

probable *existence* of innate differences between socioeconomic strata but when he discussed the problem of estimating relative to environmental differences the *size* of such a difference. Again, *ad* (2), his footnote regarding the testing of preschool children has no implication of a "warning" and refers not to the *fact* of differences but to the numerically somewhat different scale of scores from preschool as compared to older children. In principle, differences in the same direction were recorded for both young and older children of different socioeconomic groups. *Ad* (3), that infant mental tests in 1938 were of doubtful value, it may be replied once more that the unsatisfactory nature of these tests concerns rather their exact quantitative aspects than the qualitative establishment of test differences. Finally, *ad* (4), Bernhard Stern's reference to my having abandoned certain data as unsatisfactory is inadmissible. The data may be found on page 516 of my book unchanged from their presentation in the *Science* article. They were neither abandoned nor called unsatisfactory.

My interpretation of the evidence may not be shared by some or many, but, contrary to a claim made by Davis and Havighurst, it is at least fully compatible with our knowledge of human genetics. These authors say: "From what is known about genetics, the children of a man who was well favored with innate intelligence would have very little chance of being better favored than the children of a man who was less well endowed genetically in these respects." This statement is based on the arguments that "both men carry many latent characteristics as well as manifest ones" and that their wives contribute half the genes to the offspring. But these facts bear only on the *degree* of heritability, not on the genetically expected existence of heritability. Given the premises made by Davis and Havighurst of the existence of men favored with innate intelligence and of others less well endowed, genetic knowledge leaves no doubt that, on the average, the children of the former are again innately more favored than the children of the latter.

I should like to conclude these comments with a general remark. It is one thing to express an opinion on the weight of scientific evidence and another to draw practical conclusions from one's judgment. In my published discussions I have pointed out repeatedly the preliminary nature of the conclusions reached, their very limited eugenic significance, the lack of urgency of the eugenic problem, and the great importance of the environmental component. The censure of my judgment as manifesting "conventional biases" seems based primarily on the potential sociological misuse of such judgment. Censure of this kind is contrary to the essence of free inquiry and implies a desire to impose doctrinal limitations to the study of observable phenomena. We must be free, however, to reach conclusions, preliminary or supposedly final, regardless of the misuse to which they may be subjected. In the condemnation and combat of their misuse we all can join hands.

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American Men of Science

There has been much interest in the letters which the undersigned sent to those included in *American Men of Science*. Because a number of persons completely misunderstood the purpose of the letters, as editor, I shall try to clear the matter for all concerned. The directory has a great value and fills a great need to American men of science.

Your editor set the advance paid price at \$9.50 when it should have been \$12.00. On the \$11.00 advance unpaid orders, the same situation exists, as the \$1.50 difference is almost entirely consumed by additional accounting costs. In three years costs increased that much. It cost \$200,000.00 to put out the eighth edition of the directory. There were 50,000 names listed and editorial costs came to \$100,000.00, which is \$2.00 each.

There were two letters sent out: one was a letter to those who bought a copy and they were asked to pay \$2.00 additional to cover the increased cost of their copy; the second was a letter to those who did not order a copy. This group was asked to help defray the costs of editorial work in connection with their biography. Almost everyone uses either someone else's copy, or a library copy, so it was felt that most of this group would be glad to help to the extent of the \$2.00 editorial costs.

However, a few persons have inquired about the intent of the second letter, believing that if no \$2.00 were sent, biographies might be omitted. This is quite erroneous. Nothing was further from that thought when the letter was mailed. If such a letter were sent to those being considered for inclusion in the directory there might be cause for concern. But everyone who received the letter is already included in the directory.

No record is being kept for editorial use of those who sent \$2.00. If anyone sent \$2.00 for the reason of editorial influence they should ask for a refund.

Obviously, had it been a money-making scheme more than \$2.00 would have been asked. It was hoped that a sufficient number of those who received the letters would contribute enough to make the directory secure, but it will fall short of that figure, unless more are received.

The fact that we returned over 200 \$9.50 advance paid orders of those who in our judgment were not eligible for inclusion proves that inclusion cannot be bought.

We are grateful to the many thousands who understood our letters and helped us with our financial problem. The book will be priced higher for the ninth edition; we hope this will take care of all expenses.

We want to assure all those in science in America that the high plane of editorial policy will never change so long as the undersigned is editor. He has been editor for over 20 years.

JAQUES CATTELL

Editor, American Men of Science

Committee for Aid to Foreign Physiologists

A committee was set up in September, 1948, by the American Physiological Society to aid foreign physiolo-

gists. The committee is taking this opportunity of reporting its work, so that it may acknowledge the help it has received from various organizations and publicly express its thanks. It hopes also that this report will encourage others to extend the program.

