

## Churches That Push Scientists Away: Restoring Engagement with Scientists (While Reassuring the Faithful)

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*Scientifically minded individuals, looking for a nurturing environment in which to explore faith, may find the local church a place of discomfort, tension, or even rejection. Scientists, trained to continuously test, question, gather new evidence, correct, and retest every hypothesis in a never-ending search for truth, find themselves in an alien environment when surrounded by believers who confidently proclaim that their search for truth has ended.*

*Through the eyes of a career scientist/engineer with over 50 years of attendance and ministry in Assemblies of God churches, practical suggestions are offered on ways to develop a congregation that is prepared to embrace rather than fear science, to connect in a meaningful way with the scientific community, and to apply critical thinking skills to the continual reassessment and correction of their own faith-based world view.*

**E**vangelical churches wanting to establish a welcoming environment for members of the scientifically-educated community face a difficult task. The “creation science” movement, which has dominated evangelical interaction with science since the early 1960s, amounts to a lifetime of teaching for most of today’s evangelicals, a duration long enough to make this perspective equivalent to established doctrine — by assumption, if not by actual codification. Such teaching, which frequently portrays scientific thought, and scientists themselves, as threats to Christian faith, can create a hostile environment, where scientists must either forsake their scientific knowledge, or at least keep quiet about it.

The opportunity now exists for a restoration of the once dynamic engagement between science and faith. Compelling evidence from the 2003

completion of the Human Genome Project has led many church leaders to reconsider their once dogmatic opposition to evolutionary biology. The Assemblies of God’s 2010 position paper on creation<sup>2</sup> now calls for open dialogue on the three creation models deemed consistent with sound biblical interpretation: young Earth creationism (YEC), old Earth creationism (OEC) and evolutionary creationism (EC).<sup>3</sup>

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Unfortunately, fifty years of damage is hard to undo. Attempts by church leaders to accommodate scientific thought may be seen by congregants as a compromise of what they assume to be orthodox Christian belief. Church leaders navigating these waters therefore face the daunting task of reevaluating their own doctrinal positions and trying to establish meaningful dialogue with the scientific community, while at the same time reassuring their congregation (and perhaps themselves) that the journey is an effort to restore, rather than depart from, orthodoxy.

## Scientific and Evangelical Minds: The Role of Critical Thinking

In order to evaluate the ways the church has pushed away the scientific community, and the steps that can be taken to restore a more healthy environment, it is helpful to consider how scientifically-minded people process information, and how that differs from the ways typical evangelical Christians have been conditioned to think about things. In doing so, it will become evident that much of what causes scientists to feel pushed away can be attributed not just to differing conclusions, but to the radically different methods used to arrive at those conclusions.

In using the term “scientifically-minded”, I intentionally broaden the scope to include not just professional scientists, but those in other fields who are scientifically literate by virtue of education or avocation, and who apply what could be termed “critical thinking skills” to their evaluation of truth claims. In order to provide a basis for comparing scientific and evangelical thought, I will condense the attributes of critical thinking listed by Towne<sup>4</sup> into three general categories: independent thought, evidence-based thought, and healthy skepticism.

### *Independent Thought*

Scientists are trained to discover new things, that is, to look for things that others

may not have noticed. New scientific theories achieve consensus only after they have been challenged by a scientific community trained to offer every imaginable, and often contrarian, alternate explanation. This is a point often missed by those who are critical of science; scientific consensus is often perceived as closed-mindedness by those unaware of the contentious challenges that preceded arrival at that consensus.

The scientific mind is also trained to evaluate separate issues independently. Consensus on one set of issues may be accompanied by a total lack of consensus on others. A 99.85% agreement among earth and life scientists on evolutionary biology,<sup>5</sup> for example, may be accompanied by a complete lack of consensus on faith issues, with one poll showing an even 40-40 split (with 20% unsure) among scientists on belief in a personal prayer-answering God.<sup>6</sup>

In contrast to the independent thought encouraged by the scientific method, much of the evangelical world seems threatened by divergent opinion and comforted by conformity. One doesn't need to associate with any community of believers for long before learning their generally held “evangelical Christian position” on everything from political affiliation to gun control, global warming, and theories of origins.

