

Science and the Evangelical Mind: What Is the Lay of the Landscape?

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What is an “evangelical,” and how does that differ from being a “fundamentalist”?

Accurate definitions of religious terms, including the word “religion” itself, are notoriously hard to formulate. The word “evangelical” is no exception. It can mean so many different things to various individuals and groups that define themselves as “evangelical” that I despair of reaching an adequate definition. Evangelicals in the UK or Korea or Guatemala might each have their own definitions, differing in some important ways from evangelicals in the US.

For my purposes here, with an eye on brevity and simplicity, I will focus on American evangelicals and define an “evangelical” as follows:

Evangelicals are Protestant Christians who believe in the salvation of individual persons by the unmerited grace of God, through the sacrifice of Jesus Christ, the incarnate second person of the Triune God. Evangelicals stress the supreme authority of the Bible for faith and practice; the divine calling to spread the “good news” of salvation to all the world; and the omnipotence of a personal God who created the world and humanity, who continues actively to govern the universe, and who will raise the saved into eternal life.

Another influential group of conservative Protestants, self-identified as “fundamentalists,” believes the same things. They differ from evangelicals mainly in their *overall attitude toward modernity*. George Marsden, the leading historian of fundamentalism, defines it as “militant anti-modernism,” and both parts of that definition are crucial.

Thus, for example, where fundamentalists have historically emphasized separation from the world and its “worldliness,” evangelicals have typically been much more willing to *engage* the world *on its own terms*, and thus their understanding of the world is negotiated to a much greater extent than that of fundamentalists. Indeed, fundamentalists will often say that evangelicals have “compromised” the Christian faith by their “accommodations” to secular modernity. In keeping with this, evangelicals belong to a wide range of Protestant denominations, in addition to having their own free-standing churches, to a much greater extent than fundamentalists, who tend to have their own denominations or else to favor independent churches that often affiliate loosely with other like-minded congregations.

In short (and in general), evangelicals are much more open-minded than fundamentalists, without necessarily being less committed to their shared understanding of Christian beliefs. As my mother used to say, “evangelicals are children of fundamentalists,” which I have often found to be true both literally and figuratively. To the extent that attitudes and practices are no less important than beliefs

for understanding religion, however, evangelicalism and fundamentalism are different religions—yet often the lines are blurred.

Historically, what has characterized the relationship between evangelicals, fundamentalists, and science?

In four words: **considerable tension and ambivalence**. Let me fill this in with several specifics.

- Since at least the early 20th century, the two greatest sources of tension have been evolution—especially human evolution—and higher biblical criticism. I could say a great deal more about this, but suffice it to say here only that this tension still characterizes evangelicals, who do try to engage modernity at these two points; whereas for the most part fundamentalists flatly reject evolution and modern biblical scholarship. Let me add that the claims of some biblical scholars are so outrageous, and the claims of some scientists so anti-religious, that evangelical ambivalence is not very hard to understand.
- On the one hand, evangelicals enthusiastically embrace the findings of science, when it comes to most applications in medicine and engineering. Evangelicals also fully accept the demonstrated results of the experimental sciences, such as physics, chemistry, physiology, or thermodynamics. They have no problems with gravitation, the periodic table, the circulation of the blood, or the law of entropy. Here, their attitude is highly empirical: if it can be shown from repeatable experiments and observations, it's true and presents no challenge whatsoever to religious belief.
- On the other hand, evangelicals are hesitant to accept some conclusions of the so-called historical sciences, such as geology, cosmology, and evolutionary biology. *Fundamentalists flatly reject the very legitimacy of those sciences*, and have created their own alternative explanation, “creation science,” which comports with their particular views of biblical authority and hermeneutics. Evangelicals are more ambivalent. Many evangelicals accept the big bang—indeed, quite a few of them believe that aspects of the big bang theory strongly support belief in the divine creation of the universe. Many evangelicals also accept modern geology, with a 4.65 billion-year-old earth and the long history of living things before humans arrived on the planet. But evolution—understood here to mean the common descent of humans and other organisms—remains a very serious problem for many, perhaps most, evangelicals. This in turn motivates many evangelicals to look for alternative views. Some embrace scientific creationism. Others prefer the kind of “old earth creationism” or “progressive creationism” espoused by astronomer-apologist Hugh Ross, director of the influential ministry Reasons to Believe (www.reasons.org). Others, probably an increasing number, prefer the confident, even sometimes cocky tone of the intelligent design movement. Officially (at least), ID takes no stance on the age of the earth and universe, though most ID adherents have no quarrel with mainstream science on those issues. Technically, ID has no stance on human evolution, either: as long as “design” can be shown *from and within science itself*, evolution is in theory acceptable to ID advocates. In practice, however, many ID leaders have said strongly negative things about “evolution” and “theistic evolution,” leading most observers to conclude that ID is just another form of antievolutionism, albeit the most sophisticated form that has yet appeared. ID advocates view the hypothetical “just-so stories” of evolutionary biologists with scorn: they want to see convincing evidence that what *might* have happened actually *did happen*, before they embrace a fully evolutionary account of life's history.
- Most evangelicals do not see any viable way to combine human evolution with the following