Subscriptions from society members have provided a total of some six hundred dollars, an amount which obviously cannot significantly reduce foreign shortages of literature or equipment. Real success, however, has been achieved in promoting good will. The present program in literature does not compete with the much more ambitious program now being organized by CARE, which should be supported to the fullest extent possible, but the society's program can still fill gaps and play a useful supplementary role.

In order not to dissipate its efforts over too large an area, the committee decided to limit its main activities to a few schools in countries in which the United States has particular interests. The selected medical schools are those in Salonika, Naples, Frankfurt, Würzburg, and Tohoku. Some additional help has gone to other schools, including help to China.

Reprints. Reprints of recent literature are very valuable. Considerable numbers (with multiple copies) have been sent to these schools, and are being lent in turn to other schools. The Japanese Physiological Society has even set up a "Loan Library with American Reprints" in Tokyo and arranged to lend such reprints by mail throughout the country. This effort should receive our full support. The International Exchange Service of the Smithsonian Institution is undertaking to forward such collections of reprints or other literature to foreign countries. Will any physiologists with supplies of recent reprints kindly send them to these schools.

Textbooks are also much in demand and copies of standard texts recently replaced by new editions would be welcomed abroad in all of the schools. They may be forwarded to the schools directly or through the Smithsonian Institution. The society is greatly indebted to publishing firms, which have sent abroad hundreds of obsolescent volumes. Our thanks are due to Saunders, Lea and Febiger, Appleton-Century-Crofts, Inc., Chemical Rubber Publishing Company, and particularly to the Year Book Publishers, which donated 105 copies of its current year books, and to Williams and Wilkins, which sent abroad a total of 215 volumes.

Journals published in the United States are badly needed; a few have been sent abroad by special subscriptions and others are being sent after the subscriber has used the current numbers. Thus, the *American Journal of Physiology* and the *Journal of Clinical Investigation* are being sent to Würzburg and used copies of *Biological Abstracts*, *Journal of Aviation Medicine*, *American Heart Journal*, *British Physiological Abstracts*, and *Proceedings of the Society for Experimental Biology and Medicine* to Salonika, Naples, or Nagoya. Up to the present time only single sets of these have been available, so that there is ample opportunity for physiologists to extend this list or to add new sets so that other schools can be supplied. The publication trustees of the society have also sent abroad some of the society's journals for

the period when foreign subscriptions were unavailable and have donated excess stocks of other back issues.

Equipment. Very little equipment can be bought with the small funds available, which in the main are being used to pay transport costs. Two used metabolism machines have been sent to China from West Coast laboratories, and a considerable amount of obsolete teaching equipment has been sent to Naples from the University of Pennsylvania. Through a generous gift by the Aloe Company, new equipment valued at \$1000 or more (made available during recataloguing) has been sent to Frankfurt, and requests for amino acids made by Frankfurt and Würzburg have been partially met by General Biochemicals, Inc. The A. H. Thomas Company has donated the assistance of skilled packers, and technicians at the University of Pennsylvania, including James Graham, the university glass-blower, have contributed time, labor, and glass equipment. For these aids we extend our thanks.

Reciprocity. The Italians and Japanese have shown their gratitude by presenting the society with current numbers of the *Bolletina della Societa Italiana di Biologia Sperimentale* and of the *Tohoku Journal of Experimental Medicine*. Any school with limited library facilities, which would like to receive these journals, may apply to the executive secretary of the society.

Needs. The University of Salonika needs a photoelectric colorimeter. Any such instrument, used or rebuilt (if in usable condition), will be welcome to the committee, which will pay for transport, or assume other costs within their means.

Reprints, books, or other material should be forwarded to the departments of physiology in the universities listed or, if for China, sent to the American Bureau for Medical Aid to China, 1790 Broadway, New York 19, New York. Large packages of literature for forwarding abroad to countries other than China, can be sent through the Smithsonian Institution, International Exchange Service, Washington, D. C. Carriage should be paid to Washington and the institution should be notified of the packages consigned. Reprints of biological papers for the Japanese Reprint Loan Library should be sent directly to Professor Kunizo Hukuda, Department of Physiology, Medical School, University of Tokyo, Hongo, Tokyo, Japan.

MILTON L. LEE

The American Physiological Society
Washington, D. C.

Education and Training for Oceanographers¹

The shortage of scientists is general. Two circumstances combine, however, to exaggerate the present need for men trained in oceanography. Revolutionary developments in the military techniques of the late war created an unprecedented demand for knowledge of the sea and for trained oceanographers. Knowledge of the sea can contribute to the solution of peacetime as well as military problems. Thus, the state of the postwar world makes it

¹ Contribution No. 519 from the Woods Hole Oceanographic Institution and contribution from the Scripps Institution of Oceanography, New Series, No. 463.