

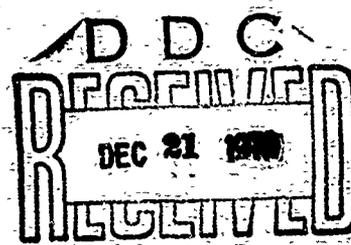
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TOWARD A THEORY OF  
APPLIED SOCIOLOGY  
(A Progress Report)

Paul F. Lazarsfeld  
and  
Jeffrey G. Reitz



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<p>An effort is made to treat systematically all problems related to the uses of sociology in policy and decision-making. The first part of the present report develops a systematic mapping of this problem. The second part deals in detail with one specific theme: the cycle which begins with a concrete problem, translates it into an appropriate research design, and, once findings are available, bridges this gap between knowledge and decision. The third part discusses more briefly some other themes selected from the map, especially the role of social theory and of evaluation in applied social research. In this third part three topics are given special attention: what is meant by the distinction basic-applied? Where does the present monograph fit into this distinction? How can sociologists be trained for the kind of work described here?</p>			

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TOWARD A THEORY OF APPLIED SOCIOLOGY

(A Progress Report)

Paul F. Lazarsfeld and Jeffrey G. Reitz

Document A of  
The Columbia-ONR Project on the Uses of Sociology

Bureau of Applied Social Research  
Columbia University

November 1970

GENERAL INTRODUCTION TO THE COLUMBIA-ONR  
PROJECT ON USES OF SOCIOLOGY

The intellectual urge toward this project was stated in the final paragraphs of the introduction to The Uses of Sociology.<sup>\*</sup> This volume contains much material on the contributions of sociology to the various fields of social activity but, as both editors and authors realized, there are also frustrating blanks which serve to reveal the present limitations in our knowledge of just how social research is put to use. As the introduction states:

One can understand with hindsight, but it came as a surprise, to realize how difficult it is to find how and where sociology is being put to use. . . . Many /sociologists/ had only vague ideas of what happened to their own work. Clients seemed to be more likely to know of uses than sociologists themselves. But not only are clients difficult to sample, they are often corporations in which the officers who may have acted on the basis of the report are not easily traced.

A future theory of uses will require experiment with various ways of gathering information (p. xxxi).

That last sentence is probably as short and as accurate a description of the nature and purpose of this study as we can give. Our purpose was to collect data on which to base an enlarged understanding of the nature of the process of utilization of social

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\* Paul F. Lazarsfeld, William H. Sewell, Harold W. Wilensky, editors, The Uses of Sociology. New York: Basic Books, 1967. The title of the book had been the organizing topic of the 1962 convention of the American Sociological Association. The editors were appointed by the Association to prepare the volume under its sponsorship.

research. A variety of approaches to data collection have been used. These include questionnaire data, unstructured and semi-structured interviews, historical research, a bibliography and content analysis of relevant cases in the literature on utilization. The bulk of the material is presented in the form of case studies but the case studies vary in the definition of their universe. In some cases the universe is the individual project, in others a cross-cutting communications network.

Since the place of the separate presentations in the grand scheme is not obvious, the purpose of this foreword is to explain how and why each of them was included.

We have looked at utilization in two ways. In one aspect it is a transaction between an agent who wrestles with a problem and a Sociologist who in a professional capacity helps him to find a solution. The second vantage point is from the whole institutional and organizational setting in which this encounter occurs. Of course, the two views are complementary. The general context is a modifier for a specific transaction the sociologist is one element in a complex system of interactions. We were guided by both approaches in the collection of our material.

Historically the imagery of the transaction was the starting point of the present project. The contributors to The Uses of Sociology were asked to pay special attention to two questions:

What are the difficulties of translating practical problems into a research design?

What are the unavoidable gaps between knowledge and advice for action and how are they being bridged?

Our project has now developed a broad scheme which sets forth and locates the various roles, contexts and types of research activity which affect the answer. In Document A this map' is presented. The document is meant to be the beginning of a systematic theory of application. It consists of three parts. The first part explains the map and its purpose. The second part is based on a survey of the available literature and presents examples of a number of themes which can be derived from the map. The third part develops one of these themes in considerable detail: what we call the problem-research-decision (P-R-D) cycle.

As originally designed the overall project contemplated a series of case studies of individual research projects. We considered various techniques by which a record could be kept of every step in this problem-research-decision process. In accordance with this plan we conducted a survey of current research projects which might be suitable subjects for our case studies. An early finding from this search was that when one starts to examine the total P-R-D cycle the total time span is so long (longer indeed than the time span allotted for this project), that this approach was not feasible.\* We finally decided to reconstruct the history of one study where many records were available and where the participants still had vivid memories. Document B describes how Congress requested a study on attitudes toward the effect

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\* This does not mean that such data collection would not be useful. In the ongoing project of which this study represents the first step, it is planned that such contemporary journals will be kept for some projects.

of legislation on student financial aid how the Office of Education, in charge of navigating the study, commissioned the College Entrance Examination Board to carry it out. how the College Entrance Examination Board contracted with the Bureau of Applied Social Research for a part of the data collection.

We were able to piece together how the study was designed and what the various parties contributed to the writing of the final recommendations. These recommendations were sifted by the Office of Education and then debated by the congressional committee that finally legislated on the issue.

The data resulting from this case study raised a number of new considerations. Among them is the variable of type of data as influencing findings and recommendations. There were indications that exposure to a personal unstructured interview had as much or more impact on the development of findings and recommendations than a structured or tabulated report representing the opinions of hundreds of respondents. The vividness of the personal experience seemed in some instances to overwhelm the black and white figures on the tables. On the other hand, there were also indications that in the final presentation of findings and recommendations the tabulated statistical data, rather than quotes from personal contacts, tended to be used as the supporting material. The answer as to why this occurred can only be speculative at this point, but it does serve to raise questions about the relative influence of different types of research data in the utilization process.

Also emergent from this case study was the phenomenon of selective use. It was an opportunity to observe different users, staff of the Office of Education, members of Congress, using different outside considerations in combination with the data resulting from the study. As a result they tended to emphasize different parts of the research data and come to conclusions which both differed from each other and in some cases from the recommendations based exclusively on the research data. It is an interesting example of the gap between research and decision in actual operation.

Analyzing the history of a single study is not the only way to secure pertinent information on our topic. Our original survey of research projects also indicated that much research is thought of, planned for, and used, not in terms of an individual project, but in terms of a research program. The program can be located within a single institution or can be a linked effort on the part of a number of researchers in scattered sites. It can be interconnected by either formal or informal links, under single overall sponsorship or under multiple sponsorship.

Therefore, another approach we tried was to track down a whole block of studies. Around 1940, under the influence of Kurt Lewin, a new type of experimental social psychology began to arouse the interest of many scholars. The small group experiment constitutes a prime example of social research which has had impact on human affairs. In particular, organizations have re-shaped themselves under its influence, and a broad socio-therapeutic movement -- the T-group -- has its roots in small group findings. Document C traces some of the complicated ways in which this form of utilization unfurled. This case study started from the

question, "Here is a series of studies. What impact if any did they have?" Document C is only a progress report because all of these ramifications have not been followed up.

So far we have looked at utilization as a transaction between sociologists and decision-makers. In this approach the organizational and institutional context in which this drama is played out appears as a conditioning factor. But one can look at the organizational context of research in still another way. Large organizations, private or governmental, continually face a variety of problems. If social research is to be built into the life of the organization in a more permanent way, administrative and professional problems multiply. Modern theorists conceive of the organization as a complex system of actions whose purpose is to guarantee the life of the collective, be it in terms of efficiency or satisfaction to the members, in terms of security or growth, or in terms of adaptation or innovation. If the term is not viewed too narrowly, one can say that the central goal of an organization is survival. Each part of the organization is supposed to contribute to this survival and if social research is included, it, too, must do its share for organizational life.

Obviously if one wants to study this side of the use of social science, one has to jump off from the study of the whole organization and the role of social research within it. Such an effort is reported in Document D. We have selected a business company which does a substantial amount of social research and uses it for many purposes. The selection was partly guided by an important consultant of the company

who arranged for us to obtain access to all of their studies. The history and content of some 150 studies done over the last ten years was scrutinized. We interviewed the relevant personnel in the organization to learn their experiences and ideas about the company's research policy. Some rarely noticed functions of research became accessible to careful scrutiny. Take, for instance, the notion of argument-research. The company's advertising agency does research to hold on to the account. The company does research to defend itself against adverse legislation and to preserve the loyalty of its own clients. The relation between knowledge and argument in such cases is an especially interesting aspect of the P-R-D cycle. In this case study we also get better insight into the role which various members of the organization play in the initiation of inquiries and the channeling of results to the final locus of decision.

While this company is very prosperous and has a considerable research budget, it is not very large as modern corporations go. Its research activities are pervasive rather than compartmentalized. This forced us to look for another site where the P-R-D cycle is reflected in more explicit and elaborated administrative terms. In principle this does not seem difficult. Many large organizations follow a traditional division into basic research-applied research-implementation. But again the problem of access to relevant information was important. The willingness of people to give time for interviews and the availability of documents is always a basic problem in this type of work. It occurred to us that social research in the Navy itself might be an appropriate site.

To organize its research the Navy has developed a scheme which breaks down all its research and development into a series of six distinct types of activity, beginning with basic research at one end and progressing through the various phases of development. The P-R-D cycle in each phase is structured by a number of formal orders and requirements issued by the management divisions of the Navy. This serialized scheme was developed with an eye to industrial research and development but applies to research on human behavior as well. The Group Psychology Branch which sponsored our project is charged with funding research at the basic-end of the continuum while various laboratories in the Navy are concerned primarily with the five other types of research and development. We decided to select a small group of research units in the Navy in order to study how this arrangement works.

The work done on this topic is reported in Document E. We find among other things that the frequent absence of an institutionalized middleman between the researcher and the consumer requires the researcher to engage himself in a vigorous sales effort and sometimes to foot the cost and responsibility of actually implementing the innovation his research recommends. The process of utilization often follows informal rather than formal lines even in such a large bureaucratic organization. We also find that the definition of the problem to be investigated is more complicated than the image of the researcher receiving requests and providing answers suggests. Research units which have concerns peripheral to the industrial orientation of the Navy tend to have considerable autonomy in determining both the problem areas and the specific questions to be studied.

