

Editorial Comment

As has been mentioned many times, the columns of *The American Biology Teacher* are always open to letters from readers interested enough to write in. Sometimes these letters are really editorials, as in the case of the following one. Obviously in such cases, the opinions expressed are those of the writer of the letter; they may or may not agree with those of the editor, and do not represent any official statement of the journal. The points discussed by Professor Jones are highly important ones. *The American Biology Teacher* hopes that they will be studied carefully by many readers and that perhaps a few of them will be sufficiently interested to make further comments.

Dear Dr. Breukelman:

In January, 1950, you published an article by Dr. D. F. Miller, of the Ohio State University, entitled *Biology for Survival*. This was an important paper because, 1, it was effectively and interestingly written, 2, it contained several striking observations upon biological facts and, 3, it proposed the important, but not novel, doctrine that in order to survive mankind must imitate the "ruthless realm of nature" by refusing aid to the "incompetent" and allowing the struggle for existence full play. Since the last proposal was supported by a claim to be based upon "rational thinking," it seems necessary for a fellow biologist to examine the matter somewhat critically.

But before undertaking to criticise, let me state my prejudice fairly. I am of the opinion that "survival of the fittest" is both a misunderstood and misused phrase. Unless cooperation and mutual aid be accepted as being very important in survival, I would say that "survival of the fittest" applies neither to man nor to the other living things.

Yet my prejudice is clearly, in America today, a minority view. In the public press and in the legislative halls, holders of opposite views of man's road to survival are having their heyday. The power of arms is being invoked, and subsidized at an oppressive cost, while the power of reason (on the theory that only ourselves can be reasonable) is either discarded, or but weakly used, as in the *Voice of America* and by our representatives in the forum of the United Nations. The cooperative spirit and genius that built our nation, and that created our commonwealth by struggle among ideals and lawful competition among producers, is being dulled by the fear of Communist espionage within us. It is claimed by authors of our present sedition laws that only by such control of ideas and speech can we preserve ourselves as a nation. Thus, where so many are confronted by the supposed alternatives of survival as slaves to our own fears, or subjugation by the armed might of our enemies, Dr. Miller's article seems timely and appropriate. The Spencerian view that man must struggle in civil war seems to be the "official" view of the moment, and offers a fatalistic anaesthesia for the pains of our dilemma.

Because Dr. Miller has made an apparently "scientific" contribution to the thinking that leads to acceptance of our fear-imposed oppressions, and precisely because of this, it has seemed necessary to me as a biologist and teacher to make the following criticism. I hope it will be accepted as it is intended—an attempt to show the fallacious assumptions underlying Dr. Miller's argument, and thus to recognize the argument for what it is, opinion shared by many, but not supported by scientific evidence.

The body of thought from which Dr.

Miller's views on survival are inherited is known as Social Darwinism. According to several recent analyses of the subject, it began with Herbert Spencer, whose socio-economic theories attempted to justify the harshness of 19th century industrialism and imperialism. The privileged Englishman, like the privileged American, often wished to feel entitled by natural law to his wealth and power. By the doctrine of "survival of the fittest," it appeared that nature itself approved success through battle. More recently, the doctrine has been used by such diverse authorities as the leaders of German and Italian Fascism, the ultra-conservative branch of American politics, and, oddly perhaps, the dictators of the Kremlin (who merely substitute "proletariat" for "super race" or "captains of industry" favored by others). The history of social Darwinism is thus a story of use, by a strange company, indeed, of a political theory devised by a sociologist.

But the history of this theory actually leads us to contemporary thought in America. In Darwin's name we are asked to substitute belief in force for belief in reason. The ideas that force is man's only safety, and that only the strong have a right to survive, and that (in Dr. Miller's eye-catching phrase) "this we must teach" are being substituted in many ways for the formerly held beliefs that right and justice are more valid in human affairs than naked power, that all human beings (not the strong and the powerful, only) have "certain inalienable rights," and that the things we must teach are not doctrines or dogmas, but facts and ideas, that free men may be able freely to decide for themselves what is right.

