

tive in dealing with the numerous cases he considers.

A possible misconception concerning the use of "entrenchment" as a basic idea is that it may lead to the ruling out of unfamiliar predicates, thus stultifying the growth of scientific language. Unfamiliar predicates may, however, be well entrenched if some of their extensionally equivalent mates have been often projected, and they may acquire entrenchment indirectly through "inheritance" from "parent predicates"—that is, other predicates related to them in a special way outlined in detail in Goodman's discussion (1, p. 105). Furthermore, Goodman's criteria provide methods for evaluating *hypotheses*, not predicates, so that wholesale elimination of new scientific terms is never sanctioned in his treatment.

As remarked previously, the critical discussion of Goodman's new approach is still in its early stages (5). His formulations will undoubtedly undergo further refinement and revision with continuing study, but even in their present form they will have contributed much toward putting important questions in the philosophy of science on a scientific basis.

Robert H. Lowie, Anthropologist

With the death of Robert Lowie, on 21 September 1957, American anthropology lost an ethnographer and ethnologist who had earned international esteem during the richly productive course of his 74 years.

Ethnographically his interests were world-wide, and his command of the literature on primitive peoples was unmatched. He belonged to a generation whose research among tribal peoples was still opening up unsuspected ranges of social organization and human values. Testifying both to his self-discipline and to his enthusiasm, monograph after monograph on the Indians of the American plains appeared under his name. He wrote steadily, with a fine pen and in a flowing hand, manuscripts that required little revision. His name is permanently associated with scholarly records of the North American Indians: the Plains, the Shoshone, the Hopi. His early and enduring devotion was given primarily to the Crow Indians, whose language and people he prized. His early enthusiasm was given to his adventures among the Lake Athabasca Chippewa. Later, his interests turned to South America. Here he had no opportunity for field research, but his characteristic generosity and his

interest in the work of others did much to advance knowledge of the primitive peoples of Brazil.

His concern with European ethnography was the last phase of his area interests and represented a return to his youth. Born in Vienna in 1883, he was brought to New York at about the age of ten, where he grew up as a bilingual in a middle-class Jewish intellectual milieu. Thus, his interest in languages and in bilinguality, as well as his bent for scholarship, were early established and deep. Similarly, he retained throughout his life a certain old-world courtliness.

During the second world war he began teaching European ethnography, and from this his interest in Germanic culture and society, with certain autobiographical implications, developed steadily. Yet he delighted, despite its anti-Germanic overtones, in Rebecca West's *Black Lamb and Grey Falcon*. On the other hand, his unrelenting capacity for detail made him suspect facile theorizing in the "national character" school of anthropology that blossomed during and after the war. He set himself against such overgeneralizations in *The German People* (1945).

However, these successive periods of ethnographic interest—study of the

References and Notes

1. N. Goodman, *Fact, Fiction and Forecast* (Harvard Univ. Press, Cambridge, Mass., 1955).
2. ———, "A Query on Confirmation," *J. Philosophy* 43, 383 (1946); "The Problem of Counterfactual Conditionals," *J. Philosophy* 44, 113 (1947).
3. See in particular R. Carnap, "On the Application of Inductive Logic," *Philosophy and Phenomenological Research* 8, 133 (1947); N. Goodman, "On Infirmities of Confirmation Theory," *Philosophy and Phenomenological Research* 8, 149 (1947); R. Carnap, "Reply to Nelson Goodman," *Philosophy and Phenomenological Research* 8, 461 (1947).
4. J. S. Mill, *A System of Logic*. (Longmans, London, 1843; new impression, 1947), book III, chap. III, sect. 3, p. 205.
5. See, in this connection, the long study of *Fact, Fiction and Forecast* by J. C. Cooley [*J. Philosophy* 54, 293 (1957)] and Goodman's reply [*J. Philosophy* 54, 531 (1957)].

North American Indians, the tribes of South America, and the German peoples—were evenly balanced by a desire to formulate broader ethnologic syntheses. *Primitive Society* appeared in 1920. Reissued and widely translated, it remains today a fundamental statement. *History and Theory of Anthropology* (1937), *Primitive Religion* (1924), and *Origin of the State* (1927) are only indices of his indefatigable, informed, and systematic intellect. He dealt with theories as if they were artifacts—dryly, carefully, factually. This approach was, and is, a salutary corrective to half-cocked enthusiasts.

Although Lowie was never personally as close to Boas as some of his contemporaries were, he was formed (in the French sense of the word) by that seminal genius. Although he had studied chemistry in his undergraduate days and had been an enthusiastic admirer of Karl Pearson, it was in anthropology that Columbia awarded him a Ph.D. degree in 1908. From that time his devotion to anthropology was unflagging. Nevertheless he found opportunities to express a youthful militancy in support of the feminist movement, encouraged by his lifelong friend Elsie Clews Parsons. And he participated in what must have seemed, to so nonpolitical a character, the innocuous ferment created by "the Masses" and John Reed. He always retained a warm memory of his liberalism of those early days.

