Christians to modern science stems from confusing this belief system with science itself. In a later essay I shall distinguish the two and argue that it is possible, even necessary, for all Christians to respect the scientific enterprise and its discoveries and theories, even as they challenge this belief system and the claims its proponents make about God and the universe.

Further Reading

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