

Book Reviews

Congress Looks at Social Science

The Use of Social Research in Federal Domestic Programs. A staff study for the Research and Technical Programs Subcommittee of the Committee on Government Operations, U.S. House of Representatives. HAROLD ORLANS, Ed. Vol. 1, Federally Financed Social Research, Expenditures, Status, and Objectives. 385 pp. \$1. Vol. 2, The Adequacy and Usefulness of Federally Financed Research on Major National Social Problems. 643 pp. \$1.75. Vol. 3, The Relation of Private Social Scientists to Federal Programs on National Social Problems. 611 pp. \$1.75. Vol. 4, Current Issues in the Administration of Federal Social Research. 666 pp. \$1.75. Government Printing Office, Washington, D.C., 1967.

Naive professors may have the impression that "publish or perish" is the law only of the academic jungle. But it's publish or perish for congressional committees, too. The annual hassle over the appropriation for the House Un-American Activities Committee, for example, is these days mostly a fight over its printing budget. Committees hold hearings and publish reports in part as a way of announcing an interest in a topic and of asserting jurisdiction over it.

Recently, social science has become a hot topic around Congress. Senator Mondale has a bill to set up a Council of Social Advisers. Senator Harris has decided to push for a Social Science Foundation separate from the National Science Foundation. A similar idea was recently sponsored in the House by Representative Dante Fascell. Meanwhile, Representative Daddario's subcommittee of the House Committee on Science and Astronautics—which formally has oversight jurisdiction over the NSF—has a bill (which passed the House but died in the Senate in the last session of Congress) that explicitly broadens the mandate of the NSF in social science.

All this shows a vastly increased concern—and mostly sympathetic concern—on Capitol Hill for social science. The high level of interest is remarkable in view of the social sciences' minute share—about 3.5 percent—of the federal research budget. But lawmakers have come a long way since the establishment of NSF in 1950, when minimal support for "hard" social sci-

ence was gingerly included, or the dark days of the Reece committee, whose chief counsel had so many unpleasant things to say about private foundation support for social science research.

One of the earliest harbingers of a more enlightened legislative attitude appeared in the work of the specially constituted House Select Committee on Government Research, which, under the direction of Carl Elliott during the 88th Congress, looked into the entire range of government-sponsored research. On the social sciences, the Elliott committee's final report in 1964 said:

We are concerned lest the natural sciences continue to overshadow the social sciences . . . [B]asic research in general, while greatly in need of support, is difficult to defend because of the intangible nature of its results; and . . . particularly basic research in the social sciences is currently undersupported. That this is true can perhaps be best explained by the observation that poor social science research is easier for the layman to identify and ridicule than are biological or chemical or nuclear research. . . . We are persuaded that in the world of our probable future, our ability as a nation to compete will depend to a great extent on the efficacy of today's research into our grave social and economic problems [88th Congr., 2nd Session, House Rept. No. 1941, p. 45 (1964)].

In a sense, Representative Henry Reuss's Subcommittee on Research and Technical Programs of the House Government Operations Committee is the organizational successor to the disbanded Elliott committee; the Reuss subcommittee was organized in 1965 in response to a recommendation of the

Elliott committee, and some of the Elliott committee staff went over to the Reuss group when it began. There is, however, some jurisdictional ambiguity between it and a number of other permanent House subcommittees. As an earlier *Science* observer noted:

. . . congressional committee preserves are balkanized and jealously guarded. Medical research was out of bounds because it had long ago been preempted by Representative L. H. Fountain (D-N.C.), head of the Government Operations Subcommittee on Intergovernmental Operations. Atomic energy was similarly beyond reach. . . . Similar sovereignties reduced the choices in other fields, and, as a consequence, the Reuss subcommittee had to choose its subjects with a view to avoiding trespass [D. S. Greenberg, *Science* 150, 1566 (1965)].

The present "staff study" of the Reuss subcommittee has to be read in the light of this organizational background. Despite the formidable bulk of this study, it appears to be less a serious work of evaluation than an opening shot, a grand jury presentation on the basis of which hearings can be held, and an exploration of the possibility that a subcommittee position on social science can be carved out and defended.

The report is thus best understood as a four-volume appendix to the three-page press release that accompanies it. This latter document has already attracted favorable notice in the *Wall Street Journal* and *The Reporter*, and bears a curious relation to the study proper. The release contains comments and conclusions predominantly critical of government-supported social science research; the study itself provides only the most meager justification for these comments and much material tending to modify or even refute them.

The opening sentences of the committee press release read:

Many federal agencies and university social scientists have been more interested in the pursuit of knowledge for its own sake than in the use of research to evaluate or to improve programs directed to the nation's major social problems. This divorce of much social science from the study of issues actually confronting the citizen and society reflects both an academic preference and a failure of federal agencies to understand how social research can help them.