Conformance to the assumed standard of Christian opinion is often accompanied by an assumption that other groups are just as homogenous. This can lead to the errors of oversimplification and generalization. Many evangelicals, for example, assume an intrinsic link between evolution and atheism, in spite of previously cited data to the contrary. This makes it easy for evangelicals to establish clearly defined battle lines that divide the world into distinct “us” and “them” categories in a “cosmic battle” between good and evil.<sup>7</sup> While this mindset may serve to provide affirmation of one's membership in the “us” group, it can also serve to push scientists fur-

ther away from fellowship. By framing the faith and science discussion as an “either/or” false dichotomy, many scientists will sadly walk away from a church that seems unwilling to accept “both” as a viable alternative.

### *Evidence-Based Thought*

Another salient feature of critical thinking is an evaluation of truth claims based on evidence, rather than on authority, emotion, or intuition. This mindset is reinforced by a history of scientific advances which seemed counterintuitive when first proposed. Heliocentrism was a counterintuitive explanation for planetary motion until Galileo’s observation of the phases of Venus provided evidentiary proof.<sup>8</sup> Big bang cosmology was denounced within the scientific community (by such noted figures as Albert Einstein and astronomer Fred Hoyle) for its counterintuitive notion that the universe not only had a beginning, but that it originated in an infinitely small singularity. But evidence-based thinking prevailed, and the scientific community eventually conceded to the evidence for a “moment of creation”,<sup>9</sup> emotional attachments, intuition, and scientific authority figures notwithstanding.

In contrast to the evidence-based thinking prevalent in the scientific community, evangelicals have typically been conditioned to look to their chosen spiritual authorities (pastors, teachers, or parachurch ministries) for their interpretations, rather than interpreting evidence directly. Consequently, many evangelicals hear only the preselected evidence which supports their chosen authorities’ particular interpretation of scripture. Teaching often relies heavily on a handful of easily refuted examples, such as the claimed “irreducible complexity” of the human blood-clotting mechanism<sup>10</sup> or the assumed lack of transitional fossils, and ignores the vast body of more recently discovered fossils<sup>11</sup> or evidence from the human genome.<sup>12</sup> While any teacher would be expected to preferentially choose references that support his premise, the scien-

tifically minded person will be suspicious if he knows those references to be blatantly unrepresentative.

Churches can also alienate the evidence-based thinker by resorting to arguments based on emotion and intuition. Arguments such as “it’s counterintuitive,” “you weren’t there”, and “why aren’t more people convinced?” are likely to be deemed completely irrelevant to an evidence-based thinker. Much worse are the arguments that rely on emotional portrayals of scientists as evil conspirators in a massive deception, or that may even use imagery implying an intrinsic connection between science and the atrocities of Nazi Germany.<sup>13</sup> Not surprisingly, scientists are unlikely to accept such rhetoric as an invitation to fellowship.

### *Healthy Skepticism*

The final component of critical thinking is the practice of healthy skepticism. Authentic skepticism is *not* the automatic and cynical dismissal of a body of thought. Rather, it is the open-minded practice of withholding judgment until truth claims can be examined from all angles, and then once a decision is made, to continue submitting one’s own beliefs to periodic reevaluation.<sup>14</sup> For the scientist, every answer only leads to dozens of more questions. While others may be frustrated by not having all the answers, the authentic skeptic is energized by the process of questioning, and actually looks forward to the resulting disagreement and debate.

In contrast, much of the church world uses the word “skepticism” pejoratively, and associates questioning with doubt or lack of faith. The scientist, used to a community that thrives on asking difficult and often unanswerable questions, will quickly become frustrated trying to interact with believers who dismiss such questions with a standard repertoire of quick answers.

## Engaging Scientists While Reassuring the Faithful

Effectively reconnecting with the scientifically-minded requires a renewal of critical thinking skills. What follows are a number of suggested ways in which each of the categories of critical thinking can be modeled and encouraged within the church.