In this introduction we have referred to the conventional terminology of basic versus applied research. But even the occasional reference is deceptive, for we do not accept it at all. The general argument is put forward in Document A. One can clearly find sequences and situations where sociologists and decision-makers worked jointly on the solution of a problem. One can call this applied research, but the application lies within the origin and purpose of the study, not the study itself. From this core situation, a number of variations radiate. A book on attitude change written in a university tower by a professor can be successfully used by an advertising agency, a government or business agency concerned with the selection and training of personnel subsidizes a broad program in the theory of psychometrics. Think about the term "basic research." It really has no single referent. It covers a great variety of situations that vary in two interrelated dimensions: the type of funding and the degree of autonomy the sociologist possesses. While Document A explores these variations as they are reported in the literature, we looked for an opportunity to study more concretely the intricate problems and consequences which ensue from what we call "funded autonomous research." Nothing seemed more obvious than to use the Group Psychology Branch of the Office of Naval Research and its connections with other human research activities in the Navy. Document F examines some of the history and operations of the Branch from our point of view.

This site for a case study seemed advantageous for a number of reasons. One was the contrast between its mission and the overall mission of the organization of which it was a part. The mission of the Group Psychology Branch was to do basic research in the field of social relationships. In their definition of basic they included the fact that no immediate applicable end product was to be expected. The Navy operates in the military tradition. Its development over the years has been technological, not social. It tends to be application, not theory, oriented. What tensions would be set up by the location of such a program in such a site? How would they be dealt with? How would expectation for utilization differ and how would this be dealt with? Secondly, while most Navy research, including its social research, is done in-house, the Group Psychology Branch work (as is most of ONR's) was done by academic personnel in University sites, with all its tradition of academic freedom, self-definition of purpose and goal, and non-application orientation. This again raised interesting questions about utilization in terms both of problem definition and of routes to application. Thirdly, the social research program of the military department had been several times subject to public attack by Congress. What effect did this have on the selection of problems and the utilization of results?

The literature on utilization of the social sciences has grown very rapidly in recent years. Many of the writings are position papers where authors explore the advantages or disadvantages of work on application. Another group of papers summarizes the actual or potential

contributions of sociologists to some broad problem areas. Both types are most impressively represented by the four volumes published by a committee on government operations of the House of Representatives. Entitled "The Use of Social Research in Federal Domestic Programs," they provide a wealth of information, and the insightful introductions by the staff director Harold Orlans are very helpful.

But two things are badly lacking: detailed case studies and a coherent presentation of all the problems involved. The main purpose of our project was to provide detailed case descriptions. We felt the need of an inductive base against which to check the theory which is being developed. The preparation of a coherent text which organizes all this material still lies in the future. As a stopgap we have developed Document G. It is a kind of bibliographical archive which is intended to be a guide for locating specific examples. A few scores of published reports have been scrutinized along the map described in Document A. If one wants to find a reference, for instance, to the problems of the sociologist as a consultant or the utilization of social theory per se without additional research, or the ways a practical problem is translated into a research design, this archive can be consulted. The collection remains at Columbia, but an inventory will be circulated to facilitate its use. Unfortunately one of the results of this effort is to show how little concrete material is yet available.

The present project is meant to remain open-ended. The Columbia Bureau of Applied Social Research will continue to solicit from interested agencies additional sources relevant to our topic.

Two types of such sources come to mind readily. One is personal experiences of sociologists and their partners in relevant situations, and the other consists of organizations which would be of special interest.

For the first type where an individual is the subject, some kind of oral history as well as group questionnaires would be appropriate.

Examples of case studies which might be done in this category are:

The role problems of the sociologist in non-government employment have been repeatedly discussed in the literature. One should however pay more attention to the intellectual advantages it has to be attached to the day-to-day operation of the governmental and private agencies. Unusual sets of data might be available. Occasionally observations might be made of problems of which an outsider would not be aware. Ideas found in general sociological literature might acquire interesting modifications when put to test in concrete situations. At the same time it would be highly desirable to get the reactions of the officers of these agencies to their contact with social scientists.

A second source of data would be the members of the American Sociological Association who define themselves as working in a specific field of application: medical sociology, educational sociology, etc. How much do they know about, and how are they concerned with the uses of their work?

A third source are the social scientists who have acted in the capacity of independent agents. Several types can be distinguished. The social scientist who becomes a decision-maker himself, in politics, in business or in unions; the sociologist who is called to court or to regulatory commissions as an expert witness. On both points the late Arnold Rose is one of the few who have written on his experiences. A third type is the academically trained man who becomes the head of an independent commercial agency.

In the second category, the organizational point of view, a number of critical situations come to mind:

Recently special research centers for the study of social problems have been suggested. Their experiences can be somewhat anticipated by studying existing agencies which have research divisions attached. Thus for instance some states have commissions to alleviate the drug problem. How do they decide what kind of studies their

research staff should carry out, and what use is made of their findings? The same question can be studied in those states where special crime commissions exist. In most cases current operations can be observed. In a more retrospective way, the research activities of some of the recent presidential commissions should be scrutinized. Here the actual research and its relation to the recommendations is on record. It still would be advisable to know how the research program develops and how the participants look at it in hindsight.

A special problem comes up with recent federal programs especially in the field of education where the law explicitly requires evaluation. Experience shows that serious difficulties can develop between the staff which is in charge of the action side of the program and the staff commissioned to do evaluation.

Research institutes attached at large to universities or to specific professional schools provide another important side. Most of these institutes, bureaus and centers are partly financed by contracts. Their relation to the teaching function of universities and to the research work of individual faculty members needs more concrete study than was available for the recent report by the National Academy of Sciences (see their Chapter 12 on "Institutes and University Organizations for Research on Social Problems").

Our project has approached these situations wherever there was opportunity, but this material is still quite fragmentary. Whatever we have collected is assembled in Document H.

To round out this introduction a methodological remark is needed. About forty years ago social scientists debated the role of personal documents. The atmosphere of this debate is well exemplified by two bulletins of the Social Science Research Council dated in the mid-thirties. In a way our project has returned to this approach on a level which is more advanced in two respects. Our unit now is not the person but larger units: an organization; the history of a study or of a problem area. This provides a larger variety of data on each case. The logical interpretation becomes more articulate and visible. At the same time we can profit from the great amount of methodological sophistication which has accumulated in recent years. Still we have been very conscious of the

role of case studies in developing general knowledge. No statistical information can be provided except in those cases where a specific point could be documented by a numerical summary of documents. Often we did not even try to develop hypotheses which one day might lead to correlations. Rather we concentrated on the development of "themes". In analyzing one case we would lift out an observation and generalize just up to the point where the observation might sensitize us to look for comparison material in the next case. As an example for this procedure a typical instruction to the staff is included in Document H.

The use of any knowledge reaches into three areas of the mind: the search for truth, the skill of forecasting and the gift to imagine a future different from the present. There will never be clear-cut rules of procedure. The best we can hope for is to sort out the different strands and to look for regularities as they are combined into cords. The more we succeed the more energy and freedom will be left for the creative and innovating element indispensable in all utilization.

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PART I  
THE MAP OF UTILIZATION

The present monograph develops ideas and provides examples for a theory of applied sociology. The two key terms in this program require comment.

Obviously it would not be possible to look at a piece of research and decide whether it is in itself basic or applied. Everyone seems to agree that it is basic research when Hovland studies whether an argument in a radio debate is more effective at the beginning or at the end of a speech; the very fact that the finding is related to existing theories of learning makes it appear basic. But suppose a cosmetic firm does a study to test whether their commercial for a hairspray is more successful if the woman in the commercial is middle-aged or young? Obviously the finding could be linked to existing theories of social perception and motivation. Still the enterprise would be classified as a case of applied research.

The difference between the two studies is clearly in the origin of the problem. In the second case the study was done for a client and it is in this sense that it appears as applied. The term field-induced research would be a more logical term for the object of our discussion; it will be used interchangeably with "applied." (We still need a term for studies which are not field-induced. For the moment the residual word "autonomous" will do. Later we shall have much to say about it.)

Both studies may, or may not finally contribute to the store of important knowledge. Whether a contribution is important or not raises interesting questions. Mathematicians distinguish between a "deep"

theorem and something which the author himself only calls a "lemma." In all other fields the scientific community makes comparable distinction. We will accept that it can be done, without further inquiry how. But from the beginning we deny that field induced research cannot make contributions to basic knowledge. In any case, this is different from asking whether a study has made its contribution to the policy problem for the sake of which it has been undertaken.

The present monograph deals with the theory of field-induced or applied research. In contemporary social sciences the term theory has many meanings. Sometimes it is used in close approximation to the natural sciences; Hull's Learning Theory is an example. Other authors talk of theory when they propose a comprehensive classification of concepts which they feel will organize a large set of observations; Parsons is a case in point. Functional theory is the most famous example for what Blumer has called "orientation" advising the investigator of what he should pay attention to. Morton's Theory of the Middle Ranges is a comprehensive integration of a set of empirical findings.

There is one more sense in which the social scientist can talk of theory. Take a field of interest and organize systematically the various element of which it is composed into what we shall call a "map." Combine the elements into patterns, derive problems from their position in the map, extend the whole area by using the basic ideas behind the mapping. This is for the moment figurative language but the procedure itself is not unfamiliar. Lasswell defined communications research as the answer to the question: who says what

to whom with what effect. Over the last forty years a large amount of facts, concepts and theorems has been placed into this first sketch of a map. More recently Brim has proposed a map for the study of socialization: how does a) knowledge, b) ability and c) motivation develop and intertwine in 1) human behavior and 2) in values?

#### A Map of Field-induced Research.

We shall presently discuss more thoroughly the merits and nature of such maps. First we shall sketch the one which will guide the content of this monograph. At the core of it is the interaction between a man or an agency which has to make a practical decision and a sociologist who provides knowledge to improve the chances that the decision is a wise one -- this last term needing subsequent elucidation. When we want to stress this concrete dyad we shall sometimes call the policy-maker a client and the sociologist a professional; the latter term only applies to describe his role in a specific transaction -- he might be a teacher in his main occupation.

The interaction between the client and the sociologist, like any interaction, can go on many levels. The simplest but most far reaching distinction might be called the rational level and the "social" level. On the rational level two aspects of the interaction are clearly distinguished. The client has a practical decision to make but it is not at all obvious what kind of research would be appropriate; as a matter of fact he might even need help to understand his problem correctly. We shall tag this issue the problem of translation. But once available data have been collected, or a new study has been made, it is not at all obvious what advice to give. At least in the social sciences there is in most cases a necessary gap between knowledge and action: the truth will not make us free if we do not know what

to do with it. Or to use a more mundane metaphore sociology is not a grocery store where you can pick up from the shelves whatever you might need to prepare the next dinner you have in mind.

