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SOME PROBLEMS IN THE STUDY OF SOCIAL POLICY

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ABSTRACT

One of the major problems confronting the scholarly study of public policy is to improve communication among those involved in policy analysis. Unfortunately, knowledge from policy analysis is not very cumulative. Much of our scholarship on public policy fails to speak to policymakers; additionally, an analyst in one policy area often fails to have effective communication with others working in the same area, and generally fails to communicate with colleagues working in other areas (i.e., education, housing, defense, or social control policies).

Responding to this situation, this paper presents a theoretical framework for coding policy studies, including a set of general variables for coding or categorizing the different components of policy studies. Using these general variables, a scheme has been worked out that permits the analysis of numerous policy sectors across both time and societies. In addition, we propose several hypotheses concerning the way in which a society's structure (i.e., centralization versus decentralization) influences the performance of various policy sectors; thus a decentralized delivery system in, for instance, education or health, should be more innovative, but less efficient than a centralized one. In this connection, the latter part of this paper is illustrative of how the framework can be useful in understanding specific policy sectors.

We also combine general variables with an interest group approach to the study of public policy: By knowing the relative power of specific interest groups, we are able to increase the predictability of what policy

outcomes will prevail. The type of analysis presented here should help to establish more clearly the constraints under which policymakers operate, and to clarify the consequences that are likely to follow when certain kinds of policies are adopted.

Some Problems in the Study of Social Policy

1. INTRODUCTION

Complaints of poor communication between theoreticians and policymakers often center on the abstractness of those whose concerns are essentially with basic science: The theoreticians are accused of being too remote from reality. Seldom does one hear that the real reason why there is such poor connection between theory and social policy is because there has been too much attention paid to practical problems and not enough to the development of theory. Yet, in the area of policy studies, this would appear to be true. There is no end of studies done for the policymaker, with the concerns and objectives of policymakers clearly in mind; yet few substantial sets of findings have emerged from this plethora. The Baconian hope of the inductive approach has not worked. Instead, we are left with a bewildering array of specific studies seemingly unconnected with each other. Health policy researchers rarely communicate with those in educational policy; and even within each of these broad policy areas, policy research is so highly specialized that the recommendations of different policy researchers are contradictory in nature. Regrettably, there has been considerable absence of any systematic building of knowledge that is essential for the solution of social problems.

Obviously, the social sciences are not completely without a body of theory (economists have been more successful than those in other social science disciplines). In different disciplines the Marxists and functionalists have provided a model that helps us to understand why

certain outcomes occur, but they have not cast much light on why there are variations in outcomes among societies. Neither group has as yet done much to focus on the causal connections between policy means and utilities achieved, although one could argue that it is implicit in both approaches; the Marxists argue that utilities are not achieved because of the domination of certain interests groups and the functionalists assume that what is desired is achieved. Both perspectives leave much to be desired.

The purpose of this paper is to lay down a theoretical framework as the first step in the construction of a body of theory useful for understanding certain kinds of policy outcomes. The framework is a general one that applies to a number of different kinds of policy problems; yet, it is clear that it will not apply to all social problems. While our framework is not a theory, we intend to show how a number of hypotheses can be developed within this perspective so that at least the potential for theory construction is made clear. Throughout, the emphasis is on the approach to solving practical problems, not on the correctness of the solution.

The construction of a theory appropriate for understanding policy outcomes involves several tasks. First, we must create some minimum set of general utilities that would allow us to code the bulk of various policy studies. Unless this is done, each study remains an isolated and specific historical case. Second, we must translate the means used to achieve specific utilities into some set of variables. The crux of a theory about social policy should be some form of causal analysis relating means employed with ends achieved; otherwise, there is little

opportunity for the cumulation of knowledge. While this point is perhaps obvious, it is noteworthy how often it is ignored in policy studies. In contrast to our approach, most policy studies have focused on the intended or preferred utilities rather than outcomes actually achieved. Our approach is to emphasize the means employed and the outcomes--whether intended or not--achieved. Even so, we suggest that different interest groups will have specific preferences for certain utilities across societies and time, though our argument is that more is to be gained by examining accomplishments rather than intentions.

There is some overlap with predicting which policy will be adopted and what actually happens as a consequence of adopting certain policies, but they are not isomorphic. Policy studies have too often emphasized the former, but if theory is to be useful to social policy, the latter also deserved considerable emphasis. It is partly because so many policy studies have tended to focus on who wins the power struggle rather than on why certain outcomes emerge that we are still without a body of theory about social policy. The paradox has been that policy studies have remained too close to the wishes of policymakers and thus have not spoken to their needs.

2. A GENERAL SCHEME OF UTILITIES

Our first assumption is that most policy debates revolve around one or more general utilities. Usually, these have been conceived in relatively specific terms, but in fact, there appears to be a comparatively small set of general variables that can be employed to code particular utilities.

Some scheme is needed that is mutually exclusive and reasonably exhaustive. What has made its development particularly difficult is that one needs a conceptual scheme that can describe all of society, for any single policy issue could be relevant to any particular aspect of society. Clearly the generating of such a scheme is an impossible task. Our solution to this difficulty is to develop four lists of social utilities that tap major parts of society and reflect common values usually articulated in policy debates. This represents a mini-max solution between the desire to cover all aspects of society, which would be too complex and cumbersome, and the desire to cover only a few aspects of society, which would be too simple and sketchy. Instead of offering a scheme of several types of politicies, such as Theodore Lowi, Oliver Williams, and others, we intend to look at social utilities that represent different parts of a society. Whereas our emphasis is on national policies, the proposed list could be easily adapted to state or local policies or an organizational level of analysis as well.

The underlying theme of our approach is that policies are implemented or adopted because they are designed to achieve some objective; thus one needs some minimum list of objectives or desired outcomes. We have found it useful to think of these as parts of society because the objective always has some behavioral referrent. The goal may be to reduce unemployment, get "more bang for a buck" in the defense area, to integrate blacks and whites, reduce crime, or increase equality in the distribution of incomes. Because these represent changes in the nature of society, there is a need to have variables for describing these changes. We believe that there are four major kinds of utilities that also represent most

internal changes in society: output, performance, control, and structural utilities. (See Table 1.)

