

- Evolutionist:** If the chick embryo is like the embryo of man, the two must be genetically related.
- Creationist:** If the embryos are alike, and if one God designed all life, He used a repeating pattern—mechanisms that worked efficiently, such as meiosis and embryologic growth. Furthermore, all life-forms inhabit one planet, sharing the same earth, air, and water, and therefore utilizing these elements in the same way by design. Unknown environmental forces that result in natural selection of genetic changes that better suit organisms for survival in changing surroundings is not a flawless argument. It certainly fails to explain satisfactorily steady upward progression from simplicity to complexity. Further, it takes the tool intellect to study life and its functions. It follows that it took intelligence to design it, manufacture it, and set it in motion.

Develop or design? What is the truth? Did environmental stimuli alone press organisms toward greater complexity as eons rolled by? Or was complexity achieved under the aegis of direct, intelligent design and manufacture? I do not know, epistemologically speaking; and if I do not know, neither does any other human being.

As to the fossil record, one cannot do breeding experiments on rocks. One can only extrapolate. The history of earth's life-forms, preserved in rocks, is not neatly pigeonholed, but, indeed, is a highly fractured, compressed, upheaved, folded, shifted, iced-over, weathered-over, erased partial record, subject to a variety of interpretations. Hailing an extinct species as a genetic precursor of a present species on the basis of homologies is extrapolated fancy, not experimental breeding evidence. Nor is extrapolating the origin of life from proteinoids experimental evidence. It remains extrapolation until the proteinoids develop DNA and physiologic complexity and rationality.

An irony in all this fuss amuses me. Environment created man and man is destroying environment, his creator. What an odd agreement with biblical literature, that man seeks to destroy his creator.

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As a fundamentalist and a biology teacher I was surprised to learn that William V. Mayer thinks he understands my position. Mayer involves me when he uses such expressions as "all of the antievolutionist polemics" and "antievolutionists seem always . . ." and when he makes such statements as "Antievolutionists never consider all of the evidence" and "The favorite theme of the attack . . . is not what the fossil record does show . . ." and "Still another gambit of the fundamentalists is to present no evidence or data of their own." So, to set the record straight, I would like to clarify my position as Mayer thinks he presents it.

First, I deny that I always ignore the simple, irrefutable fact that mutations occur in populations.

What I do not do is make the extrapolation Mayer makes to project mutations into the "material of evolution." Fruit flies have undergone "paper pounds" of mutations (my classes are producing *Drosophila* in many forms at this writing) but remain fruit flies. I stand guilty of failing to make, even ignoring to make, the evolutionary extrapolation on mutations.

Second, no man can claim that he has considered all of the evidence. I do, however, disclaim that I attend only to those parts that fit my interpretation best. I must seek constantly to account for all of the facts brought to my attention. If I were only interested in the creationist position I would not read *American Biology Teacher*. If Mayer attended my classes he would not find that "comparative anatomy, physiology, biochemistry, embryology, genetics, and the experimental aspects of evolution (including laboratory-produced mutations) are conveniently ignored." I expose these arguments along with their extrapolations and alternatives—welcoming all facts and dissent from my position. If a person in my classes holds evolutionary views, he may present all of his facts and opinions. I will go out of my way to give him a hearing. I use all evolutionary texts—Smallwood's in Biology I and Kimball's in Biology II. I teach in a public high school. I spend time on what the fossil record does show—such as the catastrophic nature of the fossil record and human tracks in the Cretaceous beds with dinosaur tracks near Glen Rose, Texas. If Mayer wants to see this positive evidence at Glen Rose, I would be glad to show him. This is part of the evidence that he says I don't present.

In Mayer's last paragraph he displays his own convictions on the conflict between his "religion and science" and views a close association as ridiculous. Within his context he is correct. I just don't happen to share his type of "religion." To me the important thing is what is true. I am a member of the Creation Research Society; if a correct view of the fundamentalist position among men of science is to be understood, reading the CRS quarterly would be a step in the right direction.

About all Mayer's analysis of the fundamentalist position can do is show what some fundamentalists probably not involved in the sciences might believe. I would do evolution theory a great injustice if I asked men not involved in the sciences, but who hold to the evolutionary position, for their point of view and then rebut only this.

I welcome any correspondence on these matters.

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The Educational-Voucher Plan

I was rather astonished that you, a member of the educational establishment, should castigate the prestigious NEA for its panic-button outcry against

the so-called voucher system of state aid to education ["In My Opinion," January issue]. Your well-documented, clearly reasoned argument in favor of the voucher system is well taken.