The path from a problem to be faced to a decision to be made via the help from social science knowledge or inquiry we shall call the problem research decision, the P-R-D cycle. It forms the centerpiece of our map and is designated as Place I.

On the southern half of the map the transactions which we have called "social" are more diversified. The two partners have communication problems: the decision-maker objects that the sociologist talks jargon; the latter feels that his client can at most read a two page report. The time perspective is different between one who wants an answer right now and another who prides himself in being thorough. The division of labor is not clear; even if the policy maker has the final word, should not the social scientist come through with actionable recommendations? The list of mutual recrimination is long and fairly well known. We give it place VI in our map without dwelling on it further for the time being. As a minimum then our map now contains four quadrants which we can locate as follows:

		<u>Parties of</u>	<u>Interaction</u>
		Sociologist	Policy-Maker
Action of Interaction	Rational	III	IV
	Social	VI	V

On the upper rational side we shall expect that the client has a variety of problems (place IV); he might want to know whether his past action was right; he might want to cope with an immediate difficulty or defend his position in the face of an adversary; or he might want to lay the ground for future action. The sociologist can draw upon a variety of resources (place III); he knows the import of basic sociological concepts, he has available the empirical findings of his field; he may be a research technician experienced to provide new pertinent data, etc.

On the south side of the map the multiplicity of "social" interactions mainly derive from the position in which the two partners find themselves. There are different types of clients (place V): ...whether he is a business corporation or a government agency; whether they are complex or simple in their mission and in their structure, etc. The sociologist's role makes a difference (place VI): is he a professor who does an occasional consultation; has he entered a free profession as the head of a consultants agency; or is he a member of the policy-maker's research staff?

We have now presented the major elements of our map which shall guide most of our discussion.

MAP

At the lowest part of the map three new characters are introduced which were not mentioned before. On the left side it is the general sociologist. He and the professional sociologist are alike in skill and overlap in interest; very often they might be the same person. The professional sociologist is the focus of our interest because of his relation with the policy-maker. The general sociologist might be equally interested in the nature of industrial supervision or the rules of mass persuasion; but at the moment he just gives lectures or writes books about it.

We introduce him as a kind of catalyst in our interaction scheme because he might be worried about the ethics of his professional colleague or doubt that field-induced studies can use or contribute to "social theory." These are topics we shall have to discuss. In an extreme case the general man appears as critical sociologist. He shows how bad things are without making suggestions for improvement.

The main self-definition of the general sociologist is that he does autonomous research, that he selected his problems for himself. But certainly he often works with the help of grants and this introduces the new man on the right side of the map. For the moment we might call him the patron. On the American scene he is most clearly represented by foundations. But industrial organizations often have divisions called basic research. If they do then we face another case of a double role: for their own employees the company is partly client and partly patron. With the government the matter is even more complex. It provides all steps from a client for a contractor, to semi-patron for a grant, say on public health and

M A P

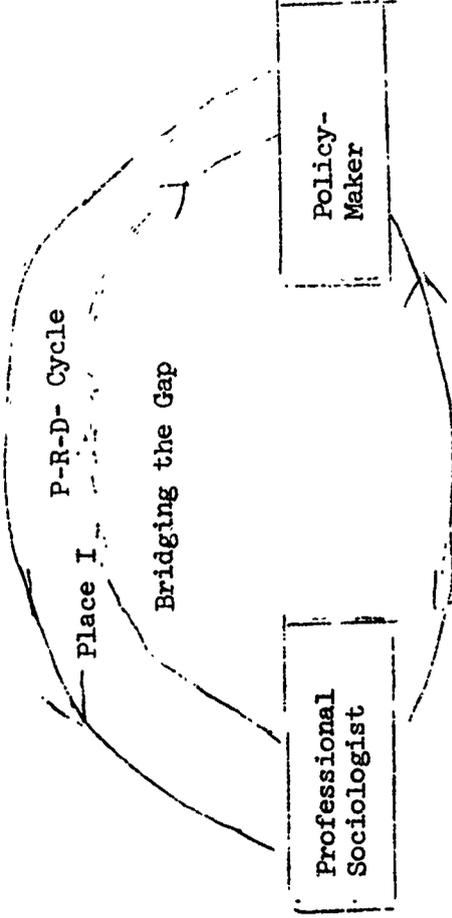
Place IV RESOURCES

Theories & Concepts  
Past Studies, Data Banks-  
Surveys, Observations and  
other Techniques- Sociological  
Mode of Thought

Place III POLICY CONCERNS

Evaluation of Past-  
Dealing with Difficulties-  
Pretesting-Controversies-  
Futurism

Translation



Place I

Bridging the Gap

Professional Sociologist

Policy-Maker

Place II. Social Interaction

Place VI ROLE OF SOCIOLOGISTS  
Social Therapist-Evaluator  
Teacher-Employee-  
Entrepreneur

General Sociologist

Place V TYPE OF CLIENT  
Government or Business-with  
or without own research  
Organization-with or without  
Previous Research Experience-  
Size and Complexity of  
Organization

CATALYSTS

Patron

Third Man

finally the NSF. Many a political budget discussion really reflects role conflicts along this scale going from the client to the "perfect" patron. And in many ways a parallel emerges with the line from the professional, the general and the critical role of the sociologist.

The patron and the general sociologist are not the only co-actors (or should we say co-defendants?) in our play. In the middle of the new last line of the map a "third man" appears. In the introduction of "The Uses of Sociology" the following comment was made:

As the role of the social sciences expands, a new profession might develop: a third force, a middleman, who mediates between the sociologist and the client. He would be able to understand the social scientist and be well acquainted with the practical problems of the sponsors.

For a while we thought that a new occupational type was needed, a person who

would have the talent and, hopefully, the training to take the knowledge which is delivered to him and to draw more conclusions from it than either of the two basic partners could.

But maybe another development is conceivable. As the intellectual problems of field induced research get progressively studied and clarified, a sector among sociologists might find it interesting to include "implementation" as part of their training and equipment as scholars.

#### The Purpose of a Map

A map can serve at least four purposes. For one it serves as a definition of a topic the meaning of which is still emerging. This is true in the trivial sense that it lists the elements which are to be included. But it also indicates where the center of our concern lies: with the intellectual problem of translation and bridging the gap between knowledge

is the most difficult and least clarified issue. At the same time the map also indicates what is excluded from our definition of the situation. We don't cover e.g. the problem of dissemination. Government and social agencies are properly concerned as to how the use of available knowledge can be extended; this would fall into one domain only if a social scientist is called in to help in this task of dissemination.

The second merit of a systematic map appears in the course of the field work when concrete samples of utilization are collected. The most ubiquitous complaint found in the literature is the lack of detailed case studies. Our main project is concentrating on such a collection and the present monograph provides guidelines for the whole enterprise. What happens when a field worker gets access to a site? While he knows the general purpose of the study he cannot control fully the conduct of an interview and cannot know in advance what documentary material will be available. As a matter of fact one of his tasks is to find out how the participants themselves see the the problem of utilization. He will certainly not throw away information just because it is not right at the center of our concern. Sometimes a new site will even open up new problems which had not come up at all before. And as a minimum he will gather information on the more marginal parts of the map. But he will get useful details only when he has the map well in mind. The field worker has to "roll with the punch." If an informant or an archive does not yield exactly what he expected he needs enough presence of mind to make the best of the situation. As long as a field worker "feeds" some part of the map, his mission was successful.

A third purpose of our map is to facilitate bibliographical work. In the numerous papers extolling the uses of sociology only very vague references are found to specific successes or to encountered difficulties.

Still, while each simple paper is meager, in the aggregate they are useful. Selecting a specific unit in the map one finds some material in one subset of available publications. Selecting a different topic, another subset of reports does yield some pertinent information. The map permits integrating whatever concrete experiences are reported in the literature. The major project of which the present essay is a part has provided a portfolio of published material organized around the main feature of our map.

The fourth and most important service of a map is its use in the development of "themes." It would be tedious to just list at each point some further details. One way out is to look at "correlations." The type of problem a policy-maker has will affect the kind of sociological resources he calls upon and probably also the specific role in which the sociologist will act. Whether a company has a major research department or not, will affect the social communication with the sociologist, at what point of the translation he is called in and to what extent he participates in the final decision process. In other cases the map will be used to lay out certain "patterns" for further analysis. The role of social research in an "argument" can appear in many places: a company concerned with legislation, two government bureaus advocating different policies of a poverty program; an advertising agency trying to prove its value to the client.

As has been mentioned before, the centerpiece of our map is the P-R-D cycle. The second part of the present monograph is devoted to it. We don't draw upon the cases collected in the major ONR-Columbia project but only on publications and reports available elsewhere. As a result Part II has a descriptive rather than systematic character. Still it should help

to clarify our general goal. Part III then combines other parts of the map into a number of "themes" just described. While Part II mainly uses substantive material, Part III draws upon position papers written by other authors who have made an effort to clarify the problem of utilization.

## FROM PROBLEM TO RESEARCH TO DECISION (THE P-R-D CYCLE)

The center of our systematic map is the interaction between a sociologist and the decision-maker on a particular problem. We shall now discuss in more detail some examples which describe the path leading from a practical problem to its resolution via the use of general sociological knowledge or specific social research. We restrict ourselves to applied (field induced) research. Consequently, a number of pertinent topics are temporarily excluded. For example, we have already discussed policy research briefly. Related to it are the important presidential commissions on Health, Civil Disorders, Pornography, etc. What research they do and what role it plays in their recommendations will be considered in another part of the general project. The same is true for the question of how broader research programs such as those on small groups, or how cumulative studies on the ecology of mental disorder, gradually affect practice or legislation. We also omit here the consultant who uses available sociological knowledge without doing a special inquiry for the practical problem on hand; some preliminary comments were made in Part I. We concentrate on a discussion of some of the factors which influence the utilization of field induced research.

