Secondary Analysis: A Strategy for the Use of Knowledge from Research

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In recent years there has been a "rapidly expanding demand for sociologists services by organizations and groups for aid in solving their operating problems (Parsons, 1959). When a prospective client approaches the social scientist with a problem and asks what research can do to help solve it, he will generally focus this question in one or two ways: 1) what research already exists that may help and/or 2) what research can be done directly in the present situation? (Likert & Lippitt, 1953). This paper will discuss on strategy for applying existing research in the hope that it may help social scientist cope more effectively with the expanding demand for applied social research.

In the application of scientific knowledge 'discovered elsewhere' to the solution of an operating problem, the social scientist must face certain important questions of comparibility between the past research and the present operating situation. They are comparibility of: 1) populations, 2) situational dynamics, 3) problems under study, 4) variables or concepts, and 5) past findings with prestent hypotheses. If these questions are ignored, the social scientist may err in two ways. He may either prematurely reject important prior research because of glaring manifest differences or he may accept uncritically all findings and insights as relevant to the present situation.

In discussing ways of handling these questions of comparibility, Likert and Lippitt (1953) focus only on strategies for obtaining data on the present situation. These are "budding of" conferences, research conferences and research application conferences, focusing on a specific operating problem, direct social scientist consultation on a solution of an operating problem, in-service seminars, and a technique for quick analysis of the present situation.

Obtaining data from past research for comparisons may equally be a problem. The social scientist may find, in returning to the original publication, that concepts are not clear; populations are not specified; situational dynamics has not been dealt with; the right variables have not been taken up or, if they were, relevant interrelations have not been done; and the analysis of problems has taken too dissimilar a track. He may ask, "What would have happened if the author had done this or that with his data?"

If the social scientist is able to apply the strategy of secondary analysis, inability to make comparisons or apparent noncomparability with the present situation may not be sufficient cause for discarding potentially applicable past research. On the contrary, past research is just the beginning to be tapped for its relevance to solving present problems. With this strategy one does not have to depend solely on the previous analyst’s approach and bent of mind. Lipset and Bendix (1959) have defined secondary analysis as the study of specific problems through analysis of existing data which were originally collected for other purposes. I suggest that through the use of secondary analysis the social scientist may be better enabled to serve his client. First, it widens the potential applicability of a past research by changing its limits from data presented to data collected. Second, with this strategy the social scientist can turn from printed to vast reservoirs of existing data (published and unpublished) that sit in the basements and files of institutes, bureaus and centers throughout the country. Thus he increases the amount of past research that can be brought to bear on the operating problem.
Comparability

The first phase of secondary analysis is to face the questions of comparability. If the populations of the past research and present situation are somewhat similar, but the social scientist is not sure how similar, he can find out the characteristics of the past population and make specific comparisons. If the past population is inappropriate as is, he can carve out of it a comparable sub-group. The latter is a powerful operation afforded by secondary analysis. By using secondary analysis one can take a past study of a seemingly incomparable population and end up with a sub population that is comparable. For example, if the social scientist is asked by a group of science-oriented pathologists how best defend their place in both science and medicine, which is being challenged by Ph.D’s and clinical pathologists respectively (Bucher, 1961), he can turn to national samples of college graduates or to surveys of research organizations and take out of the total group the sub-group of pathologists for study. In this sense the base of selection of past research is broadened considerably. The social scientist need not to be content with, or constrained by, the population units designed by the primary analyst, hence left with a limited number of useful past researches. This strategy will alert him to the use of data that normally would not be considered or thought of as applicable to present problems.

When he turns to situational dynamics the social scientist can again do the necessary secondary analysis for making comparisons. If the science oriented pathologists, who have come for this help are under siege in an affiliated hospital, he might want to sort out past populations those pathologists who are safe at basic research in a government subsidized, non-profit, medical research organization. Of course, these comparisons overlap with population comparisons to some extent and both are limited by the amount of data collected in the past research. But in using secondary analysis social scientists are not limited by the amount of data presented in the past research publication.

The social scientist is not limited by the level of thinking of the concepts or variables of the primary analyst. Likert and Lippitt (1953) suggest that the primary analyst try to move to a level of theorizing which makes it possible for a wide range of practitioners to see how generalizations apply to analysis of their problems. To be sure the social scientist can raise the level of abstraction or reconceptualize the past research without resorting to secondary analysis. But suppose the variables in the past research do not come close enough to his conceptualization of the present situation. By secondary analysis the social scientist can take up variables that were not presented in the past publication, or he can clarify unclear variables, and most importantly he can construct new variables (indexes) which indicate the present concepts. For example, if his hypothesis is that science-oriented pathologists who are losing their identity will tend not to defend their place in medicine and science, and if he has no measure of identity, it may be a simple matter to combine a few of all items to obtain this measure.