Output Utilities

The first and most typical kind of utility that forms the substance of many policy debates are the outputs of various institutional sectors. We can conceive of societies, political units, or institutions as delivery systems that produce something--production systems. These outputs represent resources that societies or their members want. They are either private or public goods, to use the economists' language. New policies come into debate frequently when some interest group or coalition becomes dissatisfied with the amount of production of a particular resource.

Figure 1 is a list of eight social outputs. While it can be debated whether there are indeed eight, ten, or some other number, the critical point is that this list was systematically derived (Hage 1972). Regardless of whether this particular list is an exhaustive one, we believe that the approach is a correct one. We need some list of the typical outputs corresponding to the major institutional sectors, delivery systems, or resource production systems of societies in order to make progress in the codification of existing policy studies. These also represent some of the major values found in most societies. Most people want knowledge and beauty, protection and affection, work and play, physical and spiritual well-being. The terms used for these particular values are usually many and varied. However, they represent

1. Level of education and scientific output
2. Level of artistic and cultural production
3. Level of societal security and social order
4. Level of population
5. Level of economic production
6. Level of leisure activity
7. Level of health and well-being
8. Level of charity and religious activity

Figure 1. Social outputs.

the ideas that are reflected in the eight types of outcomes. Societies may differ in the relative importance attached to particular values or outputs or in the means used to achieve these objectives, but the objectives are common ones desired by people in industrializing societies.

Another important desideratum in any list of outputs is that it reflect the major disciplines in the social sciences, that is, political science, economics, sociology, and demography. Thus the population output is included as well as education, health, and well-being. Security represents the concern of political science, whereas obviously economic production is that of economics. Several of the outputs tend not to be considered very often and yet, increasingly, policies are being developed relative to them. Artistic and cultural production have recently been the concern of the American government. Use level of leisure time activity, including the regulation of vacation time, is an important part of the French government's policy; for example, they have had a long-time policy of building sports and vacation facilities. The Soviet government has at various times tried to discourage religious activity, whereas the American government has encouraged religious activity, via its policy of allowing charitable deductions to religious organizations.

From a functionalist viewpoint, these eight outputs can be seen as making a society more or less self-sufficient. These resources speak to a variety of human needs, albeit not all (some of the other human needs are met in other indicators, especially the structural ones). From a social planning viewpoint, these outputs correspond to a number of the major ones that many societies monitor (Sheldon and Moore 1968). For most industrializing and advanced industrial societies, the real problem

is to achieve balanced growth in these areas and to decide what their relative importance should be.

Operational indicators or measures of the output variables are suggested in Figure 2. This is a suggestive, not an exhaustive list, and is provided to concretize the discussion. These indicators are appropriate for society analysis, but one would need different ones for organizational or institutional analysis.

Two important points about the measures need to be made. First, for several of the outputs, actual output or achievement measures do not exist and so utilization rates are employed. Since there are no acceptable international academic achievement tests except for literacy rate, school attendance is accepted as a proxy; similarly, since a good measure of charity is not readily available, activities such as donations are substituted. Except in time of war, the measurement of external security poses problems. Again, we are forced to rely on the size of the military as a utilization indicator. Second, economic production is restricted in meaning and in measurement of primary and secondary activity to only those services such as transportation, banking, and commerce that are business related; many of the other services fall within the province of other productive outputs--particularly health, education, and well-being. Correspondingly, focusing on security and order will not represent all that political scientists would like to focus on as measures of political performance but it does capture some of the most important elements.

An enduring debate in most societies is over the relative importance of these outputs: the traditional guns versus butter problem. Historically,

Level of Education and Scientific Output

- Percentage literate
- Percentage of population 5-17 in school
- Percentage of population 18-24 in school
- Number of scientific journals and publications

Level of Societal Security and Social Order

- Gains or losses in territory
- Gains or losses in the proportion of military equipment from foreign sources

Level of Economic Production

- Production by sectors of economy--i.e., agriculture, manufacturing, service

Level of Health and Well-Being

- Age-specific death rates by cause of disease
- Age-standardized death rates by cause of disease
- Proportion of population 60 and over covered by pension funds
- Proportion of population below some stipulated level of poverty

Figure 2. Sample indicators for selected outputs.

there have been those who preferred to maximize national security or education, whereas others have preferred more emphasis on economic production or health care. Swings in the sentiment about these objectives are usually associated with swings in votes for particular programs in the legislature or even candidates in elections. For example, there is presently in Great Britain much discussion about whether public spending should be reduced. This debate is really about the relative importance of various welfare outputs versus other economic outputs, as well as the best means needed to maintain growth in all of them.

In the long run, most people agree on the desirability of all of these. It is in the short run that the debates about priorities are waged. Typically, a period of too much emphasis on some of these objectives will be followed by a period when other outputs will receive higher priority. More critical is the idea that a change in a policy--a new program or technology--will usually be advanced on the basis of what it can do relative to one of these outputs. Thus the discussion about airpower during the 1920s was a debate about the need to increase or maintain national security (i.e., independence). The long-term debate about differential methods of financing health care has centered around the need to reduce mortality and morbidity rates, especially among the poor. There has been a continuous debate about the level of research funds necessary to produce more technological knowledge. The National Endowment for the Humanities and the Arts is a government program designed to increase the output of artisitic creation. The many controversies over whether to reduce taxes or to expand the money supply have been very much concerned with expanding productive output. Just as the economists have developed equations such as the Cobb-Douglas production

function, which allows them to make practical suggestions, we believe that it is possible to do something similar for outputs in other sectors of the society.

As we have observed, most everyone wants the objectives of these outputs. However, they come increasingly controversial when an increase in one kind of output requires a deemphasis on another.

Performance Utilities

Obviously, all policy debates do not focus on outputs, but involve other kinds of outcomes as well. Utilities that are more likely to activate certain interest groups are those that reflect the measure of how well, and in what ways, particular outputs are achieved. This involves our second category of utilities--societal performances--which includes four basic types: innovation or adaptiveness, societal achievement, efficiency used to achieve societal objectives, and motivation or participation (see Figure 3).