The Initiation of Research

As a prelude, let us consider the special case of "pick-up" utilization. By this we mean cases in which an agency realizes that a specific already published finding can be immediately used for a practical

purpose. Our example has a number of revealing ramifications. In a study of the 1940 election carried out by Columbia's Bureau of Applied Social Research, the notion of "horizontal opinion leadership" was developed.<sup>1</sup> The point was that, contrary to conventional notions, opinions did not trickle down from the top to the lower strata of the community. In fact, each social level had its own "influentials." After publication of The People's Choice, this finding came to the attention of a company which published magazines for low income groups. They had developed the public relations device of talking about the "wage earner market." The objective, of course, was to convince advertisers not to restrict their advertising to middle class magazines. The emphasis on horizontal opinion leadership came as unexpected support for this policy. The publishing company therefore underwrote a second study by Columbia's Bureau to explore this whole complex of "personal influence" further.<sup>2</sup> Since then, in the competition for advertising revenues, magazines have used the argument that they attract readers who are influential in some specific segment of the population.

It is not a high brow case of utilization but the finding that was picked up certainly antedated any commercial application. And still the story had side effects which might enliven some ethical controversies. To identify "influentials," the Columbia studies used a technique the validity of which has been repeatedly corroborated since: by a series of interconnected questions people described on what and how often they are asked advice. From their replies an index of opinion leadership was constructed. This technique came to the attention of another

magazine, a news weekly which had pointed with pride to the fact that it had a large number of readers with upper-strata occupations. They wanted to rearm their argument by using a more direct sociological index of influence than just occupational status. These publishers also commissioned a pilot study. But the results were disappointing to them, although not surprising in retrospect. True, the index characterized the high-status people as concretely influential. However, many real influentials were of low status -- one expected this from the earlier studies. More disappointing from the client's point of view was the fact that they hardly ever read the national news magazine. They were not concerned with national and international affairs and were ~~properly~~ tagged as "local" in contrast to the "cosmopolitan" opinion leaders. The study was ~~duly~~ published in an academic collection but was definitely not picked up for utilization by the client. <sup>3</sup>

Next we come to the situation in which a field problem initiates research. The first impression one gets from the literature is how often it is set in motion by a crisis situation.

Particularly in recent years it appears that when a crisis occurs, although much is uncertain, one near-certainty is that a great deal of research will be initiated by policy-makers. In the literature we have reviewed, crisis is a frequent prelude to research. Settlers in a national forest in Louisiana set fires to areas containing new seedlings, and the Forest Service undertook research. <sup>4</sup> A museum faced a decline in attendance and called for research. <sup>5</sup> A volunteer welfare agency needed to retain the support of its workers while being forced

to adopt a new program, and initiated research.<sup>6</sup> The Army Air Force confronted the need for a dramatic increase in trained air crews with the advent of a new type of warfare, and research was carried out.<sup>7</sup>

Of course, not every external situation which might lead to research actually does so. Much depends on whether relevant persons in an organization are predisposed to believe in the utility of social science. One facilitating factor is the exchange of elites. Probably the failure of some groups, such as churches and unions, to avail themselves of social science advice results in part from the fact that few of their leaders move between business and government. The relevance of social science research to the case presented to the Supreme Court by the NAACP in 1954 was recognized mainly because the staff overlapped significantly with the Society for the Psychological Study of Social Issues, which, in previous inquiries, had devoted special attention to the effects of segregation on personality development.<sup>8</sup>

In the absence of such a close relation, an intermediary may sometimes help to initiate research. Zeisel reports that a court wanted to carry out an experiment aimed at speeding up insurance trials.<sup>9</sup> One part of the trial would determine the question of liability, and then, only if liability existed, would the court go on to consider evidence concerning the amount. The court asked the University of Chicago Law School to conduct the experiment. The law school in turn called on the sociologist for assistance. In this case, the law school was a natural middleman, though not explicitly set up for the purpose.

Characteristic here is the fact that the policy-maker does not himself need to know what social science expertise might be relevant to answer the question he poses. Schools of business probably play a parallel role. Furthermore, government agencies also play a middleman role for high level policy-makers. No one was directly commissioned by Congress to study financial aid for students. Instead, Congress asked for a study and delegated responsibility for it to the Office of Education; it was the Office which decided on the relevant experts to be consulted.

No matter why a research study is contemplated, the next step in the P-R-D cycle follows: what kind of a study is appropriate in this specific instance?

#### The Translation of a Practical Problem into a Research Design

The problem does not in itself precisely define the research design. In most instances, various research approaches are conceivable. For example, consider the case in which a sociologist was hired by a union to advise on the organization of a previously non-unionized plant. The investigator decided to gather information on the prior experiences of the workers with unions, on their attitudes toward management, their grievances, feelings of company loyalty, attitudes toward the idea of a union, and so on. Key union people in the area were also queried. All of this was done presumably so that the union would have some basis for predicting the likelihood of success in the plant of a number of alternative approaches. But completely different kinds of inquiries, which might have been equally useful, were possible. The researcher could have compared the results of previous union efforts in similar

situations, paying attention perhaps to the sorts of information campaign which had proved useful, the relative effectiveness of working through informal shop leaders or by passing them; the particular timing of union initiatives had turned out to be best. Perhaps there have been cases where previous hostility to unions has been overcome. If so, new studies might have focused on the social determinants of worker militancy, with a view toward learning the conditions generating receptivity to unions in the past. Under what circumstances have managements typically resisted unions, and what is the likelihood of it happening here? What resources does management use, and are these available in the present case?

One of the great dangers at this phase of the P-R-D cycle is to follow too closely the prescriptions of the client. To as great a degree as possible the sociologist should take the position of first critically examining the definition of the problem as presented and only then deciding on the nature of the research. Coleman describes this in the introduction to this study of public education.<sup>11</sup> The original request by Congress for a study of equality of educational opportunity specified an investigation of the available facilities and trained personnel in the schools attended by members of various ethnic groups. What was wanted was a specification of those places where minority groups were being given less than their share. But Coleman decided that the investigation requested by Congress presupposed non-existent knowledge of what was really involved in "educational opportunity." Without such knowledge, many resources might be wasted in correcting irrelevant aspects of the situation. He therefore decided to study how the crucial

outcome -- educational performance -- was affected by a great variety of conditions in children's school and home lives.

Sometimes a researcher may decide to accept a client's proposed design but give it a more sophisticated definition. The American Jewish Committee asked Leo Srole to study whether a series of cards displayed in subways should change people's attitudes toward Jews. He accepted the assignment by broadening the issue in the following way.

Concern with "changing prejudiced attitudes" is not really exhaustive of all the realistic possibilities for action. Suppose attitudes remain unchanged, or change only slowly over the course of several generations, what can be done? Legal moves against discrimination prevent the more virulent manifestations of prejudice. People may not like Negroes, Jews and Catholics, but they can be inhibited from expressing that opinion, especially in more violent ways. One mode of accomplishing this, the reasoning went, was by reinforcing the norm against expressing prejudice -- the norm against "open" bigotry. Even small devices such as car cards do this by providing a constant reminder in public places, much as the insistent nagging of the B.O. (body-odor) advertisements in the past generation have succeeded in tightening up American norms against offensiveness in this respect. When people are constantly reminded by material having the dignity and prestige of public display in print that prejudiced acts are not desirable, these acts can be limited pending the longer period required to change the attitudes themselves. For this purpose advertising techniques of advertising that would admittedly not "change" prejudiced attitudes were nevertheless worth using and testing.

A negative example can be taken from the experience of Columbia's Bureau of Applied Social Research. During the McCarthy period, the president of The Fund for the Republic, Robert Hutchins, suspected that teachers were intimidated and that therefore the level of teaching was deteriorating. It was then decided to see to what extent this was correct. A careful sampling of college professors in the social sciences was made and their attitudes were scrutinized carefully.<sup>13</sup> In retrospect, the whole inquiry seems ill-conceived. Hutchins wanted to protect freedom of teaching in a period of continuous attack. It would probably have been more appropriate to study how various university administrations reacted when one or more members of their faculty were attacked by outside agencies. Out of such a study could have come advice on the best ways to protect academic freedom in times of crisis. The study of attitudes proved interesting but have few implications for action.

Gouldner has coined the term "clinical applied research" to stress that one should not accept the client's direction too literally.<sup>14</sup> He does not realize how hard it often is to anticipate a difficulty which appears obvious in hindsight. Hutchins would certainly have been open to a change in design, but no one in a group of competent advisors questioned it at the time.

Perhaps one of the reasons that crises induce research is that they provide strategic situations for doing it. If an organization has a permanent research division, a major duty of the staff is to look out for what one might call "lucky change translations." Podell reports such a case.<sup>15</sup> Investigators were about to study the actual functions of

the expensive eligibility investigations required by a New York City welfare agency. Such research was difficult to design because it was not ordinarily possible to manipulate the field investigations even for experimental purposes. However, at a crucial moment, most of the city's social service staff went on strike. Field investigations had to be suspended, and applicants were interviewed in the local offices for approval on a temporary basis. This provided an opportunity to experiment with various ways in which social workers might separate their investigative and case-work functions. Rose's account of experiences in an Army research group during World War II is similar. In an emergency situation, the Army was forced to send integrated troop platoons into combat. Sociologists on the research staff immediately saw that a systematic evaluation of this move could contradict traditional conceptions and lead to a change in military racial policies.

As can be seen, we have found little material on the translation issue in a strict sense. Seldom do authors report what alternatives they contemplated before they settled on a specific design. Perhaps we need detailed personal interviews to get this type of material. For the moment, the best way to approach the issue is to raise the question with which we started this section: what other research might have been appropriate? We shall not pursue this point now but will instead proceed to the next phase of the P-R-D cycle: given a certain body of knowledge, how do we reach recommendations for action?

#### Filling the Gap between Knowledge and Decision

When all the necessary research on a problem has been assembled

and "the facts are in," a decision is still needed. Clearly, this is a critical stage in the whole process of utilization. There is a technical view of decision-making which imagines that once goals, interests, and normative considerations are spelled out, and all of the facts are analyzed, decisions emerge inexorably. This is as mistaken as the opposite view that rational analysis invariably impedes the "art" of decision-making. A more balanced approach suggests that, although systematic knowledge can contribute to decisions, there is always a gap between knowledge and decision. This "gap" can only be filled by creative thinking which makes more or less risky guesses about feasibility and range of consequences.

We are provisionally inclined to distinguish two types of "gap situations": in one situation assumptions and ideas are needed to invent effective strategies, while in the other they are needed to decide the relative effectiveness of alternative strategies. We begin with inventions.

Sometimes a study points rather directly to the appropriate action. A study undertaken to help plan the Allied invasion of North Africa in World War II provides a relevant example. Interviews with civilian and military personnel in strategic African areas indicated that a British invasion force would encounter considerably more resistance than one composed only of United States troops. As a result, it was decided to use American rather than British soldiers.

