DR. CARL O. SAUER, professor of geography at the University of California at Berkeley, has been given leave of absence for the academic year ending in June, 1945, to enable him to make a study of native American agriculture under a grant from the Rockefeller Foundation.

PEN-TUNG SAH, president of the National University of Amoy, formerly professor of physics, has been appointed the representative of the university during a year's visit to the United States in response to an invitation of the Department of State. He will visit American colleges and universities and will be glad to lecture or take part in conferences. Letters, invitations or inquiries should be addressed to the Science, Education and Art Division, Department of State, Washington 25, D. C.

THE Committee on Post-War Research of the War Production Board plans to establish an institute to carry on the wartime work of the Office of Scientific Research and Development, of which Dr. Vannevar Bush is chairman. It is planned that the agency should make use of the research facilities of colleges and universities as well as of the laboratories and research establishments of industry. All work would be coordinated with strategic plans of the Army and the Navy, and would include research plans of both armed services. Members on the committee representing science are Dr. Karl T. Compton, president of the Massachusetts Institute of Technology; Dr. J. C. Hunsaker, head of the departments of mechanical engineering and of aeronautical engineering of the Massachusetts Institute of Technology, member of the National Advisory Committee on Aeronautics; Dr. Frank B. Jewett, chairman of the Board of the Bell Telephone Laboratories, president of the National Academy of Sciences, and Dr. M. A. Tuve, chief physicist of the Department of Terrestrial Magnetism of the Carnegie Institution.

THE American Society of Agronomy and the Soil Science Society of America have decided to cancel their annual meetings which were planned for November 15 to 17 in Cincinnati, Ohio.

THE American Society of Tropical Medicine will meet in St. Louis from November 13 to 16, as the guest of the Southern Medical Association.

A JOINT meeting of the American Roentgen Ray Society under the presidency of Dr. Sherwood Moore, professor of radiology at Washington University, St. Louis, and of the Radiological Society of North America under the presidency of Dr. Eldwin R. Witwer, Detroit, will be held at the Palmer House, Chicago, from September 24 to 29.

THE Electron Microscope Society of America will meet at Chicago on November 16, 17 and 18, at the time of the Chemical Exposition. The program will consist of invited and contributed papers and discussions of electron microscopy and associated techniques. Titles and abstracts of papers, which should be not more than two hundred and fifty words in length and should be submitted in triplicate, must be in the hands of the chairman of the program committee, R. D. Heidenreich, The Dow Chemical Company, Midland, Mich., not later than October 1. Titles without abstracts will not be accepted, and abstracts received later than October 1 will not be included in the program.

A CONFERENCE on New Developments in Wood Products will be held on October 6 and 7 at the New York State College of Forestry, Syracuse University. Wood products industries and other organizations, including the U. S. Navy, will maintain a series of exhibits at the conference, and there will be demonstrations of wood transformations, recently developed wood-treating processes, and new designs and types of wood products. A tour of the pulp and paper plant of the college is planned. This plant is the only one of its kind in the United States, and represents an investment of nearly half a million dollars. It will be in operation on a special war project at the time of the conference.

THE War Production Board has awarded a scroll of appreciation to the American Pharmaceutical Association in recognition of the service of American pharmacists in collecting and contributing more than a hundred and fifty-two thousand ounces of cinchona products to a national pool for the armed forces.

DISCUSSION

MORE ABOUT COOPERATIVE STUDIES IN HUMAN BIOLOGY

THE communication by Professor Melville J. Herskovits,[1] taking exception to some of the statements made by Professor Lee R. Dice[2] in his proposals for the study of human biology, appears to be a good illustration of one of the difficulties anticipated in those proposals. "Each of them [cooperating scientists]," said Professor Dice, "will have a different viewpoint, and, to a considerable degree, a different scientific vocabulary." Perhaps it will first of all be

[1] SCIENCE, n.s., 100: 2586, 50–51, 1944.
[2] *Ibid.*, 99: 2580, 457–461, 1944.

necessary to make sure that the cooperating scientists know enough about fundamental principles and terminologies to understand each other.

The looseness found by Professor Herskovits in the use of the word "psychology" is simply not there. Professor Dice's statement is: "The characters of man that are inherited include not only his anatomical features, but also his physiology and his psychology." This gives a clear enough indication that learned behavior mechanisms are not implied, for what has to be learned has not been inherited in any biological sense.

