

This was true of the Domesday Survey. Weak kings had collected tribute (Danegeld) from their people to bribe the Danes from attacking their realms. Others had used the money they collected to arm their soldiers to defend themselves against attack. The more systematic William the Conqueror determined to make a thorough examination of his resources, and to discover incidentally what taxes he could exact from his estates for his own ends. (Jones, n.d., p. 15)

Though far less avaricious than William, the wartime staff of the Division of Program Surveys was no less energetic and quite a bit more expert at surveys. The staff reads as a *Who's Who* of innovators in survey research methods. Besides Cartwright, Likert, and Stock, there were Angus Campbell, Charles Cannell, W. G. Cochran, Richard Crutchfield, Dwight Chapman, Roe Goodman, Herbert Hyman, George Katona, Daniel Katz, Leslie Kish, David Krech, John Lansing, John Riley, David Truman, and Julian Woodward. With war's end support for the division waned. Confronted by a cut in budget support, Likert, Campbell, Cannell, Katona, and Kish left the division to establish the Survey Research Center at the University of Michigan and were later joined by Cartwright and Lansing (Institute for Social Research, *Newsletter*, Winter 1971). One wonders if academic research ever profited more by a slash in a government budget.

The Division of Program Studies was only the first of several agencies conducting survey research on wartime policy problems. In 1942 the Office of War Information established a Surveys Division under the direction of Elmo C. Wilson, which conducted over 100 studies of civilian attitudes on wartime problems (Sheatsley, 1963). Hyman, Katz, Riley, and Woodward, in an agency personnel shuffle that was to become typical, joined other survey research experts such as Hazel Erskine Gaudet and Helen Dinerman at the Office of War Information.

Just as the Survey Research Center was linked in origin with the Division of Program Surveys, so too was there a close connection between the Office of War Information and the fledgling National Opinion Research Center. NORC had been established at the University of Denver in 1941 as the first nonprofit, university-affiliated research center with national survey facilities (Sheatsley, 1968). During those first lean years, NORC sustained its academic research program by conducting surveys for the federal government. All of the field work for the *national* surveys of the Office of War Information was in fact conducted under the direction of Paul Sheatsley of NORC. Hyman joined Sheatsley at NORC in 1947, when the center moved to its present home at the University of Chicago.

In 1944 Likert became director of a new agency, the Morale Division of The United States Strategic Bombing Survey. The USSBS had as its mandate a

determination of the "direct and indirect effects of bombing upon the attitudes, behavior and health of the [bombed] civilian population, with particular reference to its effect upon the willingness and capacity of the bombed population to give effective and continued support to the German [and Japanese] war effort" (United States Strategic Bombing Survey, 1947a, vol. 1, p. iv). The following analysis of the survey's findings on the effects of the bombing is adapted largely from Hyman's "Misguided Bombs" (1972a).

The Strategic Bombing Survey consisted of many divisions (for example, an Overall Economic Effects Division was directed by J. K. Galbraith), but we shall limit our discussion to the work of the Morale Division. Towns to be sampled were selected from the cumulative records of the British and American air forces. Using an experimental design, the cities and towns were classified in terms of the nature and severity of the bombing raids to which they had been exposed. In Germany 34 places were chosen to represent communities that had been exposed to no bombing at all, or to "light," "medium," or "heavy" bombing. About 4000 German civilians were interviewed in June and July 1945. In Japan some 60 sample points were similarly chosen, and about 3200 civilians were interviewed in Japanese by military personnel of Japanese ancestry in November and December 1945. The core of the questions dealt with wartime morale—the sense of weariness, defeatism, willingness to surrender, confidence in leadership, patterns of behavior at work and at home—as well as direct questions on experiences and feelings about the bombing.

Given the difficulties of conducting surveys in wartorn foreign countries, the surveys were remarkably well done (as one might expect of a staff that included Likert, Crutchfield, Cartwright, Cochran, Hyman, Katz, Krech, Truman, Gabriel Almond, Howard Longstaff, and Helen Peak). For example, in Germany the survey results were validated by official German documents, samples of civilian mail captured during the war, questionnaires filled out by displaced foreign workers who had experienced bombing in Germany, and interrogation of French escapees and key informants, especially community leaders. Helen Peak's study (1945) of the number and characteristics of Nazi party members stands as simply one example of the care with which bombing survey findings were checked for validity by comparison with such other sources as official German ministerial records.

That bombing was a horrible experience and reduced morale cannot be doubted. Many Germans described the bombing as a great hardship, the source of their weariness with the war, and the basis for their belief that the war was lost. Many reported severe emotional upset and intense fear, some saying that they could not talk about it to the interviewers despite a long passage of time.

As clear as the evidence is that the bombing of civilians terribly depressed their morale, the evidence is also stark that the *prolongation and expansion* of bombing did not serve the Allies' goals. To quote the official report, "The

greatest rate of decline in morale tends to occur between unbombed towns and those subjected to total average bombing of about 500 tons. There is some further decline when bombing is stepped up to 6000 tons. There is very little change or, in some cases, slight improvement in morale as a result of increasing bombing up to 30,000 tons" (United States Strategic Bombing Survey, 1947a, vol. 1, p. 22).

Feelings of despair were intense even among people living in *unbombed* towns. The degree of difference in willingness to surrender between those living in bombed cities and those living in unbombed cities was only six percent. Why? "All of the unbombed communities had repeated alerts and many expected that sooner or later they would be the target. Moreover these people had heard much about the devastating consequences of raids from the evacuees in their midst" (United States Strategic Bombing Survey, 1947a, vol. 1, p. 16). If one is intent on bombing civilians, it is not necessary to bomb every one nor to bomb them with furious intensity.

In Japan, where the total tonnage of bombs was less than in Germany but the toll in destruction and lives far greater, the results were very similar to the German findings. Those with no personal experience with the bombing had only slightly higher morale; repeated personal exposure almost never produced any further decline in morale. Here we do not allude to the effects of the atomic bombs on Hiroshima and Nagasaki, which were so manifestly horrible and were the subject of a separate study (United States Strategic Bombing Survey, 1946).

When evaluated together the bombing surveys of Germany and Japan provide an extraordinarily complete and sophisticated analysis of a range of social and psychological effects induced by civilian bombing. Indeed the research is so persuasive that it underlines a terrible irony regarding the use of massive bombing of North Vietnam by the United States. By 1972 the tonnage of bombs dropped on Vietnam more than doubled the amount dropped on Germany and Japan together, even though Japan alone encompasses a larger area than all of Vietnam and includes twice as many people. Why the authorities made the decision to bomb North Vietnam so intensely despite the prior evidence that heavy bombing serves no purpose in terms of civilian morale is a question that begs for an answer. It is unlikely that those who were responsible for formulating the North Vietnam bombing policy had no one to remind them of the evidence that the government had previously gathered with such care. Among the officers of the Strategic Bombing Survey were Paul H. Nitze and George W. Ball, both of whom were officials in Lyndon Johnson's administration who became disenchanted with the United States policy in Vietnam.

Halberstam (1973) attributes the bombing policy in part to the influence of such key figures as Walter Rostow in the Kennedy and Johnson administrations.

Perhaps all men tend to be frozen in certain attitudes which have been shaped by important experiences in their formative years; for young Rostow, one of the crucial experiences had been picking bombing targets in Europe. It had been a stirring time, a time when he was of great service to his country. He had believed in strategic bombing, in the vital, all-important role it played in bringing victory during World War II, that it had broken the back of the German war machine. His enthusiasm for bombing and for his own role had allowed him to withstand all the subsequent intelligence of the *U.S. Strategic Bombing Survey* . . . (Halberstam, 1973, pp. 199-200)

In sum, the bombing surveys are remarkably candid reports by a government agency of a government excess. (The candor is attributable in part, no doubt, to the fact that the Strategic Bombing Survey was a semi-autonomous agency reporting directly to the president.) The decision to undertake the studies reflects the government's confidence that surveys could contribute importantly to the formulation of public policy. The Vietnam bombing policy stands as a mocking counterexample of the failure of a government to utilize the information it had displayed such foresight in obtaining.

The Strategic Bombing Survey was not the last series of United States government-sponsored surveys in western Europe. When the wartime surveys were completed in the fall of 1945, some of their personnel became available to the Information Control Division of the Office of Military Government, U.S. (OMGUS). As an alien occupation force in Germany, OMGUS confronted numerous policy problems, including general issues such as the attitudes of Germans toward the Allied occupation and denazification programs, and specific problems associated with food rationing, refugees and expellees, currency reform, acceptance of a divided Germany, and the blockade of Berlin. Merritt and Merritt (1970) provide a good summary and analysis of these important OMGUS surveys.

Even with the promulgation of the Federal Republic in September 1949, the United States government remained interested in German political attitudes. The Opinion Survey Section within OMGUS became the Reactions Analysis Staff of the U.S. High Commissioner for Germany (HICOG), which from 1949 until 1955 conducted many more surveys. (Unfortunately, to our knowledge these latter surveys have never been published.)

With the realization of the value of such surveys for guiding public policy in West Germany, the United States Information Agency became a major survey sponsor, commissioning more than 20 surveys in Great Britain, France, Italy, and West Germany. Selected items from these surveys, as well as discussions of the substantive and methodological issues they pose, are presented by Merritt and Puchala (1968). The western European surveys are, of course, only

a subset of those produced by a worldwide United States Information Agency survey program. Many of these surveys are available for secondary analysis from the Roper Public Opinion Research Center.

The responsibilities of the several survey organizations operating within the federal government during World War II were rather clearly demarcated. The role of the survey divisions of the Department of Agriculture and the Office of War Information was the assessment of domestic opinion within the United States. The United States Strategic Bombing Survey measured opinion among the civilian citizens of Germany and Japan. Finally, we come to the fourth important survey center within the federal government, the Research Branch in the Information and Education Division of the War Department. The focus of this unit was the study of the social psychology of American soldiers themselves. In collected form these studies became the landmark four volume work *The American Soldier: Studies in Social Psychology in World War II* by Samuel Stouffer and a long list of illustrious associates (1949–1950). Stouffer was the director of the professional staff of the Research Branch, which consisted of two principal analytical sections: a Survey Section headed in 1943–1944 by Leonard S. Cottrell, Jr., and an Experimental Section headed by Carl I. Hovland.

Stouffer's initial chapter provides an interesting history of the decision of the War Department to utilize survey research in the formation of policy toward the treatment of military personnel. Stouffer points to three direct results of their research that had particularly important policy consequences. One was the order with which military units would be demobilized after the defeat of Germany. Though the war with Japan was still to end, the conclusion of the war in Europe made it possible to release several million men. But who? And in what order that would not depress the morale of those who had to continue the war in the Asian theater? President Roosevelt accepted a plan by which soldiers would be released in order of their accumulation of a certain number of points computed from such factors as length of service, time overseas, combat experience, and parenthood. Roosevelt justified this demobilization plan on the ground that the order of release was determined by the preferences of the soldiers themselves. The idea for this point system had been conceived in the Research Branch, Stouffer notes, on the basis of its sample surveys of personnel stationed throughout the world (Stouffer *et al.*, 1949, vol. 1, p. 7; and vol. 2, ch. 11).

A second important policy decision influenced by the surveys of the Research Branch was the level of funding for the proposed GI bill. The Research Branch undertook a series of studies to estimate how many soldiers would go back to college if the bill were drafted to include such aid. Stouffer notes that the survey predictions provided policymakers with a figure that proved to be correct within two or three percentage points (Stouffer *et al.*, 1949, vol. 1, p. 7; vol. 2, ch. 13; and vol. 4, chs. 15–16).

Third, in collaboration with the Neuropsychiatric Division of the Surgeon General's Office, the Research Branch developed a short form of a psychoneurotic inventory that was routinely administered in United States induction stations. Though the inventory was inevitably a crude test, it did predict to a degree the propensity of soldiers for psychiatric and other nonbattle casualties (Stouffer *et al.*, 1949, vol. 1, p. 8; and vol. 2, ch. 1). In a similar fashion the Branch, working with the Adjutant General's Office, constructed tests of aptitudes and abilities for use in the assignment of soldiers to military units (Stouffer *et al.*, 1949, vol. 1, p. 8, and ch. 7).

