



Robert Kaita

## Essay Book Review

# Establishing a Meaningful Dialog

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**SCIENCE VS. RELIGION: What Scientists Really Think** by Elaine Ecklund. New York: Oxford University Press, 2010. 240 pages. Hardcover; \$27.95. ISBN: 9780195392982.

I have always been uncomfortable with terms like “elite.” It probably draws from the mantra of “equality in the sight of God” that I heard from childhood, and the egalitarian ideals of the American society in which I was raised. That being said, I recognize that scholars in a relatively small number of institutions of higher education appear to have a disproportionately large influence in training our future leaders, and in shaping the perception the public has of their disciplines. These individuals thus constitute a powerful “elite,” and it is critically important to understand them.

In *Science Vs. Religion: What Scientists Really Think*, Elaine Ecklund takes on this daunting task. As a member of that group, I have encountered those who are unsympathetic to my faith in Christ. On the other hand, hostility toward my beliefs is not as widespread as many Christians might think. I was thus especially interested in finding out if she also discovered this from her much broader sampling of my colleagues.

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Ecklund reports that nearly half of the scientists she interviewed claimed some kind of religious affiliation. While this is personally encouraging, she also points out that this is not widely appreciated within the scientific establishment and the public at large. It has profound implications for how to establish a meaningful dialog between the two communities, and Ecklund’s book serves a particularly valuable role in explaining how this might be accomplished.

The book is divided into two sections, which cover the personal and public aspects of the topic. The first is entitled “Crossing the Picket Lines: The Personal Faith of Scientists.” Ecklund uses its chapters to put her extensive survey results in context by providing anecdotes of individuals in two groups. To start with, Ecklund describes those scientists who do not profess any religious beliefs, and the reasons she uncovers are not surprising. There are many who feel that “science trumps religion,” and this certainly is not new. As Laplace purportedly told Napoleon concerning God, “he had no need for that hypothesis.” Then there are those who have had bad experiences with organized religion in the past, or simply feel that it is foreign or unimportant. Such attitudes are not unique to scientists, and it is particularly telling that only ten percent of those interviewed felt that an increase in education always leads to a decrease in religious commitment.

For scientists who fall into either of these categories, Ecklund points out that they need to understand why nearly half of their colleagues do not feel the same way. Communicating with them as believers as well as peers will be foreign and difficult. Because the challenge is similar, it is a critical step toward establishing the means by which science can be communicated to the general public.

The second group Ecklund addresses consists of those who profess a faith of some kind. For scientists without any religious beliefs, there is no dichotomy between their lives at work and home. In contrast, those who practice a religion of some kind have to deal with the public stereotype embodied in the title of the book. A common reaction is to have what Ecklund calls "closeted faith." Scientists avoid conflict at work because nobody there knows about their beliefs, and they avoid conflict in their faith community because nobody there knows what their work is. The challenge Ecklund poses to these scientists is to take on the problem squarely. She begins with the premise that those in this group see no conflict between science and religion because they continue to practice both. She encourages them to take the time and effort to communicate this as a "boundary pioneer." She uses this term because of the leading role scientists who practice a religion can play in fostering a dialog between the two communities of which they are a part.

The final chapter in Ecklund's discussion of personal faith is entitled "Spiritual Entrepreneurs." Those in this category "call themselves spiritual, but not religious in the traditional sense." They constitute over twenty percent of the scientists interviewed; the same percentage is present for those calling themselves atheists. Ecklund observes a tendency of such "spiritual" scientists to be more engaged in volunteering and less concerned about "policing the boundaries between science and religion." This could make them unexpected "allies" with those from more conventional faith backgrounds.

The second section of the book is entitled "Society and Broader Publics." Ecklund begins with the most direct way scientists engage the American public, that is, by teaching students in their classrooms. In chapter 5, "Suppression or Engagement," she frames what they are doing according to two different "cultural scripts." One emphasizes suppression of any discussion of science and religion, often because it

is thought to be simply irrelevant. The other seeks engagement, but it can take different forms. Under the title, "Religion Is an Important Public Issue: Positive Environmental Push," Ecklund mentions a psychologist who summarizes his motives by saying, "Students ought to think about what science contributes and what it cannot contribute to knowledge." This is in contrast to a biologist she interviewed, who felt that it was his "moral responsibility to actively protect the authority of science from the intrusion of religion." Such sentiments are included under the title, "Religion Is a Threat That Must Be Addressed: Negative Environmental Push."