Each program or policy can be discussed not only in terms of a particular output, but more importantly, may be evaluated in terms of these performances or considerations. Therefore, the demand of "more bang for a buck" is a statement that reduced cost is a desired utility as well as an increase in national security. Discussions about educational programs, such as the open classroom, bilingual education, or special education involve a concern about the quality of education and the desirability of emphasizing individual needs and differences; quite different from programs designed to maximize the quantity of information

Innovativeness or Adaptiveness

Number of new academic disciplines created in a year

Number of new products created in a year

Social Achievement Index

Percentage of growth in education and science outputs in a year

Percentage of growth in security and order outputs in a year

Percentage of growth in economic production in a year

Percentage of growth in health and well-being in a year

Efficiency

Capital/output ration in various sectors of economy

Index of productivity in industry

Level of Membership Participation

Percentage of population actually voting

Membership in voluntary organizations

Figure 3. Social performance utilities (with sample indicators).

learned, such as in discussions about the reading ability of grade school children. Similarly, some policies are adopted because they will increase the motivation or participation of particular groups. One idea of community control was to improve the participation of parents in the schools, though it often had the opposite effect on the motivation of the teachers. Headstart type educational programs have become institutionalized not because they are important in eliminating or reducing the differences between low and middle income children, but because they make the parents happy: They like their increased participation in education. This underscores what we have noted earlier: One must look at what is achieved or accomplished rather than what is intended. Frequently, satisfaction of the participants, whether providers or customers, is a critical utility even if nothing else is achieved.

In the 1960s, the problem of a technological gap in France led to the adoption of a wide variety of programs and policies designed to increase the rate of technological change (innovation) in science and new product development in industry. These goals were so important to the French policymakers that they made this the number one goal in the Fifth Plan, subordinating all other objectives. To facilitate these objectives, they not only allocated a relatively large proportion of funds to R & D, but created a number of specialized organizations designed to coordinate the entire research effort.

In the short run, four performance utilities are sometimes in opposition with one another: For example, increasing cost efficiency often reduces innovation, and vice versa; or, as a system emphasizes increases in motivation or participation, there is a decrease in the

quantity of what can be produced, and vice versa. In general, quality oriented innovation and motivation/participation producing policies are internally consistent as are quantity oriented, cost reduction, and consumer oriented policies. Problems result when policymakers try to combine all of these performances in the same policy. Needless to say this is true only within certain limits; and there are a few policies that appear to improve performance in all areas simultaneously. Usually, this is merely a short-term phenomenon. When it occurs, these are policies that are seldom controversial. Conflicts occur when choices must be made among these alternatives. The quality versus cost debate is a fundamental one that usually activates opposing sides. Sometimes the advocates of quality performance will win out, and at other times, the advocates of efficiency will be victorious.

Control Utilities

Still a third category of utilities are those concerned with social control or coordination (see Figure 4). In general, the more effective the communication among groups in a society, the lower the rate of conflict and coercion; conversely, the less effective the communication among groups in a society, the higher the rate of conflict and coercion. Thus the Scandinavian countries with a homogeneous and small population have fairly effective communication among social groups, low rates of crime, and much higher expenditures on police.

In the United States, the law and order programs in the late sixties were designed to reduce riots and crimes, i.e., the level of deviance in

Rate of Communication

- Degree of ethnic diversity
- Degree of religious pluralism
- Number of miles traveled per capita per annum
- Number of telephone calls per 100,000 people
- Number of radios and television sets per 100,000 people
- Number of telephones per 100,000 people

Rate of Coercion

- Number of police per 10,000 population
- Number of penal days per 1000 population
- Number of arrests per 10,000 population
- Percentage of G.N.P. spent on police

Rate of Consensus/Conflict

- Percentage of labor force involved in strikes
- Number of violent disturbances
- Number of mass strikes or demonstrations

Rate of Conformity/Deviance

- Total lesser crimes per 100,000 population
- Total major crimes per 100,000 population
- Total number of riots per 100,000 population

Figure 4. Social control and coordination of utilities (with sample indicators).

society. The labor policies in the late forties, as enacted in the Taft-Hartley bill, were designed to control the level of conflict, in this case industrial strikes. Policies that attempt to exert control or require coordination are always more likely to be controversial and involve power struggles. These struggles activate not only groups that agree or disagree on the amount of control or coordination, but also the mechanism that is used. Thus in the struggle over what to do about products that cause cancer, the debate has been whether to outlaw cigarettes completely, raise taxes on them (the punishment approach), or simply to provide information that cigarettes are harmful to one's health (improve communication). The same type of debate and essentially the same two approaches have come up relative to laws regarding seat belts, food additives, and guns.

Perhaps the most interesting aspect of the distinction between communication and coercion is the different policies they reflect regarding the reduction of crimes and the treatment of criminals. One approach involves rehabilitation; the other, incarceration with stiff punishments perceived as a deterrent. Correspondingly, at the nation-state level governments differ in terms of whether they desire to control their population through coercion or allow for the integration bonds created by communication to act as the mechanism of social control.

Structural Utilities

The fourth kind of social utility refers to structural changes (see Figure 5). Again there are two major kinds. The first concerns giving

Level of Complexity (distribution of knowledge)

- Percentage of labor force in managerial and professional occupations
- Percentage of labor force in trade and professional associations
- Percentage of population in cities of 50,000 and over
- Percentage of population in cities of 20,000 and over

Level of Centralization (distribution of power)

- Level of society at which personnel are appointed (national or local governmental level or private sector)
- Level of society at which funding occurs
- Level of society at which standards are set

Degree of Stratification (distribution of rewards)

- Lorenz curve on income among social groups
- Lorenz curve on leisure time among social groups

Normative Equality (distribution of rights)

- Similarity of educational opportunities among social groups
- Similarity of legal rights and political privileges among social groups
- Similarity of unemployment rates among social groups
- Similarity of life expectancy among social groups

Figure 5. Social structural utilities (with sample indicators).

more power to various groups and the second concerns redistributing either wealth or privilege. Actually all of these structural policy utilities are likely to be redistributional ones, but the power versus wealth distinction seems worth maintaining. Also, we find it worth distinguishing between wealth, in a narrow sense of the term, and privilege or rights. Many of the policy debates in the United States during the sixties were concerned with the problem of equal rights (normative equality), whether voting rights, educational rights, or employment rights.