Finally, we might speculate, though Stouffer did not, on a fourth consequence of the work of the Research Branch. The troops of World War II fought essentially in a Jim Crow army. Although the Selective Service Act of 1940 provided that "there shall be no discrimination against any person on account of race or color," Roosevelt concurred with a War Department policy against integrating regiments on the grounds that integration "would produce situations destructive to morale and detrimental to the preparation for national defense" (John P. Davis, 1966, p. 627). Not only were units segregated but also a much higher proportion of black troops were assigned to service units than to combat duty, in contrast to white troops.

Black spokesmen were incensed at the policy of troop segregation and made numerous calls for the army to integrate. By the end of 1944, casualties of the Battle of the Bulge had created a shortage of infantry riflemen in the European Theater of Operations. The army decided to take this opportunity to experiment with assigning black volunteers to all black combat platoons that would fight within integrated companies. (The response of the black troops was so enthusiastic that three thousand black volunteers had to be turned away [Dalftime, 1969, p. 99].)

In 1946 "a board of officers charged with reviewing the facts [concerning Negroes in combat] concluded that all-Negro divisions gave the poorest performance of Negro troops, but spoke favorably of the performance of Negro Infantry platoons fighting in white companies" (Stouffer *et al.*, 1949, vol. 1, p. 586). The Gillem report, named for the board's chief officer, became, of course, an exceedingly controversial document. As it happened the Research Branch in Europe had made a separate study of the reactions of white soldiers to this experiment to integrate combat companies, which Shirley Star details in *The American Soldier* (Stouffer 1949, vol. 1, pp. 586ff). The research showed that whites fighting in companies with Negro platoons were much more favorable to integrated companies than soldiers who fought in segregated companies. As Star concludes:

When we note that the proportion of men having no experience with mixed companies who say "they would dislike the arrangement very much" is almost exactly the same (62 percent) as the two thirds proportion of

white enlisted men in mixed companies who were previously noted as reporting retroactively that they were initially opposed to the idea [but came to favor it], we can get some conception of the revolution in attitudes that took place among these men as a result of enforced contacts. (Stouffer *et al.*, 1949, vol. 1, pp. 595–596)

Whether the Research Branch study had a significant effect on subsequent policy decisions is uncertain. Major General F. H. Osburn, Chief of the Information and Education Division (which included the Research Branch) and General Benjamin O. Davis (the American armed forces' first black general) wanted the Research Branch survey made public (Nichols, 1954, p. 70; and Dalfume, 1969, p. 100). However, opponents within the army feared that publication might lose support for the peacetime draft proposal among southern senators and would encourage demands by black organizations for further experiments in integration. Dalfume concludes:

Those who preferred the *status quo* won. As soon as the war in Europe came to an end, the Negro platoons were unceremoniously detached from their white units and either returned to all-Negro service units or discharged. Although the Negro platoons appeared to be forgotten by the War Department, the few who believed that integration was the solution to efficient utilization of manpower continued to remember this experience as proof that they were right. (Dalfume, 1969, p. 100)

On 26 July 1948, President Truman issued his well-known executive order 9981 requiring "equal treatment and opportunity for all persons in the armed services" (not necessarily integration) and creating the Fahy Committee, which in its reports to the president hammered at the gaps between the Presidential proclamation and armed forces practice (John P. Davis, 1966, pp. 52ff).

In addition to the substantive contributions of the Research Branch to public policy and social psychological theory, Stouffer's *The American Soldier* (1949–1950) also testifies to the important methodological work the Branch supported. The most important contribution was undoubtedly to scaling theory. Expanding on an idea that he had previously published in 1940, Louis Guttman developed at the Research Branch the method of attitude scaling that bears his name (Stouffer, 1949, vol. 4, p. 5). Similarly, Paul Lazarsfeld, a consultant to the Research Branch, began his own development of the technique for scaling attitudes known as latent structure analysis.

The importance of the studies that comprise *The American Soldier* reflects the abilities of the experts that guided its work. *The American Soldier* includes a long list of the personnel and consultants of the Branch. A partial and more or less arbitrary list of those who were then or have since become important figures within survey research includes, in addition to Cottrell, Hovland, and Stouffer, such staff members as M. Brewster Smith, Arnold Rose, Shirley Star,

Edward Suchman, and Robin Williams, Jr., and such consultants as Hadley Cantril, John Dollard, Louis Guttman, Philip Hauser, Irving Janis, Paul Lazarsfeld, Rensis Likert, Quinn McNemar, Robert Merton, Frederick Mosteller, and Frank Stanton.

In summary, our purpose in our review of the initial three stages in the development of survey research is to emphasize that its growth took place in an environment that inextricably mixed policy and scholarly interests. Scholars and the policy programs of the federal government nurtured one another. For survey research the payoff was counted in several coins: public support of substantive research, encouragement of advances in measurement, statistics, and sampling theory so necessary to survey work, and support given to the growth of a large pool of experts who subsequently left government service to people the research centers of universities. Public policy decisions benefited, in turn, from the availability of basic information on the attitudes and socioeconomic conditions of citizens in the United States and other countries.

The concluding list of prominent scholars who worked in the Research Branch reflects the shared policy goals of scholars and public officials during World War II and stands as a pointed contrast to the relative lack of academic survey experts in the Korean and Vietnam wars. Indeed, outside of the Bureau of the Census, the Bureau of Labor Statistics, and the National Center for Health Statistics, there exist at present no major centers for survey research within agencies of the United States government in any policy field.

It would be wrong, however, to observe the dearth of governmental survey research centers and conclude that the banquet years of surveys for policy applications are on their final course. The site of the feast has simply moved from the agencies of government to the survey research centers of the universities. The postwar period, then, represents a new phase in the fusion of basic research and policy analysis.

**Period 4: The postwar years.** As Alice Rivlin (1971, p. 9) has noted, "The distribution of social problems has been illuminated by two important technical developments. The first is the improvement and wider use of sample survey techniques. The second is the astonishing increase in the data processing capacity of computers." In her *Systematic Thinking for Social Action* (1971), Rivlin devotes few words to computer analysis, but her review of the policy implications of surveys is perhaps the best discussion of the issue. Because the total number of policy surveys is so large, it is a hopeless task to discuss them all. Therefore, we will take refuge in the limits that Rivlin drew for herself, the subjects of welfare, education, and health; we will rather arbitrarily exclude other fields in the delivery of governmental services.

1. *The Survey of Economic Opportunity.* A special census survey conducted for the Office of Economic Opportunity, the Survey of Economic Opportunity (SEO) stands as an important exception to our argument that most policy



surveys of the postwar years have been conducted by university survey centers. When the war on poverty was being considered in 1963, the government had little data on how many people were poor, who they were, or where they were located. Lacking this important information, the Council of Economic Advisors somewhat arbitrarily selected \$3000 as a poverty line for family income (Rivlin, 1971, pp. 10, 29–34).

The SEO, conducted in 1966 and 1967, provided the missing information. The sample consisted of two separate frames: One was a national sample of about 18,000 drawn according to procedures of the continuing Current Population Survey. The second consisted of a supplementary sample of about 12,000 households in areas with a large concentration of nonwhite poor. The same households were surveyed again in 1967, creating a panel design for direct measures of short-term changes in income.

Combined with computer simulations of family earning models, the SEO data allowed policymakers to experiment with different programs in order to judge the costs and benefits of various legislative proposals. *Poverty Amid Plenty*, The Report of the President's Commission on Income Maintenance Programs (The Heineman Commission), used this SEO data to justify the need for new programs on public welfare. Nixon's Family Assistance Plan, submitted in 1969, was the response. Its benefits were directly tied to projections from the SEO (Moynihan, 1973, p. 497).

2. *Negative Income Tax Experiments*. Not all questions can be answered from the projections of simulation models, however. If some form of income maintenance plan such as President Nixon's were adopted, what would be the response of the beneficiaries? Would the social and economic behavior of the recipients change? Would a significant number of people guaranteed \$3000 a year quit working? Would fathers that might otherwise desert families remain at home? How many more marriages might take place under this new system of different economic incentives? (Rivlin, 1971, p. 34). Questions such as these require that the circumstances of people's lives actually be changed to see whether their behavior changes. For just this kind of purpose the income maintenance experiments were designed.

Rivlin distinguishes two types of experiments, natural and systematic. By natural experiments she means those that take advantage of a comparison of two situations that *happen* to be similar in all important respects save some critical policy program whose effectiveness is at test. Her examples include comparing school systems with Head Start programs to similar districts that do not have the program. A natural experiment, then, is one similar to the bombing surveys in Germany and Japan, in which the sample of citizens was stratified according to the intensity of the bombing to which their towns had been subjected. But, there were no existing situations where one could exploit a natural experiment on income maintenance effects. Therefore, the Office of Economic Opportunity funded the Institute for Research on Poverty of the

University of Wisconsin to implement a set of income maintenance proposals in a controlled experimental design—first, in Trenton, New Jersey, and successively in a number of other sites.

At this writing the results of the experiments are still being evaluated and debated. (See, for example, Marmor, 1971; and Orr, Hollister, and Lefcowitz, 1971.) Scott and Shore (1974) offer an engaging and self-critical apologia of their role as sociologists in selecting items for inclusion in the survey instruments, in the absence of theory specifying the most pertinent variables for explaining poverty. Nonetheless, we should be charitable toward all such disclaimers. The income maintenance experiments represent one of the first attempts at a strategy revolutionary in its prudence—the testing of proposals in experimental settings prior to their uniform implementation throughout the whole of a system.

3. *Equality of Educational Opportunity Survey and Project TALENT*. From Section 402 of the Civil Rights Law of 1964 came the mandate to undertake the *Report on Equality of Educational Opportunity*, popularly known as the Coleman Report (1966). Mosteller and Moynihan (1972, p. 5) describe the survey on which the report was based (the EEOS) as “the second largest social science research project in history.” In all the projects surveyed and tested 570,000 pupils and 60,000 teachers, and collected detailed information on 4000 schools. This massive study is exceeded in size only by an earlier survey, Project TALENT, which was conducted by the University of Pittsburgh for the Office of Education (Flanagan *et al.*, 1962).

If the Coleman Report is only second in size, it is first in controversy generated by its policy implications. As Robert Dentler notes:

More crucially, many of the findings run contrary to the favorite assumptions of three of the most concerned audiences: militant school integrationists, militant school segregationists . . . and the many professional educators who focus their effort too exclusively upon school facilities, curriculum reform, and teacher training. (Quoted in Mosteller and Moynihan, 1972, p. 29)

The outcries from these audiences could have been predicted. Militant integrationists were offended, for example, by the finding that black and white children had nearly comparable school resources within regions. Militant segregationists were incensed at the findings that the quality of black and white schools alike is much poorer in the south than in the north, and that blacks integrated into mostly white schools learn and perform better than blacks attending mostly black schools. Professional educators were angered by the major conclusions of the report—that family background of students has an important effect on student performance and that school facilities and per pupil expenditures have relatively little impact.

Complaints against the Coleman Report are not without grounds. In the first place, the analysis had to proceed quickly; operating under the legal mandate, the survey was completed at the unacademic pace of two years. Thus some conclusions of the Report are weakened by simple mechanical errors in statistical calculations (Smith, 1972). In the second place, for this pathbreaking project, the investigators had to make decisions that the reflections of hindsight would have questioned. Hindsight in this case has materialized in the form of numerous reexaminations of the methods and inferences of the Report (see, for example, Vose, 1967; Rivlin, 1971; Mosteller and Moynihan, 1972; and the series of reviews and articles on the Report in the June 1967 and April 1970 issues of the *American Sociological Review*).

A dominant theme of these criticisms is the call for surveys incorporating systematic experimentation. However, if that conclusion is to be more than cant, we will have to face up to the sensitive political problems that real experiments generate. Parents may be unimpressed by an explanation for a lack of improvement of their child's school facilities, if the explanation is that some school, after all, must be a control group. Many more parents may be equally upset to find their children in an "experimental group." To be sure Donald Campbell (1969) reminds us that randomization is not merely a proper technical procedure but also a democratic rule for allocating the benefits of experiments. However, this is a sophistication likely to be lost on an angry parent. Rivlin's cautionary discussion of the political issues implicit in experimental designs is provocative.