### *Encouraging Independent Thought*

Independent thought begins by allowing dialogue that includes more than one possible interpretation. Dogmatic refusal to accept any alternate interpretation leads to angry rhetoric that can divide congregations, so the key is to continually strive for inclusive language that admits to the acceptability of multiple interpretations. Billy Graham modeled that well in his statement:

*I believe that God created man, and whether it came by an evolutionary process ... or not, does not change the fact that God did create man.*<sup>15</sup>

Sprinkling sermons, writings, and conversations with such inclusive language can help squelch the false dichotomies that create barriers between believers and between the church and the scientific community. Citing examples of respected evangelicals such as Graham and others who are open to a wide variety of interpretations can also demonstrate that the correlation between faith and science is *not* one-dimensional.<sup>16</sup> The Biologos statement on science and faith, for example, includes such noted signatories as Jack Hayford, Philip Yancey, Os Guinness, and Tim Keller.<sup>17</sup>

Those suspicious of rapprochement with science need to be reassured by carefully defining terminology. Fear of compromise on the doctrine of *inerrancy*, for example, can be addressed by applying the term both to scripture itself *and* its interpretation. By broadening the definition, one can reaffirm the inerrancy of scripture, but look to other forms of God-given revelation, including His general

revelation in nature, to assure that one's *interpretation* of scripture is increasingly inerrant.

Likewise, those who insist on literal interpretation of scripture can be reassured by defining two types of literalism: the *superficial literalism* of the words themselves, and the *deep literalism* of the intended message.<sup>18</sup> The fact that there actually are seeds smaller than the mustard seed makes Christ's statement in Mark 4:31 literally untrue, at least at a superficial level. But if it is understood that Jesus' *intent* was to teach a spiritual lesson, not a botany lesson, one can apply the standard of *literalism* to this passage in a deep, rather than a superficial sense.

Of course, the most controversial hot-button word, and the one that needs to be most carefully defined, is "the E-word" itself. In many evangelical churches, the term *evolution* is likely to elicit a vitriolic response, without anyone pausing to consider how that word is being defined. Harvey provides six definitions for the term, arranged in order of scientific certainty.<sup>19</sup> For the purposes of this discussion, I will use a modification of that list, with five definitions arranged in order of level of acceptance within the evangelical community:

1. *Change over time*
2. *Change driven by genetic variation and natural selection ("microevolution")*
3. *Common ancestry ("macroevolution")*
4. *Evolution of life from non-life (abiogenesis)*
5. *Evolutionism*

Almost no one would dispute (1), which would cover such common practices as selective breeding of domestic animals and development of hybrid crops.

Almost as universally accepted is (2), as evidenced by the observed development of drug-resistant strains of bacteria. Even ardent young-earth creationists concede this point, at least if limited to variations within a given "kind" of living thing, and use it to explain

how the millions of species now in existence might have originated from the limited number that would have fit on Noah's ark. (Interestingly, this involves a rate of change orders of magnitude greater than anything predicted by evolutionary biology.<sup>20</sup>)

The evangelical community had difficulty accepting (3) when based on incomplete fossil evidence, but the overwhelming genomic evidence in the past ten years has changed that dramatically. Many evangelicals who have taken time to consider the evidence, including intelligent design proponents such as Behe,<sup>21</sup> are now willing to accept common ancestry as scientifically-proven fact.

It is interesting to note that definitions (1) through (3) define evolutionary biology, and include nothing that the Assemblies of God, or many other evangelicals, would deem theologically unacceptable. Definition (4) remains a matter of speculation, both scientifically and theologically, and only definition (5), which misappropriates the science to support a world view based on philosophical naturalism,<sup>22</sup> specifically excludes God. Yet when most evangelicals hear "the E-word," they immediately assume that (5) is an inextricable part of the package.

Deep-seated opposition to evolution can be reframed as opposition to the materialistic philosophy rather than the science. One can, without inconsistency, be fully supportive of (1) through (3), undecided on (4), and adamantly opposed to (5).