beliefs, which they base on their interpretation of the Bible: the uniqueness of humans, who alone bear the “image of God”; the fall of Adam and Eve, the original parents of all humans, from a sinless state, by their own free choices to disobey God; the responsibility of each person for their own actions and beliefs, within a universe that is not fully deterministic; and the redemption of individual persons by the atoning sacrifice of Christ. Evangelicals cannot and must not be separated from these crucial beliefs about human dignity, freedom, responsibility, sin, and redemption. The 64-dollar question is: can they maintain those beliefs without simultaneously affirming the necessity of an historical, separately created first human pair?

IMO, evangelicals will never fully embrace evolution if these points cannot be answered to their satisfaction. Two of these points (the *imago dei* and the fall) are closely related to the view that the early chapters of Genesis are at least loosely historical, not mythical or some other non-historical genre. Many finer points of evangelical theology are linked with the historicity of Adam & Eve. *Thus, if evangelicals are to be won over on human evolution, it must come about by theological rather than scientific persuasion. Furthermore, any such efforts must clearly reaffirm and maintain core evangelical beliefs about the dignity, sinfulness, and responsibility of each and every human being.*

- At the same time, it would be a mistake entirely to ignore the role of science in any effort to persuade evangelicals not to oppose evolution. Historically, evangelicals have been willing to re-examine traditional interpretations of the Bible when they are persuaded of the strength of the scientific data that seems contradictory to a given interpretation. In other words, there is no need to revise one’s theology if the scientific data are suspect—and this is an appropriate position to hold, in principle.

In practice, however, as long as someone with an impressive-sounding scientific pedigree can confidently assert that the scientific data do not really support the evolutionary origin of humans, then many evangelicals see no reason to rethink the theology. This in large part accounts for the popularity of ID among evangelicals. ID advocates routinely stress alleged “gaps” in scientific theories, such that the cumulative effect is to create substantial doubt among evangelicals about the validity of inferences concerning the common descent of all biological organisms. Insofar as this is true, high profile works by evangelical scientists who accept common descent might be very helpful in pushing evangelical leaders toward a more favorable assessment of evolution—but only if coupled with theological analysis that underscores, rather than undermines, core evangelical beliefs about God and humanity. Some efforts have recently been made along these lines, but it is too early to say how much impact they will have.

Regardless of his or her own particular views on issues related to origins, a pastor whose congregation includes several people who work in scientific fields or who have a strong interest in science will benefit from a deeper and broader understanding of the larger controversy.

- Evangelicals believe that Christians should be able to give a rational defense for the existence of God the creator, and they often link this with Paul’s appeal to natural theology in the first chapter of Romans. This entails a conversation with science. As physicist and theologian Robert Russell emphasizes, any conversation between science and theology is mediated by philosophy. Many evangelicals are committed to the “common sense” evidentialist epistemology that has heavily influenced much American thinking about science, religion,

and their interplay since the latter part of the 18th century. An important contemporary example is the M.A. program in science and religion at Biola University (CA).

I cannot overemphasize the importance of this point. Evangelicals think that nature and the Bible can both be read plainly and fairly simply, and that well grounded inferences about each will agree, or at least not contradict one another. This highly developed tradition of evidentialist apologetics is used to defend both the bodily resurrection of Jesus—a crucial fact of human history for any orthodox Christian—and the separate creation of humans and many other types of animals. It is also used to construct sophisticated design arguments for the existence of God, inferences to the best explanation that escape refutation by David Hume’s famous arguments against the teleological argument. *Evangelicals see good reasons to retain and advance this particular philosophical tradition, and it dovetails beautifully with the “intelligent design” approach to biology.* If they are to be persuaded to abandon ID, many evangelicals will need to be shown an equally persuasive approach to apologetics within which the resurrection and the existence of God are strongly supported; or else, they will need to be convinced that evolution really is the best inference from the evidence available to us, despite the tension it creates for core evangelical beliefs about humanity. Neither of these tasks will be simple or easy. Pastors who like to include apologetical arguments in some of their sermons are well advised to pay attention to this dynamic.

