

SURVEY TECHNIQUES AND ANTHROPOLOGICAL STUDIES

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I

In this paper, an attempt is made to illustrate how survey techniques can be used fruitfully to supplement anthropological studies. In doing this, a brief account of the development of survey research will be presented as well as techniques and problems of manipulating survey research data. In addition, types of anthropological studies are also briefly presented. The relation of survey research to anthropological studies will also be shown.

Survey research is a mode of inquiry which combines "a distinct method of data collection with a distinct form of analysis." According to Charles Glock, "modern survey research dates back to the 1930's when the two (i.e. collecting of data and analysis) were first juxtaposed in an explicit way"¹ However, the separate processes of data collection and data analysis are obviously much older.

Survey research as a data collection device can be traced back at least to the ancient Egyptians who developed systematic accounting procedures for foreign and domestic trade. Since then, during the course of man's history, rulers and administrators have done population counts, or taken crude surveys of crop production. These data, however, were gathered mostly for practical purposes, such as taxation. The idea of systematic gathering of quantitative data for scientific purposes is a later development. As examples, during 1892-93, Charles Booth collected various kinds of information from all of the poor districts in London,² and in 1866 in France Frédéric Le Play³ made a study of family income and expenditures of the French people. Of course, these early attempts at mass data collection did not have the benefit of the probability sampling theory which (had was not) yet well developed. By the early twentieth century, ideas about sampling had developed to the point where they might have been applied to the collection of data from human population. And when George Gallup and Elmo Roper began their public opinion studies in the 1930's each benefited from sampling theory.

II

Modern survey research, technically, may be divided into two separate types, i.e., 'descriptive survey analysis' and 'explanatory survey analysis'⁴. According to Hyman, "the distinction (of these two types) is real, but not always operative. Many surveys ... combine features of description and explanation and require the integration of the technical principles (of the two)"⁵.

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¹Charles Y. Glock (ed.), *Survey Research in the Social Sciences* (New York: Russell Sage Foundation, 1967), XIV

²See Charles Booth (ed.), *Life and Labour of the People of London*, 17 volumes (London & New York: McMillan, 1892-1893).

³See Le Play, Pierre Guillaume Frederic, *La Reforme Sociale En France* 2 volumes (Paris: E. Dentu, 1866).

⁴Herbert Hyman, *Survey Design and Analysis: Principles, Case and Procedures* (Illinois: The Free Press, 1965).

⁵*Ibid.*, p.2.

Generally, a descriptive survey aims to study a population in 'large and heterogeneous' aggregates. The application of sampling techniques in survey research helps the researcher to deal with large populations with relative efficiency. Descriptive survey is a response to the need of government administrators or heads of large industrial work forces or huge consumer businesses which usually require reliable knowledge of great masses of people. Much of applied social research sponsored by government or commercial or action agencies is of the descriptive type. This is to provide factual knowledge as a sound basis for those who are responsible for decision-making. In addition, descriptive data are important for the development of scientific theories of human behavior. Therefore, "the findings of descriptive surveys are a guide in theorizing in explanatory surveys"⁶

Nevertheless, there are two major theoretical problems in a descriptive survey: the conceptualization of the phenomenon and the decision as to the relevant population.

*The conceptualization must be translated into a series of operations which yield data which will ultimately provide accurate measurements or devices of the phenomenon to be described. And here there is much difficulty and perhaps compromise for the concept may be difficult to translate into operations which are feasible. Moreover, all measurements are subject to some errors or at least for their estimation so that the results may be qualified in the light of known error. Effective analysis of a descriptive survey is therefore far from simple and requires considerable training.*⁷

Explanatory survey is different from descriptive survey in the sense that the explanatory survey follows the model of the laboratory experiment with an attempt to represent this design in a natural setting. Instead of creating and manipulating the independent variables whose effect is to be treated, the survey analyst must find in the natural setting instances of these factors. By measuring their presence and magnitude, their relationship to the phenomenon can be established in the course of the analysis. But since these variables are not created, but merely found in the natural setting, there is the great danger that a variety of other factors accompany them, and that respondents characterized by particular attributes may vary in other important respects. The influence of these other sources of variability must be reduced. Otherwise any inference about the hypothesized cause may be shaky. The restriction of the universe which is covered and the design of the sample in the explanatory survey provides the basic technique by which other sources of variation in the phenomenon are excluded.

We can summarize the distinction between descriptive survey and explanatory survey by Hyman's words as follows:

*In descriptive survey, generality is achieved through the study of heterogeneous universe. But this generality permits the total array of determinants to operate. In the explanatory survey confidence in the inference as to causality is achieved through restricting the heterogeneity of the universe.*⁸

In employing survey techniques as a research tool, it must be realized that one needs a big staff and considerable skill in handling quantitative data. This is because surveys usually

⁶ *Ibid*, p. 80,

⁷ *Ibid.*, p. 71.