One such call for experimentation raises intriguing questions concerning social research and invasions of privacy. The following statement from Sewell illustrates the dilemma:

Perhaps the most tragic faults of the survey were due to the administrative decisions apparently made by the Office of Education—decisions which probably seemed expedient at the time but which greatly reduce the current and future usefulness of the research data. Thus, neither school systems nor students were identified so that neither schools, classrooms, principals, teachers, nor students can be selected for further intensive analysis . . . [T]he decision not to tag children means that no true longitudinal study building upon these data will ever be possible. This is unfortunate because it is precisely this kind of information which is so badly needed for determining the future effects of current educational inequalities. (Sewell, 1967, p. 478)

Rivlin as well regrets the cross-sectional nature of the survey, for the problem of explaining what contributes to the development of children is compounded when one is limited to observations at a single point in time. Yet in a study so vast as the EEOS, who is prepared to assume responsibility for abuses of privacy if publicly supported data banks on children and teachers were

maintained over time? "Politics," Mr. Dooley reminds us, "ain't bean bag." The sensitivity of the Office of Education to possible charges of invasion of privacy seems entirely understandable.

Finally, we close this note on the Coleman Report with a comment on the consequences of unanticipated, unwanted research findings. Critics of the Coleman Report often wonder why so much effort was made to measure the quality of school facilities relative to aspects of teacher performance. Several answers come to mind. First, it is easier to obtain accurate measures of books in libraries, laboratories, ages of buildings, and per pupil expenditures than it is to assess the qualities that make for good teaching, qualities Rivlin (1971, p. 75) suggests includes a teacher's "sympathy, her sense of humor, or her confidence in her students." Second, school facilities and expenditures are manipulatable, that is, they can be changed by policy decisions. How, in comparison, does one increase a teacher's sympathy for students, confidence in them, humor toward them?

Beyond these points, we are simply reading between the lines of the report. However, it seems plausible that Coleman and his coworkers took particular care to investigate facilities and expenditures because they may have believed that the unequal funding of schools—black and white, north and south—creates unequal educational opportunities and is inherently wrong. But when their survey could not determine important consequences of expenditures on student achievement, they could only accept those findings with honesty and, it seems likely, with regret. The possibility of affecting changes in policy may seem a heady opportunity for an academic. A price is that one must be prepared to accept the unwanted implications of that research.

4. *The National Health Survey.* The health survey program is perhaps sufficiently removed from politics that we can give it briefer notice than the previous three surveys. Prior to 1956 the only illness data collected by the federal government pertained to communicable diseases (Moriyama, 1968). The National Health Survey, begun in 1957, now fills that gap. The survey itself is divided into three separate programs. The *Health Interview Survey* is a continuing nationwide survey of households, soliciting information on the incidence of illnesses and accidents known to the respondents. The *Health Examination Survey* actually conducts diagnostic examinations of sample respondents in several different age cohorts. This survey found, for example, that about two-thirds of American diabetics have never had their illness diagnosed. Finally, the *Health Records Survey* is a series of samples of establishments providing medical, dental, and other services. Taken together, the separate surveys that compose the National Health Survey provide some of the data necessary for national planning for the provision of health services.

In summary, the development of survey research techniques is substantially, if by no means exclusively, an American product. [For discussions of nine-

teenth-century surveys in Germany and France, see Oberschall (1965); Clark (1973); and Rigaudias-Weiss (1975).] The development of survey research in the United States falls into four crucial periods: the social survey movement, the depression years, World War II, and the postwar years. These periods exemplify a common theme. Though we may think of surveys as fundamentally a tool of academic scholarship, the fact is that the present body of experts and expertise has developed in substantial part from governmental support. This fusion of purposes of policy and scholarship has undoubtedly served the development of survey research. How well it has served to inform policy-makers is a more difficult judgment. Whatever that answer, the costs of surveys are now so great that some form of public or commercial support is necessary to sustain most modern surveys, and the likelihood of public support without a claim of policy payoffs is increasingly uncertain. [The most complete list of figures on trends in survey costs is Lansing and Morgan (1971).]

One solution to the rising costs of surveys is the omnibus survey in which a number of researchers pay fixed prices to piggyback their own items onto an interview schedule. All those who buy into the omnibus survey obtain the responses to the face sheet data describing the respondent as well as the information from their own items. Academic institutions such as the Survey Research Center and the National Opinion Research Center have such omnibus surveys as, of course, do many commercial polling firms.

A second response to the survey costs is the resurgent interest in existing surveys. Secondary analysis of survey data, "the extraction of knowledge on topics other than those which were the focus of the original survey," has become an important mode of research (Hyman, 1972b, p. 1). Secondary analysis, its attractions and limitations, is a separate subject in its own right, recently examined in Hyman's *Secondary Analysis of Sample Surveys* (1972b). The only observation we make here is that a notable number of surveys now available to political analysts were originally collected for commercial rather than academic purposes. That these surveys have proved so valuable to social scientists attest to the scientific interests of many of those who have guided commercial surveys. A brief elaboration of this point will conclude our discussion of the uses of surveys.

#### *The Compatibility of Commercial and Academic Uses of Surveys*

The importance of commercial pollsters in survey research may come as a disappointment to those who prefer their research free of the taint of profit. As Jesse Unruh said of politics, money is the mother's milk of survey research.

The 1936 presidential election marked the beginning of modern surveys. Often overlooked in the comical disaster of the *Literary Digest's* prediction of a Landon victory was that three new polls correctly predicted the result. These were the American Institute of Public Opinion, founded in 1935 by George H. Gallup; The *Fortune* Survey, conducted by Paul T. Cherington and

Elmo Roper; and the Crossley Poll, directed by Archibald M. Crossley (Sheatsley, 1963). These pollsters used small samples of respondents selected by specific quotas and avoided the bloated, but biased samples of the *Literary Digest*. As Sheatsley observes (1968, p. 463), "It was Gallup, Roper, and Crossley who first applied, on a nationwide scale, the techniques of sampling, standardized questionnaire, and personal interview to the measurement of public opinion. The vindication of these methods had enormous consequences for our profession."

In the depression years, of course, there was small support for purely academic research. It is to the gratitude of a succeeding generation of public opinion analysts that commercial pollsters such as Gallup, Roper, and Crossley held the goals of scientific research in such high esteem. Their contributions go well beyond the legitimacy they gave to the techniques of small samples. They produced, as well, much of the early research on opinion measurement. Gallup's *A Guide to Public Opinion Polls* (1944) contains much of this research. More obviously, it is present in Cantril's *Gauging Public Opinion* (1947), for Cantril credits Gallup with making all the data of the American and British Institutes of Public Opinion available to the Office of Public Opinion Research, which Cantril had established at Princeton University in 1940.

The foresight of Gallup and Roper in recognizing the value of their data for scholarly analysis may ultimately have been their most important contribution. The formation of the Roper Public Opinion Research Center at Williamstown, Massachusetts in 1946 as an archive for Roper's surveys was a critical first step. In 1957 it was reorganized as a general archive and has now become the largest repository of social surveys in the world. Such archives offer us our only direct means of exploring opinions in the past. Cantril and Strunk's *Public Opinion 1935-1946* (1951), a huge compendium of the results of surveys from 23 organizations in 19 countries, is only a sample of the data available for secondary analysis for that period. From the Roper Center archive has come such important works as Key's *The Responsible Electorate* (1966), Reed's *The Enduring South* (1972), and Mueller's *Wars, Presidents and Public Opinion* (1973). It is a fortunate fact that contemporary pollsters such as Harris and Yankelovich have followed in the tradition of Gallup, Roper, and Crossley by ensuring that their surveys are available for scholarly research. Many survey archives that now offer such attractive opportunities for the secondary analyst are listed by Hyman (1972b, pp. 330ff.) and by Clubb in Chapter 2 of this volume.

Having discussed the growth of survey research as a mesh of academic research, public policy analysis, and commercial opinion polling, we conclude this topic with a discussion of an article that illustrates several of our arguments. "A Scientific Attempt to Provide Evidence for a Decision on Change of Venue" (Woodward) was published in 1952 in the *American Sociological Review*. It described the case of four blacks who were accused of raping a white woman in Florida in 1949. One black was shot "while resisting arrest." The

other three were convicted. One was sentenced to life imprisonment; the other two, to the electric chair. The convictions of the latter two were appealed to the United States Supreme Court, which held that the jury selection procedure involving racial quotas was illegal. Two justices also expressed an opinion that conditions in the trial county had precluded the possibility of a fair trial. The state court ultimately ordered a retrial of the two, but before the new trial took place, both were shot while "attempting to escape." In 1952 the remaining defendant came up for retrial in a county adjacent to the site of his original conviction.

The National Association for the Advancement of Colored People, which undertook the defense, commissioned the polling firm of Elmo Roper to conduct a survey to determine whether prejudgment of guilt in the community precluded a fair trial. The Roper firm drew a sample in four counties: the site of the original trial, the site of the forthcoming trial, and two additional counties far from the first two to serve as control group samples.

Interviews in the two trial counties were not completed. After five Roper interviewers (southern women from nearby states) were interfered with by town constables in one county and the whole staff warned to leave in the other, the survey director withdrew the interviewers with 76 respondents remaining to be contacted. However, comparisons with census data revealed that little or no bias resulted from the missing interviews.

The survey results clearly suggested a substantial prejudgment of guilt. In the county of the original trial, 63 percent responded that they "felt sure" the defendant was guilty. In the new trial site, 43 percent of the whites (as opposed to one percent of the Negroes) said they were sure he was guilty. In contrast, 17 percent and 25 percent of the two control county samples said they were sure the man was guilty. Moreover, in the county of the retrial, 84 percent of the Negroes said they felt something might happen to a juryman who voted not guilty; of the whites in the sample, only 16 percent concurred.

At the new trial the court refused to admit the survey results as evidence that prejudgment of guilt in the community precluded a fair trial. The court sustained the objection of the prosecutor that because the respondents were anonymous, none could be cross-examined to validate their expressed opinions. Thus, the survey results were ruled out as hearsay evidence. The motion of change of venue was denied, and the defendant was again convicted.

Though the judgment against the admissibility of surveys as hearsay evidence was indeed in accord with conventional doctrine, the article noted that several courts had recently declared surveys admissible and that the doctrine on surveys as hearsay evidence was in the process of change. The article concluded, "It will, therefore, be interesting to see what happens to this particular survey at the hands of justices in higher courts." The author proved too optimistic in this case. Barksdale (1957, p. 87) reports that the Florida Supreme Court upheld the view of the trial judge, and the United States Supreme Court in 1954

declined to review this ruling (346 U.S. 927). In general however, if not in this particular case, the author's prediction that survey evidence would increasingly be ruled admissible evidence in United States courts has proved correct (Barksdale, 1957).

The author of the article was also the director of the Roper survey. His name was Julian L. Woodward, and he had died prematurely in the year the article was published. Woodward was a sociologist at Columbia, Dartmouth, and Cornell Universities. At the onset of World War II he took a leave of absence from Cornell University and joined the staff of the Division of Program Surveys of the Department of Agriculture. From 1942 to 1944 he served as Deputy Chief of the Surveys Division of the Office of Facts and Figures. He concluded his service as assistant to the Director of the Office of War Information. In 1946 he resigned from Cornell University to join the market and public opinion research firm of Elmo Roper. In 1950 Woodward was elected president of the American Association for Public Opinion Research.

Woodward's career was illustrative of so many of his generation of survey experts. He was a professor, a bureaucrat, and a commercial executive. His work included academic research, public policy evaluation, public opinion surveys, and market research. In his biography is a microcosm of the history of the development of survey techniques.

#### **CONCLUSIONS: WHAT ARE THE EFFECTS OF SURVEYS ON THEORY?**

In this chapter we have explored the usefulness of surveys by asking two broad questions: First, what types of belief and behavior can surveys measure? Second, what academic, policy, and commercial purposes do surveys serve? To the first question we clearly took an eclectic, even permissive position. We pointed to examples in which surveys had been used to measure phenomena so varied as demographic and social characteristics, affect, attitudes, judgments, information, behavior, ideologies, cultural values, and national character. Promiscuous might be a better word than permissive for our inclusive attitudes regarding the uses of surveys. The quality of a survey lies not in its subject but in the care with which the survey is conceived and executed.