- Above all, every evangelical rejects *philosophical naturalism*, the view that (as Carl Sagan expressed it many years ago in his television series, *Cosmos*), “The cosmos is all there is, all there ever was, and all there ever will be.” Evangelicals believe in a God who interacts actively with the creation, in the past, present, and future, and they entirely reject any philosophical or theological view that denies God’s ability to act outside of the ordinary course of nature. This gives them ambivalence about *methodological naturalism* (MN), the view that science always ought to infer natural causes and not have recourse to the supernatural. *No other aspect of modern science has caused more controversy among evangelical Christians than this one.* On the one hand, for example, most evangelicals accept unquestioningly the validity of naturalistic assumptions in medicine—they consult physicians when they are ill, and they expect their physicians to use standard naturalistic means to effect cures. They do not see this as ruling out special divine action, or even as inconsistent with asking God for healing. On the other hand, evangelicals realize that, if every single event in the history of the universe has a natural explanation—in other words, if MN is applied to every single event—then God did not raise Christ bodily from the dead and cannot give them glorified bodies in a new heaven and earth. In their view (with considerable justification), naturalism has run amok and its limits must be carefully delineated and vigorously enforced. Any science that does not admit the possibility of miracles is, in their view, only a “science falsely so-called,” to borrow a common phrase. *Any effort to bring evangelicals more fully into conversation with modern science must be prepared to admit the legitimacy of this concern; at the same time, it must be recognized that many scientists (not to mention biblical scholars and theologians) are not prepared to admit its legitimacy.*

What general observations can be made, concerning these points?

- MN is often defended *a priori*, by ruling non-natural explanations out of science by definition. This plays into the hands of ID advocates, who can then say with justification that scientists are behaving arbitrarily and are foreclosing even the possibility of raising questions about the ground rules for doing science. It might be better to defend MN historically, by showing how it has been so successful *within a limited realm of inquiry*, and how many Christian scientists themselves have advocated MN *within a limited realm of inquiry*,

including some of its most influential advocates. At the same time, it would be helpful if more biblical scholars were willing to question Enlightenment assumptions about the plausibility of any and all accounts of miracles—but that is not a problem for evangelical scholars, who have always questioned Enlightenment assumptions!

- There is an enormous gap between popular conceptions of science—conclusions, methods, and attitudes—and those of scientists themselves. This gap is not unique to science among practitioners of specialized knowledge, and it is not unique to evangelicals among the lay public. But it is real and very significant. Those who try to bridge this gap are mostly scientists (in their role as educators at colleges and universities and insofar as they write books for lay readers) and science journalists. Both of those professional communities tend to be skeptical at best toward evangelicals, and this exacerbates an already difficult state of affairs. If ways can be found to popularize good science, while showing appropriate sensitivity to the concerns of evangelicals, it would be a very good thing. Indeed, some of the earliest and most effective efforts to popularize science were carried out by evangelical scientists/scholars themselves. With rare exceptions (such as Francis Collins' *The Language of God*), it remains to be seen whether this can still be true.

There is an opportunity here for pastors and theologians to write well-informed, spiritually sensitive materials for use in adult Sunday school classes. There is also a need for more attention to this situation among seminary professors, who should be encouraged to find ways to help their present and former students deal more effectively with science in their congregational ministries.

What suggestions can be made, relative to publications and web sites that might be helpful to pastors and seminary faculty?

Here I offer only a few general suggestions. I will be glad to recommend further readings and web sites in response to specific questions.

- Loren and Deborah Haarsma of Calvin College are developing curricular materials for use in Christian schools, materials that present genuine science carefully and accurately, within a clearly articulated orthodox theological perspective. A recent example is their book, *Origins: A Reformed Look at Creation, Design, and Evolution*, available inexpensively from Faith Alive Christian Resources.
- The various publications of Michael Poole, an expert in science education who has published several books and pamphlets of very high quality, that bring an evangelical perspective to the teaching of modern science. One such book is *Beliefs and Values in Science Education* (Open University Press, 1995); one such pamphlet is *God and the Big Bang - and Other Arguments about Science and Faith*, now available on the internet. These could be helpful not only to pastors, but to students at high schools and colleges who are interested in science.
- Pastors and graduate students in science or theology may find much value in the many books of John Polkinghorne, a distinguished particle physicist and Anglican priest who holds a traditional understanding of the Nicene Creed. For a simple overall introduction to his ideas, see *Quarks, Chaos, and Christianity*; for more sophisticated readers, *Belief in God in an Age of Science* or *The Faith of a Physicist* are recommended. A recent book by Robert Russell, *Cosmology from Alpha to Omega*, is more technical than Polkinghorne's works but in the same spirit.

- The American Scientific Affiliation (asa3.org), founded in 1941, is an organization of Christians (mainly evangelicals) in the sciences. Quite a few pastors are also members. They publish a wide-ranging academic journal, *Perspectives on Science and Christian Faith*, and their web site has many interesting sections, including back issues of their journal (with only the most recent issues withheld). Their annual meeting (which will take place this year in Oregon in early August) is known for the meaningful fellowship and excellent interaction on diverse issues related to the sciences and Christian faith. Some regional meetings of the ASA are also held; details are on their web site.
- Counterbalance.org is perhaps the best overall web site for serious inquirers about science and religion, including many aspects of science and Christian faith. Metanexus.net is even broader in scope, especially when it comes to world religions.