There are numerous other policy issues that might be mentioned. The idea of universal military training or the draft is an argument that the military should fall equally on everyone. Women's rights clearly involves the same utility. Programs designed to provide legal services for the poor have the same objective. While having power or wealth affects one's privileges, most policies are designed to change the rights of groups directly, without changing the distribution of income or wealth. Tax law legislation, however, often activates interest groups over the theme of how to redistribute wealth. Essentially this discussion involves the variables of stratification.

Another policy debate current in the United States and in many European countries is over the amount of centralization of the government. The concept of revenue-sharing involves an effort to decentralize the governmental process: In Great Britain, there are serious discussions about decentralizing governmental activities in Scotland and Wales; anti-trust legislation and current discussions about breaking up the American oil companies concern decentralizing economic power in large corporations.

At first glance, the degree of complexity, which is measured in part by the percentage of the labor force in managerial and professional occupations, would appear not to be a focus of policy debates; but it is, and frequently, a critical one. Typically, this develops when policymakers decide to allow certain occupations or professions to exist and they establish policies regarding the distribution of the labor force among various categories. For example, Great Britain has until recently largely resisted any attempt to develop professional business schools and also has limited university enrollments, arguing that the labor force could not absorb people with these qualifications.

Structural policies generally generate more conflict than those involving the other three utilities because structural policies affect the basic or fundamental interests of various groups--power, wealth, privilege, or prestige. The basis of conflict is often between the haves and the have-nots. At a more behavioral level, they are more difficult to implement successfully because they require changes in people's behavior.

2. Summary

As our discussion has moved from policies involving changes in outputs to policies involving changes in the basic structures of societies, our discussion of the four kinds of utilities has moved from values that all share to the interests of various groups. The difficulty of creating and implementing a new policy increases incrementally as we move from changing output policies, to policies designed to increase performance, to those designed to change control and coordination, and finally to those involving a change in a society's basic structures. The debate

grows larger, the conflict increases, and the likelihood of some compromise diminishes: thus the importance of distinguishing these four kinds of utilities (see Table 1). They represent most of the kinds of domestic policies that are debated within contemporary societies.

So far, we have treated each of these utilities as though they are independent; yet, this is usually not the case. The parts of society are interrelated. To change the level of one utility usually requires a change in another. As we have noted, the community control of an educational delivery system, which is a structural change designed to decentralize the educational hierarchy, had as one of its objectives the increased motivational support of the parents--a change in performance. Similarly, the open classroom achieves its greater quality of education (a performance utility) by decentralizing power (a structural utility) in the classroom and eliminating rules. Thus the multiple utilities mentioned in a debate are frequently implicit hypotheses about how variables cluster together. It is seldom that policy debates involve cleavages only about one or two utilities of the same type, such as guns versus butter, the quality of education versus the number of people to be educated, or who should pay for medical insurance. Because most debates also involve other types of utilities, they represent a strategic site for research and raise questions that should be researched. How are changes in any single utility reflected in changes in other utilities? This question is moving toward the problem of defining the social means used to achieve particular ends, the topic for the next section; but first we should consider some utilities that are not included.

Table 1

Variables for the Analysis of Societies

Social Resources (Level of Investment)	Social Structure (Degree of Distribution)	Control & Coordination (Control Processes)	Social Performance (Amount of Effectiveness)	Social Outputs
nvestment in education and science	Degree of complexity	Rate of communication	Innovativeness	Level of education and scientific output
nvestment in artistic and cultural production				Level of artistic and cultural production
nvestment in national security and government administration	Degree of centralization	Rate of coercion	Social achievement index	Level of societal security and social order
nvestment in family				Level of population
nvestment in manufacturing, mining, agriculture, and commerce	Degree of stratification	Rate of consensus/ conflict	Efficiency	Level of economic production
Investment in leisure				Level of leisure activity
Investment in health and well-being	Degree of normative equality	Rate of conformity/ deviance	Level of membership participation	Level of health and well-being
Investment in charity				Level of charity and religious activity

Obviously, these four kinds of utilities do not represent all of the familiar kinds of policies. The reader will note we have said little about ecological policies, for the protection of the physical environment is not an explicit utility in this scheme. However, various aspects of the policy debates about the physical environment involve the impact of air pollution on morbidity or mortality rates. Debates about garbage and refuse relate to the beauty of various leisure-time places such as beaches, parks, and wild-life refuges. Thus even in a policy debate restricted to physical or biological utilities, there are frequently implied social utilities as well. In other words, many ecological debates revolve around quality--in this instance, quality of life--and efficiency, i.e., the cost of environmental protection.

The nuclear energy debate also would appear to be primarily a technological controversy beyond the scope of this scheme of social utilities. Yet, one of the debated points is the cost of nuclear energy and whether in fact nuclear energy really will be less expensive than other sources of energy. Again, a seemingly technocratic decision has social implications and thus social utilities.

But we would be the first to admit that this scheme of social utilities is not effective for capturing physical and biological utilities and that some policy debates, such as nuclear and biological engineering, do not center around these kinds of utilities. By emphasizing social utilities, however, we are focusing on the majority of domestic policies and the areas where sociology, political science, economics, and history have much to contribute. Hopefully, our scheme is broad enough to cover many social policies and yet has the potential to be coded in sufficient detail to be of interest.

3. A SCHEME OF GENERAL MEANS

There has been so much attention paid to the issue of why a particular decision outcome should be made that we often lose sight of the question of whether the right decision was made. We need to know if the open classroom really does increase individualized attention, if increase in the level of participation in industry actually does lead to greater motivation on the part of the workers, or if greater access to medical care does lower mortality rates. Admittedly these are difficult questions to answer. Skeptics might say that they are impossible to answer.

