

cuss this process. Many investigations never reach this stage. They continue to be unilluminated masses of facts awaiting adequate interpretation.

h. *Verification* is the next stage, when, in the light of possible explanations of relationships, the original data are again subject to review.

i. *The preparation of the final report*, which is at present so unstandardized, may be reducible to certain principles of procedure. But all that can be said about it at the present time is that standards for this phase of social research will become possible only after the previous steps in procedure are more clearly agreed upon than at present.

Factors in the Reliability of the Interview

The preceding outline of the indispensable elements in a valid piece of social research is, of course, open to difference of opinion. Other investigators might express it differently and give a different emphasis to the various elements. It is set up here by way of suggesting that the reliability of interviews depends fundamentally upon the quality of the investigation as a whole. Moreover, the place of the interview in an inquiry and its relative importance will vary widely in different pieces of investigation. In some, it will be the main source of information; in others, it will be merely a supplementary guide to interpretation of quantitative measurements. Assuming a procedure in the investigation as a whole which is objective and which conforms to the best standards of experience, tests of reliability of the interview itself may be outlined as follows. In passing, it should be noted that the subject of group interviews deserves full analysis, but on the whole the factors in reliability are the same.

a. *The purpose of the interview* affects the procedure in conducting it and the subsequent tests of its validity. As an instrument of research the interview takes many different forms, according to the difference in purpose. Some examples of different purposes are: (1) to win cooperation and to establish relationships with those involved in the situation studied; (2) to get advice and opinions which will assist in defining the problem; (3) to determine sources of information; (4) to explain documents or other data; (5) to verify an interpretation. These, in a sense, all have to do with supplementing information already at hand or facilitating other procedures. In connection with

them the person interviewed is not a primary focus of interest, and the interview for these purposes may be regarded as an incidental tool. It becomes the main instrument when its purpose is to get the basic facts called for by the definition of the problem of investigation. When this is its use, the individual interviewed may be either a source of information or a subject of study. If, for instance, the investigator seeks data on the mobility of labor in a community and measures it by the number and variety of positions held by a selected group of workers in a given period of time, each person interviewed becomes a source of information on the subject of inquiry, and the information which he gives must be checked for accuracy by reference to payrolls and other records. If, on the other hand, one is studying the interests, the qualifications and the activities of employees' representatives, one may gain through an interview significant information about the employees' representative. The employees' representative may be inaccurate in his statement of facts; but if the purpose be study of the individual, his inaccuracy is in itself a fact. The purpose of the interview, however, must determine the use made of the material gathered. The inaccurate employees' representative may need to be eliminated from the study if the purpose of the interview is to get the facts about a situation on which he is supposed to have accurate information. But it would not do to discard him if the purpose is to test the caliber of employees' representatives as participants in a scheme of industrial relations. Finally, it should be remembered that many quantitative studies derive their data in the first instance from interviews. The United States census of population is based on information secured in interviews of enumerators with representatives of families and households.

b. *The choice of persons to be interviewed* is a check upon reliability. The choice must, of course, be related to the definition of the problem for investigation. It must also be related to the definition of units of measurement or standards of evaluation within the study.

c. *The competence of the person interviewed* is a closely related factor. An interview cannot be called reliable for the purpose of securing information if the information desired is wholly outside the range of experience of the person interviewed. When the purpose of the interview is clear, the next

step is for the investigator to discover what contribution the person interviewed has to make to that purpose.

d. *The method of conducting interviews*, including the circumstances, the place, the approach and the use of questions, is in itself a large subject which cannot be elaborated here. It is on this point that social case workers have made their largest contribution. The psychologists, too, have much to contribute on the technique of study of individuals. The interview will be weak if the method of conducting it is not skillful in relation to its purpose, no matter how coherent and precise the procedure as a whole may have been. Something is to be learned, too, from rules of evidence in legal procedure, and particularly from the methods of medical diagnosis, which have their analogy in social research.

e. *The method of recording interviews* has an important bearing on the subsequent use of the data. Frequently it is inadvisable to take notes in the course of an interview, because this checks freedom in conversation. Under some circumstances, however, it increases the sense of responsibility of the person interviewed if certain major facts, at least, are written down. In any event, a complete record should be made immediately after the interview, and it should give evidence of the course of the conversation and its circumstances,—in other words, the whole method of conducting it and the competence of the person interviewed. The impressions or opinions of the investigator should be separately recorded. These are important, but they should not be confused with the statements, made in the interview. Often a statement which seems to have little significance at the time when the conversation takes place may assume vital importance as the investigation proceeds. The investigator therefore should be concerned with making a record of all that he can remember of a conversation, rather than selecting the data which seem to him at the time to be essential.

f. *Procedure for verification* may constantly accompany the interview. Questions will be raised which may be verified by interviews with others or by reference to documents. Again, the purpose of the interview will determine the type of verification required. Sometimes it may be necessary to interview the person again under different circum-

stances or even to have him interviewed again by another investigator. This will be true when the individual himself is the focus of interest. If, on the other hand, he be primarily a source of information, then the statements which he makes may be checked by the statements of others having knowledge of the facts or by documents of various kinds. The whole question of size of sample and choice of persons to be interviewed is intimately tied up with the procedure for verification.

g. *The relationship of data gathered by interviews to data gathered by other sources* is another test of the interview. If there be serious discrepancies between statistical calculations based on payrolls or records of activities, in minutes or other documents, then it may be necessary to seek an explanation by re-examination of the data. It may be said that seldom is the interview the sole source of information. Observation usually accompanies it and often records will reinforce it and check its reliability.

h. Finally, underlying all these factors, is *the investigator himself*, his equipment, his experience and his point of view in relation to the particular subject of investigation. We cannot eliminate the personality of the investigator in any scientific procedure. Even in the physical sciences absolute objectivity is not obtainable. Another scientist might have gone through the same motions as Pasteur, worked on the same problem and used the same laboratory equipment, without making Pasteur's discoveries. Great discoveries have always been the creative act of the individual, and this must be true in the social sciences. The safeguard against the bias or the personal idiosyncrasies of the investigator must lie in an increasing consciousness of method on the part of all investigators; a careful record of method in the report of every study; training in logic and in scientific procedure on subjects other than social relations; and a devotion to truth which far outweighs any desire to prove a point or to institute a reform.

These factors all enter into the period of fact gathering, which is only the first stage of research. In the next stage, when the investigator studies the data to discover relationships and explanations, the results of interviews are again subjected to tests of reliability. Contradictions become clear and demand re-examination. At the stage of verification, when in the light of possible explanations of rela-