

POLICY-MAKERS USE
OF SOCIAL SCIENCE KNOWLEDGE:
SYMBOLIC OR INSTRUMENTAL? 1)

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1. Introduction

The concept of legitimation recently gained some popularity in connection with the attempt to theoretically locate the symptoms of post industrialism or late capitalism (e.g. Schaar 1969; Luhmann 1969; Offe 1972; Habermas 1973). In the literature on the utilization of social science knowledge the concept has long been known to stand for the position that decision makers mainly seek research results to back up convictions they already held and decisions they have already taken. The second position equally popular defines utilization in terms of the meaning it has in natural and technological sciences; it expects political decisions to be replaced by scientifically derived objective necessities (Schelsky 1965). Both positions seem equally extreme in their interpretation of the utilization process; and both positions are equally speculative insofar as there are hardly any data available to constitute the ground for one or the other thesis.

The present paper seeks to examine both assumptions by drawing from 70 face-to-face interviews done in 1974 with medium level decision makers in Austrian federal and municipal government agencies (all located in Vienna) who were directly involved with contract research. Since there are no lists of the universe of government officials funding social science projects the study cannot claim to be representative for the population; however, extensive search processes on the part of the project teams suggest that the persons identified constitute a more or less complete set of government contractors in the city of Vienna, where more than 50% of Austrian social science government contract research is financed.²⁾ The study included only government officials

²⁾ Exact figures are not available at present

who had (during the last few years) financed at least one project finished at the time of the interviewing in a social science discipline. The distribution of projects over disciplines is as follows: sociology (51%), economics (24%), educational sciences (13,5%), urban and regional planning (4,5%), political sciences (4,5%) and others (2,5%). The frequency of projects classified as sociological reflects the predominance of social research and opinion surveys in government contract research. This predominance should be kept in mind when reading the analysis that follows.

The present paper relies on both, responses to open ended questions recorded on tape and answers given to standardized closed ended phrasings. Furthermore, responses from government officials are in a few cases supplemented by data stemming from a survey of 628 Austrian social scientists done in 1973/1974 which included a set of questions equivalent to those that had been asked to the decision makers. Both surveys had been done as part of one larger study; hence, for the two populations certain parts of the questionnaires have been constructed to match each other. The same definition of "social science" which centers around the disciplines mentioned above (including psychology, contemporary history and business administration) was used in both cases. The population of social scientists analyzed for the present purpose excludes those researchers who had not done a contract research project during the last few years.

2. Utilization interests of government sponsored research:
four functions of social science knowledge

When trying to categorize the diversity of utilization interests ³⁾ in relation to which government officials had initiated or sponsored a project we arrived at identifying four functions which social science results seemed to serve in response to certain problem areas: a census-functions; a motivation-function; an acquisition-function and a rationalization-function. All functions showed different patterns of characteristics with respect to the following dimensions:

- the question whether the definition of data to be supplied remained with the social scientist or was provided by the sponsoring agency,
- the question what kind of data were involved: "subjective" opinions, attitudes, intentions, etc. or "objective" mostly quantitative indicators not relying on the single person as a source of information
- the level of methodical and technical requirements connected with the approach

3) The analysis presented in this and the following paragraph is based upon two general open ended questions as to how the project sponsored did come about and as to how the project results were finally utilized and whether this utilization was in accordance with original expectations. In the context of those general questions a series of more detailed questions were asked to the respondent: "What kind of interests did play an essential role in initiating the project and what expectations did those supporting the project have?"; "To what degree have expectations been clarified to the researchers or how specific were the demands made upon the researchers?"; "How could the results of the project in fact be utilized?"; "Are there any practical measures which were taken on the basis of the project which would not have been taken else?"; "If yes, what were the effects?" etc.

- the degree of articulation and elaboration of cognitive interests on the part of the sponsoring agency
- the degree to which utilization responsibility was centralized in one person or office as opposed to being dispersed over several hierarchical levels and positions
- the role of the research results in actual decision making processes.

