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In My Opinion

THEORY IS NOT BELIEF

Creation and evolution are theories. Why solicit funds to eliminate one theory and espouse another?

I believe the scientific theory of creation should have equal time with the theory of evolution.

I say it's an infringement on academic freedom if all theories of creation can't be included in science books.

These statements have come from critics of the NABT Fund for Freedom in Science Teaching and from proponents of implementation of the California *Science Framework*. They sadden me. Why? Because I regard them as evidence of an educational failure of national proportions. I submit that scientists and science educators have had only mediocre success in communicating the dimensions, limitations, and requirements of science. The general population, and possibly too many science teachers, do not understand the nature of scientific theory. I would also suggest that they do not understand the nature of philosophic thought and religious belief.

Scientific theory develops from, and tends to be confirmed by, observations, experiments, data sources, hypotheses, and analyses. It provides testable prediction. As evidence accumulates a scientific theory may be modified or, if the evidence so warrants, it may be replaced.

Religious beliefs must be accepted on faith. They lead to conclusions that cannot be submitted to independent testing and have no predictive value. Creation "theory" and creation "models" are part of sectarian belief. Most religions include a consideration of creation, and acceptance of these rests entirely on faith.

Science and religion both have their place in a liberal education. But it is foolhardy to attempt to equate scientific theory with religious faith; they simply are not amenable to the same judgments and tests.

Science textbooks *are not science textbooks* when creation-by-design is treated as a scientific theory. Until a creation *theory* is developed that tends to be confirmed by widespread, rigorous investigation, it has no place in a science textbook. (See resolutions elsewhere in this issue.)

Biology teachers should be encouraged to discuss the social, moral, and philosophic implications of their subject. I have no quarrel with these teachers, if they wish to discuss creation by design, so long as they and their students clearly recognize the basic and fundamental difference between scientific theory and sectarian belief.

Jerry P. Lightner
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