The problem with many policy studies is that they have not properly coded the means used to achieve certain goals. Again, we shall argue that the means employed to achieve particular utilities usually represent variation on very few themes. If this is correct--and much research remains to be done--then we have a way of forming hypotheses to be tested. Once this occurs, a set of findings may emerge that will better enlighten us as to what consequences will follow when certain types of policies are adopted.

In addition, the problem with numerous policy studies is that they have focused too much on what interest group or coalition won and not enough on the task of determining the causal connection between the particular policy advocated and the specific utility desired. This is understandable for numerous reasons: the fascination of looking at power struggles, the substantive importance of the problem in its own right, the difficulty of measuring outputs, the use of the case versus the comparative method, or the lack of some way of translating the means into general variables that may be tested.

Just as we have suggested that there are eight outputs or objectives, we also wish to suggest that there are several basic categories of social means used to achieve these objectives. This should only be considered as a framework, a way of proceeding, and not as a theory that has been developed and tested (although there are bits and pieces of various middle-range theories and empirical generalizations that have been verified). Our objective is to indicate how to begin to codify a number of policy studies or debates and how to focus research so that its findings can accumulate more rapidly into meaningful understanding of social policy.

Our starting point is the simple observation that a policy is a means designed to achieve some end. As with the development of a scheme for describing outputs, we need to be concerned about a vast array of possible means to achieve certain objectives and our solution is essentially a similar one. We intend to focus on a number of aspects of society.

It would appear that there are essentially three kinds of social means: inputs or resource expenditures, structural, and control variables. We have already described two of these variables. The major means used to achieve some structural utility is usually to change some structural variable and the same can be said for the achievement of control. In other words, we are not suggesting that the means and the ends are the same but that for some problems, the means and ends fall within the same category of utilities. Already, there is considerable literature in the organizational research area that suggests that increasing either communication or coercion will reduce conflict or deviance--but only under certain

circumstances. We would now like to know more about the conditions under which these findings may be applied to the nation-state level and, again, under what circumstances. The organizational literature--and some of the historical as well--indicates that as the per capita income and levels of urbanization rise, the nature of social control changes. (As the society becomes more rigidly stratified, effective communication across various strata decreases, necessitating new kinds of controls.) The most important point is that policies should be seen as a means to achieve a particular end relative to some segment of the population. The variables in the typology of Table 1 represent an attempt to provide a code for at least some of the essential elements in the policy. Admittedly, it is not a complete code by any means, but at least it helps to focus attention on some basic and fundamental elements. The individual researcher may wish to add more general variables. This is all to the good. But if these more general and ubiquitous elements could at least be included, then we could begin to codify our research and accumulate some knowledge.

Note that in the next two instances we have hypotheses of a causal nature: The greater the decentralization, the greater the destratification; the greater the decentralization, the greater the normative equality. An important part of policy research should be the determination of how valid these hypotheses are. We will probably find that they are true only under certain conditions or only when other variables are involved as well; but the fact remains that policy debates carry these implicit causal connections, which should be made explicit and examined in the light of historical research.

So far we have mentioned structural and control means and have said nothing about input or resource expenditure means. These are listed in Figure 6. Investments in education, health, and economic output are typical means used to achieve certain objectives and probably need little discussion. Making available enough resources to achieve particular objectives forms the substance of numerous congressional debates.

This leads to a critical observation: Typically, inputs or resource expenditures are used to achieve more outputs of one kind or another. If a society wishes to expand university enrollments, it builds more buildings, makes available scholarships or training programs for the students, and so forth. If it wishes to expand economic production, it does essentially the same thing by increasing investment one way or another. If it wishes to increase its national security, it may build a larger military force by adding manpower or acquiring more powerful weapons. If it wishes to increase the level of health of its population, it builds more hospitals or makes health care more accessible. Note the parallel, suggesting that something analogous to economic theory might be generalized to these other production or delivery systems.

But several observations are in order. First, the lack of growth in output may simply result because there is a shortage in one of the inputs. Second, and more critical, investing more money and manpower may <u>not</u> be the solution. Growth in expenditures of various resources can occur only at certain and as yet undetermined rates. Congress has often increased expenditures in certain crash programs without considering how fast the production system can absorb the increase. The increase in one

Investment in Education and Science

- Expenditures per student for education
- Expenditures per capita for research
- Number of teachers at different levels of education
- Number of scientists in research institutes, industry, etc.

Investment in Artistic Production

- Expenditures for art
- Number of artists

Investment in National Security

- Expenditure for the military
- Number of personnel in the military

Investment in Manufacturing, Mining, and Agriculture

- Capital investment in agriculture
- Capital investment in manufacturing
- Managers and industrial workers
- Farm owners and workers

Investment in Family

- Expenditures for leisure time activities (sports, entertainment, vacations)
- Number of people in leisure time industry

Investment in Health and Well-being

- Expenditures per capita on health
- Number of medical personnel
- Expenditures per capita on welfare and social security

Investment in Charity

- Expenditure for religious activities
- Expenditures for charitable activities other than religion, health, and education
- Number of people in charitable activities

Figure 6. Social resources (with sample indicators on investments).

input without an increase in other inputs may prevent the desired outputs. For example, building hospitals may make no sense without supplying more personnel; and building hospitals and adding personnel may not change morbidity and mortality rates unless accessibility to medical care is changed. Thus a crucial aspect of any policy is a balance in growth of the various inputs designed to impact on an output. Third, it is not only inputs that affect outputs, but structural variables as well. A society may make available a great deal of research money, including scientific manpower and equipment, but still not achieve any advance in scientific and technological break-throughs because the structure of the research organizations does not facilitate innovation. Thus, there is considerable evidence that suggests that the United States has surpassed most European countries in scientific and technological research because the scientific and technological enterprise systems have been structured differently in the United States (Ben-David 1971). Special schools, teachers, and audio-visual aids (input variables) might be made available for the ghettos but not utilized because the familial structure and its values do not encourage participation in educational activities. The United States spends more money on health care, has more physicians, and the most advanced medical technology in the world and yet has a higher mortality rate than comparable industrialized countries. While some of the problem is due to insufficient funds for the poor, probably part of the answer also lies in the way in which the health delivery system is structured, being too decentralized and fragmented (Alford 1975).