From 1921 to 1950 he taught—and, more important, he trained, in critical objectivity—generation after generation of students at the University of California in Berkeley. He served for nine years (1924 to 1933) in the thankless post of editor of the *American Anthro*

pologist. In the last years of his life he confided to me that he felt some regret that he had created no positive school of followers. Yet his influence on all who studied with him was manifest in the standards of scholarship and objectivity that he set us.

He also set his students perhaps more important standards than these. He was a liberal gentleman in the deepest sense of both these words. In personal relations he never hesitated to give the best counseling of which he was capable, but he

never resented disregard of that counsel. He was generous and utterly without malice, yet he enjoyed controversy where he suspected sham or pretension.

For those of us who held him in esteem and affection, it is consoling to know that he received honors commensurate with his qualities. He served as president of the American Anthropological Association in 1935; he was elected to the National Academy of Sciences; he was the Viking Medalist in 1947 and the next year gave the Huxley memorial lecture

at the Royal Anthropological Institute.

After his retirement in 1950 he was much in demand as a visiting lecturer and professor, both in the United States and abroad. He died completed in honors, respect, and the affection of his wife and many friends. If, on occasion, he sensed that he had not permitted himself time for certain subtleties, this was only a measure of his stature. His life was fulfilled.

CORA DU BOIS

Harvard University

News of Science

The President on Science and Education

In his State of the Union Message to Congress on 9 January, President Eisenhower made the following statements about international scientific cooperation and about education and research:

"It is highly important that the Congress enact the necessary legislation to enable us to exchange appropriate scientific and technical information with friendly countries.

"It is wasteful in the extreme for friendly allies to consume talent and money in solving problems that their friends have already solved—all because of artificial barriers to sharing. And we cannot afford to cut ourselves off from the brilliant talents and minds of scientists in friendly countries. The task ahead will be hard enough without handcuffs of our own making.

"The groundwork for this kind of cooperation has already been laid in discussions among NATO countries. Promptness in following through with legislation will be the best possible evidence of American unity of purpose in cooperating with our friends.

"In the area of education and research, I recommend a balanced program to improve our resources, involving an investment of about a billion dollars over a four-year period. This involves new activities by the Department of Health, Education, and Welfare designed to encourage improved teaching quality and student opportunities in the interests of national security. It also pro-

vides a five-fold increase in the sums available to the National Science Foundation for its activities in stimulating and improving science education.

"Scrupulous attention has been paid to maintaining local control of educational policy, spurring the maximum amount of local efforts, and to avoiding undue stress on the physical sciences at the expense of other branches of learning.

"In the field of research, I am asking for substantial increases in basic research funds, including a doubling of the funds available to the National Science Foundation for this purpose.

"But federal action can do only a part of the job. In both education and research, redoubled exertions will be necessary on the part of all Americans if we are to rise to the demands of our times. This means hard work on the part of state and local governments, private industries, schools and colleges, private organizations and foundations, teachers, parents, and—perhaps most important of all—the student himself, with his bag of books and his homework.

"With this kind of all-inclusive campaign, we can create the intellectual capital we need for the years ahead—and do all this, not as regimented pawns, but as free men and women. . . ."

Toward the end of his address, the President discussed "works of peace," especially in connection with improving relations with the U.S.S.R.:

"Now, may I try to give you some concrete examples of the kind of works of peace that might make a beginning in

the new direction. . . . We now have it within our power to eradicate from the face of the earth that age-old scourge of mankind: malaria. We are embarking with other nations in an all-out five-year campaign to blot out this curse forever. We invite the Soviets to join with us in this great work of humanity.

"Indeed, we would be willing to pool our efforts with the Soviets in other campaigns against the diseases that are the common enemy of all mortals—such as cancer and heart disease.

"If people can get together on such projects, is it not possible that we could then go on to a full-scale cooperative program of science for peace?

"A program of science for peace might provide a means of funneling into one place the results of research from scientists everywhere and from there making it available to all parts of the world.

"There is almost no limit to human betterment that could result from such cooperation. Hunger and disease could increasingly be driven from the earth. The age-old dream of a good life for all could, at long last, be translated into reality. . . ."

Brode Appointed Science Adviser to State Department

The Department of State has named Wallace R. Brode as science adviser and will soon appoint science attachés to the embassies in London, Bonn, Paris, Stockholm, New Delhi, and Tokyo. The department has \$200,000 available to revive the scientific advisory program, which has been operating with a greatly reduced staff during the past 2 years (see p. 175). According to a State Department spokesman, the program will probably be expanded after it gets under way. Attachés will then be sent to European embassies other than those included in the initial list, as well as to embassies in Latin America and the Near East.

Although Brode will retain his presi-