Somewhat more imagination is required if a solution involves combining two or more present arrangements. Marvin Taves and other

sociologists in the Office of Aging (now the Administration on Aging) devised a community program from discrete research themes. In the United States, retired persons have been found to be restless and dissatisfied because they no longer have a distinct role in industrial society. At the other end of the age spectrum, research has demonstrated that young children in institutions need sustained relationships with adults in order to develop healthy personalities. Why not, suggested Taves, hire retired individuals to work closely with institutionalized children for several hours a day. The idea proved to be successful, both in terms of recruitment of older persons and rewards to young children.

A similar example from a very different field is found in a ~~program~~, decision made by NBC some 25 years ago. At that time about 50 per cent of all women listened to a succession of daytime serials presented on CBS. There seemed little chance of luring them away to other programs of the same type. The problem was to develop a program which would attract the 50 per cent who were not fans of daytime serials. A detailed study of their listening habits permitted the broadcasters to find out what elements attracted them to the programs of a variety of other stations. The task was then to combine all these elements into one consolidated new type of program which would keep them listening to NBC during the morning. The resulting program, the "Today" show, is still on the air, evidence that the creative guesses of the decision-makers were correct.

One step further away from mere factual information are cases where an institutional invention is needed to bridge the gap between knowledge and decision. The Kodak Company was concerned with the fact that although amateur movie fans bought inexpensive home equipment which they used enthusiastically at the beginning, they soon stopped taking pictures. Since company revenue came mainly from the continuous sale of film, it became important to find out why this decline occurred. A study soon made the reason apparent: the movie-takers wanted to show their films, but after a while they had exhausted the willingness of their friends and relatives to watch them. Without this social stimulation, interest in taking pictures corroded. To remedy this, it was proposed that clubs be organized where photographers could show their pictures in return for viewing other members' films. The case has a frustrating ending. This possible solution was never tried out because of the approaching war. The company's efforts were diverted to other problems.

Other examples indicate the complexity of analysis which may be needed to reach a practical conclusion. Ikle reports that, in the last stages of the war, fear of bombing was not strong enough to overcome the resistance the German people felt to being evacuated from the cities. However, lack of food during prolonged raids was a major hardship. Therefore, if it was necessary to get people out of the cities, food could be used as the mechanism of persuasion. Food stocks were dispersed to those places in the country to which the government wished the population to move, and were maintained as long as it was necessary to keep portions of the population out of the cities.

The structure of this decision is paralleled by the report of a commercial study. When the first steam laundry was introduced in Vienna around 1930, it found few clients among Austrian housewives. A study revealed the main source of this resistance. At that time, the cultural role of most women was still such that doing the laundry at home was a source of her status and self-esteem as the keeper of the home. But the study also analyzed the deviant cases. Women were ready to send their laundry out under situations of stress: sick children, too many visiting relatives from the country, etc. Quite often such exceptions became the rule and housewives remained customers of the steam laundry. The public relations manager of the company took up this point, and concentrated his promotional material on the theme of stress. He obtained lists of recently deceased persons and addressed a mail campaign to the bereaved families; in newspaper advertising, he alluded to the physiological stress in which women find themselves periodically; etc. A colleague reported at the time that the number of clients increased<sup>21</sup> markedly.

If we think of practical decisions as involving "knowledge plus something else" then this "something else" will have to be studied in considerable detail. In the preceding examples we have emphasized the necessity of inventive ideas in implementation. Now, the nature of invention is notoriously difficult to describe and this is not the place to make another attempt. However, there are certain situations which lend themselves more easily to formal analysis. Among these are cases

where research has ended with two alternatives to action, and the policy-maker has had to make a decision between them. This situation we discuss next.

The Gap: Changing People or Changing Organizations

The choice between two alternatives occurs most typically when studies show a lack of fit between an organizational arrangement and the people who are supposed to make use of it. The problem then arises whether the organization should be modified -- assuming that the decision-maker has control over it -- or whether one should try changing the "target population" directly.

Consider an example. Poor families do not make use of the free health centers built for them. The sociologist called in for help has, on the one hand, turned to studies of "lower-class culture," and on the other to the relevant sociology of bureaucracies. Elling <sup>22</sup> has combined these two elements and concluded that the "lower-class culture" prevents many poor people from utilizing services administered in a bureaucratic way with which middle-class people are quite comfortable. Since it has been found that, within the poverty culture, life is concentrated on local interests and face-to-face relationships, Elling maintains that the formal impersonality of the usual clinics or hospitals effectively removes them from the very clients they should serve. He suggests that a new health service organization is necessary -- one that would be run on an intimate, neighborhood basis which could link local residents to the traditional health center where the full armamentarium of medical

care and preventive services would be available. The store-front operation would provide general health service and counsel; it would not be speciality-oriented.

Elling's proposal sounds convincing. But the sociological analysis could have led to a different prescription. The policy-maker should try to change the attitude of apathy and powerlessness rather than adapt the bureaucracy to the existing attitude. The implicit assumption is that this would be too difficult. It could be that the best solution would combine experimental institutional modification with an attempt at attitude restructuring. However, the limitations of most budgets would probably require an explicit decision about the proportion of funds to be allocated to each alternative.

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Another example of this is reported by the Loomises. The Agricultural Extension Service had a program to make information available to farmers for use in new farmhouse construction. A study of this program showed, among other things, that when the farmers needed such advice, instead of using AES as a source, they were likely to rely on the suggestions of contractors and lumber dealers. This finding made the option of adapting to the farmers more clear cut -- the service could diffuse its information through the channels the farmers used.

#### The Gap: Deciding between Alternative Target Groups

In the simplest form this problem is well known in market research. Suppose a tobacco company wants to introduce a mentholated cigarette. Should their advertising be directed mainly toward the people

who already smoke mentholated cigarettes? Or should they try to create a market by convincing new groups that mentholated cigarettes have advantages? The manufacturer here faces again a kind of utility calculus. He knows that more people belong to the non-mentholated group but they are probably more difficult to convert than the already committed smokers. In some more or less intuitive way he must multiply the probability of reaching a group with the probability of affecting their behavior.

But the problem does not end here. It is quite possible that a decision to concentrate on one subgroup has indirect effects on the other. For this, another business example is available. All of the manufacturers of breakfast cereals concentrate on the children's market; they put toys and games into boxes to compete with each other's cereal product. As a result, when young people grow up they consider cereals a childer's food. Indeed, statistics show that around the age of 15, the consumption of cereals declines rapidly. The individual manufacturer's neglect of the "adult market" is probably detrimental for the total industry. As far as is known, no manufacturer puts Walt Whitman poems instead of whistles into the boxes.

Interestingly enough, the same issue arises in a more high brow context. Zetterberg noticed that the museum he studied developed close contacts with the local schools. It was an efficient way to get the children of the community to visit the museum. But as a result the museum came to be considered "kid stuff." This could handicap efforts to interest other parts of the population.

We have, then, a paradigm which has as a minimum the following elements. The population is schematically divided into two groups which differ in their resistance to a message. Both the nature of the resistance as well as the approximate size of the two groups must be ascertained. Techniques for reaching the two groups must be invented and in some terms the "cost" of the two alternative routes has to be estimated. Finally, the indirect effects of the two strategies have to be assessed.

This paradigm applies to a large variety of situations. Consider efforts to control "overpopulation" in developing countries. To begin with, it seems that this is not an impossible task. For example, one study shows that in urban Ghana the average family size desired by the population is 5 children, while the actual average is <sup>24</sup>7. This discrepancy makes it possible, at least in principle, to divide the population into two groups: those who have more children than they want because they do not know enough about birth control, and those who want a "surplus" of children so that they are sure of a sufficient number to <sup>25</sup>support certain cultural and religious traditions.

Obviously, the former group would be hospitable to birth control propaganda, while the latter would be more resistant. To make a policy decision, it would first be necessary to know something about the size of the two groups. The implicit assumption in the literature seems to be that the basically resistant sector is much larger. One would therefore have to know how difficult it is to influence this larger group. As a matter of fact some ideas would have to be developed as to how that can be done at all. All these elements enter into a complex debate

between the proponents of two different strategies. In another part of the general project the literature on this debate is analyzed.

#### Other Alternatives

Our scrutiny of the literature suggests at least two other situations where the analyst sees implications and the policy-maker has to decide what turn to take. In one case a social value might be so dominant that it excludes alternatives which might be more technically feasible. The Coleman report once more provides a good example. The study was commissioned by Congress to help deal with inequalities in educational "opportunity." One widely cited finding is that other things being equal, the performance of black students on specially administered academic achievement tests is better when there has been a higher proportion of white (middle-class) students in their classrooms. The obvious implication for those who want to improve the opportunities of blacks is that the racial mixture of the classrooms be increased. Of course resistance will be great, and as long as white parents can freely decide where to send their children to school, efforts at mixing will not meet with quick success.

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Coleman himself suggested some alternative implications of his studies, which in effect attempt -- without mixing -- to stimulate the basic processes he sees as responsible for the beneficial effects of racial mixing. He focused on two elements. First he attributed some of the difference between mixed and unmixed classrooms to the role of the teacher. In classrooms containing more white (and, therefore on

the whole, more advanced) students, teachers may aim the curriculum at a higher level than if only blacks are present. Coleman specifically suggested that using programmed teaching machines and new incentives for teachers based on the academic improvement of their students might lead to the same result. Furthermore, the higher performance among blacks resulting from mixed classes could also be achieved if students in racially unmixed classes could be brought into contact with more advanced students during the school day (without formal reassignment) by means of intramural academic competition. Still Coleman himself and the legislators would discard these alternatives because desegregation is a social and not only a technological goal

A variation on this theme emerges if research brings to light the negative consequences of an alternative which still has to be chosen because of overriding reasons favoring such a course.

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One such case is that reported by Alpert and Kershaw. Near the end of World War II, it became apparent that the Germans were going to hold out longer than hoped. Further rationing of goods at home would be necessary, and a study was done to determine whether the extension could fit into the existing ration coupon system, or whether those coupons would have to be invalidated, and a new system instituted. The answer depended on how many coupons were still at large. The study showed, in the policy-maker's view, that resources would be depleted if the current coupons were honored. No chance to use propaganda to restrain coupon use was seen. But to invalidate the coupons would be unfair

to those who had placed confidence in them conserving them for future use and avoiding excessive consumption. They anticipated a great deal of opposition to invalidation. Nevertheless the study demonstrated to them that a choice between unfairness and discontent on the one hand and the conservation of resources on the other, was inescapable and the decision was made to conserve resources.