In a broad sense, these three different kinds of social means represent three different approaches to the problem of how to achieve some objective. Typically, the solution is seen as one of providing more resources. Thus the American government felt that if they sent enough troops and spent enough money they would win the war in Vietnam. A critical resource American policymakers frequently worry a great deal about is technology or individuals with the right skills. Thus the United States lavished not only money but made technological development a key part of the equation in NASA.

It is after a failure with the resource approach that policymakers start thinking about policies that might change the structure of society. Sometimes the structure of society can be changed by the expenditure of money, but usually this occurs via taxation and welfare payments. Thus the war on poverty attempted to channel more funds to those below the poverty line; but it also created a series of new organizations designed to increase normative equality. Thus legal services were provided to decrease discrepancies in the way in which the poor and affluent were treated by the law. Headstart was designed to reduce differentials between middle and working class achievement in schools. There were programs designed to do community organizing so that there would be changes in the distribution of power as well as privilege. How effective these new organizations were in achieving their objectives is, of course, another question.

There is also a dialectic between control and structural variables as means to reduce crime or demonstrations. One can increase the number of police as a way of controlling demonstrations or riots, but this does not necessarily speak to the causes of the problem. Thus, much of the

discussion of the causes of black riots in urban cities in the United States centered around the problem of control versus the causes of the riots, with some groups more concerned about the former and some more worried about the latter.

Trying to code not only the utilities achieved, but the means used to attain them, forces us to begin moving toward the problem of evaluating the efficacy of particular policies. Most debates make arguments about why a particular policy will be effective, but there is still too little knowledge about this; nor can there be more until research begins to pose the relationship between means and ends. Fortunately, policymakers appear to be open to the idea of doing policy research of this kind.

What are some limitations of this kind of proposal regarding the classification of means? Perhaps the most critical weakness is that it does not address the problem of who should carry out the policy. A major debate frequently centers around whether a policy should be carried out in the public or the private sector. Another policy issue is whether new organizations or existing organizations should be used. The strategy of the war on poverty and of ending the economic depression in the 1930s was the need to create new organizations with new missions. However, the scheme in Table 1 does not handle this complexity very well.

Another major kind of means that is frequently discussed in policy debates is the change of values or of attitudes. Some have argued that the best way of achieving racial integration is to change people's attitudes. From the vantage point of this scheme, policies relying upon the alteration of individual attitudes are considered to be policies of no action. This does not mean that they might not work, but only that it is not included with the scheme.

Interest groups, key actors in any policy debate, have not been left out of our strategy. They can be categorized by what values or objectives they desire and what means they prefer. Therefore, those who are interested in including the perspectives of the opposing sides can do so quite readily. The basic dimensions of structure also provide a way of categorizing various interest groups as well: professionals, managers, upper and lower income consumers, and so forth. An illustration of this is included later in this paper, where we try to provide some rough guidelines as to how means and ends are interrelated.

This, then, suggests the necessity of knowing what means or policies relate to which utilities. Speaking broadly--and speculatively--our orientation is as follows.

1. Inputs or resources are the most important determinants of outputs. Essentially, these are complex production functions where the problem is to find the right balance between inputs for sustained and moderate growth in the output. Our future research needs to focus on discovering the right mix of manpower, money, authority, and technology. Governments can foolishly spend money in certain sectors when other sectors are not well enough developed to achieve the desired ends.

The economists have, of course, traditionally emphasized land, labor, capital, and technology. Within this scheme, technology could be understood not only in the narrow sense of machines, but also in the broader sense of trained manpower or human capital. In our opinion, the superiority of the Israeli army is due to its highly skilled manpower, which has allowed

for the exploitation of the military equipment rather than a superiority of equipment purpose.

2. Outputs may also be substantially affected by the structure of the delivery system. This is an aspect not often emphasized by economists and is perhaps one of the more controversial parts of our framework.

3. In contrast to output utilities, performance utilities are most likely to be influenced by structural variables of one kind or another. The organizational literature offers considerable evidence to this effect, especially in the way in which the levels of complexity and centralization influence rates of innovation and satisfaction (Aiken and Hage 1971; Hage and Aiken 1970). Extrapolating from this literature, we would expect these findings to be valid at the nation-state level as well.

4. Despite the importance of structural variables on performance utilities, input variables do have some residual effect on performance variables.

5. Control utilities are primarily affected by control variables, and secondarily, structural variables. Here the key distinction is between which variables are being controlled and which are doing the controlling. Conflict and deviance are the former and integrate the latter. However, the causes of conflict and deviance lie in the structure of society--maldistributions of power to make decisions. When control breaks down, then one sees the structural causes in the increases of conflict and deviance; if the structural maldistribution becomes great enough, control breaks down. Thus the interplay between these two sets of variables is a subtle process, and understanding it requires a dynamic perspective.

6. Structural utilities are influenced by both structural and resource variables. It is our contention that one of the key problems for a society is to keep a structural balance between complexity, centralization, stratification, and normative equality. When problems of equality arise it is because these structural attributes are not in equilibrium.

To provide some measure of the efficacy of these very general and vague guidelines, we are presently engaged in a comparative study of the health and educational delivery systems of the United States, Great Britain, France, and Sweden (Hage and Hollingsworth 1974). These specific hypotheses examine how structural variables relate to performance utilities (see Figure 7), controlling for the impact of various inputs: The greater the centralization of the delivery system, the greater the efficiency but the less the innovation; the greater the centralization of the delivery system, the greater the standardization of service across regions. There is some disagreement among us as to the impact of centralization on the equality of access among social groups but this is being explored as well. These hypotheses are being tested in these countries for the period between 1890 and 1970 to ascertain whether they are valid at the societal level.

What is critical in our research is that both positive and negative consequences are hypothesized, and this is our general bias. Most policies have negative or undesirable impacts, but the importance of various costs and benefits vary from group to group in the society: This provides the dynamic to policy debates and causes the oscillation in programs.