The pattern of change is plain, at least in two great nations. In Russia, even the scientist, under the pretentious dogma of Lysenkoism, is required to think and speak *in his sciences* according

to orthodox ritual. In America, first government employees, and now all citizens, are required by law not to hold certain beliefs, and not to profess them, under pain of various penalties. The fact that the McCarran Act has received such overwhelming support seems proof enough that we are willing, as the supposed price of survival, to relinquish our liberties. We do this on the theory that only the strong (in the material and military sense) can survive, in this bitter struggle of man against man.

Dr. Miller and other proponents are wrong in claiming that this popular doctrine is based upon rational thinking. Rational thinking, in science as elsewhere, involves logical inference from true or at least probable assumptions. Yet the assumptions underlying Dr. Miller's assertion that love and kindness are harmful to our survival (man is said to be in danger of "loving and pitying himself out of existence") may be neither true nor probable, being present in the mind of the writer, perhaps, but not being elsewhere discoverable. The "reason" usually given as supporting the view that charitable treatment of the poor and kindness to the sick and insane harm our ability to survive is actually a weak chain of half-truths, traceable to Herbert Spencer's attempt to use Darwin's theory as a defense of privilege. I believe it goes thus: 1. In nature, only the strong and best fit survive the constant struggle (a half-truth; the word "individuals" inserted before "survive," and clearly implied in any such statement, invalidates the statement. For many societies of animals individually weak have survived very successfully, through cooperative behavior, in nature. Man is, I think, made up of such societies). 2. If (1) is true, then man, a part of nature, must, in order to survive, struggle competitively, eliminating the weak and helpless (again, half-true, because of the confusion between man the

species and man as individual. Granted that Man has a hard road to survival, it is a slip in logic to impute Man's struggle to his individual members; and it is a perversion of logic to imply that because Man must struggle, his members must fight among themselves).

This analysis of the supposed "rationale" of Dr. Miller's social Darwinism is based on available treatments of the subject by, among biologists, Allee, Dunn, and Dobzhansky, among anthropologists, Montagu, and among sociologists, Sorokin, for example. There is in the modern literature little or any echo of the position taken in Dr. Miller's paper, perhaps for the reason that biological and sociological facts do not support it.

While I recognize the right of anyone to hold such an opinion, I question (as would not all teachers, including Dr. Miller?) the propriety of saying of an opinion, "This we must teach."

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LETTERS

Dear Professor Breukelman:

. . . I like to say something, if I may, about the whole organization of the Association of Biology Teachers. As it is now it meets neither the need for high school teachers nor those of college teachers. The same may be said of the Journal. The separation of activities into the high school level and the college level merit consideration.

Sincerely yours,
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PREMEDICAL EDUCATION

This is a report on the first National Convention on Premedical Education held in the Lake Placid Club, Lake Placid, N. Y., October 21 and 22, 1950. These meetings were

sponsored by Alpha Epsilon Delta, national premedical honor society. This was a joint affair, with the medical colleges represented either by their Deans, Chairman of Admissions Committee or by both. The colleges were represented by teachers of biology or the advisors of premedical students. The objective was to understand what the medical schools want and what the colleges are to teach.

The first address was given by Vice-Chancellor F. G. Crawford, Syracuse University, from the liberal arts colleges' viewpoint. He stressed the fact that biology, physics, and chemistry are the foundation for a scientific education. The question is not what we teach but how we teach. The liberal education of premedical students should include the humanities, fine arts, social studies, music and art of living in order to develop character. He advised avoiding concentration on strictly premedical courses and laying the broad foundation for the future physician. He asked the medical schools to make a survey of premedical education in order to orient the freshman about the requirements for medicine.

The second address, "From the Medical Schools' Viewpoint," was given by Dean Aura E. Servinghouse, Columbia University. The type of man wanted is the one who has three years of college work, including a year and one-half of chemistry, one year of biology, one year of mathematics and one year of English. The remainder of his education should be in the liberal arts field. The student must learn to think, and to explore in his particular field of activity. He must get away from specialization, be a scholar, and not a mere practitioner. The choice in education is not how much, but what and how, to study. The fact that chemistry and physics play an increasingly important role in biology does not mean that the latter is being replaced by the former. Medicine is still a continuation of biology. The medical schools look at the boy according to his ability and fitness for the profession of medicine. The balance between liberal arts and science is a factor. "The question is not how many tools he brings to medical school, but how sharp are these tools." The liberal arts colleges should provide: (1) the best atmos-