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The opposite decision was made in another case. A development project on the Columbia River Basin was planned, and the advice of economic planners indicated that locating farm houses near the geographic center of the tilled land would be the most economically rational plan. But studies also were available which showed that, when left to their own devices, farmers tend to locate their homes on roads near other farmers, apparently out of desire for companionship. In the absence of reasonable substitutes for companionship based on geographical proximity the planners were forced to decide between economic rationality simply defined, and the morale of the farmers, and they decided in favor of the latter.

There is a debate that can be fruitfully reopened when more is known about how gaps are filled. This is the question of what kinds of competence are required to fill gaps. Sometimes the researcher simply presents facts. Sometimes he makes recommendations. Sometimes there is a discussion. But what is the appropriate division of labor in different circumstances? Clearly we can find cases where the experience and ideas of both parties, and indeed of third and fourth ones enter sometimes at different points in the process of formulating recommendations.

Policy-makers may be most likely to add considerations concerning what risks should be taken, and what side effects are most critical. For example, a study for a trading stamp company was done to assess the relative position in the market resulting from offering stamps or discounting merchandise. The study found that women prefer to have discounts rather than stamps, but also that they are much less likely to notice that prices are lower, while their second preference, stamps is much more visible. <sup>29</sup> Only very subtle and probably inconclusive experiments could show what prevails: a prime preference which is difficult to realize or a secondary choice which is easily made because the path to it is well "lighted." The store manager himself has to make the decision, without the help of social science clergy.

Sometimes useful information for filling the gap might be obtained from the actual people who would carry out the details of any plan. Rosenfeld called special attention to this possibility as she discussed the use of research on juvenile delinquency. <sup>30</sup> This research had pointed to certain types of gangs as facilitating access to drugs. The policy idea advanced was to try to transform these gangs by involving them in local recreation centers and settlement houses. What was overlooked was the possibility that instead of reforming the gangs this strategy would corrupt the "squares." Rosenfeld feels that discussions with people "in the field" might have prevented this mistake because "people who for many years continue in one type of work as a rule accumulate a wealth of intimate knowledge of the great variety of

forces pressures, interests, conditions that play a role in the situation in which they work." (p. 376) Those who want to draw on this information in planning strategies, she says, must "dodge or get around the heads of the various agencies, who often are far removed from the work experience of field workers."

Still the sociological profession should not abdicate its responsibility. Some of them will work on field-induced studies. And those who do should be trained to go beyond their research and to help in spelling out its implications up to the final phase of practical decision. A future theory of utilization should provide the appropriate foundation. Our present collection tries at least to sensitize students to the problems and situations involved.

FOOTNOTES TO PART II.

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PART III

SOME ADDITIONAL THEMES

Now that we have discussed the center piece of our map in some detail we will turn to its other sectors but in a more tentative way. We shall select a few topics which have not yet been fully worked out but for which existing literature gives useful leads. We shall state our own position and indicate the type of information from which it is derived.

Training for Social Interaction (II)\*

The bridge to be built between knowledge and decision does not only consist of ideas. At every point people are involved with their problems of communication and the task of working out a proper collaboration. We have tagged the ensuing complex of problems as "social interaction" in place II of our map. Much has been written about the difficulties that bedevil the partners in the whole transaction. Partly they result from conflicting expectations. The client wants advice -- it should accomplish marvels, but not disturb too much the operations he is used to. The sociologist wants to help but at the same time he hopes for findings that will enhance his prestige among his professional colleagues. So he ends up writing about the layman's resistance to social science. The client, in turn after he has had a council of social advisers for some time gives it up in disappointment.<sup>1</sup> Published statements come of course mainly from the academic side

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\* Roman numerals refer to location on the main map page 6.

The consumer's point of view will have to come from interviews with company executives who were involved in such experiments -- General Electric and Prudential Insurance come to mind.

An insightful and detailed review can be found in Millikan's<sup>2</sup> discussion of the "Relation of Knowledge to Action." At one point he states:

The relations between knowledge and action are infinitely more complex and reciprocal (than generally assumed) and cannot be adequately mastered unless each kind of specialist develops an extensive knowledge of the other's mental process.

The reference to reciprocity is important. One should not assume that at one point the sociologist can leave off and the decision-maker take over. On the contrary, the real problem is how to mesh the two patterns of thought and experience. And here one often overlooks an important factor. Neither social scientists nor policy-makers have had any training for proper interaction. We have only found a few examples where the need for such preparation was recognized. One is a book published by members of the School of Social Work at the University<sup>3</sup> of Michigan. The authors reported and analyzed a number of research studies in which they felt the social worker can "use in his own practice or get new ideas that he or others in the profession can translate into practice." While the book is addressed to social workers it would be equally useful in the education of sociologists.

Do business schools when they train for future leadership provide better understanding of the role of social research? Here again the material is very limited. Hardly any "cases" have been written where social research is featured as a tool of business administration.<sup>4</sup> Tagiuri and Lawrence have experimented with an interesting device to remedy the situation. They republished two

Harvard cases along with demonstrations of the types of social science concepts which could be introduced to clarify the descriptive material

Lazarsfeld and Merton wrote once a plan to create a professional school for research in human affairs. The idea was to create an institution similar to a medical school which combines a number of natural sciences and teaches their applications to the treatment of illness. In the same way the proposed school would teach substantive fundamentals of various social science disciplines together with the research technique which would be equally applicable to practical problems of politics, marketing, public administration and so on. The plan never found financial support but 15 years later the idea has been revived on a high level. The National Academy of Sciences and the Social Science Research Council appointed a commission to report on "The Behavioral and Social Sciences." Its report (known as the BASS) explicitly recommends a graduate school of applied social sciences. A detailed discussion of the plan (p. 201 to p. 210) shows many parallels to the original proposal but omits the consideration of the kind of teaching material which would be specifically needed for such a plan. The Columbia plan had pointed to the usefulness of case studies of the interplay between social scientists and decision-makers. The material collected by the Columbia ONR Project is in a way an outgrowth of this original plan.

Even if no professional training centers exist such cases should at least be infused somewhere into the curriculum of graduate sociology. One can well imagine seminars in which students get training in a casuistic of uses. Given this finding where would you apply it? Given this concept to what organizational solution might it lead? We shall

presently make the point that such exercises would also deepen the students' understanding of the basic academic subject matter.

It is more difficult to visualize the education of the decision maker. Even after an idea has been worked out he is the one who has to act upon it. In one of the few cases published in detail Bruce Smith gives the following description of how the Navy accepted a plan worked out by RAND to make a change in the location of overseas bases.<sup>7</sup>

The study director and his staff gave 92 briefings. 16 charts were used for the main briefing whereas it was found necessary to prepare 70 charts for use during the question period. The question period also typically lasted longer than the main briefing. Besides the group briefings, the director was called into numerous confrontations and individual discussions of the study as a whole or various aspects of it.

Be it remembered that this last part of the P-R-D cycle had to be preceded by two other ones which might have been as arduous. The research team had to make up its mind what recommendations to make. And before that the original translation of a vague practical concern into a research design required lengthy contact between client and social scientist. The decision-makers in this case were Air Force officers and not businessmen. What training had they gotten in the use of research? Is it really necessary to invest so much effort into the "social interaction" between research and decision? The Air Force officers involved had to be trained in many skills and the uses of social science could hardly have played a large role in their early curriculum. But once they had staff position some elementary instruction would have been helpful. The professional school mentioned above if it ever comes about, might provide special facilities for continuing education for executives in government, business, and labor organizations.

We have emphasized the collaboration of the individuals on both sides of the transaction. But obviously it also has an institutional component. Wilensky has tagged the problem as "organizational intelligence." His main ideas can be found in his valuable entry in the International Encyclopedia of the Social Sciences Volume Eleven p. 319-p. 334. From our point of view we find especially interesting his discussion of the organizational location of the intelligence function. This in turn leads to the question of initiation. When is it that the social scientist himself recognized a problem and then starts the P-R-D cycle? Merton and Devereux<sup>8</sup> have stressed the importance of what they call "instrument panel" research. The Telephone Company they studied made periodic surveys of subscriber satisfaction. By using an extensive set of specific questions they were alerted when the proportion of favorable answers took a marked downturn. The two authors incidentally discuss in some detail the various ways in which a company becomes aware that it has a problem on hand.

Unavoidably our examples stress the role of specific research studies. But among the resources of the sociologist in place IV of our map we listed "social theory" as a contribution to the solution of practical problems. This theme deserves more detailed attention.

#### Social Theory and Applied Research (IV)

Gouldner has made the general observation that "applied social scientists are more likely to use the concepts than the general theories of their basic disciplines."<sup>9</sup> But sometimes social theory's awareness of systematic interconnections will sometimes show a way to attach an element which cannot be changed directly "by a circumspect and indirect manipulation of more distantly removed variables." Gouldner also advises us to always

look for unanticipated consequences because "this engages the profoundest interest of laymen." His paper might well be used as a guide for interviews with consultants which would provide examples to illustrate his points.

It would be especially important to look for cases where a sociologist saw implications in data which were not perceived by the agency which had collected them. An episode which comes nearest to such a situation occurred in the early days of radio research. The broadcasting companies had for a few years collected program ratings indicating the proportion of listeners which were tuned in to a specific program. Those ratings were used either for competitive purposes or for gauging the listening tastes of the population at large. Only under the initiative of the Princeton Bureau of Radio Research was this material studied for differences in the behavior of social strata. Bevil<sup>10</sup> published the first findings in the title "The ABC's of Radio Listening." The illusion in the title was to the classification of social strata by the letters A, B, C, D, which at that time was customary in market research.

The most detailed concrete example known to the authors is Zetterberg's 200-page monograph on his experience as a consultant to a museum<sup>11</sup> which was unsuccessful in attracting a large number of visitors. Zetterberg set out to show how general theory could be applied to a specific problem. In the first part of his book he gives for the benefit of the layman examples of what he considers sociological propositions. He then proceeds to three types of application.

He first analyzes the upper class support the museum gets in terms of available elite theories: the museum provides for a variety of existing elites a place of contact and exchange; for the rising elites it is a

mobility device. As these elites are the main source of money, they create an atmosphere which is not attractive to other strata of the population. Here the sociological analysis is clarified for the managers of the museum but doesn't really tell them what to do.