1 If this sub-group is taken from a large survey or a field project that has gone on for years and is, itself, too large to handle conveniently for the purpose of application to a situation elsewhere, it is a simple matter to take some kind of systematic sample (e.g., random stratified, etc.) of the sub-group of IBM cards or field notes. thus, it can be reduced to a more manageable size for faster results and smaller cost of processing.
When it comes to comparisons of past problems and findings to present problems and hypotheses, the social scientist is even freer of the primary analyst's purposes. It does not matter if the problem analyzed in the past research resembles the present problem. If the data are comparable with respect to population, situation, and variables, then the social scientist merely analyzes it according to the specific operating problem. This is the very essence of secondary analysis. The social scientist may, of course, use existing findings, but he is quite free to take the data to its limits for his own purposes. Thus he may look at all possible relations between variables to search for findings that are needed for application to the present problem, it is here that most of all secondary analysis changes the limits of application of past research from data published to data collected.

It has been suggested to me that in some instances one need not even be content with the limits of the data collected. If the data come from an organization, the social scientist may be able to return to it by interviewing people who were there from the past or by studying pertinent documents the social scientist may be able to fill in for the past data. Enhancing past data may be accomplished, though perhaps less effectively, by letters of inquiry and/or by requests for document copies.

**Other benefits from secondary analysis**

*Economies*: This strategy has many other useful consequences for the application of research done elsewhere. If the people with the operating problem do not have enough money for an adequate study of their situation, secondary analysis is a much less expensive process and can, through use of a number of past researches, potentially provide a sufficient amount of data. If the present situation requires action in a short time, secondary analysis can usually be done more quickly than collecting and analyzing new data. If the operating problem is of such a nature that a study of the situation would be inadvisable, secondary analysis provides a way to study the problem elsewhere.

*Readiness*: Likert and Lippitt (1953) state that clients will utilize social science only if they are ready for its help. This readiness depends on 1) a problem sensitivity, 2) an image of potentiality, and 3) a general experimental attitude toward innovation. In order to create this readiness for utilization of research the social scientist should try to develop these elements in his clients. When new research is not feasible or when the clients are not ready for it and the past research (as published) may be too barren from the point of view of comparability to be used for creating readiness, secondary analysis which shows clients that what was done elsewhere may be a very useful device in developing problem sensitivity. By supplying the client an image of what the social scientist can offer, including a feel for research, the social scientist fosters readiness. Additionally, secondary analysis may provide an empirically based design for guiding future research in the present situation, both by suggesting gaps to be filled in and providing findings to validate and to further analyze.

*Application Testing*: Application of social science research provides some unique problems that secondary analysis may help solve. If past research meets the criteria of comparability and a particular finding seems applicable to the present situation the client may be eager to apply it. This may put the social scientist in the awkward position of having to challenge the application in some measure. He must suggest limits of generalization, he must ward against over-simplification; he must explain how findings need considerable testing befobra

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2 Suggestion made to author by Robert K. Merton.
application. He must stress, as Hyman suggests, that findings to be applied should first be analyzed as much as possible in terms of the realities of the present situation in order to judge their potential consequences. At this point it is likely that the past research will let the social scientist down. The previous finding may not have been tested or tested enough in a manner appropriate to the present situation. The social scientist is faced with the conflict of wanting to apply a fact to ready clients which his expertise says he cannot do. Secondary analysis is a potential way out of this dilemma. With this strategy the social scientist can do the necessary sub-group comparisons and characterizations; bring out the associated norms, beliefs, values, and sentiments; look at the variations that strategic contextual variables make in the findings; and he can analyze the potential side-effects of implementing policy based on the findings.

Application Variables: Another problem is that variables which have theoretical importance do not necessarily have practical importance. By using secondary analysis, the social scientist can take comparable past research, particularly that which is theoretically oriented, and search for strategic application variables. He can develop their importance by looking at their distribution in various sub-groups, showing their relation to other acknowledged strategic variables, and looking for crucial cutting points. He can also look for the controllable variables in the study which are more important for application than the noncontrollable ones, even though the latter may be stronger determinants of the phenomena under study and therefore more emphasized in a theoretical approach. Gouldner (1957) has indicated other properties of variables useful in applied social science. They are easily translated into lay concepts; they will not impede intended change when collected, studied or implemented; they are accessible, reliable and efficient; they provide preferential entry to the situation, and they are latent to the client with the operating problem. Returning to original data will allow scanning for variables with these properties hence their potential use in solving the operating problem.

Conclusion

This paper has been written to suggest a strategy for practice that is also being used for theory development. The social scientist will be guided in its implementation by the requirements of the operative situation and the controls surrounding the past research data. In some cases he may obtain the data easily; in others he may find it appropriate to ask the primary analyst or costodian of the existing data to have a few tables run. Sometimes the data may not be relinquished, but if code books or schedules can be obtained he can send in orders for the necessary machine work. To be sure, secondary analysis is not limited to quantitative data. Observation notes, unstructured interviews, and documents can also be usefully reanalyzed. In fact, some field workers may be delighted to have their notes, long buried in their files, reanalyzed from another point of view. Lastly, secondary analysis of the past research for application purposes need never hinder the researcher from writing up the theoretical side. Man is a data gathering animal. This paper suggests a strategy for using the data that he gathers.

References