#### *Encouraging Evidence-Based Thinking*

Encouraging evidence-based thinking requires willingness to address *all* evidence, including that which may challenge your current beliefs. Much "creation science" curriculum continues to rely on hand-picked evidence from the 1960s, giving the impression of a weak faith that needs to avoid certain areas of investigation, for fear that "chinks in one's armor" might be exposed.<sup>23</sup> On the other hand, references to the latest discoveries of

biology and astronomy reflect a confidence that true faith, although it may be *corrected*, is never *threatened* by knowledge. Many teaching resources that reflect the best of recent scientific discoveries are now available – among them the films *Test of Faith*<sup>24</sup> and *A Leap of Truth*,<sup>25</sup> the "Pathways to Truth" video curriculum,<sup>26</sup> and the *Science and Nature in Christian Perspective* lesson plan by Harvey.<sup>27</sup>

Even exposure to blatantly non-Christian material can be a faith strengthener, if presented in an appropriate context. A pastor can effectively demonstrate the robustness of his faith by making it known that he has actually considered and *read* books by such outspoken atheists as Dawkins<sup>28</sup> and Hitchens,<sup>29</sup> and come away with a faith that has been strengthened by the challenge.

Thoughtful consideration of evidence can be enhanced by providing historical perspective. Numbers<sup>30</sup> provides a detailed account of evangelical perspectives on science, while Noll<sup>31</sup> and Giberson<sup>32</sup> contribute excellent summaries. Of particular note is the role of Seventh Day Adventism in the origin of young earth creationism. As these authors point out, an old earth interpretation of Genesis, usually incorporating a "gap" or "day-age" model, was almost universally accepted among evangelicals from the early 1800s until the 1960s. It wasn't until 1961 when Whitcomb and Morris<sup>33</sup> adapted a 1923 work by Seventh Day Adventist George MacReady Price,<sup>34</sup> carefully scrubbing it of all references to Seventh Day Adventism, that the young earth model gained any traction. This perspective often comes as a surprise to those who assume that the young earth interpretation is a historical legacy, rather than a recent departure.

It can also help to understand the reception Darwin's theories first received among evangelicals. Among Darwin's early defenders were noted theologian, and the "father" of the doctrine of inerrancy, B.B. Warfield,<sup>35</sup> and

biologist Asa Gray, who was also one of the founders of the fundamentalist movement.<sup>36</sup>

An interesting technique I have used to encourage reassessment based on historical perspective goes as follows: Without any direct reference to the issue at hand, but using many of the common arguments used in the creation/evolution debate, I lay out my case, appealing to the inerrancy of scripture, the teachings of the church, and the scientific theories (that are, after all, just theories) that clearly contradict scripture. As expected, most evangelicals take a resolute stand on the side of the church. I then calmly add something I had “forgotten” to mention: that the year is 1615, and they have all just taken a stand against the heliocentric theories of Copernicus and Galileo. The resulting “cognitive dissonance” often catches many by surprise, and gives opportunity to reevaluate their own stance from a fresh perspective.<sup>37</sup>

### *Encouraging Healthy Skepticism*

Evangelical pastors sometimes are conditioned to believe that they should have answers to every question. Developing a congregation that can connect with skeptical thinkers, and knows how to apply skeptical thinking skills to their own beliefs, requires learning how to be comfortable with questions that remain unanswered, or result in unresolved ambiguity. Rather than seeing “I don’t know” as an admission of failure, it should be seen as a humble recognition of the vast unexplored mysteries of God.

This mindset can be reinforced by a willingness to publicly address some of the most difficult questions posed to Christians, but should always be accompanied by a discussion that addresses multiple ways of resolving apparent paradoxes. Often, it is more beneficial to give people permission to think, than it is to tell them *what* to think. Such treatment also serves to connect with skeptical thinkers by validating their questions, and ensuring them that the mysteries of God are deep

enough that they need never run out of questions.