With a view to those dimensions, the four predominant functions seemingly served by government sponsored social science research can be described as follows:

(1) The census-function relates to all those cases in which the social scientist takes on the role of a census bureau on account of a striking deficiency of the documentation and information-infrastructure. In other words the social scientist is more or less reduced to mere information-gathering activities to fill in the (mostly numeric) data-blanks in specific planning and programming areas. By implication it follows that the cognitive interests on the part of the sponsoring agency are articulated specifically and transmitted to the social scientist in form of concretely defined information demands. In accordance with this the sponsoring agency sometimes supplies a ready-made questionnaire in which case the methodical requirements of the project are very limited and center around the knowledge of interviewing procedures. The information gained is utilized by having it built into a decision-establishing process or by simply distributing the documentation obtained to those who are concerned or interested. As an example think of internationally standardized statistics as to every educational science project done in a country, an information gathered - with slight variations - every year.

(2) The motivation-function⁴⁾ refers to the hypothesis that the social sciences in post industrial societies take on the task of helping to motivate members of society to adequately participate in the fulfilling of certain system requirements. By finding out motivating expectations, attitudes and values the social scientist assists in designing planning strategies and decision processes in such a way as to make the outcomes acceptable and attractive to society members. To show what we mean let us cite a few lines from one of our respondents who describes the project he initiated:

"... we are doing traffic planning, and there it obviously is one of our greatest problems to find out how the potential user of the traffic means acts in relation to those means, how attractive traffic means have to be in order to be accepted (...). It is mainly the motivations of the users of different traffic systems which we want to get to know, and which we would like to take into account in the planning of those traffic systems, in order so to say to plan in accordance with the market, or in order to be able to control the behavior of the traffic participants through offering those traffic means which seem to be valid to the city."

The following citation illustrates that such utilization goals often constitute the exclusive interest in social science results on the part of government sponsors:

"... (the goal of the sponsoring agency was) ... to establish a need-oriented sponsoring program, focussing especially on surveys. Surveys of behavior patterns of the population. Effects of planning measures taken, opinion polls as far as the degree of satisfaction with apartments, lodgings, is concerned, opinion polls on the degree of satisfaction with pedestrian regions ...".

4) The concept "motivation"-function has been chosen in analogy to the "motivation-crisis" described by Habermas (1973: 106 ff.) as one of the characteristic problems of late capitalism. See p.16 of the present paper.

There are several characteristic features of such projects: they are usually done by sociologists, psychologists or political or educational scientists to whom the concrete definition of the information sought for is left more or less completely; methodical requirements vary with the approach adopted, but are typically not too high as far as the sponsoring agency's needs or demands are concerned; the sponsoring official wants to get out of the project at least some orientation or structuring of a complex problem area which he often does not know much about; results are mainly utilized by being "softly" introduced in decision preparation processes according to their perceived validity - they are almost never just "applied" as they stand; utilization responsibility is typically difficult to localize because of being spread over various hierarchical levels and positions in the government bureaucracy; finally, it should be noted that nearly 50% of the projects described here belong to the motivation function; a fact which may be telling something about both, the ubiquity of the problems underlying this function and the adequacy of the social sciences for handling some as opposed to other problems.

(3) Cognitive interests underlying the third or acquisition function are in a way very similar to those covered by the motivation function. However, there is one special feature which warrants separate treatment of the projects relevant here: that is the typically direct translation of research results into practical measures.

To understand the goals of this kind of social science research let us cite again one of our respondents:

"All this (the project results) serves as the basic material for our acquisition policy, that is all that has to do with winning new clients and (with our) communication policy, (that is with) target group oriented addressing. As soon as I know what my target groups look like I can address them much better ...".

This is the traditional problem area of commercial market research related to the winning of voters, readers, voluntary helpers motivated to go to developing countries, etc. The definition of the information asked for typically remains with the sponsoring agency which usually has quite specific cognitive and utilization interests: the development of a strategy which stimulates a specific response on the part of the target group in question. It goes together with the typically direct application of results that utilization responsibility is not dispersed over several hierarchical levels or positions, but remains with one person or one office which can be charged if result application is not successful enough. This is another crucial difference to all the other functions where typically the career or position of the sponsoring official is not made dependent upon the success of a research utilization strategy adopted by him.