To the second question our position is similarly catholic. Surveys are used for basic research, policy analysis, commercial profit, or political electioneering. However, we preferred to treat the boundaries of these fields as permeable. The flow of experts from universities to government to market and opinion research firms was constant during the critical years of the development of survey methodology. In a discussion of the discovery of survey techniques, distinctions between research, policy, and profit are mostly irrelevant.

Moving beyond these two questions of the uses of surveys, we conclude with a final set of observations about the effects of survey research on substan-



tive theories of politics. Here we take our cue from the two classic essays by Robert Merton (1957) concerning the links between theory and methodology. In the first essay Merton pondered the bearing of sociological theory on empirical research. Much of his effort lay in clarifying the multiple meanings of theory, in explaining the paucity of scientific laws in sociology, and, indeed, in cautioning against the premature search for formal theory in the research of an immature science.

In his second essay Merton turns the first problem on its head and inquires of the impact of research methods on substantive theory:

It is my central thesis that empirical research goes far beyond the passive role of verifying and testing theory: it does more than confirm or refute hypotheses. Research plays an active role: it performs at least four major functions which help shape the development of a theory. It *initiates*, it *reformulates*, it *deflects* and it *clarifies* theory. (Merton, 1957, p. 100)

Merton's observations on the bearing of research on theory apply equally as well to political science as sociology. We will use his thesis to recapitulate our previous arguments on the importance of survey research for the study of politics.

***The serendipity pattern: the unanticipated, anomalous and strategic datum exerts pressure for initiating theory.*** In his essay Merton (1957, p. 103) provides only one example of the role of serendipity ("the discovery, by chance or sagacity, of valid results which were not sought for") in originating new hypotheses—in this case a study of the psychology of social norms.

Writing his essay in 1946, Merton did not yet have a full elaboration of serendipitous discoveries then being made by the Research Branch for Stouffer's *American Soldier* (1949). One such discovery was the concept of *relative deprivation*, which we discussed as an example of the interpersonal expectations in which beliefs are grounded. Once the *American Soldier* was published, Merton and Alice Rossi (Merton, 1957, ch. 9) considered the concept of relative deprivation from the perspective of the theory of *reference group behavior*. Hyman had formulated the concept of reference groups in "The Psychology of Status" (1942). However, it was not until Merton drew attention to the links between relative deprivation and theories of reference groups that reference group became a prominent concept in research (Hyman and Singer, 1968, p. 6).

Another important instance of serendipity resulting from surveys is the "two-step flow of communications" hypothesis. This chain of discovery began with Lazarsfeld, Berelson, and Gaudet's (1944) survey of Sandusky, Ohio during the 1940 presidential campaign. This survey was designed as a study of formal channels of communication media, based on the prevailing assumption that opinions were formed by community leaders. Opinions of these leaders, who control the local media, were presumed to percolate "down from one social

stratum to the next until all followed the lead of the conspicuous persons at the apex of the community structure" (Katz and Lazarsfeld, 1955, p. 3). To Lazarsfeld's surprise, the influence of community leaders and the media on voting decisions was quite small compared to interpersonal influence operating within primary groups.

This finding subsequently generated two important lines of research. First, it implied that mass communications (then radio and newspapers) do not directly influence most people's political actions. Rather, the media message first diffuses to group opinion leaders, who then interpret the content of the media to others with whom they have influence. In this way a survey of formal communication led to what Katz and Lazarsfeld (1955) term the periodic "rediscovery" of the importance of the primary group. Merton (1957, ch. 10) further elaborated the theory by exploring his distinction between "local" and "cosmopolitan" influentials. Second, these intermediate opinion leaders were not limited to persons of high social status; rather each stratum had its own opinion leaders. The discovery of intermediate opinion leaders in turn suggested that steeply hierarchical models of community power were probably inaccurate, a finding quite consistent with the spate of research on pluralistic models of community power, so aptly illustrated by Dahl's survey in *Who Governs?* (1961).

The chain of studies from Lazarsfeld, Berelson, and Gaudet's *The People's Choice* (1944) to Katz and Lazarsfeld's *Personal Influence* (1955) illustrates a common pattern for fortuitous findings from survey research. Surveys, as we defined them, require interview schedules containing "explicit, standardized procedures, yielding quantitative measurements." These questionnaires are usually administered by field interviewers who are not themselves attentive to interesting anomalies that appear early in the stages of data collection. Even if the researcher becomes aware of an intriguing line of inquiry in the midst of the fieldwork, a standardized schedule usually cannot be changed to explore this new insight. Thus, nearly all generalizations from serendipitous survey findings are *ex post-facto* and speculative. They are rarely testable with the existing data because the researcher has not directly measured the variables he has conceived to explain the anomalous results. For this reason, *The People's Choice* contains little direct evidence for the "two-step flow of communications" or for primary group "opinion leaders." Tests of these hypotheses had to await the new research designs of Merton, and Lazarsfeld and Katz. Serendipity is merely part of the process of discovery. Verification follows discovery in a chain of inquiries. Nonetheless, the unanticipated findings of surveys have had a major effect on theories of political behavior.

*The recasting of theory: new data exert pressure for the elaboration of a conceptual scheme.* Survey research has had a profound impact on theories of political behavior—particularly so in areas relating to the interest, knowledge, and values that ordinary citizens bring to political acts. The new data not only

brought pressure for the recasting of empirical theories of behavior; normative theories were also seen as vulnerable to the new surveys of the 1950s that seemed to suggest that voters were much less interested and informed than some classical theories of democracy may have assumed. The resulting controversies are wide-ranging. Is the ignorance and apathy of many voters more a consequence of their own cognitive limitations or more a result of the failure of parties and candidates to make clear and distinctive arguments of the issues? Were classical normative theories properly interpreted as assuming an active and informed electorate as an empirical fact rather than a normative ideal? Is there, in any case, a *single* classical democratic theory? And, most fundamentally, under what conditions can empirical data weaken a normative argument regarding how voters *ought* to behave? [These questions are addressed in the articles in McCoy and Playford (1967) and Kariel (1970), and by Pateman's *Participation and Democratic Theory* (1970) and Moon's (1972) review essay of recent books on these issues.] A careful discussion of these issues would require yet another chapter. We will be content, therefore, with a single example that is posed by the following question: To what degree does a democracy require a consensus among ordinary citizens for the tenets of civil liberties?

This controversy was joined with the publication of Samuel Stouffer's *Communism, Conformity, and Civil Liberties* in 1955. Stouffer's research design was elegant in its inclusion of both a cross-section sample of ordinary citizens and a special sample of community leaders in cities with populations of 10,000 to 150,000. The interviews took place in May through July 1954, the year in which Senator Joseph McCarthy made his attempt to sway United States congressional races with attacks on candidates he considered procommunist.

The results of the survey proved startling in many respects. First, sizable minorities, in some cases even majorities, appeared to favor the denial of such basic rights as freedom of speech for atheists, socialists, and accused and admitted communists. In contrast, the leadership sample expressed much more support for freedom of the press and speech for religious and political radicals. Counterintuitively, however, anticommunism was apparently not much on people's minds, in spite of McCarthy's attempt to generate an anticommunist mass movement. In response to the question, "What kinds of things do you worry about most?" "the number of people who said that they were worried either about the threat of Communists in the United States or about civil liberties was, even by the most generous interpretation of occasionally ambiguous responses, less than 1%!" (Stouffer, 1955, p. 58). It is not clear which of the findings was more unsettling to the study's readers—the lack of expressed support for civil liberties or the lack of expressed interest in political issues of the day.

The Stouffer study became the seed of important successors. Two of the more significant were "Fundamental Principles of Democracy" by Prothro and Grigg (1960) and "Consensus and Ideology in American Politics" by McClosky (1964). McClosky's was an exceedingly ambitious design, including both a cross-

section sample of citizens and a leadership sample drawn from party delegates to the 1956 presidential nominating conventions. The Prothro and Grigg cross-section samples were drawn from two university towns: Tallahassee, Florida, and Ann Arbor, Michigan. Both studies shared the same substantive interest—assessing the degree to which Americans would endorse both general principles of democratic government as well as specific applications of those principles. The two studies yielded a common result: substantial majorities would endorse tenets of democracy when stated as general principles, such as “people in the minority should be free to try to win majority support for their opinions.” Support tended to erode on specific applications of those principles, such as “A Negro should not be allowed to run for mayor of this city.” In addition, McClosky found, as Stouffer had before him, that the sample of leaders was much more prone to “democratic” responses than were ordinary citizens.

It was perhaps inevitable that such findings would lead to the recasting of theories on the forces that sustain democratic systems. Consider Key's conclusion to *Public Opinion and American Democracy*:

The longer one frets with the puzzle of how democratic regimes manage to function, the more plausible it appears that a substantial part of the explanation is to be found in the motives that actuate the leadership echelon, the values that it holds, in the rules of the political game to which it adheres, in the expectations which it entertains about its own status in society, and perhaps in some of the objective circumstances, both material and institutional, in which it functions. Focus of attention on this sector of the opinion system contrasts with the more usual quest for the qualities of the people that may be thought to make democratic practices feasible. That focus does not deny the importance of mass attitudes. It rather emphasizes that the pieces of the puzzle are different in form and function, and that for the existence of a democratic opinion-oriented system each piece must possess the characteristics necessary for it to fit together with the others in a working whole. The superimposition over a people habituated to tyranny of a leadership imbued with democratic ideals probably would not create a viable democratic order. (Key, 1964, p. 537)

Continuing this line of argument, Key distinguished activists and ordinary citizens in terms of the degree to which it is essential that each stratum possess a consensus on the rules of the game:

These observations resemble the proposition that a consensus needs to prevail for democracy to exist; yet they should not be taken as the equivalent of that proposition. Perhaps among the upper-activist stratum a consensus does need to prevail on the technical rules of the game by which the system operates. What kind of consensus, if any, extends throughout the population beyond a general acceptance of the regime remains problematic. In the

main, the notion of consensus has sprung from the inventive minds of theorists untainted by acquaintance with mass attitudes. (Key, 1964, p. 550)

Such arguments have met with considerable criticism, on both normative and empirical grounds. [See, for example, the exchange between Jack L. Walker (1966) and Robert A. Dahl (1966).] The debate includes many facets, and we shall not join it, except to comment briefly on the relevance of survey methods to the evidence that is at issue. First, the behavior of ordinary citizens may not pose the threat to civil liberties that their expressed opinions would seem to imply. Prothro and Grigg (1960), for example, are careful to note that in spite of the fact that a large minority (42 percent) agreed that "a Negro should not be allowed to run for mayor of this city," a Negro had in fact only a few months earlier conducted an active campaign for the office in Tallahassee without efforts being made by whites to obstruct the campaign. In a previous discussion we presented several reasons why people often do not act on their attitudes. People live their lives in primary and secondary groups that may have more influence on their behavior than their own beliefs. In the second place, we also noted in the same discussion that a specific application of a general principle may create a conflict between two valued beliefs. Legalization of political activity for communists is surely one deduction that can be made from a general principle that minorities should be free to win majority support for their opinions, but as Prothro and Grigg noted (1960, p. 293), "respondents who repudiate free speech for communists are responding in terms of anti-Communist rather than anti-free speech sentiments." To express disapproval of communism in this case does not mean that the respondent would either endorse the restrictions on Communist party political activities such as were embodied in the Smith Act of 1940 or try actively to prevent a radical from speaking in their own community. And the reasons may not be simply that there are some positive benefits of citizen apathy for democratic order as Berelson, Lazarsfeld, and McPhee (1954) and, more cautiously, Prothro and Grigg (1960) suggested.

