By: Jeffery R. Bonnerman

Scientific illiteracy is a problem in our public schools — but there are other, deeper problems that urgently need addressing. A response to "Science Ed.: a Church Issue" by George L. Murphy (Sept./Oct. 2002)

Editor's Note: George L. Murphy's "Handiwork" column in the Sept./Oct. 2002 issue addressed the topics of scientific illiteracy and science education as a concern for the church. Attempts to introduce challenges, such as "intelligent design," to scientific theories of evolution were discussed as one example of misunderstandings that create problems for science, society, and the church. Some religious responses to the need for better understanding of science were then discussed. Following Chaplain Bornemann's article is a response by Murphy.

I agree with Pastor Murphy that scientific illiteracy is a problem in our public schools — that and philosophical illiteracy, historical illiteracy, and just plain illiteracy. Complicating this picture is that there are very smart men and women, highly trained in narrow fields of study, who have little training and possess little knowledge of disciplines outside their own.

Science is not done in a philosophical vacuum, but many scientists have not learned to recognize or appreciate this. Because I think Pastor Murphy misses this broader picture, I disagree with both his analysis of the issue and his conclusions.

Pastor Murphy seems to miss the whole point of the intelligent-design controversy. First, let me say that I have a degree in anthropology gained from several state universities. I was on the dean's list of every university I attended and was inducted into the national honors society of anthropology. And yet, I was not then and am not now persuaded that neo-Darwinism (natural selection and random genetic mutation) is a reasonable explanation for the evolution and variety of life.

Darwin was not the first to think that life evolved from simple to complex forms. Saint Augustine touched on such an idea when he wrote about the unfolding of primordial "rational seeds" in Literal Meaning of Genesis. Saint Basil also touched on this theme in the Hexaemeron when he wrote of creation actualizing forms created by God.

Nor was Darwin the first to discover that species can change over time. Animal husbandry has been around for about 10,000 years.
had discovered the mechanism — natural selection — to explain how life could evolve from plants to mammals. Later evolutionary theory added genetics and especially random genetic mutation to create a neo-Darwinian theory as a refinement of Darwin's original.

Clarifying "How"
Contrary to Pastor Murphy's understanding of neo-Darwinism, it is not a theory on par with quantum mechanics and plate tectonics. There is no controversy among scientists about how plate tectonics work. But even Pastor Murphy acknowledges that scientists do disagree on the "how" of evolution. That is the controversy. Proponents of intelligent design do not dispute the age of the earth or the fossil record or deny that evolution of life has taken place. They reject, on scientific grounds, that random genetic mutation and natural selection are a reasonable explanation of the how. Without a mechanism explaining how, neo-Darwinists have no theory of evolution.

Intelligent design is not original in its criticism. Lecomte Du Nouy, the French scientist well known for his book Human Destiny, put forth a withering critique of the idea that proteins necessary for life could form based on random, natural acts — and then dismissed it on the grounds of extreme improbability. When we turn from the formation of simple proteins to calculating the probabilities of random genetic mutation orchestrating the mass morphing of complex life systems, of the kind necessary to evolve a reptile into a bird, the case for neo-Darwinian evolution only gets worse.

Pierre P. Grasse, a world-renowned biologist said by some to know more about biology than anyone alive, wrote the 23-volume master work The Evolution of Life. His introductory remarks are worth quoting:

Through the use and abuse of hidden postulates, of bold, often ill-founded extrapolations, a pseudoscience has been created....Biochemists and biologists who adhere blindly to the Darwinist theory search for results that will be in agreement with their theories....Assuming that the Darwinian hypothesis is correct, they interpret fossil data according to it; it is only logical that [the data] should confirm it; the premises imply the conclusions....The deceit is sometimes unconscious, but not always, since some people, owing to their sectarianism, purposefully overlook reality and refuse to acknowledge the inadequacies and the falsity of their beliefs. (pp. 7-8)

Surely Pastor Murphy would not consider the likes of Du Nouy and Grasse to be uninformed about the methods and purposes of science or argue that their criticisms are merely ill-conceived oppositions to neo-Darwinian evolution. Why then dismiss out
of hand the likes of Michael Behe, a molecular biologist, or William Dembski, a philosopher and mathematician, or the 100 other scientists who signed on to the intelligent-design critique of neo-Darwinian evolution? That Pastor Murphy lumps the supporters of intelligent design in with god-of-the-gaps theologians, young-Earth creationists, and cult movements like Scientology suggests to me that he has never read their work. If that is the case, the ill-conceived opposition is his. Why not let students hear thoughtful criticisms of Darwin?

**Faulty Conclusions**
Because I believe Pastor Murphy misunderstands the issues, I also disagree with his conclusions. In short, he thinks we should deepen our support of the separation of church and state and single out scientists in our congregations to prove that Christianity is not anti-science.

I think that scientists should be lifted up in our congregations, as well as poets, carpenters, and businessmen and -women. But we should do so to glorify God's working in the world, not out of insecurity about losing face with Christianity's cultured despisers. As for pushing the separation of church and state issue, that political solution is bad for both the church and public education.

Does Pastor Murphy think that all philosophical biases should be denied entrance to the science classroom, or only those deemed "religious"? Anyone with even a minimal background in philosophy has only to read the works of evolutionists such as E. O. Wilson and Marvin Harris to see the clear impact that philosophy has on science. From the types of data that are collected, to how the data are put together to form models, to the kinds of conclusions scientists draw from the models they construct, philosophy impacts science. Scientists who think that science classrooms should be free of philosophical bias are only demonstrating their lack of philosophical training.

**Selective Exclusions**
Philosophy is alive and well in the science classroom. Unfortunately, many of the philosophical assumptions being made go unrecognized and unexamined. Even more troubling is that, as the education system stands today, the only philosophical biases that are ruled out of the classroom are those that the courts have designated "religious," which usually means Christian, Jewish, or Muslim. Though proponents of strict separation usually reply that fairness demands that all "religions" be excluded from the classroom, the very language biases the courts against only those "believers" who gather for "church."

Pastor Murphy needs to explain why some philosophies, designated as "religious," should be banned from the classroom or quarantined in religion classes while other philosophies, designated as "secular," should receive state support and have free reign in every area of study. If it is the U.S. Constitution that he is worried about, it is hard to imagine how allowing a Christian to think like a Christian in the classroom is an establishment of religion when the state also funds Marxists, secular humanists,
feminists, postmodernists, New Agers, materialists, atheists, and followers of virtually any philosophy not designated as "religious."

I believe a better response is, first, to inform ourselves about the intelligent-design theory and its proponents. I recommend the following key word searches for Web sites: Michael J. Behe, William Dembski, Phillip E. Johnson, Intelligent Design Network, Access Research Network, and Mathematical Proof of Intelligent Design by J. Trotten.

For books I recommend Darwin’s Black Box by Michael J. Behe, Did Darwin Get it Right by George Sim Johnston, and Darwin on Trial by Phillip E. Johnson.

009; Second, we should insist that all theories respect the methods of science and the facts. Those that do not will soon fade away. But we should also acknowledge the philosophical biases of the scientists themselves from the start. We should allow smart people with different philosophies to form appropriate theories based on the facts to argue their case, even if the philosophy behind the theory is suspected of being "religious." If what we worship is the truth, we have no reason to be afraid.

It is a historically recent phenomenon in which “religious” philosophies are not allowed by the state to enter into the public classrooms. Science did not flourish like that. Theology did not flourish like that. Reason did not flourish like that. Education did not flourish like that. One wonders if democracy can flourish like that. Let fresh air come into our public schools. Let the learning begin.

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