(4) The concept of rationalization-function has been chosen to characterize the last kind of utilization interest identified in our population. It can in general be described as an interest in increasing the planning and programming capacity of government agencies in order to allow them to deal more effectively with socio-economic crises and impediments to growth while relying exclusively on "objective" data. In a sense the motivation-function presented above can be considered as a subcategory of the present function specializing on subjective motivations and expectations of society members. The problem areas included here range from the development of new accounting-schemes to improvements of didactic technologies and to prognoses of socio-economic development trends. Economic interests predominate, but do not exhaust the topics. As in the case of the motivation function, the final definition of the information sought is left to the social scientist; and utilization of results is marked by their diffuse,

selective inclusion in decision-preparation processes. In cases of routine-prognoses based upon regular market observations projects show some similarity to those classified under the "acquisition" heading. In contrast to the latter the information gained is, however, usually not put into practice directly.

It is interesting to note that exclusively concentrating on factual "rationalization" without taking into account subjective motivations and expectations does create problems in cases where consumer interests of various groups of the population are directly involved. Some of the respondents sponsoring such projects are perfectly aware of this dysfunctionality, which is to a certain degree enhanced by discipline-oriented division of labor among scientists:

"In a similar project in the future I would at any rate change my strategy: it seems to me essential to include the opinion of those who are hit by a planning measure, the opinion of target groups in a district, and of their representatives. This has been lacking in the present study completely and now would not help any more. They (those concerned by political decisions) have to be directly confronted with it, that is, then it could be the case that goals and policies change, you have to face this, then goals and policies have to be more flexible."

Krause (1968) assumes that this flexibility of goals and policies required might be the basic reason for decision makers' tendency to avoid participation strategies, even if anticipatory as in the case of including subjective expectations and motivations in a rationalization project.

Table 1 summarizes the various characteristics of the different utilization-functions social science results seem to serve. When interpreting the frequencies introduced it is important to keep in mind that more than one function may be present in one project and that it is only the predominant function which has been counted. Correspondingly,

the feature listed characterize only the simple case in which there is only one function present. Furthermore it should be noted that the frequencies introduced are not representative for all social science projects initiated by government utilization interests in the population. As an example, projects done by government financed research units or research institutes are not included here. This may account for the fact that economic projects (mainly pertaining to the rationalization function) seem to be underrepresented here, while constituting almost half of all social science projects currently done in Austria (cf. Knorr et al. 1975b). What is represented here is the distribution of interests of single government sponsors (or government agencies represented by single sponsors) who finance single social science projects out of certain utilization needs or expectations. (See Table 1, p. 10.)

3. The role of social science research results in decision making processes.

So far we have presented a typology of functions served by social science knowledge in relation to actual or perceived problem areas. The utilization functions described do, however, not allow one to specify the concrete role social science results are playing in actual decision making processes centering around the respective problems. As an example, financing a research project on a specific problem may replace decisions which should be taken on the problem, or results may be used or established selectively with a view to legitimize decisions which are already taken. Since the different roles played by social science knowledge in decision processes are in principle independent of the utilization functions specified - although empirical patterns of higher frequency do emerge - the typology of utilization

Table 1: Utilization functions of social science results and their characteristics as derived from the reports of government sponsors

Characteristical feature	Census-function (N=11)	Motivation-function (N=30)	Acquisition-function (N=5)	Rationalization-function (N=19)
Level of methodical requirements	low	low	higher (precision)	higher (data-manipulation)
Kind of data	subjective or objective	subjective	subjective	objective
Origin of the definition of the information	sponsoring agency	scientist	sponsoring agency	scientist
Degree of elaboration and articulation of cognitive interests	specific	vague	specific	vague; in case of routine-market observations specific
Localization of utilization responsibility	dispersed	dispersed	centralized	dispersed
Role of research results in decision processes	decision-preparatory	decision-preparatory	decision-constitutive	decision-preparatory
Function of research results	replacing of a deficient structure	anticipatory motivation and legitimation	target-group oriented addressing	technical rationalization of planning
Percentage of cases ⁵⁾	17%	46%	8%	29%

5) 5% of the projects could not be subsumed under one of the functions isolated, mainly because there was no spelled out utilization interest.

functions needs to be supplemented by a typology of decision-functions capturing the differing goals and needs fulfilled by social science results in decision making processes.