In the second line of argument Zetterberg uses the theory of opinion leadership, mentioned in the preceding part of our essay. He raises the question: "Who would be influential people outside the elite who might induce others to visit the museum?" His guess is that artists themselves would perform this function of personal influence if they liked the museum themselves. A cursory contact shows however, that the local artists are very hostile to the museum because it does not give them enough opportunity to show their work and become better known. So here knowledge of theory leads to very concrete advice to improve relations with local artists who then in turn might become voluntary missionaries.

Finally Zetterberg uses social theory to give ideas for future empirical research. He draws for example, on the theory of adult socialization where it is stressed that as young people grow up they begin to avoid situations which they consider "kid stuff." It happens that the museum's main contact with the general population is through the schools. Zetterberg suggests that one should study the way the school visits to the museum are handled and whether they in fact promote future resistance.

A negative example of applied social theory was recently claimed by <sup>12</sup> Moynihan. His argument goes about as follows. An "Opportunity theory" going back to Merton was developed to the effect that much deviant behavior among young people results from their being excluded from avenues to success in a culture which puts a premium on success. According to Moynihan

the arguments against this theory were brushed aside by the majority of sociologists who were ideologically wedded to social reform movements. As time went on the theory was expanded -- without evidence -- to the idea that deprived youngsters have to fight for such opportunities because otherwise they would not be psychologically able to utilize them. To break this vicious cycle between deprivation and apathy, programs like Mobilization for Youth were organized to elicit "maximum feasible participation." Again according to Moynihan, the sociologists went beyond their theoretical base; they were not prepared for the political counterforces they had set in motion and which finally destroyed the whole community action movement. The author gives valuable bibliographical leads in the last chapter of his book which, if studied in more detail, should make useful contributions to the basic problem of theory or action. But the actual events also have to be known and it will be worth waiting for forthcoming publications of other participants.

It is not difficult to provide material on the other side of the coin: the contribution which field-induced studies can make to the general store of sociological knowledge. There are such classical examples as the "informal organization" from the Hawthorne studies and "relative deprivation" resulting from *The American Soldier*. The "local-cosmopolitan" distinction comes from the magazine studies mentioned in Part II of our essay. There is scattered evidence that concern with propaganda and advertising has contributed to the systematic study of attitude changes. However a rather careful scrutiny of the sources would be necessary to pin this down.

Probably the best formulation on the relation of theory and application was given by Trist, the head of the Tavistock Institute, when he

wrote for the British government a report on "Social Research and the National Policy of Science."<sup>13</sup> He started out by saying that "the relation between the pure and the applied is different in the case of the social sciences as compared with the natural sciences." He traced the difference mainly to the role of experimental manipulation which is characteristic for the natural sciences while the social sciences can use these methods only to a limited extent.

On the whole he (the social scientist) has to reach his fundamental data (people institutions, etc.) in their natural state and his problem is how to reach them in that state. His means of gaining access is through a professional relationship which gives him privileged conditions. The professional relationship is a first analogue of the laboratory for the social sciences.

Translating Trist's idea into our schema he feels that the P-R-D cycle is likely to be a major and permanent source of knowledge for sociology at large. We are, of course, inclined to agree with his general conclusion:

In a sense, therefore the social scientist brings in practice, however imperfect scientifically, and works back to theory and the more systematic research which may test this and then back again to improved practice.<sup>14</sup>

This feedback between social theory and applied social research does not come about automatically. S. M. Miller has made suggestions as to how the yield could be increased. He feels that the reports written for an applied situation should be systematically searched for results of general significance.<sup>15</sup> This has actually been done by McPhee for a series of studies conducted by Columbia's Bureau of Applied Social Research. In a similar vein, Merton and Devereux reviewed ten years of research done by AT&T. Both documents provide important insights but never were published. They will now obtain wider circulation through the facilities of the present project

The sociologist's resources are, of course related to his role. If he is a consultant or employee of a large organization he might, for example, perform a great service by preserving operational data which could be useful at a future time. If he directs an independent agency, he might persuade a number of clients to support joint studies to reduce costs and increase comparability. Thus place VI in our map, the sociologist's role, deserves some further discussion.

#### The Sociologist's Role (VI)

Typologies of roles have repeatedly been proposed and at the moment little would be gained if we were to add another one. <sup>15</sup> Rather we shall single out a few for comment and then concentrate on a role which now occupies the center of the stage.

The sociologist in non-academic employment has been ably reviewed by <sup>16</sup> Riley. He organizes his own observations and a useful bibliography around three sources of tension:

(1) lack of clarity about the contribution the sociologist is expected to make, (2) differences between organizational and professional goals, and, (3) uncertainty over the social scientist's status in the organization

On the first point Riley seems to feel that each sociologist in the non-academic situation has to find his own salvation. But on the two other items he is generally optimistic. A sociologist in an applied context has experience and commands data which are of interest to all his colleagues and maintains their respect by his publications. On the matter of status, Riley argues that, increasingly, sociologists rise to top positions.

Incidentally, this latter fact has led to some disappointment for us. For the Uses volume an effort was made to obtain contributions from sociologists who had been elected to public office. We wanted examples of situations where their training made a difference in their vote or their decision. The effort was not successful. As far as we know Arnold Rose is still the only one who described his experiences as an office-holder.

The sociologist in academic employment has served in a new role that of the managerial scholar. Empirical social research has become a desired part of sociological education. But such research is expensive and academic departments have found it difficult to integrate into the curriculum. The usual solution has been to create an institute or bureau or laboratory mainly financed by contracts and foundation grants. These bureaus serve two purposes. They turn out significant research and provide training experience for students. The directors of these bureaus have to be competent researchers, successful fund raisers, organizers of work teams which combine the trained and the untrained. Not only is this combination difficult to perform; there is really no place or pattern for the training of this new type of sociologist. Lazarsfeld has reviewed the development of academic research centers in the United States, and rendered a report to UNESCO. In this country the rise of such institutions has for a long time received little attention. But now the BASS report has devoted almost a whole chapter to "Institutes and University Organizations for Research on Social Problems." (p. 193 - p. 200.) Even there, however, the director as a new role for sociologists is not singled out. For schools of education, however, the nature of the role has been analyzed in detail by Sieber.

In the field of industrial management a role has developed which one might call the organizational therapist. As Levitt has pointed out, applied organizational theory centers around the basic idea that the effectiveness of an organization is improved by "people-oriented" management: the way to achieve it is to submit the members of the organization to some kind of T-group training.<sup>20</sup> This leads to a P-R-D situation which is quite different from the examples we have given above. The remedy is taken for granted: training in people-oriented management. The application takes place in the person of the consultant, the training director. What is required is diagnostic skill as to the point in the system at which intervention is most needed. There is also considerable diversity of T-groups from which the prescription may choose. Because this is essentially a training rather than an information-providing process we have at least for the time being excluded it from the scope of our monograph. A detailed description is now available in Argyris' "Intervention: Theory and Method."<sup>21</sup>

One can easily think of other roles which deserve attention such as sociologists who as members of government panels or officers of foundations judge applications for grants. It has been shown that the professional composition of panels affect the direction of their allocation.<sup>22</sup> Sociologists are members of temporary commissions on the state and federal level; they appear in court as expert witnesses.<sup>23</sup>

But none of these situations deserve as much attention as one should give to a new role which for the lack of a better name we might call evaluator. What accounts for the sharp emergence of this function in recent years? Should one be as crude as to say that the Department's new budget system played a role? A Newsletter of the American Educational Research Association (Oct. 1970) seems to think so, in a review that begins with these

words: "This is the year of accountability. More specifically it is the year of performance contracting in education." The concern of Congress with the size of financial appropriations clearly had an influence. Increasingly do they contain the condition that some of the funds should be used for evaluation of the program? Another explanation might be related to the discussion Riley just mentioned. Evaluation gives the sociologist a more clearly defined position. In a paper on client relations in social agencies the author remarks casually: "the ultimate purpose of research is to evaluate the effectiveness of practice."<sup>24</sup> Finally, the intrinsic dynamic of sociological work presses in the same direction, as witnessed by the contribution of Hyman and Wright to the<sup>25</sup>"Uses of Sociology."

The role of the evaluator raises first of all the problem of his location. If he is inside the organization it might be difficult for him to maintain his objectivity. Take as an example the Elementary and Secondary Education Act of 1965. It provides for grants to states so that they can better meet "the special educational needs of children of low-income families." The grant specifies the assurances which states have to give in order to be eligible for such a grant. One of the conditions reads:

that effective procedures will be adopted for making continuing and periodic evaluations of the effectiveness of the programs in meeting the special educational needs of children of low-income families.

Now suppose that a state assigns to the commissioner of education both the task to evaluate a program as well as to execute it. Some preliminary observations show that this is not an unusual situation. How likely is it that the commissioner will pass on to Washington, the source of his funds, a negative evaluation?

Another alternative is to contract with an outside agency for the evaluation. According to newspaper reports, the Office of Economic Opportunity met with new kinds of difficulties which arose. Suppose in a number of states contracts are made with local agencies to evaluate a Headstart Program. Unless there is some over-all plan the methods of evaluation will probably be different. This will limit the ability to compare performances from place to place.

This is not the place to suggest solutions for this organizational problem. At one point Moynihan suggested an office of legislative evaluation to be established by Congress. His main argument is that the Congress and the public want to know whether money is wisely spent. A periodic evaluation of the effectiveness of laws would certainly lead to more uniform standards.

Finally a word about procedures. In the introduction to the Uses volume, the following statement can be found:

The decision process is continuous. Initiation of issues policy choices decisions about means and executions are all involved, and there is no reason why research should come only at the end. Evaluation should take place at many points. One might conceive of concurrent evaluation, even though it is not feasible to carry out a major project every step along the way. (p. xv.)

The idea was, of course not to detract from the merits of more demanding procedures but to add material which would aid understanding.

The following kind of material was suggested:

discarded alternatives; explicit statements on the expectations which were held at the time; what surprised the participants in the actual development; factors neglected in the original decision.

A review of the literature shows that this idea has been raised by other sociologists who were engaged in concrete work for problem agencies. Rosenfeld, discussing the problem of narcotics among juveniles stresses the necessity of careful recording of all steps in an action program. She points out that many sociologists engaged in work with agencies feel that only success is worth mention and mistakes are to be shamefully glossed over or covered up. Yet a careful analysis of how and why things have gone wrong can be extremely profitable.