In the third place, it may be that survey research is fundamentally hostile to almost any consensus theory of politics. Surveys are instruments to describe and explain individual differences. In that rare instance in which an item does not discriminate among people, the survey researcher almost reflexively discards it. Surveys reflect people in their remarkable variability. To have used a survey to test the existence of consensus is, with only slight exaggeration, to have determined the result. What was not determined, of course, was that leadership samples would have more strongly endorsed the applications of democratic norms than cross-section samples of citizens. This remains a problem which the critics of democratic revisionism must address. Our principal point is to note that surveys, as any research technique, can create genuine pressure to recast theory, and that in this particular case the recasting may not have been entirely warranted by a careful reading of the evidence.

*The refocusing of theoretic interest. New methods of empirical research exert pressure for new foci of theoretic interest.* To assess the impact of surveys on political science would be, in point of fact, to restate much of our chapter. Moreover, the availability of evidence of citizen attitudes influenced almost every field in the discipline. But we should not overstate the impact of surveys on the development of political science. If we substitute "survey data" for the word "statistics," Merton's comment would accurately reflect our view:

What we have said does not mean that the piling up of statistics in itself advances theory; it does mean that theoretic interest tends to shift to those areas in which there is an abundance of *pertinent* statistical data. (Merton, 1957, p. 114)

The shift toward fields that are appropriately studied with survey data has been a notable feature of postwar political science. Without citing the works themselves, we will briefly note some of the subfields of political science that have attracted scholarly interest, in part due to the availability of survey evidence.

*Empirical Theories of Behavior.* The field of public opinion and voting behavior is, of course, almost entirely a product of survey evidence. So, too, is the study of preadult political socialization, a topic that bloomed so quickly in the 1960s that it has been aptly described as a "growth industry." The cross-cultural study of political values is a third field that owes its origins to surveys, as data became available on the people's attachments to and disaffection from political communities, regimes, and authorities. Studies of race and ethnic relations, the political sociology of social cleavages and ideologies, the political psychology of character and values, the values that contribute to political modernization and change—the list of fields of political behavior that attracted new interest after the emergence of survey techniques simply runs on and on.

*Policy Process.* The study of political institutions is, next to political philosophy, the oldest field in political science. Surveys did not create our interest in institutions, but they did open a window on one of the critical problems of political order, namely, the links between institutional leaders and ordinary citizens. By what means and to what degree can leaders influence the attitudes and behavior of people in a system? To what degree do people take cues from parties and candidates? Under what conditions do people accept the decisions of leaders as authoritative, for example, under what conditions will people comply with court decisions? To what degree does the existence of a new technology such as television provide a leader with leverage for obtaining popular support for his policies? What do conflicts of values between leaders suggest about the organization of political power in a community or nation?

We can also turn the relationship on its head and ask about the influence that people can exert over leaders and policy. To what degree do votes for a

particular party reflect common preferences for future policy? Under what conditions (if ever) does opinion become so crystallized that the options of leaders on policy choices become significantly circumscribed? Does domestic opinion significantly influence foreign policy decisions? What influences the fluctuations of public mood between apathy and activism? These are just some of the questions concerning the links between leaders and followers, and the introduction of surveys on mass attitudes resulted in a significant shift in research interest toward providing some answers (cf. Cohen, 1973).

*Policy Evaluation.* In our history of the development of survey techniques, we emphasized the importance of the United States government's interest in policy issues. The potential of surveys for the assessment of citizen preferences led to substantial public support for the development of survey techniques. Since then the delivery of public services has become a growing field of study in political science. The use of surveys in tandem with the natural and systematic experiments that Rivlin (1971) described is a reflection of the importance of surveys in the assessment of policy options. The burgeoning interest in constructing time series of political and social indicators is simply the successor to the social survey movement of the nineteenth century. All of these are concerns that would not have been practical without the data that surveys provide.

*The clarification of concepts. Empirical research exerts pressure for clear concepts.* Merton's (1957) final point is sufficiently obvious to require little elaboration. He notes that the necessity of specifying the measurement of a concept disposes one to think with more exactitude of the definitions of concepts within a theory. One can always speak loosely about alienation, power, legitimacy, charisma, or rationality. However, the fundamental ambiguity of such concepts is often revealed by the process of having to construct their operational measures. Constructing survey schedules is an intellectually demanding (and often humbling) task. One does not have to believe, as Bridgman (1927) did, that the meaning of a term is fully and exclusively determined by its means of measurement to be convinced that the task of measurement induces one to think more clearly about just what exactly it is that one seeks to measure.

### *Conclusion*

The discipline that measurement imposes on the researcher is reflected in our definition of a survey as "an inquiry of a large number of people, selected by rigorous sampling, conducted in normal life settings by explicit, standardized procedures yielding quantitative measurements." If we ponder why surveys have been so productive of important discoveries, the discipline this definition implies provides two clues.

First, the requirement of quantification induces one toward clearer concepts and more accurate measures. A less obvious point is that accurately

quantified measurements are often essential to the serendipitous discoveries so important to theoretical advances. This is the case because the discoveries themselves often depend on effects of small magnitude. For example, the concept of relative deprivation was revealed by small differences in the frequency of particular attitudes in groups of soldiers (Hyman, 1963, p. 446). Without accurate measures of large numbers of respondents, the effect would not have been distinguishable to the researchers from the ordinary variations of sampling and measurement error.

Similarly, such interesting concepts as status inconsistency and selective perception of media depend on accurately quantified measures. Selective perception, those systematic differences between the world outside and the images of that world in our minds, is an apt example. Berelson, Lazarsfeld, and McPhee's *Voting* (1954, ch. 10) is quite well known for its demonstration that preferences for candidates lead voters to perceive selectively candidate stands on critical issues. In the 1948 United States presidential campaign, Republicans who were in favor of the Taft-Hartley law were much more likely to see Dewey as favoring the law than Republicans who were opposed to the law, even though Dewey's opposition to the law was unambiguous. Democrats who were in favor of the law were more likely to see Truman as favoring the law than were Democrats who opposed the policy, in spite of the indisputable fact that Truman had earlier vetoed the law. What is often overlooked in this example is the fact that most people had an accurate perception of the stands of the two candidates, and this was true in spite of the fact that the perception questions were only asked of the august panel—before people were likely to be attentive to the campaign. The point is that the existence of selective bias in perceptions was not of great magnitude; it was only systematic and in theoretically interesting directions. Without the precision of accurate measures and large samples, the effects might never have been discovered.

A final example is status inconsistency, which we discussed in our section on demography. Status inconsistency is theoretically hypothesized to be small in magnitude compared to the additive effects of status on such dependent variables as psychological stress or political attitudes. In one of the more careful tests of status inconsistency, the phenomena explained only about two percent of the variance in feelings of stress (Jackson and Burke, 1965). Likewise, the effects of techniques of political electioneering, from media advertising to political canvassing, are likely to be of small magnitude in the context of a presidential campaign. Indeed, their influence may be expected to be smaller than some irreducible level of random measurement and sampling error. Small but systematic effects will only be discernable with accurate measures of a large number of respondents in repeated samples. In sum, without the quantification that surveys permit, many of our more theoretically interesting hypotheses would be untestable.

A second reason why surveys have been so productive of important discov-



eries is that a presurvey social science had no means by which to study a large and representative sample of people in their normal life settings. Lasswell's (1930) intensive investigation of the political personality could not help but slight the impact of community context upon the personality. Conversely, prior to surveys, students of parties and elections had only impressionistic data on the psychology of political behavior. Surveys, which combine the efficiencies of sampling with the rigor of standardized measures, presented a means of studying individual psychology in a social context.

The ability to study the individual in a social setting is clearly evidenced in the example of *relative deprivation*, for this concept is grounded in differences between individual feelings of satisfaction or deprivation within a group of people whose objective situations are quite similar. These contradictions would not have surfaced without a simultaneous and intensive examination of individual feelings in a group context.

In sum, rigorous measures of individual behavior in a social context have made surveys remarkably productive of political discoveries. The substantive chapters of this *Handbook* are themselves witness of the degree to which the rapid development of survey techniques after 1930 has changed the character of the study of politics. In chapter after chapter we see evidence of a sustained and cumulative development of knowledge about politics, much of it derived from survey evidence. If one stripped from each chapter the generalizations that rest on surveys, the gaps would be silent testimony to the contribution of surveys to political science.

## REFERENCES

- Abernathy, James R., Bernard G. Greenberg, and Daniel G. Horvitz (1970). "Estimates of induced abortion in urban North Carolina." *Demography* 7:19-29.
- Abrams, Mark (1970). "The opinion polls and the British election of 1970." *Public Opinion Quarterly* 34:317-324.
- Allport, Floyd Henry (1924). *Social Psychology*. Boston: Houghton Mifflin.
- Almond, Gabriel A. (1950). *The American People and Foreign Policy*. New York: Praeger.
- Almond, Gabriel A., and Sidney Verba (1963). *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Princeton: Princeton University Press.
- Asher, Herbert E. (1974). "Some consequences of measurement error in survey data." *American Journal of Political Science* 18:469-485.
- Axelrod, Robert (1967). "The structure of public opinion on policy issues." *Public Opinion Quarterly* 31:51-60.
- \_\_\_\_\_ (1972). "Where the votes come from: an analysis of electoral coalitions, 1952-1968." *American Political Science Review* 66:11-20.

- \_\_\_\_\_ (1974). "Communication." *American Political Science Review* 68:717-720.
- Babbie, Earl R. (1973). *Survey Research Methods*. Belmont, Calif.: Wadsworth.
- Backstrom, Charles H., and Gerald D. Hursh (1963). *Survey Research*. Evanston, Ill.: Northwestern Press.
- Barber, James Alden, Jr. (1970). *Social Mobility and Voting Behavior*. Chicago: Rand McNally.
- Barksdale, Hiram C. (1957). *The Use of Survey Research Findings as Legal Evidence*. Pleasantville, N.Y.: Printers' Ink Books.
- Barnes, Samuel H. (1971). "Left, right, and the Italian voter." *Comparative Political Studies* 4:157-175.
- Barnes, Samuel H., and Roy Pierce (1971). "Public opinion and political preferences in France and Italy." *Midwest Journal of Political Science* 15:643-660.
- Beard, Charles A. (1912). *American City Government: A Survey of Newer Tendencies*. New York: Century.
- Bell, Daniel, ed. (1963). *The Radical Right*. (Originally published in 1955 as *The New American Right*.) New York: Anchor Books.
- Benney, Mark, A. P. Gray, and R. H. Pear (1956). *How People Vote: A Study of Electoral Behaviour in Greenwich*. London: Routledge and Kegan Paul.
- Berelson, Bernard R., Paul F. Lazarsfeld, and William N. McPhee (1954). *Voting: A Study of Opinion Formation in a Presidential Campaign*. Chicago: University of Chicago Press.
- Best, James J. (1973). *Public Opinion: Micro and Macro*. Homewood, Ill.: Dorsey.
- Blau, Peter M., and Otis Dudley Duncan (1967). *The American Occupational Structure*. New York: Wiley.
- Bonjean, Charles M., Richard J. Hill, and S. Dale McLemore (1967). *Sociological Measurement: An Inventory of Scales and Indices*. San Francisco: Chandler.
- Booth, Charles (1892-1897). *Life and Labour of the People in London*. Second edition, nine volumes. London: Macmillan.
- Bottomore, T. B. (1968). Review of *The American Occupational Structure* by Peter M. Blau and Otis Dudley Duncan. *American Sociological Review* 33:294-296.
- Bowley, Arthur L. (1913). "Working class households in Reading." *Journal of the Royal Statistical Society* 76:672-701.
- Boyd, Richard W. (1967). "A theory of voting defection: attitudinal cross-pressures and political alienation." Ph.D. dissertation. Bloomington, Ind.: Indiana University.
- \_\_\_\_\_ (1972). "Popular control of public policy: a normal vote analysis of the 1972 election." *American Political Science Review* 66:439-449.
- \_\_\_\_\_ (1974). "Electoral trends in postwar politics." In James David Barber, ed., *Choosing the President*. Englewood Cliffs, N.J.: Prentice-Hall.
- Brannon, Robert, Gary Cyphers, Sharlene Hesse, Susan Hesselbart, Roberta Keane, Howard Schuman, Thomas Viccaro, and Diana Wright (1973). "Attitude and action: a field experiment joined to a general population survey." *American Sociological Review* 38:625-636.