If we explore for a moment those needs beyond the substantial and tactical interests which must be there on the part of a decision maker in order for a decision to be taken, we will soon come across two requirements accompanying most decisions: the requirement of a certain "ground" or information base to relate the decision to empirical reality, and the need of protecting the decision against non-acceptance or averse interests (which could of course be achieved by sheer use of power). As it turns out from an additional qualitative analysis of the depictions of our respondents as to how the projects they had financed were made use of, social science knowledge seems to meet those demands primarily. In the following paragraph we present 4 functions as derived from our recordings, decision function 1 and 2 referring to the first and decision function 3 and 4 relating to the second requirement:

(1) Social science results serve as an "information base" or "ground" for actual decisions to take place. In other words, the data (especially in the case of the census-function) or arguments (especially in the case of the motivation- and rationalization-function) supplied by the social scientist enter into the preparatory stage of a decision where they influence the final outcome of the process to various degrees. We call this the decision-preparatory role of social science results.

(2) Instead of being "entered" into the decision-preparatory stage social science results can be directly translated into practical measures and action strategies. As noted by

Caplan (1975: V) it is this kind of more or less direct application of knowledge which social scientists strive for. In the extreme case the original decision maker in charge with all his deciding experience and capacity becomes redundant in front of scientifically established proposals of what to do about a problem - a situation envisaged by earlier theories of technocracy.⁶⁾

In our data, project results are typically used in such a decision-constitutive manner only as far as the area of acquisition problems is concerned. Clearly the most enthusiastic statements in our population with regard to the usefulness of social science results do refer to marketing research and advertizing strategies initiated by acquisition interests:

"... those scientific disciplines are on the one hand underestimated, people believe that they achieve better results when relying on their intuition. One does not realize the true character of the social sciences, that is to assist in the solution of market oriented problems."

(3) There is a third way in which social science research results play a role in the activities of government administrators: that is as a substitute for a decision or a problem solution which is required. By initiating, distributing and publishing a research report the government official in this case tries to signalize to those concerned that something is done about the problem, while proper decisions and measures which should be taken are being postponed or neglected altogether. This is what is

6) For such a theory of technocracy the politician of our time is "not a decision maker or governor, but an analyzing, constructing, planning, realizing person. Policy in the sense of a normative consolidation of intentions is factually lost in this area" (Schelsky 1965; translation by the author of this paper).

sometimes meant when saying that the social sciences play a key role in legitimating decision makers activities while being ignored in the actual decision making process.

(4) More often, however, it is the fourth function of social science research results established in our data which is identified with the "legitimating" role of the social sciences: here the social scientists' data and arguments are used selectively and often distortingly to publicly support a decision which has been taken on different grounds or which simply represents an opinion the decision maker has ever been holding. Let us cite in this respect the thesis of Garfinkel (1967: 114) according to which the crucial difference between scientific and nonscientific (everydaylife) rationality lies in the fact that in the latter case decisions are made intelligible and legitimized only after the resolution while in the former case the rationality of what is decided has to be established before a measure is taken. We are calling this the legitimating role of the social sciences and cite the judgement of one of our respondents which is marked by cynicism and resignation resulting from some experiences with this kind of social science result utilization:

"There is a kind of fiction in the whole thing which we all play, that policy is becoming 'scientific' through research. That arguments and results from social science studies influence legislation. In reality this is not the case, because in legislature such people are asked who are at any rate convinced to know what's going on, because one has to take serious those who hold a chair in official committees and speak for the records and out of the window and who bring with them all their prestige, the power of their organization, out of which they come. Those who cry themselves for research results in order to back their arguments; but I believe it is always like this: you've got the argument. Then you look for somebody to prove it for you. Then you stand up and say: Study XY shows, too, that ... exactly as you think things are, etc."