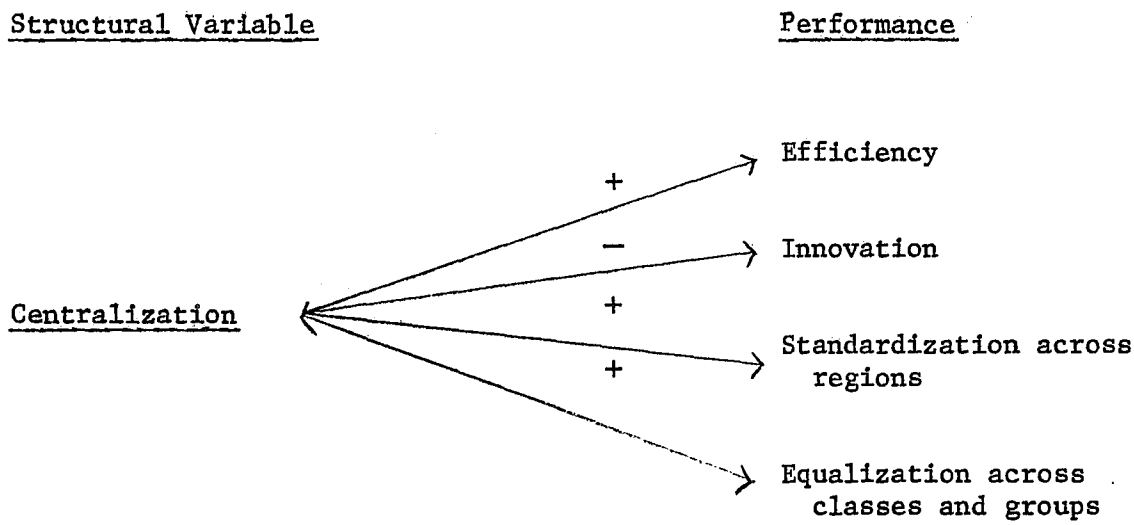

Figure 7. Hypotheses relating centralization to performance.

Since various utilities have negative relationships, there are, almost by definition, inherent negative side-effects. Perhaps a few brief examples will suffice. An obvious one is that as a society maximizes some outputs, it tends to minimize others. For a long time, many American policymakers had almost a blind faith that greater investments in military hardware would lead to greater growth in the industrial sector. Yet increasingly, there is contrary evidence for this view; certainly the problem is vastly more complicated than was previously assumed. How much one can invest in one delivery system as opposed to another is, of course, an unknown, but the dilemmas are becoming clearer with time.

This is also related to the problem of insufficient means. A lopsided investment in one sector, even the economy, can lead to a lack of growth. An overemphasis on the public sector can lead to a diminishment of the private. Too many educated people may lead to an inflated bureaucracy of societal instability. Whereas the balance between sectors is also an unknown, the problem is a critical one if we are to understand social change, and it flows automatically from our framework of viewing societies as a producer of scarce resources.

We have suggested that the performance utilities of quality and quantity are negatively related, that innovation and efficiency are often incompatible, and that expansion and participation are problematic as well. To what extent and in what ways various policies have contributed to fluctuations in these performance utilities over time would appear to be a fruitful area for research. The health/education study previously described is designed specifically to assess the relative impact of input and structural variables on outputs, as there is considerable variation across and within the two systems.

In the area of structural utilities, the problem of the consequences of structural variables is somewhat unclear because structural changes are rarer and not as well researched. If there are various causal relationships between the structural and performance utilities, then changing the former should result in a change in the latter, a change that is usually unanticipated.

The more we think about society or its various production systems as a set of variables that are causally connected, the more we should appreciate that we cannot easily change one variable without its having some consequences for other ones. In these various connections lies the beginning of the pinpointing of adverse effects.

We have noted in our discussion of inputs that a typical problem is the achievement of balanced growth in the resources needed to produce particular outputs. Unfortunately, most policymakers tend to take too much of a piecemeal attitude toward problems. As a result, we usually do not understand whether the failure of a policy results from the structure of the delivery system or from an inadequate quantity of inputs. Beyond this, policymakers usually have little understanding of how much of a change is required to produce a desired effect. Only economics has gotten to this level of sophistication. Although we are a long way from having a substantial body of theory in the social sciences, we need to apply the same approach to thinking about other production systems. To do this we need to have research studies that focus more on the relationship between inputs and outputs.

Policymakers are bound to make wrong choices at some point, for a variety of reasons. But if policy studies rarely do research on the consequences of policy choices, then we are unlikely to have an adequate understanding of why unintended consequences occur.

The research strategy that we propose takes as its model the comparative quasiexperimental design (Hage 1975). One country with or without an explicit policy scores higher on a major variable and another scores lower. In this way, the impact of the variables on the utility or utilities can be comprehended and estimated. An analysis of policies over a long time span allows for considerable opportunity to control the impact of certain variables and estimate the effects of changes in the input and structural variables.

The source of our approach is a paradigm from the complex organizational literature, which we apply to the nation-state level. Whether our specific hypotheses are correct or not is less important than our main point: All policy debates involve utilities and means to achieve them. Therefore, our task is to discover the general variables for coding both the utilities and the means, and develop hypotheses and test them.

4. OBJECTIONS TO THE SCHEME

We have already noted one objection--namely, the framework does not handle all the various subjects that policy studies concentrate on, but there are other objections as well. Some might argue that their major interest is knowing who won a major policy debate and why, instead of

understanding the causal connection beteen policy means and social utility: Therefore, of what value is a theoretical framework designed to focus on the latter question? Our framework is not irrelevant to this question. The utilities proposed in our scheme represent major values of particular interest groups. Indeed, interest group scholarship needs a set of hypotheses concerning which values are likely to be pursued by what social or political groups. Once this occurs, the study of interest groups may move to a more theoretical level of analysis, and empirical research on interest groups may verify hypotheses across time and societies.

In our research on educational and health policies, we have taken some of these basic utilities, especially the performance and structural ones, and argued that specific groups are likely to advocate certain ones in preference to others For example, the providers are likely to prefer innovations whereas the administrators are likely to prefer efficiency and quantity of service via some system of standardization. Higher income groups are likely to prefer innovations and high quality service whereas lower income groups tend to prefer equality of service via standardization. The source of conflict over who pays and who evaluates are very clear. Whether these hypotheses will hold in both education and health across time remains to be seen, but they are an attempt to show how the standard interest group approach is compatible with this scheme of means and utilities (see Figure 8).