The release goes on to describe these two sentences as "findings" of the report and to cite a large number of other "critical comments." Where, the diligent reader may wonder, in the four volumes of this "study" may these

"findings" be found? Has the author of this report conducted a study of the "interests" of some scientific sampling of social scientists in order to ascertain the relative degree of their commitment to pure knowledge versus social problems? The answer is no. However, volume 3 of the report does contain a remarkable array of more or less relevant testimony. More than 50 social scientists responded to a question put to them by the subcommittee which read, in part, "Some concern has been expressed lest the increased emphasis on technical problems of their disciplines decrease the interest of academic social scientists in practical issues of public policy. Is this concern warranted?" Only six respondents agreed in the slightest. A few were unresponsive. The remainder disagreed with varying degrees of qualification, elaboration, and vehemence.

Readers clearly have ample warrant to wonder about the empirical justification for other "findings" revealed in the press release and widely publicized by the subcommittee. But what of the "study" itself?

It consists of motley and disparate materials. For instance, there are statistical data on federal expenditures for social research, the result of a subcommittee request to various federal agencies. The subcommittee request and all agency responses are printed verbatim in volume 1. The remainder of that volume (pp. 80-379) would be known in the college publishing business as "readings": material snipped from a large number of published sources containing comments on federally supported social science research, including such matter as three Presidential addresses "on the role of the intellectual in government." Volume 2, 635 pages long, is once again mostly a scissors-and-paste job including such old favorites as Durkheim and Sutherland on crime, Harvey Perloff and Wolf Von Eckhardt on cities, and so on. This volume also includes verbatim reprints of responses by 61 social scientists to a 12-item subcommittee questionnaire that begins: "What is your opinion of the general quality, scope and nature of the research now being sponsored by the Federal Government in [one of six areas: crime, education, poverty etc.]?"

On to volume 3! Six hundred and five pages. Once more, mostly readings. Max Weber on "objectivity." C. Wright Mills. Merton. Moynihan. A veritable

plum-pudding of "findings." But given the distinction, and in some cases the antiquity, of their sources, these findings are not properly attributable to the subcommittee's work. In this volume, the subcommittee's original contribution consists of the responses of 50-odd social scientists and research administrators to a 21-item questionnaire. Item 2 has already been quoted. Item 4 goes: "What can your professional field contribute today, on the basis of present knowledge, in helping the nation to cope with its domestic social problems? Please comment briefly."

Volume 4, along with still more readings, interoffice memos, and legal texts, offers responses of natural scientists, government agencies, university research administrators, and foundation executives to a more restricted but not more focused list of questions, such as, "Who shall make policy for the social sciences in the executive office of the President?"

Given the ramshackle structure of the report proper, it is perhaps no wonder that neither the rather ill-humored introductory summaries to each volume by editor Harold Orlans of the subcommittee staff nor the committee press release do the report justice. Nor can this attempt to summarize in brief compass the mass of undigested, unevaluated, and unsupported testimony the subcommittee has jumbled together in these four volumes. But at this stage it is perhaps not inappropriate to observe that the subcommittee has permitted to be published at public expense a work that is not likely to be widely cited as an exemplar of federally financed social research.

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Luminescent Materials

Luminescence of Inorganic Solids. PAUL GOLDBERG, Ed. Academic Press, New York, 1966. 779 pp., illus. \$29.50.

This book is unique in giving a well-balanced scientific account of all the major kinds of luminescence in all the major categories of inorganic crystals, plus a separate chapter on the glassy state. Theory and experiment are in appropriate proportion, and material dimensions range from large crystals to microcrystals to thin films.

The 12 chapters are authored by as many outstanding researchers—from the United States (eight), the United Kingdom (two), the Netherlands, and Japan. Each author is a current contributor to his topic, and each chapter treats its topic in depth, with generous use of figures and references. The reader is expected to be familiar with atomic and solid-state physics.

The book portrays both the strengths and weaknesses of luminescence research. It is concerned mostly with measurements of physical properties and interpretation in terms of physical concepts and diagrams. There is the usual sprinkling of chemical shorthand for hosts and activators, but relatively little about preparation of luminescent materials. There is also relatively little about characterization of materials; that is, quantitative identification of the significant features of composition, structure, and defects of a particular specimen of material. These are the features that (i) determine the physical properties of the specimen, and (ii) result from the particular ingredients and preparative conditions used in making that specimen. The book shows that, whereas the measurement of their physical properties is now a science, the making and characterizing of luminescent materials is still an art. Nonetheless, good progress is being made toward a science of some luminescent materials, with reproducible correlation between preparation, characterization, and properties having been obtained for certain high-bandgap hosts containing activator ions with radiative transitions of *d* and *f* electrons, and for certain low-bandgap hosts with radiative recombinations of electrons and holes in or near *p-n* junctions. A major new tool for characterization of luminescent centers, electron spin resonance, is highlighted in a special chapter.

Here is a convenient and valuable source of scientific information for graduates who are starting or continuing luminescence research and for teachers of courses on optical and electronic phenomena in solids. More technological information, especially about the preparation and application of useful phosphors, may be found in "Luminescence and Phosphors," by J. L. Oueltjes (in *Modern Materials*, vol. 5, B. W. Gosser, Ed. Academic Press, 1965, pp. 162-257).

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