Such a policy only superficially made scientific (Kreutz 1970: 20) is, as Downey emphasizes correctly (1967) an ideological means of domination. For a science-based policy the claim of a science-based policy is substituted, a claim which is sufficient to enhance the development of the image of a modern and progressive government and at the same time provides a means for effectively protecting and backing political action strategies.⁷⁾

4. The legitimating capacity of the social sciences

The thesis of the mainly legitimating function of the social sciences frequently represented in the literature (compare Edelmann 1964, 1971; Downey 1967; Kreutz 1970; Lécuyer 1970; Offe 1972; Daele and Weingart 1974) should be discussed in the light of the following arguments:

(1) Claims made as to the "scientific" basis of some measures or decisions draw their legitimating effectivity from a general acceptance of science as yielding objective (not biased by personal interests) and cognitively valid (logically consistent, of high empirical content and explanatory value) informations. Needless to say, the current state of the social sciences only allows for a very weak and limited fulfillment of both requirements. There is no consensus as to what constitutes social science

⁷⁾ We did not attempt to derive precise quantitative indicators for the various kinds of utilizations presented here from the answers to our open ended questions since the questionnaire did include standardized, quantity-oriented questions for most of the "qualitative" topics (parts of the results of which will be presented later on). "Qualitative" answers were used mainly for deriving classifications, as background information to facilitate interpretations, and for discovering "grounded" theory.

"knowledge" among social scientists, and more important, there is no unquestioned acceptance of this "knowledge" on the part of clients and users of these sciences. Several of our respondents commented upon the uncertainty of social science results:

"... in the social sciences one is confronted with results which one does not have to accept without question as in the case of natural sciences or in the case of technical or biological things; rather one can check or seemingly check them. One can say to oneself: just a moment, there he (the social scientist) is right, there he is not right ... that is the case, that is not the case. One does much more evaluate critically, can evaluate critically, what one gets ...".

(2) There is another - social - aspect which might in addition to their preparadigmatic (Kuhn 1970) theoretical and methodical inadequacies influence the legitimation capacity of the social sciences. The public acceptance of social "science" disciplines, especially as far as sociology and the political sciences are concerned, has suffered a lot from their being identified with society-critical and revolutionary movements in the recent past. One of our respondents comments:

"... I believe that the student movements of the sixties did have important impacts on the further development of the social sciences, especially, I think, you have now got a rather general distrust against them ..."

We have shown earlier (Knorr et al. 1975a) that about 45% of the actual users of social science results interviewed by us do see a direct connection between the institutionalization and current situation of the social sciences on the one hand and the student movement on the other. Must it not be considered an indicator of the legitimitative deficiency of the social sciences if they did not succeed so far to make their critical activities intelligible to a general public as a genuine and legitimate interest of their own?

(3) In addition to the cognitive inadequacy and to their association with politically rebellious or anarchic groups in the mind of the public there is a third factor that should be taken into account when trying to assess the legitimation potential of the social sciences: the social sciences deal with phenomena about which the average citizen does have an "opinion" of his own and which he deals with in his everyday activities. In addition to the fact that social science concepts are deeply rooted in our everyday language this creates a situation where - contrary to the natural and technical sciences - the non-expert feels perfectly legitimized to interpret, criticize and dismiss the results of the expert social scientist. If this is the case - and we believe that every social scientist who ever had to do with the user of his or her results will know this reaction - then the legitimating capacity of the social sciences must again be called into question.

5. The motivation-function and problems of legitimation in post industrial societies

It is our contention that the thesis of the primarily legitimative role of social science research results has to be replaced by the thesis of the instrumental use of social science results for the purpose of securing legitimacy to political decisions. It goes without saying that in public relation work of government bureaucracies the social sciences are used to a certain degree instrumentally as a means of "ideology-planning" (Luhmann) as well as sometimes symbolically in the sense of mere claims made as to the scientific basis of the measures prescribed. The predominance of motivation problems as articulated by our respondents⁸⁾ and their being connected

8) This holds especially if a more narrow definition of "social sciences" excluding economics is applied.