The term "race" is admittedly one which may have a variety of implications, but Professor Dice used the words "many races." One might, therefore, reasonably assume that he did not have any three- or four-fold grouping in mind, but was using the term in the more general sense of a strain, breed or lineage.

The term "environment," used without qualification, means all the surrounding conditions and influences that affect the organism. If only a part of the environment is to be considered, this, if not sufficiently brought out by the context, is indicated by a qualifying adjective, as in the examples, "physical environment" and "social environment," mentioned. Such distinctions should not be overemphasized, however. Malnutrition will result whether proper food is physically inaccessible or is made unavailable by cultural habits.

There remains the possibility that Professor Dice was mistaken as to what is recognized by orthodox anthropologists. Be that as it may, the point of the disputed paragraph was that physiological and psychological traits can be inherited. As to this, those who are accustomed to thinking in terms of evidence rather than dogma and who have any real familiarity with either mice, dogs or men seem to have very little doubt.

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F_2 AND N^1-METHYLNICOTINAMIDE

IN a recent article in this journal, Huff and Perlzweig[1] take exception to a criticism of their findings made by Najjar and White[2] and propose, in the interest of clarity, definitions for the substance F_2 and its precursor. We wish to point out that our criticism was not made of their "findings," but of a single conclusion based thereon, a criticism we are prepared to maintain. Moreover, their proposed definitions are not in accord with all the experimental facts.

We criticized these authors for identifying the factor F_2, which we had defined[3] as "the fluorescent substance obtained from normal urinary eluates after alkali addition" with the cation N^1-methylnicotinamide, which is virtually, if not completely, nonfluorescent. They maintain that we have used the term F_2 in a double sense: (1) as a precursor in urine and (2) as a highly fluorescent derivative of such precursor, and that they were following our precedent in using the term for the urinary precursor, which they identified as N^1-methylnicotinamide. Although they are correct in stating that we spoke of "the excretion of F_2 in urine" on more than one occasion, the context indicates that we referred to the fluorescent material obtained after treating the urinary eluate with alkali and butanol. What was not clear to any one during the early stages of this work was, whether the material actually excreted in urine was: (a) a precursor, converted into a highly fluorescent compound by the reagents employed, (b) a substance exhibiting fluorescence only in alkaline media or (c) a substance rendered soluble by butanol which thus served to bring out its fluorescence. We have entertained each of these ideas at different times. This matter was still obscure when Huff and Perlzweig published their identification study,[4] nor did their publication, valuable as it was, clarify this phase of the problem. The first definite indication of a chemical difference between the urinary precursor and the final highly fluorescent compound came with the publication of Najjar and White,[2] who in the interest of clarity felt justified in criticizing frankly a claim which, it was then obvious, dealt with but half of the problem of the identification of F_2.

The distinction between the precursor and the fluorescent derivative F_2 was clearly made by Najjar and White,[2] and we are delighted that Huff and Perlzweig are in essential agreement with this position. The one point in which we differ from them is in their identification of the urinary precursor as the cation N^1-methylnicotinamide. Some reasons for this were presented in our last publication[2]; others have come to light since. Until recently we believed that the F_2 precursor in urine was non-fluorescent, but we now have evidence that it possesses some bluish fluorescence, a property not shared by pyridinium salts. The urinary precursor also appears to differ when different antipellagric agents are given. We have found[6] that reinickates obtained from urinary eluates after the ingestion of nicotinic acid of nicotinamide show significant differences. We have also failed to secure a crystalline picrate from urine eluates after

[1] J. W. Huff and W. A. Perlzweig, SCIENCE, 100: 28, 1944.

[2] V. A. Najjar and V. White, SCIENCE, 99: 284, 1944.

[3] V. A. Najjar and L. E. Holt, SCIENCE, 93: 20, 1941.

[4] J. W. Huff and W. A. Perlzweig, *Jour. Biol. Chem.*, 150: 395, 1943.

[5] W. A. Perlzweig, M. L. C. Bernheim and F. Bernheim, *Jour. Biol. Chem.*, 150: 401, 1943.

[6] V. A. Najjar and V. White, unpublished observations.