⁸ *Ibid.*, p. 81.

require many inquiries (perhaps as many as 2000-5000 inquiries in a big project). And this means that it is a time-consuming task as well as an expensive type of research. But it is this feature of survey research which gives the findings stature, because the increase in size gives us greater confidence in the stability of the findings (provided we select samples carefully and correctly). But it also means that the survey researcher needs considerable skill in manipulation of quantitative data. Otherwise he will not be able to do this type of research meaningfully. It is almost universal in current survey research that automatic or machine methods of processing data are used. It is therefore a further demand upon the survey analyst that he has considerable familiarity with machine methods as well.

In addition, the survey researcher has to know how to operate the complex research design required for the total survey research process. The development of complex sampling designs is a technical specialty all its own. The administrative skill of supervising a field staff of different size is also necessary and this is a full time responsibility of the researcher. An effective survey researcher must know how to guide, mobilize and control the sampling, the interviewing, and the processing steps of editing, coding, and tabulation. He must have intimate knowledge of these procedures. Size of staff provides resources but at the same time it may make communication to the researcher unwieldy. Hierarchical structure may similarly impede communication from subordinates to superior and produce problems and strain within the total organization, especially if it is a large one. In brief, survey research is subject to many errors which need to be reduced and controlled.

Deming pointed out that "in the planning of a survey, effort should be directed toward the reduction of all of the errors that it is possible to reduce, but the effort should be apportioned with a view to producing the greatest possible usefulness with the fund available"⁹ He then went on to list 13 points which may cause error. They are as follows:

1. Variability in response.
2. Differences between different kinds and degree of canvass.
3. Bias and variation arising from the interviewer.
4. Bias of auspices.
5. Imperfections in the design of the questionnaire and tabulation plans.
6. Changes that take place in the universe before tabulations are available.
7. Bias arising from nonresponse.
8. Bias arising from late report.
9. Bias arising from an unrepresentative selection of dates for the survey, or of the period covered.
10. Bias arising from an unrepresentative selection of respondents.
11. Sampling errors and biases.
12. Processing errors.
13. Errors in interpretation.

Probably the most subtle type of error and consequently the most difficult to appraise is "response error." There are, however, some ways of reducing this type of error. Pretest of questionnaire or interview guide is one of them. In addition, there are two general classes of methods for checking errors. They are 'internal' and 'external' checks.

⁹Edward W. Deming, "On Errors in Surveys," in *American Sociological Review*, (9, 1944), pp. 359-369.

The internal check is predicated on the logic that the meaning and quality of a given reply can be inferred from its relation to some other datum or reply. The technical procedure of this check is that either the overall findings from the parallel items are juxtaposed and compared for some defined group to determine the net consistency or a cross-tabulation is performed generally with the aid of machine equipment. Since the check is internal in the questionnaire, a clever and dishonest respondent could falsify the report in both instances, and the researcher would be unable to detect error. The internal check is therefore a minimal measure of response error. This limitation leads to the development of external checks.

According to Hyman, "the most obvious external check and one that is simple and exceedingly valuable is the comparison of the datum under study with findings on the same or related problems collected by other agencies or individuals, on equivalent samples of the same population"¹⁰

Another type of external check involves the use of interviewers' reports on the survey or ratings of the respondents and of specific replies. The replies of all respondents are evaluated in the light of the interviewers' systematic reports that a question was difficult to understand, led to evasion, was uninteresting, etc. Specific respondents are evaluated in the light of ratings of their honesty, the circumstances attendant on the specific interview, and by reference to marginal comments the interviewers are instructed to make.

Both of the external checks described briefly above can be routinely applied in any survey with relatively little expense.

III

Give this brief survey of techniques and problems of survey research, we can turn to a consideration of the use of such techniques in anthropological studies. Traditionally, anthropological studies have been concerned more or less with "primitive" or "tribal" societies which are relatively small in number of population and isolated in location. The small number of population, usually less than 500 people, makes the anthropologist neglect the use of sampling technique; the anthropologist is more familiar with the study of the whole population within a small community rather than using samples. The isolated and normally self-contained character of the societies which the anthropologist selects to study make him less dependent on the modern survey technique. In fact, he does not need to use it. Nevertheless, the nature of anthropological studies at present is changing. Many anthropologists engage in the study of peasant or farm communities; some of them even make their studies in urbanized communities. Peasant or farm communities are not wholly isolated and are not really self-contained. Most of them are parts of bigger wholes, i. e., parts of modern nation-state societies. And they are dependent on other communities to some degree in their economic, political, and other cultural activities. These types of studies force the anthropologist to consider the application of the sampling and survey techniques for his inquiry. Otherwise his study will be less meaningful and may be subject to various kinds of criticism.

I think Bennett and Thaiss have stated the position of modern field of anthropological research very clearly when they write:

¹⁰ Herbert Hyman, *op.cit.*, p.163.