Specifically in the field of social action, failures point to the need for re-examining the premises of action more carefully and often pinpoint an important but overlooked condition in the situation. It is clearly our duty to explain this to heads of agencies and their financial backers and convince them that by keeping adequate records and periodically analyzing their mistakes and failures, they will provide a most enlightened and forward-looking attitude which will reflect most favorably on their management of their agencies.

Miller in a paper on Center-City also advocates this type of evaluation. He thinks that the real importance of demonstration projects lies in the chance of developing what he calls "tentativeness in continuity." He feels that traditional rigid "before and after" tests are insufficient and often unfeasible:

Social chronicles and analysis, based on observations and records, would be extremely useful in studying social change in particular. It would provide sharp insights into community life. The sociological study of organizations would be enhanced by the analysis of conflict over changes in social agencies.

Implied in many of these comments is the basic importance of demonstration projects if properly exploited for analytical purposes. A witness to a governmental committee gave as an outstanding example of basic research the work done by Cornell University in an Hacienda in Peru. It is indeed impressive, but for a different reason: it is a demonstration project

carried on and concurrently evaluated over a period of ten years.

The most detailed discussion of program evaluation comes from Carol Weiss.<sup>30</sup> She gives vivid examples to make essentially the following point. A program presupposes a causal chain along which its goal is to be reached. The components of this chain should be singled out and their effectiveness should be tested separately. This permits us to consider alternative strategies for minor steps and avoids having to accept or reject the whole enterprise.

Thirty-five years ago "personal documents" as sources of sociological knowledge<sup>31</sup> were a favorite topic of debate. Today applied research brings to the fore the "utilization case," the careful description of the role sociological knowledge did or did not contribute to a practical decision. Some ideas on the methodology of such material are discussed in Document H of the Columbia-ONR project.

#### Basic and Applied (V)

Through our map we gave a fairly precise definition of what we mean by "applied research." Still a grammatical demurrer is appropriate. In the Latin language it is possible to describe an object in terms of what is about to happen to it. The gladiators who greeted Caesar were "morituri" -- about to die. We should be able to talk of "scientia applicatura" -- research which is meant to be applied. The phrase "field-induced" describes the matter not too badly, but even this term is not likely to gain currency so we might as well accept "applied research."

This is not as easily done with its linguistic counterpart "basic research." The intended meaning is "non-applied." This is supposed to refer to work motivated by the scientist's curiosity and without any outside inducements. Such autonomous research undoubtedly exists. It would be interesting to pursue how sociologists experience a "calling" for a specific problem, and why it is assumed that following one's inner voice has such high esteem. One who has observed the often painful search for a dissertation topic may feel that autonomous research sometimes creates as many difficulties as the field-induced variety. But this is a topic far distant from our own program. Here we want to discuss how supported autonomous research is related to our main task, to the mapping of a theory of applied work.

It is probably impossible to find a clear-cut case of unconditional patronage. It would really consist of a rich man donating funds which would be distributed by lot to members of the American Sociological Association with the proviso that any recipient could use the money for any intellectual pursuit which, by common agreement, would be accepted as sociological. In the real world every patron acts within the framework of a formal or informal charter: to fight juvenile delinquency; to promote the happiness of mankind; or to increase literacy. This requires some machinery for the decision on awards, which, in turn, affects the profile of autonomous research. It will never be known how many topics have been studied only because of the availability of funds. But no one can believe that an invisible hand makes for a perfect machinery of autonomous curiosity and corresponding patronage.

This is not meant as a cynical observation. Manpower and funds are in limited supply, and priorities have to be assigned in some way. The various arrangements by which this is done have different merits and disadvantages. In all cases, however, considerations of utility will enter sooner or later. Alvin Weinberg, a prominent natural scientist, carries this point of view to the highest intellectual level. <sup>32</sup> In one of his articles on "Criteria for Scientific Choice" he makes the point that society will have to decide which type of basic natural sciences they want to support: microbiology high energy physics, etc. His position is that "other things being equal that field has the most scientific merit which contributes most heavily to and illuminates most brightly its neighboring scientific disciplines "

Before exploring the implications of this whole argument one should keep in mind how far support has penetrated the bastion of intellectual autonomy, the university. As one indicator we have inspected the articles in the American Sociological Review and the American Journal of Sociology for the years 1949, 1959 and 1969. The following table classifies them according to whether they report empirical studies or whether they deal with theoretical or sociological topics. The empirical studies were further subdivided into whether or not the author mentioned special financial support. By support we mean funding from outside agencies, not including faculty grants given by the university itself. The figures are as follows:

	1949		1959		1969	
	ASR	AJS	ASR	AJS	ASR	AJS
<u>TOTAL NUMBER OF ARTICLES</u>	58	42	52	48	48	42
Non-empirical	38%	36%	48%	42%	27%	17%
<u>Empirical</u>	62	64	5	58	73	83

	<u>Empirical Papers Subdivided</u>					
	ASR	AJS	ASR	AJS	ASR	AJS
Outside Sponsorship	43%	12%	52%	21%	68%	52%
University Support	9	8	15	21	6	20
Support not mentioned	48	80	33	58	26	28
	100%	100%	100%	100%	100%	100%

The increase in acknowledged sponsorship is very marked. In passing we should mention a few other findings. Among the non-empirical articles, those dealing with theory outnumber the methodological papers consistently by a ratio of at least 3 to 1. In the rarer cases where such an article mentioned sponsorship, it is more likely to be on methodology. The footnotes also show an increasing number of references to specialized university institutes within which the study was carried out (Center of Urban Studies Institute of Human Development, Center for Comparative Studies Poverty Studies, etc.)

A second source is a study by Caroline Persell who for purposes unrelated to this report, collected the names of all authors of articles on educational research during 1968 in any one of 113 journals. For these 713 authors she obtained detailed information on the circumstances under which the topic for the specific article was chosen. It turned out that well over half of the papers had received some monetary support, and this was more pronounced on the professorial than on the student level. Omitting cases on which information is missing, the figures read as follows:

	FUNDS CONTRIBUTED		
	Yes	No	
Paper grew out of student work	156	128	284
Paper was written in professorial setting	327	102	429
	483	230	713

Persell's study focuses on the quality of the papers which was ascertained through ratings by a group of judges. No difference in quality was found between funded and unfunded papers.

Outside the university a variety of organizations carry out more or less permanently supported conditional basic research. We mean by this research which on one hand satisfies the need for freedom and intellectual satisfaction important for the intellectual and on the other hand accepts certain limitations as to subject matter and maybe also helps to overcome the anxieties some sociologists feel when they are faced with the lack of structure in their field. Three kinds of arrangements at the moment best characterize such blending of autonomy and utilization of patron and client. For the first no name is well established. In government agencies one is likely to talk of "mission-oriented basic research." The Navy operates ships and therefore is interested in social interaction within relatively small groups; the Department of Agriculture wants to improve farming and therefore supports work in the diffusion of innovation. In the industrial field many companies distinguish three departments: basic research, applied research, and development. Similar distinctions come up in many other terminologies. The term mission-oriented-basic research seems most appropriate although it sounds somewhat grandiose when applied to basic research in the breakfast cereal industry.

Merton has subjected this whole arrangement to searching analysis. He makes the point that the totality of conceivable research can be divided into sectors, each having "potentials of relevance" for different organizational goals. Mission-oriented research supports "those lines of inquiry in basic research which so far as can be judged will have the greatest degree of relevance for a particular organization." His main example is a life insurance company which would undertake work on individuals' time perspective their attitude towards death, etc.

A somewhat different situation has developed in what one might call social problem agencies: many narcotics commissions, crime commissions and other such agencies have a permanent research staff that would like to do research as relevant to concrete problems as possible. Unfortunately however, no one really knows how to eradicate these social evils and consequently no one can tell what research would be most useful. The allocation of funds is determined through a mixture of public pressure the predilection of commissioners and the methodological biographies of the research staff. How, over a period of time, is it decided what research to do and how, in turn, does the research affect the ongoing activities of the commission? Such an inquiry would shed much light on the P-R-D cycle because it would show how it breaks down at many points and is resumed at others.

A third type of arrangement goes now under the name of policy centers. Originally this referred to the activities of loose circles of academicians all interested in the same subject matter, say, foreign affairs or public administration. In recent years more formal organizations have developed.

The Defense Department was active in such enterprises for example the RAND Corporation, and has indirectly spurred the establishment of private centers, such as the Hudson Institute. Recently, the Office of Education has begun to support policy centers in its field. These centers differ from the other two arrangements in that they may question more radically the very goals which their client pursues. No one can advise a life insurance company not to sell insurance or a narcotics commissioner not to worry about addiction. But a policy center concerned with labor problems might question whether full employment is an absolute permanent feature of the economy. The policy problem is to analyze the social and economic conditions which would make this tolerable and equitable.

Each of the three types of arrangement probably encourages a different trend of research. A first effort to explore this has been made by Crawford and Biderman.<sup>34</sup> They propose that for classificatory purposes one should consider, at the very least, the number of variables introduced, the complexity of causal connections taken into account, including history, and the "number of possible parties whose differing interest standpoints are relevant." These authors also distinguish various functions which knowledge can have in the decision process. They would describe our approach as an "engineering" model and they do not think too highly of it. Their favorite is the "enlightening function" when the contact with the social sciences changes the layman's ideas about human desires and human possibilities. The author's description of this function is impressive (p. 239), but they set up a straw man where they use it to downgrade the "social engineer." Undoubtedly an educated businessman or government

official acts differently as a result of many popularizations he had read. But the question we would raise is: when he faces a concrete problem in what specific way does he act differently? He does have to make a decision. Only, instead of using a specific study or instead of calling in a consultant, he draws on his impressions as an amateur social scientist. This obviously brings us back to the P-R-D cycle where the R now stands for some accumulated knowledge the origin and validity of which are not easily traced.

Too high a level of aspiration can endanger the foundation on which we have to build. In an insightful review of the "Uses of Sociology" Lee Rainwater complained that the book "does not really tell us whether and to whom that knowledge has been important" and how it has been involved in a particular "work-a-day world." It is the failure of the field that it does not work on "an important and immediate task."

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Sociologists must learn more about how sociology is used and misused. To learn this will require taking the uses of sociology as an object of study rather than a basis of professional backpatting. Indeed, if the using itself does not become a more self-conscious focus, the impact of the field will likely remain considerably short of its promise.

Where else can we start this exploration than by analyzing in detail the interaction between sociologists and men of practice? We can move from there into broader connections but it would be a mistake to underestimate this first step. Our essay is meant as a report of where we stand in this effort.

FOOTNOTES TO PART III.

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