Beyond leaving some questions unresolved, a healthy attitude toward skeptical thinking can be further modeled, and scientific thinkers engaged, by encouraging even more imaginative and speculative areas of questioning. What might the existence of multiple universes tell us about the nature of God? What about the possibility of life on other planets? Could seeing God as Father have anything to say about giving birth to life through seemingly natural processes? Such questions not only engage the scientifically minded, but can also serve to energize the thinking of long-time believers.

Finally, it is important to humbly admit mistakes of the past – on one’s own behalf, and on behalf of the church. Changing one’s view on something is sometimes seen as a sign of weakness. On the contrary, it’s hard to see how it’s possible to encourage others to change their minds, unless they’ve seen us model it ourselves.

### **Epilogue: A Personal Reflection**

Much of this paper reflects a personal journey. After a 90-plus year family history in the Assemblies of God, 27 years of ministry in one church, and a move to a new community, my wife and I were recently led to a new place of ministry in a dynamic Spirit-filled body of believers outside the AG fellowship, where my passion to share the wonders of God opened up by new scientific discoveries is no longer stifled. My prayers are with the fellowship of my spiritual heritage as it takes steps to reengage with the scientific community, and moves forward in its exploration of the unending mysteries of God.

### **Notes**

<sup>1</sup> James L. Garlow and Keith Wall, *Miracles Are For Real: What Happens When Heaven Touches Earth* (Grand Rapids: Bethany House, 2011), Chapter 7.