- Bremner, Robert H. (1956). *From the Depths: The Discovery of Poverty in the United States*. New York: New York University Press.
- Bridgman, P. W. (1927). *The Logic of Modern Physics*. New York: Macmillan.
- Brown, Steven R. (1970). "Consistency and the persistence of ideology: some experimental results." *Public Opinion Quarterly* 34:60-68.
- Brzezinski, Zbigniew, and Samuel P. Huntington (1964). *Political Power: USA/USSR*. New York: Viking Press.
- Butler, David, and Donald Stokes (1969). *Political Change in Britain: Forces Shaping Electoral Choice*. New York: St. Martin's.
- Cahalan, Don (1968-1969). "Correlates of respondent accuracy in the Denver validity survey." *Public Opinion Quarterly* 32:607-621.
- Campbell, Angus, Philip E. Converse, Warren E. Miller, and Donald E. Stokes (1960). *The American Voter*. New York: Wiley.
- Campbell, Donald T. (1969). "Reforms as experiments." *The American Psychologist* 24:409-429.
- Campbell, Donald T., and Donald W. Fiske (1959). "Convergent and discriminant validation by the multitrait-multimethod matrix." *Psychological Bulletin* 59:81-105.
- Cantril, Albert H., and Charles W. Roll, Jr. (1971). *Hopes and Fears of the American People*. New York: Universe Books.
- Cantril, Hadley (1947). *Gauging Public Opinion*. Princeton: Princeton University Press.
- \_\_\_\_\_ (1965). *The Pattern of Human Concerns*. New Brunswick: Rutgers University Press.
- Cantril, Hadley, and Mildred Strunk, eds. (1951). *Public Opinion 1935-1946*. Princeton: Princeton University Press.
- Carter, Launor F. (1963). "Survey results and public policy decisions." *Public Opinion Quarterly* 27:549-557.
- Cartwright, Dorwin (1950). "Survey research: psychological economics." In James Grier Miller, ed., *Experiments in Social Process: A Symposium on Social Psychology*. New York: McGraw-Hill.
- Caspary, William R. (1970). "The 'mood theory': a study of public opinion and foreign policy." *American Political Science Review* 64:536-547.
- Citizens Association of New York (1865). *Report of the Council of Hygiene and Public Health*. New York: D. Appleton.
- Clark, Terry Nichols (1973). *Prophets and Patrons: The French University and the Emergence of the Social Sciences*. Cambridge, Mass.: Harvard University Press.
- Clausen, Aage R. (1968-1969). "Response validity: vote report." *Public Opinion Quarterly* 32:588-606.
- Cobb, Roger W. (1973). "The belief-systems perspective: an assessment of a framework." *Journal of Politics* 35:121-153.
- Cohen, Bernard C. (1973). *The Public's Impact on Foreign Policy*. Boston: Little, Brown.

- Coleman, James S., Ernest Q. Campbell, Carol J. Hobson, James McPartland, Alexander M. Mood, Frederic D. Weinfeld, and Robert L. York (1966). *Equality of Educational Opportunity*. Washington, D.C.: U.S. Department of Health, Education and Welfare.
- Converse, Jean M., and Howard Schuman (1974). *Conversations at Random: Survey Research as Interviewers See It*. New York: Wiley.
- Converse, Philip E. (1964). "The nature of belief systems in mass publics." In David Apter, ed., *Ideology and Discontent*. New York: The Free Press.
- \_\_\_\_\_ (1970). "Attitudes and non-attitudes: continuation of a dialogue." In Edward R. Tufte, ed., *The Quantitative Analysis of Social Problems*. Reading, Mass.: Addison-Wesley.
- \_\_\_\_\_ (1972). "Change in the American electorate." In Angus Campbell and Philip E. Converse, eds., *The Human Meaning of Social Change*. New York: Sage.
- \_\_\_\_\_ (1974). "Comment." *American Political Science Review* 68:650-660.
- Converse, Philip E., and Roy Pierce (1970). "Basic cleavages in French politics and the disorders of May and June, 1968." Paper presented at the 7th World Congress of Sociology, Varna, Bulgaria.
- Converse, Philip E., and Howard Schuman (1970). "'Silent majorities' and the Vietnam War." *Scientific American* 222:17-25. (Reprinted by permission.)
- Cooke, Jacob E., ed. (1961). *The Federalist*. Middletown, Conn.: Wesleyan University Press.
- Coombs, Clyde H. (1964). *A Theory of Data*. New York: Wiley.
- Dahl, Robert A. (1950). *Congress and Foreign Policy*. New York: Harcourt, Brace.
- \_\_\_\_\_ (1956). *A Preface to Democratic Theory*. Chicago: University of Chicago Press.
- \_\_\_\_\_ (1961). *Who Governs? Democracy and Power in an American City*. New Haven, Conn.: Yale University Press.
- \_\_\_\_\_ (1966). "Further reflections on 'the elitist theory of democracy'." *American Political Science Review* 60:296-305.
- \_\_\_\_\_ (1972). *Democracy in the United States: Promise and Performance*, Second edition. Chicago: Rand McNally.
- Dahl, Robert A., and Charles E. Lindblom (1953). *Politics, Economics, and Welfare: Planning and Politico-Economic Systems Resolved into Basic Social Processes*. New York: Harper & Row.
- Dalffume, Richard M. (1969). *Desegregation of the U.S. Armed Forces: Fighting on Two Fronts 1939-1953*. Columbia: University of Missouri Press. (Reprinted by permission.)
- Davies, Richard O. (1966). *Housing Reform During the Truman Administration*. Columbia: University of Missouri Press.
- Davis, Allison, and John Dollard (1964). *Children of Bondage: The Personality Development of Negro Youth in the Urban South*. (Originally published in 1940.) New York: Harper & Row.

- Davis, James A. (1971). *Elementary Survey Analysis*. Englewood Cliffs, N.J.: Prentice-Hall.
- Davis, John P. (1966). "The Negro in the armed forces of America." In John P. Davis, ed., *The American Negro Reference Book*. Englewood Cliffs, N.J.: Prentice-Hall.
- Deming, William Edwards (1950). *Some Theory of Sampling*. New York: Wiley.
- Deutscher, Irwin (1966). "Words and deeds: social science and social policy." *Social Forces* 13:235-254.
- Devine, Richard P., and Laurence L. Falk (1972). *Social Surveys: A Research Strategy for Social Scientists and Students*. Morristown, N.J.: General Learning Press.
- DeVos, George A., and Arthur E. Hippler (1969). "Cultural psychology: comparative studies of human behavior." In Gardner Lindzey and Elliot Aronson, eds., *Handbook of Social Psychology*, Volume 4 (Second edition). Reading, Mass.: Addison-Wesley.
- Diamond, Sigmund (1963). "Some early uses of the questionnaire: views on education and immigration." *Public Opinion Quarterly* 27:528-542.
- Dinerman, Helen (1948). "1948 votes in the making: a preview." *Public Opinion Quarterly* 12:581-598.
- Dollard, John (1948-1949). "Under what conditions do opinions predict behavior?" *Public Opinion Quarterly* 12:623-632.
- Ducoff, Louis J., and Margaret Jarman Hagood (1947). *Labor Force Definition and Measurement: Recent Experience in the United States*. Bulletin 56. New York: Social Science Research Council.
- Duncan, Otis Dudley (1969). *Toward Social Reporting: Next Steps*. New York: Sage.
- Easton, David, and Jack Dennis (1969). *Children in the Political System: Origins of Political Legitimacy*. New York: McGraw-Hill.
- Edwards, Allen L. (1957). *Techniques of Attitude Scale Construction*. New York: Appleton-Century-Crofts.
- Ennis, Philip E. (1962). "The contextual dimension in voting." In William N. McPhee and William A. Glaser, eds., *Public Opinion and Congressional Elections*. Glencoe, Ill.: The Free Press.
- (1967). *Criminal Victimization in the United States: A Report of a National Survey*. Chicago: National Opinion Research Center.
- Featherman, David L., and William H. Sewell (1974). "Toward comparable data on inequality and stratification: perspectives on the second generation of national mobility studies." *The American Sociologist* 9:18-25.
- Field, John Osgood, and Ronald E. Anderson (1969). "Ideology in the public's conceptualization of the 1964 election." *Public Opinion Quarterly* 33:380-398.
- Fishbein, Martin, ed. (1967). *Readings in Attitude Theory and Measurement*. New York: Wiley.
- Fishbein, Martin, and Fred S. Coombs (1971). "Basis for decision: an attitudinal approach toward an understanding of voting behavior." Paper prepared for delivery at the annual meeting of the American Political Science Association, Chicago.
- Flanagan, John C., John T. Dailey, Marion F. Shaycroft, William A. Gorham, David

- B. Orr, and Isadore Goldberg (1962). *Design for a Study of American Youth*. Boston: Little, Brown.
- Folsom, Ralph E., Bernard G. Greenberg, Daniel G. Horvitz, and James R. Abernathy (1973). "The two alternate questions randomized response model for human surveys." *Journal of the American Statistical Association* 68:525-530.
- Frazier, E. Franklin (1940). *Negro Youth at the Crossways: Their Personality Development in the Middle States*. Washington, D.C.: American Council on Education.
- Free, Lloyd A., and Hadley Cantril (1968). *The Political Beliefs of Americans: A Study of Public Opinion*. New York: Simon and Schuster.
- Freidson, Eliot (1955). "A prerequisite for participation in the public opinion process." *Public Opinion Quarterly* 19:105-111.
- Frey, Frederick W. (1970). "Cross-cultural survey research in political science." In Robert T. Holt and John E. Turner, eds., *The Methodology of Comparative Research*. New York: The Free Press.
- Frey, Frederick W., with Peter Stephenson and Katherine Archer Smith (1969). *Survey Research on Comparative Social Change: A Bibliography*. Cambridge, Mass.: MIT Press.
- Gallup, George (1944). *A Guide to Public Opinion Polls*. Princeton, N.J.: Princeton University Press.
- \_\_\_\_\_ (1947). "The quintamensional plan of question design." *Public Opinion Quarterly* 11:385-393.
- \_\_\_\_\_ (1972). *The Gallup Poll: Public Opinion 1935-1971*. Three volumes. New York: Random House.
- Galtung, Johan (1967). *Theory and Methods of Research*. New York: Columbia University Press.
- Gamson, William A. (1968). *Power and Discontent*. Homewood, Ill.: Dorsey.
- Glock, Charles Y., ed. (1967). *Survey Research in the Social Sciences*. New York: Sage.
- Goffman, Irwin W. (1957). "Status consistency and preference for change in power distribution." *American Sociological Review* 22:275-281.
- Gough, Harrison, and Giuseppe Di Palma (1965). "Attitudes toward colonialism, political dependence, and independence." *Journal of Psychology* 60:155-163.
- Greenstein, Fred I. (1965). *Children and Politics*. New Haven, Conn.: Yale University Press.
- \_\_\_\_\_ (1973). "Political psychology: a pluralistic universe." In Jeanne N. Knutson, ed., *Handbook of Political Psychology*. San Francisco: Jossey-Bass.
- Halberstam, David (1973). *The Best and the Brightest*. Originally published in 1969. New York: Fawcett Crest Books. (Reprinted by permission.)
- Haller, Archibald O., and David M. Lewis (1966). "The hypothesis of intersocietal similarity in occupational prestige hierarchies." *American Journal of Sociology* 72:210-216.
- Hartz, Louis (1955). *The Liberal Tradition in America*. New York: Harcourt, Brace and World.

