

surely correct in recognizing that its consequences for international stability must be determined by the wider political changes of which it is a part.

With respect to the claims so often made that the consequences of the spread of nuclear weapons are clearly evident and are for the worse, Rosecrance has concluded, in my opinion correctly, that they are not easily discernible and that, insofar as they are discernible, they are ambiguous. The other respect in which his contribution is perhaps valuable is in the stress that it places on the measures which may be taken to correct the destabilizing effect of nuclear diffusion, once it has occurred.

The weight of attention that has so far been directed towards finding a solution to "the Nth Country Problem" has concerned measures by which the expansion of the nuclear club can be stopped or at all events slowed down.

There is every reason to think that efforts in this direction are soundly conceived and should continue to be made, if for no other reason than that they buy time in which the adjustments which the process of diffusion calls for may be thought out. The idea, however, that nuclear power will remain the permanent monopoly of the states which now possess it is contrary to the most elementary lessons of international history, and, indeed, the process of diffusion is already proceeding in a fashion which the present nuclear powers can influence but cannot control. A realistic approach to the Nth Country problem should therefore include the attempt to identify what the peculiar dangers of a world of many nuclear powers will be and the attempt to devise ways of minimizing them.

One of the most serious of these dangers is the possibility that nuclear states will find themselves drawn into

conflicts against their will, either by accident or as the result of the catalytic action of other parties. Rosecrance distinguishes the dangers arising from the outbreak of war between Nth countries from the dangers arising from the involvement in war of the principal nuclear powers, and he considers some of the measures that the latter powers might take to reduce these dangers. A full investigation of the measures that are necessary to isolate conflicts in a world of many nuclear powers, it may be added, might show that policies are called for on the part of the principal nuclear states which are radically different from the policies that the United States is following now: declaratory policies, weapons deployments, and command arrangements designed not to show that she is committed to war when her allies and associates are at war, but designed precisely to show that she is not.

## But What Are the Behavioral Sciences?

John L. Kennedy

**Human Behavior—An Inventory of Scientific Findings** (Harcourt, Brace and World, 1964. 735 pp. \$11), a storehouse of "findings" from the behavioral sciences, was compiled by Bernard Berelson, a sociologist who is vice president of the Population Council, and Gary A. Steiner, an associate professor of psychology, Graduate School of Business, University of Chicago. Berelson was formerly the director of the Ford Foundation's behavioral sciences program. By "findings," the authors "refer to *important statements of proper generality* for which there is *some good amount of scientific evidence*" (p. 5). The findings are explained and amplified by a running commentary of examples and definitions.

I find the range of subjects covered rather overwhelming. The first finding is presented in chapter 3, #A1

(p. 39)—"Human behavior is far more variable, and therefore less predictable, than that of any other species. The repertoire and range of behavior available to any given man, as well as the range that exists across men, is far broader than anywhere else in the animal kingdom." The last is found in chapter 16, #S3.2 (p. 655)—"Upwardly mobile people and those of higher socioeconomic status tend to acculturate faster than their nonmobile counterparts. Even within deprived ethnic groups, the middle class members are more acculturated to the larger society than are the lower." There are 1045 such generalizations drawn from the literature of psychology (behavioral development, perception, learning and thinking, mass communication, opinions, attitudes, and beliefs), sociology (the family, small groups, or-

ganizations, and society), and anthropology (institutions, strata, and culture).

In the first chapter the authors describe the nature and plan of the book and define the boundaries of behavioral sciences as "those sciences that deal directly with human behavior." In the second they describe and explain the principal methods used (the experiment, the sample survey, the case study) and the problems of data collection and analysis. The utility of this inventory and the image of man that emerges from its pages is discussed in the final chapter.

Berelson and Steiner have succeeded in the difficult task of communicating the method and substance of several fields of scientific inquiry to the general public. The audience for their book is definitely *not* the technical specialist in one of the behavioral sciences. The authors hope to explain the current state of the behavioral sciences to the physical scientist, the engineer, the senator, the humanist, the lobbyist, the labor leader, the industrial manager, the civil servant, the administrator—all of those who need to evaluate the progress of the behavioral sciences and who wish to understand and to use their products.

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Although "new" synthesis is not the object of the book, the authors point out several instances of convergence into higher-order principles of findings from several fields. Two illustrations are given—one is from findings on adaptation level in experimental psychology, social psychology, and sociology, and the second, called the "spiral finding," describes the "positive feedback" effects of social deprivation and deterioration.

Many readers will be surprised that the work of the great psychological and social theorists is not prominently reviewed here. The authors feel that the great names, such as Freud, Wundt, William James, Max Weber, Durkheim, and Simmel, lie behind most of the findings reported but that these theorists were followed by those who took on the task of verifying or disproving. The findings of the book generally come from the work of the latter group rather than from the theorists.