The methodological approach of modern anthropology includes a particular method- field-work - and a particular objective: a respect for cultural context... Thus, anthropological studies include: (a) descriptive reconstruction of whole cultures, with an emphasis on intensive observation and informal interviewing methods... (b) studies of parts of cultures or social systems, made in pursuit of specialized theoretical objectives, and employing sharply defined techniques as well as the more explanatory techniques; (c) a view of the human subjects of the research as individual persons, with interest in their unique historical qualities (an approach especially associated with (a)); and (d) a view of the human subjects as groups or populations about which to generalize.¹¹

The primary data of social or cultural anthropology therefore come from the study of living societies in their natural setting. There is a tendency to describe the 'picture' of the studied society as an integrated whole; and there is a temptation on the part of the anthropologist to make a general statement of human personality, society and culture from his study. Though some may not agree, many anthropologists think that it is possible to *explain* human behavior in society and culture scientifically, in the sense that finally we are going to discover 'general laws' about human behavior and human group. By this aim anthropologists therefore are not restricted to only one or two particular methods for studying human society. Any method or technique which follows scientific rules can be legitimately employed in anthropological research if it has proved to be a useful tool for handling human data in their natural setting. I am of the opinion that, in studying relatively modern, complex societies, anthropologists can apply the survey technique to supplement their inquiry fruitfully. An example of the application of such a technique is Dore's *City Life in Japan*.¹² In this study, he used a carefully constructed interview schedule to obtain responses to important questions. *This material is introduced to buttress conclusions derived from observational and other intensively gathered field data.* In a few instances the survey data themselves are useful for key interpretations or setting up new hypotheses.

There may, however, be some problems in applying survey technique to anthropological research. One of them is that the survey researcher usually assumes that the cultural context in which he works is known and the respondent accepts him as a fellow member of the larger society and responds in an appropriate manner. This assumption normally does not go along with the title of being an 'anthropologist', who is a 'foreigner' or at least an 'outsider', even in cases where he is studying a society or sub-culture of his own country. In this sense, he must assume that people he talks to will color their remarks to a varying degree depending upon their perception of his 'unknown quality'. And this forces the anthropologist to constant checking of statements and observations in order to find out the "truth." On the contrary, the survey researcher obtains the "truth" from manipulating and checking his instruments.

The second major problem in applying survey technique to anthropological research may be found in the large number of variables which anthropologists traditionally consider important. The survey technique is generally confined to a few variables, conceived as related to a limited

¹¹ John W. Bennett and Gustav Thaiss, "Survey Research and Sociocultural Anthropology," in Charles Y. Glock (ed.), *Survey Research in the Social Sciences*, *op.cit.* p. 272.

¹² R.P. Dore, *City Life in Japan: A Study of a Tokyo Ward* (Berkeley: University of California Press, 1958).

number of objective dimensions; answers provided for hypotheses are therefore limited in scope. Anthropologists naturally criticize survey research as "being narrow in content and methodologically constricted".¹³

Another problem centers around the characteristics of data regarded by the anthropologist as significant for interpretation. The anthropologist observes social behavior in the actual social scene and interprets the social and cultural whole from his observation as well as from oral responses to questions. But in survey research, the critical interaction takes place between the interviewer and the respondent. The opportunity for observation on the part of the interviewer is rather limited and on a superficial level compared to the 'participant-observation' usually employed by the anthropologist.

Even with all these and other problems concerning the use of survey techniques in an anthropological research, I believe that anthropologists will benefit from knowing how to operate modern surveys. And this is particularly true for those who are interested in studying modern, complex societies. To quote Bennett and Thaiss:

*Anthropologists have also turned to survey methods in their recent move to study 'complex societies' - that is, in doing field work in the population aggregates by contemporary nation-societies. These ventures have been accompanied by considerable methodological difficulty, in so far as the methods used by anthropologists in the field - holistic tradition have been inappropriate to large populations - or at least, there has been a serious problem of representativeness created by the intensive work with single small population units. Hence survey techniques become necessary and desirable.*¹⁴

There is no doubt that the application of survey techniques to supplement anthropological studies in complex societies is a useful combination of 'scientific' methods for studying human behavior and human groups. The high cost of survey can be reduced to some degree if it is managed properly.¹⁵ The limitations of the traditional anthropological 'holistic' method can be supplemented by survey data. On the other hand, the rigid and 'cultural known' assumption of survey procedure can be reduced by intensive interview and observation which are central methods for anthropological research. By doing this, contradictions among data may be a result, but by various kinds of checks and rechecks according to particular techniques we shall certainly have a better idea of our data and the relations among various elements of our raw materials. This is not an easy task to accomplish because, as we have noted before, the survey technique itself has many problems and some of them may not be easily to overcome. The real solution to all major problems seems to lie in the fact that the researcher must be familiar with both techniques and theoretical issues and this means that modern anthropologists should avail themselves of principles and techniques of survey research and be able to apply them efficiently. Otherwise they cannot study complex societies meaningfully.

¹³ Bennett & Thaiss, *op.cit.* p.276.

¹⁴ *Ibid.*, p. 281.

¹⁵ See Seymour Sudman, *Reducing the Cost of Surveys* (Chicago: Aldine Publishing, 1967).