to decision-preparatory research utilizations suggest that there is a special need for instrumentally applicable social science research induced by a growing lack of legitimation of political action. The causal chain starting with state interferences and leading through a decrease in legitimation to motivation crises has been analyzed to a certain degree by current theories of post industrial societies. (cf. Offe 1972; Habermas 1973). According to them there is an increasing consciousness as far as growing state-interferences with the concrete conditions of the life of the individual are concerned. With a view to the increase in government planning and the consecutive crises in socio-economic development traditional norms and values increasingly loose their meaning and their motivating strength without being replaced by functional equivalents. There is a growing discrepancy between the motivation capacity of our socio-cultural systems (especially as far as intrinsic achievement motivations, individual property values and the free market ideology are concerned) and the need of motives which guarantee the continuity of societal subsystems. The loss of meaning is replaced by consumer-oriented controlled-by-success expectations which the political system has to fulfill, threatened by a loss of legitimacy in case of failure.

It is exactly there where the use of social science research enters the stage: as an instrument of anticipatory legitimation they are used to identify and predict the above mentioned expectations in order to have them included from the beginning in planning and programming stages. If our thesis is correct then vast areas of the social science have taken on the task to transplant participation as an "early warning system" (Offe) of democratic planning from the level of communicative debate to the level of technical anticipation in order to reduce the danger of overparti-

cipation and of the organization of those concerned. At a second stage, the anticipatory legitimation function of the social sciences is continued in form of the ideology-planning mentioned before, an attempt to effectively structure public opinion with the help of market and opinion research. Both kind of utilizations - subsumed here under the motivation - and acquisition-function-largely outnumber the mere symbolic use of social science results. In projects corresponding to the rationalization-function subjective expectations are ignored; hence, this area of social science research can only indirectly be subsumed under what we have called anticipatory legitimation. Here, too, however, the instrumental use of social science results seems to predominate. The instrumental use we are talking about, however, refers much more to the decision preparing than to the decision constituting role of social science knowledge.

6. Extent of utilization reported

The thesis of a primarily instrumental use of social science is in accordance not only with the utilization interests as inferred from the responses of government officials, but also with the judgement of Austrian social scientists who worked on government sponsored projects during the last few years. According to their opinion the demand for "data" and for "control" (van den Daele and Weingart 1974) largely outnumbers the symbolic-legitimative utilization interests, as shown in the following table:

Table 2: Dominant utilization interest taken on the part of the sponsoring agency in the project as reported by social scientists⁹⁾

Dominant interest	% Respondents
Demand for data (decision preparatory-function)	43.7
Demand for control (decision-preparatory and constitutive function)	19.0
Demand for symbolically "applicable" results (decision-legitimative function)	11.1
Long term financing or pure sponsoring	26.2
Total	100.0
(N)	(259)

Utilization interests of sponsors as reported by social scientists seem to be especially relevant to us since they constitute a criterium independent of the responses of the users themselves.¹⁰⁾

9) The wording of the question was as follows: "As far as you know which interest predominated on the part of the financing organization?" with the following answer categories: "Pure sponsoring without utilization interests" (1); "Financing of research which could in the long run become relevant for the financing organization" (2); "Preparation of reports and situation-analyses as a basis for decisions" (3); "Objective support for measures and programs intended" (4); "Proposal of solutions and alternatives for present problems" (5); "Derivation of practical action-prescriptions to solve detailed problems" (6); Category 1 and 2 have been combined into alternative 4 of the table; Category 5 and 6 into alternative 2; and category 4 was intended as an operationalization of legitimative interests.

10) Responses by government sponsors and social scientists do not refer to the same projects, but have been collected as independent average opinions of the corresponding subsystem. The comparison of the opinions is based upon the assumption that there are no systematic biases as far as the selection of projects described on the part of the sponsors and social scientists is concerned.