The empirical image of man that emerges from this combining of psychology, sociology, and anthropology will, no doubt, disturb many readers. Those who place "reason" at the forefront of human behavior will not find confirmation and support in these pages. Those who believe in biological inheritance as a major determiner of human behavior will find that "behavioral science man is social man—social product, social producer and social seeker." Those who believe in self-interest as the primary motive behind human behavior will discover that man is a "creature making others and made by others."

The critical reader, who does not demand confirmation of a particular philosophical view of man, will still be concerned about two rather serious deficiencies in the behavioral sciences model of man, namely, (i) it sounds too much like the U.S. early 1960's model to be representative of mankind and (ii) it seems quite full of holes and gaps, particularly in areas of interest to the artist and the humanist.

The authors recognize and deplore the fact that the "hard" data of the behavioral sciences are often based solely on modern Western Man, and most often on inadequate samples of North Americans. The holes and gaps are excused on the basis of the relative youth of the behavioral sciences and the criteria, such as replicability, for establishing a "fact." I would add

that the level of financial support by the federal government for the behavioral sciences (about 2 percent of the total federal budget in the support of sciences) is certainly related to their currently underdeveloped state in relation to the physical sciences. The behavioral sciences have fared somewhat better at the hands of private sources of support, and, for a while, they were the subject of a special program in the Ford Foundation.

A book review is no place to report original research by the reviewer, but I cannot resist the temptation to report the results of my empirical investigation on the operational meaning of the name, "behavioral sciences." One of the many good outcomes of the Ford Foundation program was the establishment of the Center for Advanced Study in the Behavioral Sciences at Stanford, California (a center somewhat like the older Institute for Advanced Study at Princeton, New Jersey), where scholars from the disciplines making up the behavioral sciences could come to study together for a year. A list of the names (414) and the disciplines of the fel-

lows of the Center for the years 1954 to 1963 makes it possible to generate the 1046th "finding"—that some 66 percent of these scholars come from five disciplines—19 percent from psychology, 14 percent each from anthropology and sociology, 11 percent from political science, and 8 percent from economics. Only one scholar identified himself as a behavioral scientist! These results do raise a question about the lack of coverage of economics and political science in Berelson and Steiner's book. However, since both of these disciplines are heavily theoretical in nature, it is not inconsistent to find them well represented at the Center for Advanced Study in the Behavioral Sciences but essentially ignored in preparing an inventory of empirical knowledge in the behavioral sciences. But what are the behavioral sciences?

This is an important book, a well-written and a very well-organized book (the authors comment that it is easier to study than to read!), a book dedicated to a new and promising level of integration for some of the scientific disciplines that deal with human behavior.

## An African Mesolithic Series in Northeastern Morocco

**La Nécropole Épipaléolithique de Taforalt** (Edita, Casablanca, and Institut de Paléontologie humaine, Paris, 1962. 183 pp.), by Denise Ferembach, with J. Dastugue and M-J. Poitrat-Targowla, deals with human skeletal remains discovered at Taforalt in northeastern Morocco, in a Mesolithic context dated by carbon-14 as extending roughly from 12,000 to 10,500 B.P. They represent 80 adults (39 male, 31 female, and 10 doubtful), 6 adolescents, and about 100 individuals under 16, including 45 less than 1 year old. Forty-one skulls, 11 with mandibles, plus 19 isolated mandibles were reasonably complete. Maximum age at death was about 40 or a little over. The first 102 pages are devoted to a minutely detailed bone-by-bone discussion of this material, including teeth, with excellent illustrations and tables of measurements with statistical constants. Seldom if ever has a human skeletal series been so well described. Throughout the author emphasizes the physical resemblances between the population of Ta-

foralt and the well known Afalou series, both of which were culturally "Iberomaurusian" (=Mouillian=Oranian), in contrast to their at least partially contemporary Upper Capsian neighbors who were physically "Proto-Mediterranean."

The inhabitants of Taforalt were big, strong people, purportedly of "the same racial stock" as the series from Afalou (eastern Algeria) and Oberkassel (Germany). That they constituted an inbred isolate the author deduces from their apparently long occupation of a single cave, a very high rate of *spina bifida* and related sacral defects, very high infant mortality, and the universal presence of wormian bones. And I think she is right. Unfortunately she also cites, as an example of rapid gene spread within an isolate, an old French Protestant community (Sutter and Tabah, 1951) in which "a gene producing epilepsy had attained practically all the families" before the end of the last century. No form of epilepsy, however, is positively known