Here in California we have had some predictably humorous reactions to the voucher plan. When Gov. Ronald Reagan (Rep.) first proposed it, Jess Unruh (Dem., unemployed) reacted in a knee-jerk fashion, condemning the plan as unconstitutional because it would subsidize parochial schools. (Apparently it is constitutional to subsidize an institution, namely the public schools, but not the individual who is free to choose any school, public or private.)

Probably the most cogent argument in favor of the voucher system was unwittingly made by a local public school superintendent, who opposed the plan "because it was forcing the public schools to improve and upgrade their standards"!

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POLLUTION FIGHTERS' KIT

Wisconsin Congressman Henry S. Reuss is pushing some documents he calls a "Handy Kit for Fighting Polluters." The kit consists of two documents that tell the citizen how to take polluters to court and have the proper evidence to win.

One goes by the title "Qui Tam Actions and the 1899 Refuse Act: Citizen Lawsuits Against Polluters of the Nation's Waterways." It is published by the Conservation and Natural Resources Subcommittee of the House Committee on Government Operations, and it explains how the 1899 act works.

The second is called "Our Waters and Wetlands: How the Corps of Engineers Can Help Prevent Their Destruction and Pollution." It examines the responsibilities of the corps for protecting the nation's water areas and recommends how the corps can stop or minimize pollution and destruction.

"State and federal laws on industrial water pollution are full of holes and hopelessly inadequate," Reuss said in discussing the "kit." "The 1899 Refuse Act, with an alert citizenry, can help the country move from talk to action in the fight against water pollution . . . including action by the citizen himself, bringing a suit if need be."

Copies of the "Handy Kit for Fighting Polluters" can be obtained by writing Representative Henry S. Reuss, 2159 Rayburn House Office Building, Washington, D.C. 20515.

AEC Environmental Research

The U.S. Atomic Energy Commission has published *Summaries of USAEC Environmental Research and Development*. It is available for \$3 from the National Technical Information Service, U.S. Department of Commerce, Springfield, Va. 22151.

SUGGESTIONS FOR CONTRIBUTORS

STYLE. *American Biology Teacher* would rather receive an ill-written article containing worthwhile ideas than a stylistic masterpiece that says little: our editors can mend bad writing in a good cause. However, we do hope for clear terse prose, free of jargon. Sensible advice for writers will be found in the Conference of Biological Editors' *Style Manual for Biological Journals*, 2nd ed., published by the American Institute of Biological Sciences; and *How to Write Scientific and Technical Papers*, by Sam F. Trelease.

In matters of punctuation, enumeration, and the like we follow generally the above-mentioned C.B.E. manual and the University of Chicago *Manual of Style*. Our spellings are usually those preferred by *Webster's Third New International Dictionary* (G. & C. Merriam Co., 1965) and its abridgments.

Technical measurements are in metric, not English, units.

Avoid footnotes of any kind. References to the literature are made on-line (not by means of superscripts) within the text. If only one, two, or three works are cited, each is given in full, in the form "A. B. Smith, 1969: *Elements of Biology*, 4th ed., Jones Publishing Co., New York" for a book and "W. X. White and Y. Z. Green, 1965: 'The Inquiry Process,' *Journal of Pedagogy* 7 (2): 53-56" for an article. If four or more works are cited, they are presented at the end of the article as a bibliography arranged alphabetically by (principal) authors' last names, in the following forms for books and journals.

SMITH, A. B. 1969. *Elements of biology*, 4th ed. Jones Publishing Co., New York.

WHITE, W. X., and Y. Z. GREEN. 1965. The inquiry process. *Journal of Pedagogy* 7 (2): 53-56.

(Note that publishers' names and addresses are given and that names of periodicals are not abbreviated.) Reference to the bibliography from the text takes the parenthetical form "(Smith, 1969)"; if the same title is cited a second time this short form is repeated or, better, the reference is recast as, for example, "Smith also says. . ." The aim is to disburden the text of apparatus-*ibid.* and its relatives. Within text or bibliography a reference may be made precise by adding, for example, "pp. 123-145" or "ch. 8." Responsibility for exact quotation lies with the writer, not the editor.

MANUSCRIPT. Double-space *all material*, on one side only of standard (8½-by-11-inch) bond paper, allowing 1½-inch margins all around. Avoid line-end division of words.

ILLUSTRATIONS, ETC. Photos should be glossy prints not less than 5 inches wide. Other kinds of illustrations should be rendered in black ink on heavy paper, preferably with labeling done expertly on a transparent overlay. Key each illustration, on the back, to its legend ("caption") written on a separate sheet—being sure to mention credits, including "photo by author." Tabular material, too, must be presented on separate sheets—regardless of length. Within the body of the manuscript simply indicate relevance at the proper place, as, "see fig. 1" or "see table."

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