- Hess, Robert D., and Judith V. Torney (1967). *The Development of Political Attitudes in Children*. Chicago: Aldine.
- Hofstadter, Richard (1955). *The Age of Reform*. New York: Knopf.
- Holt, Robert T., and John E. Turner, eds. (1970). *The Methodology of Comparative Research*. New York: Free Press.
- Hyman, Herbert H. (1942). *The Psychology of Status*. New York: Archives of Psychology, No. 269.
- \_\_\_\_\_ (1944-1945). "Do they tell the truth?" *Public Opinion Quarterly* 8:557-559.
- \_\_\_\_\_ (1949). "Inconsistencies as a problem in attitude measurement." *Journal of Social Issues* 5:38-42.
- \_\_\_\_\_ (1955). *Survey Design and Analysis: Principles, Cases and Procedures*. Glencoe, Ill.: The Free Press.
- \_\_\_\_\_ (1959). *Political Socialization: A Study in the Psychology of Political Behavior*. Glencoe, Ill.: The Free Press.
- \_\_\_\_\_ (1963). "Reflections on the relation between theory and research." *The Centennial Review* 7:431-453.
- \_\_\_\_\_ (1964). "Research design." In Robert Ward, ed., *Studying Politics Abroad*. Boston: Little, Brown.
- \_\_\_\_\_ (1969). "Social psychology and race relations." In Irwin Katz and Patricia Gurin, eds., *Race and the Social Sciences*. New York: Basic Books.
- \_\_\_\_\_ (1972a). "Misguided bombs." Unpublished manuscript.
- \_\_\_\_\_ (1972b). *Secondary Analysis of Sample Surveys: Principles, Procedures, and Potentialities*. New York: Wiley.
- \_\_\_\_\_ (1973). "Surveys in the study of political psychology." In Jeanne N. Knutson, ed., *Handbook of Political Psychology*. San Francisco: Jossey-Bass.
- \_\_\_\_\_ (1975). "Strategies in comparative survey research: cross national designs." In Robert Smith, ed., *Social Science Methods: A New Introduction*. New York: The Free Press.
- Hyman, Herbert H., with William J. Cobb, Jacob J. Feldman, Clyde W. Hart, and Charles Herbert Stember (1954). *Interviewing in Social Research*. Chicago: University of Chicago Press.
- Hyman, Herbert H., Gene N. Levine, and Charles R. Wright (1967). "Studying expert informants by survey methods: a cross-national inquiry." *Public Opinion Quarterly* 31:9-26.
- Hyman, Herbert H., and Paul B. Sheatsley (1964). "Attitudes toward desegregation." *Scientific American* 211:2-9.
- Hyman, Herbert H., and Eleanor Singer, eds. (1968). *Readings in Reference Group Theory and Research*. New York: The Free Press.
- Hymes, Dell (1970). "Linguistic aspects of comparative political research." In Robert T. Holt and John E. Turner, eds., *The Methodology of Comparative Research*. New York: The Free Press.

- Inkeles, Alex, and Daniel J. Levinson (1969). "National character: the study of modal personality and socio-cultural systems." In Gardner Lindzey and Elliott Aronson, eds., *Handbook of Social Psychology*, Volume 4 (Second edition). Reading, Mass.: Addison-Wesley.
- Institute for Social Research. *Newsletter*. Ann Arbor, Michigan.
- Jackson, Elton F. (1962). "Status consistency and symptoms of stress." *American Sociological Review* 27:469-480.
- Jackson, Elton F., and Peter J. Burke (1965). "Status and symptoms of stress: additive and interactive effects." *American Sociological Review* 30:556-564.
- Jennings, M. Kent, and Richard G. Niemi (1974). *The Political Character of Adolescence: The Influence of Families and Schools*. Princeton, N.J.: Princeton University Press.
- Johnson, Charles S. (1967). *Growing Up in the Black Belt: Negro Youth in the Rural South*. (Originally published in 1941.) New York: Schocken Books.
- Jones, D. Caradog (n.d.). *Social Surveys*. London: Hutchinson's University Library. (Reprinted by permission.)
- Kahn, Robert L., and Charles F. Cannell (1966). *The Dynamics of Interviewing*. New York: Wiley.
- Kariel, Henry S., ed. (1970). *Frontiers of Democratic Theory*. New York: Random House.
- Katz, Daniel, and Samuel J. Eldersveld (1961). "The impact of local party activity upon the electorate." *Public Opinion Quarterly* 25:1-24.
- Katz, Daniel, and Richard Schanck (1938). *Social Psychology*. New York: Wiley.
- Katz, Elihu, and Paul F. Lazarsfeld (1955). *Personal Influence: The Part Played by People in the Flow of Mass Communications*. Glencoe, Ill.: The Free Press.
- Kelly, K. Dennis, and William J. Chambliss (1966). "Status consistency and political attitudes." *American Sociological Review* 31:375-382.
- Key, V. O., Jr. (1964). *Public Opinion and American Democracy*. New York: Knopf. (Reprinted by permission.)
- \_\_\_\_\_ (1966). *The Responsible Electorate: Rationality in Presidential Voting 1936-1960*. Cambridge: Harvard University Press.
- Kish, Leslie (1965a). "Sampling organizations and groups of unequal size." *American Sociological Review*. 30:564-572.
- \_\_\_\_\_ (1965b). *Survey Sampling*. New York: Wiley.
- Kraut, Robert E., and John B. McConahay (1973). "How being interviewed affects voting: an experiment." *Public Opinion Quarterly* 37:398-406.
- Lane, Robert E. (1962). *Political Ideology: Why the American Common Man Believes What He Does*. New York: The Free Press.
- Lane, Robert E., and David O. Sears (1964). *Public Opinion*. Englewood Cliffs, N.J.: Prentice-Hall.
- Lansing, John B., and James N. Morgan (1971). *Economic Survey Methods*. Ann Arbor, Mich.: Institute for Social Research.



- Lansing, John B., Stephen B. Withey, and Arthur C. Wolfe (1971). *Working Papers on Survey Research in Poverty Areas*. Ann Arbor, Mich.: Institute for Social Research.
- LaPiere, R. T. (1934). "Attitudes vs. actions." *Social Forces* 13:230-237.
- Lasswell, Harold (1930). *Psychopathology and Politics*. Chicago: University of Chicago Press.
- Lazarsfeld, Paul F. (1944). "The controversy over detailed interviews—an offer for negotiation." *Public Opinion Quarterly* 8:38-60.
- Lazarsfeld, Paul F., Bernard Berelson, and Hazel Gaudet (1944). *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. New York: Columbia University Press.
- Leege, David C., and Wayne L. Francis (1974). *Political Research: Design, Measurement and Analysis*. New York: Basic Books.
- Lenski, Gerhard E. (1954). "Status crystallization: a non-vertical dimension of social status." *American Sociological Review* 19:405-413.
- Lewin, Kurt (1943). "Defining the 'field at a given time'." *Psychological Review* 50:292-310.
- Lijphart, Arend (1968). *The Politics of Accommodation: Pluralism and Democracy in the Netherlands*. Berkeley: University of California Press.
- Likert, Rensis (1948). "Opinion studies and government policy." *Proceedings of the American Philosophical Society* 92:341-350.
- Lipset, Seymour Martin, and Reinhard Bendix (1964). *Social Mobility in Industrial Society*. Berkeley: University of California Press.
- Lipset, Seymour Martin and Stein Rokkan, eds. (1967). *Party Systems and Voter Alignments: Cross-National Perspectives*. New York: The Free Press.
- Liska, Allen E. (1974). "Emergent issues in the attitude-behavior consistency controversy." *American Sociological Review* 39:261-272.
- Luttbeg, Norman R. (1968). "The structure of beliefs among leaders and the public." *Public Opinion Quarterly* 32:398-409.
- Maranell, Gary M. (1974). *Scaling: A Sourcebook for Behavioral Scientists*. Chicago: Aldine.
- Marcus, George E., David Tabb, and John L. Sullivan (1974). "The application of individual differences scaling to the measurement of political ideologies." *American Journal of Political Science* 18:405-420.
- Marmor, Theodore R., ed. (1971). *Poverty Policy: A Compendium of Cash Transfer Proposals*. Chicago: Aldine-Atherton.
- McClosky, Herbert (1964). "Consensus and ideology in American politics." *American Political Science Review* 58:361-382.
- \_\_\_\_\_ (1967). "Survey research in political science." In Charles Y. Glock, ed., *Survey Research in the Social Sciences*. New York: Sage.
- McClosky, Herbert, and Harold E. Dahlgren (1959). "Primary group influence on party loyalty." *American Political Science Review* 53:757-776. (Reprinted by permission.)

- McClure, Robert D., and Thomas E. Patterson (1973). "Television news and voter behavior in the 1972 presidential election." Paper delivered at the annual meeting of the American Political Science Association, New Orleans.
- McCoy, Charles A., and John Playford, eds. (1967). *Apolitical Politics: A Critique of Behavioralism*. New York: Crowell.
- McGuire, William J. (1969). "The nature of attitudes and attitude change." In Gardner Lindzey and Elliot Aronson, eds., *The Handbook of Social Psychology*, Volume 3 (Second edition). Reading, Mass.: Addison-Wesley.
- McPhee, William N., and William A. Glaser, eds. (1962). *Public Opinion and Congressional Elections*, Glencoe, Ill.: The Free Press.
- Merritt, Anna J., and Richard L. Merritt, eds. (1970). *Public Opinion in Occupied Germany: The OMGUS Surveys, 1945-1949*. Urbana: University of Illinois Press.
- Merritt, Richard L. (1970). *Systematic Approaches to Comparative Politics*. Chicago: Rand McNally.
- Merritt, Richard L., and Donald J. Puchala, eds. (1968). *Western European Perspectives on International Affairs: Public Opinion Studies and Evaluations*. New York: Praeger.
- Merton, Robert K. (1957). *Social Theory and Social Structure*. Revised edition. Glencoe, Ill.: The Free Press.
- Miller, Arthur H. (1974a). "Change in political trust: discontent with authorities and economic policies, 1972-1973." Paper delivered at the annual meeting of the American Political Science Association, Chicago.
- \_\_\_\_\_ (1974b). "Political issues and trust in government: 1964-1970." *American Political Science Review* 68:951-972.
- Miller, Arthur H., Thad A. Brown, and Alden S. Raine (1973). "Social conflict and political estrangement, 1958-1972." Paper delivered at the annual meeting of the Midwest Political Science Association, Chicago.
- Miller, Delbert (1970). *Handbook of Research Design and Social Measurement*. New York: McKay.
- Milne, R. S., and H. C. Mackenzie (1954). *Straight Fight: A Study of Voting Behavior in the Constituency of Bristol North-East at the General Election of 1951*. London: The Hansard Society.
- \_\_\_\_\_ (1958). *Marginal Seat, 1955: A Study of Voting Behavior in the Constituency of Bistol North East of the General Election of 1955*. London: The Hansard Society.
- Moon, J. Donald (1972). "Participation and democracy: a review essay." *Midwest Journal of Political Science* 16:473-485.
- Moriyama, Iwao M. (1968). "Problems in the measurement of health status." In Eleanor Bernert Sheldon and Wilbert E. Moore, eds., *Indicators of Social Change: Concepts and Measurements*. New York: Sage.
- Moser, C. A. (1958). *Survey Methods in Social Investigation*. London: Heinemann.
- Mosteller, Frederick (1968). "Association and estimation in contingency tables." *Journal of the American Statistical Association* 63:1-28.