- <sup>2</sup> Assemblies of God, "Position Paper: The Doctrine of Creation," (adopted by the General Presbytery in session August 9-11, 2010) .
- <sup>3</sup> Mike Tenneson and Steve Badger, "A Brief Overview of Pentecostal Views on Origins," *Enrichment Journal* (online edition) Spring 2010, retrieved June 25, 2011, from [http://enrichmentjournal.ag.org/201002/ejonline\\_201002\\_origins.cfm](http://enrichmentjournal.ag.org/201002/ejonline_201002_origins.cfm).
- <sup>4</sup> Margaret Gray Towne, *Honest to Genesis: A Biblical and Scientific Challenge to Creationism* (Baltimore: PublishAmerica, 2003), 40-47.
- <sup>5</sup> Larry Martz and Ann McDaniel, "Keeping God Out of Class (Washington and bureau reports)," *Newsweek*, CIX (26): 22-23 (June 29, 1987).
- <sup>6</sup> Edward J. Larson and Larry Witham, "Scientists Are Still Keeping the Faith," *Nature*, 386: 435-436 (April 3, 1997).
- <sup>7</sup> *The Truth Project*, DVD (Colorado Springs: Focus on the Family, 2004).
- <sup>8</sup> Thomas S. Kuhn, *The Copernican Revolution: Planetary Astronomy in the Development of Western Thought* (Cambridge, MA: Harvard University Press, 1957).
- <sup>9</sup> Robert Jastrow, *God and the Astronomers* (New York: Warner Books, 1978).
- <sup>10</sup> Francis Collins, *The Language of God: A Scientist Presents Evidence for Belief* (New York: Free Press, 2006), 189.
- <sup>11</sup> Darrel Falk, *Coming to Peace With Science: Bridging the Worlds Between Faith and Biology* (Downers Grove, IL: Intervarsity Press, 2004), Chapter 4: "The Fossil Record."
- <sup>12</sup> Collins, "Deciphering God's Instruction Book: The Lessons of the Human Genome," in *The Language of God*.
- <sup>13</sup> *Expelled: No Intelligence Allowed* [movie], directed by Nathan Frankowski, 2008.
- <sup>14</sup> Philip Wala, "The View From the Skeptic Tank" (Apr 1, 2009), retrieved June 25, 2011, from <http://faithforthinkers.blogspot.com/2009/04/view-from-skeptic-tank.html>.
- <sup>15</sup> David Frost (ed.), *Billy Graham: Personal Thoughts of a Public Man*, (Colorado Springs: Cook Communications Ministries, 1997) 72-74.
- <sup>16</sup> Wala, "Phil's Etch-a-Sketch of Understanding Proposal" (Nov 29, 2009), retrieved June 25, 2011, from <http://faithforthinkers.blogspot.com/2009/11/phil-etch-sketch-of-understanding.html>.
- <sup>17</sup> "The BioLogos Foundation's Theology of Celebration II Workshop" retrieved June 25, 2011, from <http://biologos.org/blog/the-biologos-foundations-theology-of-celebration-ii-workshop/CP1/>.
- <sup>18</sup> Wala, "Inerancy"[sic] (Dec 5, 2010), retrieved June 25, 2011, from <http://faithforthinkers.blogspot.com/2010/12/inerancy.html>.
- <sup>19</sup> Allan H. Harvey, "The E-Word," in *Science and Nature in Christian Perspective* (2007) retrieved June 25, 2011, from <http://steamdoc.s5.com/sci-nature/index.html> (Chapter 5).
- <sup>20</sup> David Catchpoole and Carl Wieland, "Speedy Species Surprise," (Creation Ministries International) , retrieved June 25, 2011, from <http://creation.com/speedy-species-surprise>.
- <sup>21</sup> Michael J. Behe, *The Edge of Evolution* (New York: Free Press, 2007), 71-72.
- <sup>22</sup> Timothy Keller, *The Reason for God* (New York: Riverhead Books, 2008).
- <sup>23</sup> Alister McGrath, "Overcoming the Faith and Science Divide" [video] retrieved June 25, 2011, from <http://www.qideas.org/video/overcoming-the-faith-and-science-divide.aspx>.
- <sup>24</sup> *Test of Faith* [DVD and course kit], (Eugene, OR: Wipf & Stock, 2010).
- <sup>25</sup> Ryan Pettey, "A Leap of Truth: Evolutionary Creation," retrieved June 25, 2011, from <http://www.biologos.org/blog/a-leap-of-truth>.
- <sup>26</sup> Wesley Ministry Network, *Religion and Science: Pathways to Truth*, DVD and Course Kit, 2008.
- <sup>27</sup> Harvey, *Science and Nature in Christian Perspective*.
- <sup>28</sup> Richard Dawkins, *The God Delusion* (London: Bantam Press, 2006).
- <sup>29</sup> Christopher Hitchens, *God is Not Great: How Religion Poisons Everything* (New York: Twelve Books, 2007).
- <sup>30</sup> Ronald L. Numbers, *The Creationists: From Scientific Creationism to Intelligent Design (Expanded Edition)*, (Cambridge, MA: Harvard University Press, 2006).
- <sup>31</sup> Mark A. Noll, "Thinking About Science," in *The Scandal of the Evangelical Mind* (Grand Rapids, MI: William B. Eerdmans, 1994), Chapter 7.
- <sup>32</sup> Karl W. Giberson, *Saving Darwin: How to Be a Christian and Believe in Evolution* (New York: HarperCollins, 2008).
- <sup>33</sup> John C. Whitcomb and Henry M. Morris, *The Genesis Flood: The Biblical Record and Its Scientific Implications* (Phillipsburg, NJ: Presbyterian and Reformed Publishing, 1961).
- <sup>34</sup> George McCready Price, *The New Geology* (Mountain View, CA: Pacific Press, 1923).
- <sup>35</sup> B.B. Warfield (Mark A. Noll and David N Livingstone, ed.) *Evolution, Science, and Scripture: Selected Writings* (Grand Rapids, MI: Baker Books, 2000).
- <sup>36</sup> David N. Livingstone, *Darwin's Forgotten Defenders* (Vancouver: Regent College Publishing, 1984).
- <sup>37</sup> Wala, "Encouraging Critical Thinking in Evangelical Churches: The Scientist as a Bible Teacher," in *Evangelicals, Evolution and the Church*, ed. Steve Martin (E-Book, 2010), retrieved 6/25/2011 from <http://www.scribd.com/doc/46010910/Evangelicals-Evolution-and-the-Church>.