Further indirect proof for the instrumental usefulness of social science results can be found in the responses of our government officials as to the extent social science results changed their previous opinions and fulfilled their expectations:

Table 3: Extent to which expectations have been fulfilled and opinions have been changed through social science research results on the part of government sponsors ¹¹⁾

Extent	Fulfilment of expectations (% respondents)	Change of opinion (% respondents)
Expectations not fulfilled or no change of opinion	1.6	34.5
Expectations only moderately fulfilled or slight change of opinion	6.2	22.4
Expectations fulfilled to a medium degree or medium change of opinion	18.8	34.5
Expectations widely to completely fulfilled or strong to very strong change of opinion ¹²⁾	73.4	8.6
Total	100.0	100.0
(N)	(64)	(58)

¹¹⁾ The wording of the questions was as follows: "To what extent did the researchers fulfill - as far as you know - the expectations of the following persons with respect to the project?" where one category referring to the respondent himself ("your personal expectations as to the project") was provided. The second question ran: "To what extent did the below mentioned change their opinion about the problem on account of the project results?" again with one category ("you yourself") referring to the respondent. In both cases answers were to be given on five-point Likert-Scales.

¹²⁾ It is interesting to compare the percentage of respondents whose expectations have been widely or completely fulfilled (73.4%!) with the percentage that strongly or very strongly changed the opinion about the problem on the basis of the research results (8.6%!). The discrepancy suggests that expectation in social science research results are, from the very beginning, not too high.

As can be seen from the table, almost 3/4 of the government sponsors consider their expectations as widely or completely fulfilled. More important, about 2/3 of the respondents (65.5%) claimed to have at least slightly changed their opinion about the problem on the basis of the results of the corresponding social science project; somewhat more than 1/3 still claim a medium degree opinion change. It seems plausible that results that change the opinion of a client do also influence the planning and deciding process in a problem area in which he is involved. Let us look at the extent of self-reported use of social science results by government sponsors:

Table 4: Extent of utilization of social science research results as reported by government sponsors¹³⁾

Kind of utilization	Extent of utilization (%)			Total	(N)
	not at all	slight or moderate	strong or very strong		
Translation into significant practical action (1)	37.9	37.9	24.1	100	(58)
Information base and support for measures and programs intended (2)	14.3	26.8	59.0	100	(56)
Distribution of results within the organization of the sponsor (3)	15.3	45.7	39.0	100	(59)
Sponsoring of further research (4)	38.2	9.1	52.7	100	(55)
Invitation of the scientist for advising or consulting purposes (5)	46.4	23.2	30.3	100	(56)
Other (6)	82.0	10.0	8.0	100	(50)

If responses of government sponsors can be believed - and depictions of utilizations stemming from open ended questions do give the impression that they can - there is only a minor

¹³⁾The wording of the question was as follows: "How were the results of the project utilized in the following respects"
(continued on p.22)

degree of non-utilization of results; indirect utilizations of results as information base or information support do predominate, however. It is important to note that the first 3 kinds of utilization listed in the table as well as the last 2 items do correlate much higher with each other than items from the first set with those of the second set:

Table 5: Intercorrelations between different kinds of utilizations of social science results as reported by government sponsors (Pearson's r's)

	Translation into significant practical action (1)	Information base and support for measures and programs intended (2)	Distribution of results within the organization of the sponsor (3)	Sponsoring of further research (4)	Invitation to the scientist for advising or consulting purposes (5)
Translation into significant practical action (1)					
Information base and support for measures and programs intended (2)	.71				
Distribution of results within the organization of the sponsor (3)	.65	.69			
Sponsoring of further research (4)	.36	.38	.30		
Invitation of the scientist for advising or consulting purposes (5)	.31	.32	.21	.54	

where the respondent was provided with the categories included in the table. He was supposed to answer on a five-point Likert-Scale running from "not at all" to "very strongly".

This seems to imply two alternative action strategies of potential users: social science results are either directly translated into practical measures and used as information support and made known in the organization in question or they lead mainly to the sponsoring of further research and to further "consulting" of the scientist. If one assumes that direct translation into practical measures will be accompanied by decision-preparatory uses and internal publicity but not vice versa there are approximately 23% of the projects¹⁴⁾ which are utilized in the latter sense but not "directly" applied. This percentage can be interpreted as an indicator of the potential extent of mere legitimative use of social science research results (or of a form of utilization in which mere symbolic use cannot be excluded), if one is willing to concede that the category "information base and support" allows for both, post-hoc rationalizations of decisions already taken and ex-ante improvements of the understanding of a problem area before the actual measure is taken.