- Mosteller, Frederick, Herbert Hyman, Philip J. McCarthy, Eli S. Marks, and David B. Truman (1949). *The Pre-election Polls of 1948: Report to the Committee on Analysis of Pre-election Polls and Forecasts*. New York: Social Science Research Council.
- Mosteller, Frederick, and Daniel P. Moynihan (1972). "A pathbreaking report." In Frederick Mosteller and Daniel P. Moynihan, eds., *On Equality of Educational Opportunity: Papers Deriving from the Harvard University Seminar on the Coleman Report*. New York: Vintage Books.
- Moynihan, Daniel P. (1973). *The Politics of a Guaranteed Income: The Nixon Administration and the Family Assistance Plan*. New York: Vintage Books.
- Mueller, John E. (1973). *War, Presidents and Public Opinion*. New York: Wiley.
- Nichols, Lee (1954). *Breakthrough on the Color Front*. New York: Random House.
- Nie, Norman H., with Kristi Andersen (1974). "Mass belief systems revisited: political change and attitude structure." *Journal of Politics* 36:540-591.
- Noelle-Neumann, Elisabeth (1970). "Wanted: rules for wording structured questionnaires." *Public Opinion Quarterly* 34:191-201.
- Oberschall, Anthony (1965). *Empirical Social Research in Germany, 1848-1914*. New York: Basic Books.
- Oppenheim, A. N. (1966). *Questionnaire Design and Attitude Measurement*. New York: Basic Books.
- Orr, Larry L., Robinson G. Hollister, and Myron J. Lefcowitz, eds. (1971). *Income Maintenance: Interdisciplinary Approaches to Research*. Chicago: Markam.
- Parry, Hugh J., and Helen M. Crossley (1950). "Validity of responses to survey questions." *Public Opinion Quarterly* 14:61-80.
- Parten, Mildred (1950). *Surveys, Polls, and Samples: Practical Procedures*. New York: Harper.
- Pateman, Carole (1970). *Participation and Democratic Theory*. Cambridge: Cambridge University Press.
- Patterson, Thomas E., and Robert D. McClure (1973). "Political advertising: voter reaction to televised political commercials." Study No. 23. Princeton, N.J.: Citizens' Research Foundation.
- Patterson, Thomas E., Robert D. McClure, and Kenneth J. Meier (1974). "Issue voting and voter rationality: a panel analysis." Paper delivered at the annual meeting of the American Political Science Association, Chicago.
- Payne, Stanley (1951). *The Art of Asking Questions*. Princeton, N.J.: Princeton University Press.
- Peak, Helen (1945). "Observations on the characteristics and distribution of German Nazis." *Psychological Monographs* 59:1-44.
- Pierce, John C. (1970). "Party identification and the changing role of ideology in American politics." *Midwest Journal of Political Science* 14:25-42.
- Pierce, John C., and Douglas D. Rose (1974). "Nonattitudes and American public opinion: the examination of a thesis." *American Political Science Review* 68:626-649.

- Pomper, Gerald M. (1972). "From confusion to clarity: issues and American voters, 1956-1968." *American Political Science Review* 66:415-428.
- Prothro, James W., and Charles M. Grigg (1960). "Fundamental principles of democracy: bases of agreement and disagreement." *Journal of Politics* 22:276-294.
- Przeworski, Adam, and Henry Teune (1966-1967). "Equivalence in cross-national research." *Public Opinion Quarterly* 30:551-568.
- (1970). *The Logic of Comparative Social Inquiry*. New York: Wiley.
- Putnam, Robert D. (1966). "Political attitudes and the local community." *American Political Science Review* 60:640-654.
- Reed, John Shelton (1972). *The Enduring South: Subcultural Persistence in Mass Society*. Lexington, Mass.: D. C. Heath.
- Regan, Opal G. (1973). "Statistical reforms accelerated by sixth census errors." *Journal of the American Statistical Association* 68:540-546.
- Reid, Ira DeA. (1940). *In a Minor Key: Negro Youth in Story and Fact*. Washington, D.C.: American Council on Education.
- RePass, David E. (1971). "Issue salience and party choice." *American Political Science Review* 65:389-400.
- Richardson, Stephen A., Barbara Snell Dohrenwend, and David Klein (1965). *Interviewing: Its Forms and Functions*. New York: Basic Books.
- Riesman, David (1950). *The Lonely Crowd: A Study of the Changing American Character*. New Haven, Conn.: Yale University Press.
- Rigaudias-Weiss, Hilde (1975). *Les Enquêtes Ouvrières en France Entre 1830 et 1848*. Originally published in 1936. New York: Arno Press.
- Rivlin, Alice (1971). *Systematic Thinking for Social Action*. Washington, D.C.: Brookings.
- Robinson, John P., Robert Athanasiou, and Kendra B. Head (1969). *Measures of Occupational Attitudes and Occupational Characteristics*. Ann Arbor, Mich.: Institute for Social Research.
- Robinson, John P., Jerrold G. Rusk, and Kendra B. Head (1968). *Measures of Political Attitudes*. Ann Arbor, Mich.: Institute for Social Research.
- Robinson, John P., and Phillip R. Shaver (1969). *Measures of Social Psychological Attitudes*. Ann Arbor, Mich.: Institute for Social Research.
- Rohrer, John H., and Monro S. Edmondson, eds. (1960). *The Eighth Generation: Cultures and Personalities of New Orleans Negroes*. New York: Harper.
- Rokeach, Milton (1968). *Beliefs, Attitudes, and Values*. San Francisco: Jossey-Bass.
- Rosenberg, Morris (1968). *The Logic of Survey Analysis*. New York: Basic Books.
- Rossiter, Clinton, ed. (1961). *The Federalist Papers*. New York: New American Library.
- Rowntree, B. Seebohn (1901). *Poverty: A Study of Town Life*. London: Macmillan.
- Rush, Gary B. (1967). "Status consistency and rightwing extremism." *American Sociological Review* 32:86-92.

- Schuman, Howard (1966). "The random probe: a technique for evaluating the validity of closed questions." *American Sociological Review* 31:218-222.
- \_\_\_\_\_ (1972). "Attitudes vs. action versus attitudes vs. attitudes." *Public Opinion Quarterly* 36:347-354. (Reprinted by permission.)
- Schuman, Howard, and Otis Dudley Duncan (1974). "Questions about attitude survey questions." In Herbert L. Costner, ed., *Sociological Methodology 1973-1974*. San Francisco: Jossey-Bass. (Reprinted by permission.)
- Scott, Robert A., and Arnold Shore (1974). "Sociology and policy analysis." *The American Sociologist* 9:51-59.
- Scott, William A. (1968). "Attitude measurement." In Gardner Lindzey and Elliot Aronson, eds., *The Handbook of Social Psychology*, Volume 2 (Second edition). Reading, Mass.: Addison-Wesley.
- Sears, David O. (1969). "Political behavior." In Gardner Lindzey and Elliot Aronson, eds., *Handbook of Social Psychology*, Volume 5 (Second edition). Reading, Mass.: Addison-Wesley.
- Sewell, William H. (1967). Review of James S. Coleman et al., *Equality of Educational Opportunity*. *American Sociological Review* 32:475-479. (Reprinted by permission.)
- Shaw, Marvin E., and Jack M. Wright (1967). *Scales for the Measurement of Attitudes*. New York: McGraw-Hill.
- Sheatsley, Paul B. (1963). "Public opinion." *Encyclopedia Americana* 22:772-776.
- \_\_\_\_\_ (1968). "Presidential address: AAPOR times 21." *Public Opinion Quarterly* 32:462-475.
- Simon, Rita James (1974). *Public Opinion in America: 1936-1970*. Chicago: Rand McNally.
- Smith, M. Brewster, Jerome S. Bruner, and Robert W. White (1956). *Opinions and Personality*. New York: Wiley.
- Smith, Marshall S. (1972). "Equality of educational opportunity: the basic findings reconsidered." In Frederick Mosteller and Daniel P. Moynihan, eds., *On Equality of Educational Opportunity: Papers Deriving from the Harvard University Seminar on the Coleman Report*. New York: Vintage Books.
- Social Science Research Council. *Social Indicators Newsletter*. Washington, D.C.: Center for Social Indicators.
- Social Science Research Council (1937). *Government Statistics: A Report of the Committee on Government Statistics and Information Services*. Bulletin 26. New York.
- Stephan, Frederick F. (1948). "History of the uses of modern sampling procedures." *Journal of the American Statistical Association* 43:12-39.
- Stephan, Frederick F., and Philip J. McCarthy (1958). *Sampling Opinions: An Analysis of Survey Procedure*. New York: Wiley.
- Stouffer, Samuel A. (1955). *Communism, Conformity, and Civil Liberties: A Cross-section of the Nation Speaks Its Mind*. New York: Doubleday.
- Stouffer, Samuel A., and Paul F. Lazarsfeld (1937). *Research Memorandum on the Family in the Depression*. Bulletin 29. New York: Social Science Research Council.

- Stouffer, Samuel A., Edward A. Suchman, Leland C. DeVinney, Shirley A. Star, and Robin M. Williams, Jr. (1949-1950). *The American Soldier: Studies in Social Psychology in World War II*. Four volumes. Princeton, N.J.: Princeton University Press.
- Strauss, Murray A. (1969). "Phenomenal identity and conceptual equivalence of measurement in cross-national comparative research." *Journal of Marriage and the Family* 31:233-341.
- Sudman, Seymour (1967). *Reducing the Costs of Surveys*. Chicago: Aldine.
- Sudman, Seymour, and Norman M. Bradburn (1974). *Response Effects in Surveys: A Review and Synthesis*. Chicago: Aldine.
- Summers, Gene F., ed. (1970). *Attitude Measurement*. Chicago: Rand McNally.
- Sutherland, Robert L. (1942). *Color, Class, and Personality*. Washington, D.C.: American Council on Education.
- Szalai, Alexander, ed. (1972). *The Use of Time: Daily Activities of Urban and Suburban Populations in Twelve Countries*. The Hague: Mouton.
- tenBroek, Jacobus, Edward N. Barnhart, and Floyd W. Matson (1954). *Prejudice, War and the Constitution*. Berkeley: University of California Press.
- Tingsten, Herbert (1937). *Political Behavior: Studies in Election Statistics*. London: P. S. King and Son.
- Tiryakian, Edward A. (1958). "The prestige evaluation of occupations in an underdeveloped country: the Philippines." *American Journal of Sociology* 63:390-399.
- Torgerson, Warren S. (1958). *Theory and Methods of Scaling*. New York: Wiley.
- Treiman, Donald J. (1966). "Status discrepancy and prejudice." *American Journal of Sociology* 71:651-664.
- United States Department of Justice (1974). *Criminal Victimization in the United States: A National Crime Panel Survey Report*. Volume 1. Report No. SD-NCP-N-1. Washington, D.C.
- United States National Resources Commission (1939). "Trends in the reporting of urban information." In *Urban Government*. Washington, D.C.
- United States Strategic Bombing Survey (1946). "The effects of atomic bombs on Hiroshima and Nagasaki." No. 3. Morale Division, Washington, D.C.
- \_\_\_\_\_ (1947a). "The effects of strategic bombing on German morale." No. 64b. Two volumes. Morale Division, Washington, D.C.
- \_\_\_\_\_ (1947b). "The effects of strategic bombing on Japanese morale." No. 14. Morale Division, Washington, D.C.
- Valen, Henry, and Daniel Katz (1964). *Political Parties in Norway: A Community Study*. Oslo, Norway; Universitetsforlaget.
- Verba, Sidney, and Norman H. Nie (1972). *Participation in America: Political Democracy and Social Equality*. New York: Harper & Row.
- Vose, Clement E. (1967). "School desegregation: a political scientist's view." *Law and Society Review* 2:141-150.
- Walker, Jack L. (1966). "A critique of the elitist theory of democracy." *American Political Science Review* 60:285-295.

- Warner, W. Lloyd, Buford H. Junker, and Walter A. Adams (1941). *Color and Human Nature: Negro Personality Development in a Northern City*. Washington, D.C.: American Council on Education.
- Weinberg, Eve (1971). *Community Surveys with Local Talent: A Handbook*. Chicago: National Opinion Research Center.
- Weinstein, Alan G. (1972). "Predicting behavior from attitudes." *Public Opinion Quarterly* 36:355-360.
- White, R. Clyde, and Mary K. White (1937). *Research Memorandum on Social Aspects of Relief Policies in the Depression*. Bulletin 38. New York: Social Science Research Council.
- Williams, Robert J., and Charles R. Wright (1955). "Opinion organization in a heterogeneous adult population." *Journal of Abnormal and Social Psychology* 51:559-564.
- Wilson, James Q., and Edward C. Banfield (1971). "Political ethos revisited." *American Political Science Review* 65:1048-1062.
- Woodward, Julian L. (1952). "A scientific attempt to provide evidence for a decision on change of venue." *American Sociological Review* 17:447-452.
- Yarmolinsky, Adam (1963). "Confessions of a non-user." *Public Opinion Quarterly* 27:543-548.
- Zajonc, Robert B. (1968). "Cognitive theories in social psychology." In Gardner Lindzey and Elliot Aronson, eds., *The Handbook of Social Psychology*, Volume I (second edition). Reading, Mass.: Addison-Wesley.
- Zitter, Meyer, and Donald E. Starsinic (1966). "Estimates of 'eligible' voters in small areas: some first approximations." *American Statistical Association: Proceedings of the Social Section* 368-378.