The next two chapters effectively elaborate on these themes by taking the reader inside the major research universities that were the focus of Ecklund's study. In chapter 6, she notes that many scientists subscribe to one of several models for the university. First, there is the "Model of Opposition," in which "religion ought to be viewed in opposition to scientific reasoning." Another is the "Model of Secularism," in which "universities ought to be bastions of secularism." Evidence for both appeared earlier in the book, and the obstacles they pose for the believer are clear. Perhaps more subtle are the challenges posed by the "Model of Pluralism," in which "universities ought to foster pluralism." Ecklund presents the essence of the problem on page 99 when she writes the following:

[I]t seems, ironically, that those scientists I interviewed who most prize the vision of the university as committed to plurality are actually the most opposed to the entrée of diverse religious views into the fabric of the intellectual life of universities ... Talking about religion at all ... just invites a fight. Scientists wondered aloud how, if religion is to be brought into the university, it could ever be discussed in a civil manner.

She effectively argues that such sentiments, rather than allowing for genuine pluralism, suppress a critical part of what makes scientists of faith who they are.

Ecklund provides a set of contrasting models in chapter 7, lived by the "boundary pioneers" she introduced before. One is the "Model of Nurture," in which "universities ought to nurture students—including spiritually—in their formative years." The next is the "Model of Legitimacy," in which "universities ought to extend legitimacy to religion as a subject of study." The last model she proposes is the

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“Model of Connected Knowledge,” in which “universities ought to support the connection of religious knowledge to other forms of knowledge.” The practical manifestations of these models on the research university campus are in such contrast that it would hardly be possible to bring the adherents of each together in constructive dialog, let alone between these scientists and the public at large.

In chapter 8, which is entitled “What Scientists Are Doing Wrong That They Could Be Doing Right,” Ecklund points out that “contrary to the predictions of some, religion does not seem to be going away,” and reminds us that only a very small minority in the academy are openly hostile to it. Only when scientists appreciate this fact can they heed her call, as the title of her last chapter puts it, to “shatter myths” and move “toward dialog.”

If I find any fault in Ecklund’s book, it is that there could have been more about how scientists approach the questions they address. The faith of the scientists is nuanced, as Ecklund accurately portrays, but so should their responses be to the “hot-button” issues of the day. For example, she finds that none of the scientists she interviewed, regardless of whether or not they were religious, thought that “intelligent design” (ID) had any scientific merit. Ecklund’s primary discussion of this is in a lengthy footnote in chapter 2. The “high profile” she admits ID has, especially with the controversies in Kansas and Pennsylvania occurring at the time she was collecting her data, suggests that it should have had more discussion in the book proper.

On the question of whether ID is science, it would have been interesting to hear the responses of scientists to ancillary questions such as “Do you think there are open questions in the theory of evolution?” This could help separate those who have a genuine concern for keeping the idea of *deus ex machina* out of science, from others who subscribe to a “scientism” that could be ultimately just as detrimental to the scientific enterprise. For them, the theory of evolution provides a triumphant demonstration that scientists no longer have to “hypothesize a designer.” If scientists are unaware of a natural explanation at present for a particular phenomenon, so the argument goes, there is no doubt that one will eventually be discovered. I was concerned about this problem when Ecklund refers to scientists who call evolution the “best theory ... for the origins of life on earth.” The

theory of evolution, in fact, deals with the *diversity* of life on earth. How it began is the purview of the far less developed field of abiogenesis, and a widely accepted theory has yet to be formulated for the origin of living organisms that could subsequently evolve. At best, this confusion is carelessness, and at worst, it represents the kind of overstepping of bounds that represents a philosophical rather than a scientific position. People of faith can sense this, and would have every reason to be uncomfortable.

To be fair, Ecklund does address the problem in the very blunt comments of one of the biologists she interviewed. On page 132, she writes the following:

[The biologist] said rather strikingly that he is “really pissed off at [his] colleagues for behaving like scientists, for behaving so arrogantly in response to [religious challenges to science.]” Then I asked him to tell me what specifically he thinks his colleagues could be doing better. [He said], “I would want them to try to sell science on its true merits, which is the skeptical improvement of all knowledge. That’s what science is all about—resting on the evidence. And the evidence is never perfect. Every fact can be overturned, and we all know this. But when it comes to talking publicly about creationism ... suddenly evolution is a fact, Darwin is completely right.”

This encapsulates one of the toughest and most important messages to scientists who want to communicate to the public, and it makes Ecklund’s book a timely and practical guide for us. If we really believe that our job is the “skeptical improvement of knowledge,” and “every fact can be overturned,” we have an obligation to explain this to nonscientific audiences.

Instead of getting angry when we hear “evolution is just a theory,” as some of us are wont to do, we can quote the statistician George Box. As he put it, “All models are wrong, but some are useful.”<sup>1</sup> We should then explain why that is the case, and frankly tell what the limits of our knowledge are. Such a winsome approach reflects a humility that is able to break the barrier that the arrogance of our community has created. It allows us to convey the excitement of pursuing the “unanswered question” rather than the “unquestioned answer,” and enables the dialog that Ecklund encourages all of us to join. ~

### Notes

<sup>1</sup>George E. P. Box and Norman R. Draper, *Empirical Model-Building and Response Surfaces* (New York: Wiley, 1987), 424.