7. The role of the visibility of consequences

Given the predominance of instrumental uses of social science results as forwarded by us and backed by our data (and those of Caplan 1975) the question arises as to why this use seems to be either ignored or replaced by too high or too low expectations. One of the main reasons is probably related to the low visibility of decision-preparatory utilizations at issue here as against decision-constitutive and decision-

¹⁴⁾ This follows if one substracts from the 37.9% of project results not directly translated into practical measures the 14.3% of projects which are also not used as an information base or the 15.3% of project results not internally distributed.

legitimative utilization forms. It is obvious that a direct translation of research results into practical measures should be highly visible; the same holds for a primarily symbolic utilization since it virtually consists in a public appeal to the scientific basis of what is proposed. There are several reasons as to why much less is known about research utilization in the decision-preparatory stage:

- (1) The relationship between the social scientist and the decision makers often ends with the delivery of the report which leaves the social scientist largely ignorant as to the evaluation or further utilization of his results. As an example, social scientists seem to vastly underestimate the extent to which government sponsors tend to criticize the results they get (cf. Knorr et al. 1975a).
- (2) A second reason seems to be that hard and visible facts about the "including" of social science research results in a planning, programming or decision establishing process are difficult to establish even if there is a continued communication between the researcher and the decision maker. In much scientific writing in spite of the requirement of citation it proves to be rather difficult to identify the origin of arguments or the extent to which one author did have an influence on the other.
- (3) A third reason for the low visibility of the decision preparatory-function of social science research results may lie in the fact that decision makers do have a second problem of legitimation (see p. 11): they have to prove their own activity, technical competence and intellectual achievements in front of highest hierarchical levels and in front of the public. This implies that the decision maker will tend to document his own decision capacity with the help of social science results in a way in which his own brilliance can no longer be differentiated from that of the social scientists.

Lazarsfeld (e.g. 1969) has commented upon decision makers' fear of a loss or underestimation of their most valued attribute, that of their talent and skill in evaluating a situation correctly and in finding quick problem solutions.

8. Technical and discursive utilization of social science results

In addition to the low visibility of decision-preparatory utilizations there is a second reason which might account for the frequent disappointment with regard to the use of social science knowledge. The current definition of what constitutes an "utilization" of social science results follows the engineering model taken from the natural and technological science in which "technical" applications do indeed not create any basic difficulties (compare Weiss 1975:b; Caplan 1975: V). Suffice it to say here that the cognitive and methodical inadequacy of the social sciences - if nothing else - does at present preclude them from providing hard and solid bases for decisions. What is discredited here is a primarily decision-constitutive role of social science results which must however not be equated with the thesis that social science results are hardly ever or not at all used instrumentally. The social-technological or engineering model of the social sciences has long been debated now and has usually been confronted with an "emancipatory" or "enlightening"-model (e.g. Strasser 1975). If one accepts the latter one would have to replace the picture of a technical translation of research results into practical measures by a "discursive" (diskursiv) conception which takes into account the fact that social science results do by their nature require further rational processing on the part of the political decision maker whom they address. It should prove fruitful to find out which accompanying

measures within the scientific and political system might be more adequate to this kind of discursive utilization than the disconnection between the production and utilization of results which currently seems to predominate.

Let us summarize the present paper by saying that the thesis of a primarily symbolic utilization of social science results - in so far as it refers to post hoc legitimations of decisions already taken - is not supported by our data nor by theoretical considerations. This does not mean that there is no symbolic use of social science results, but rather that instrumental utilizations (with legitimative or motivating purposes) do currently predominate. However, this kind of instrumental utilization does not follow the pattern of technical implementations of results established in the natural or technological sciences. Rather, the main area of utilizations consist of an indirect (bound to undergo further decision processes), diffuse (taken into account to various degrees and at different positions), difficult to localize (utilization responsibility distributed over various decision levels) and possibly delayed discursive processing of the results in the stage of program development and decision preparation. The low visibility of this kind of utilization and the far too high expectations contribute to the popularity of the above mentioned thesis. Its plausibility should be reexamined in the light of the present data and arguments.

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