We are also exploring whether centralization of the delivery system--that is, the decision made at the national level--affects the relative power of these particular interest groups. Again, this is an attempt to move from the more traditional micro study of the relative power of

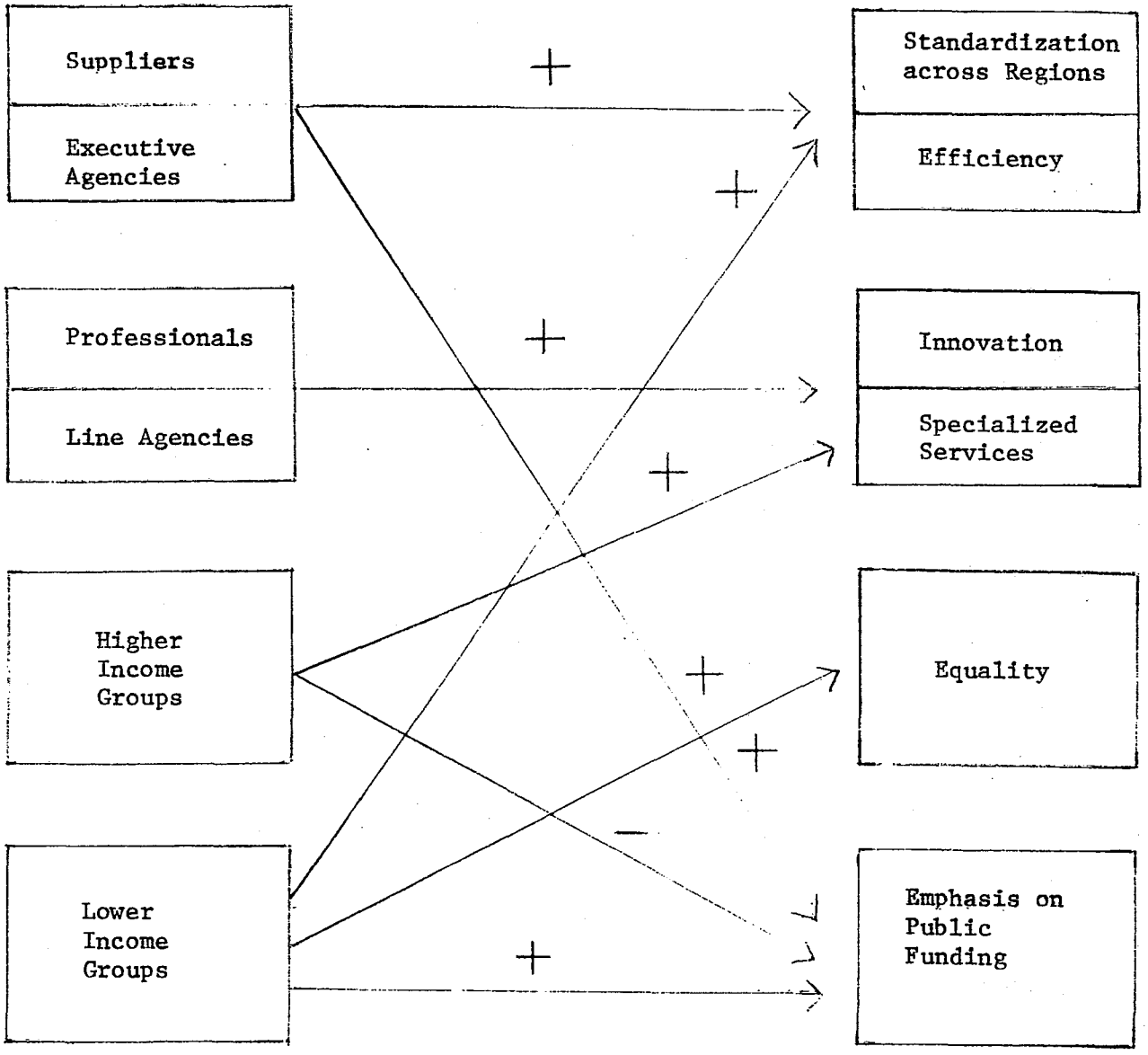

Figure 8. Hypotheses concerning relationships between dominant interest groups and policy outcomes.

certain interest groups and to discover if these are related to the various structural variables given in our framework.

Another objection to this scheme is its generality: How does one capture all of the richness and important detail of a particular delivery system with a relatively few variables? One does not. But one does gain a simple benchmark, a point of reference that allows for comparisons between countries or between policies within the same country at different timepoints. It may still be true that important variables have been left out; but at least in broad outline, we will know what the features of particular policies are, their general objectives and consequences.

More detailed information is useful, for without it one may miss some critical insight. However, these few general variables permit more meaningful, detailed information, which forms more fruitful and subtle questions in the areas of innovation, communication, and centralization.

An example of the interaction between this type of general framework and detailed information is provided by our study of health and educational delivery systems in several societies over time. Having focused on our general variables, we were led to ask if there were differences in the advancement of particular social utilities dependent upon the kinds of decisions centralized. We have also been eager to explore, as we have already noted, the impact of particular interest groups on decision outcomes. These subtitles flowed, once we asked the more general question of how centralization affects innovation, efficiency, and equality of service.

Thus this scheme, while being very general and not providing much detail, does allow the detail to be placed in sharper focus and demands additional questions that allow for a more refined analysis. Our assumption is that the detail will always be added in policy studies, but what has been missing are the more general statements and hypotheses.

Another kind of objection relates to the problem of measurement. Can we really effectively measure the level of centralization, rates of innovation, levels of efficiency of health and educational delivery systems over time and across societies? In our research we have encountered a wide variety of measurement problems in defining innovation and efficiency in both education and health. While the problems are difficult, our research suggests that we can solve them. Moreover, the work on social indicators has been tackling some of the measurements (Sheldon and Moore 1968).

The difficulties will not get easier by our avoiding measurement problems. One must begin somewhere, and this is all that we can claim to have accomplished. Indeed, the whole interest in social indicators is a recognition that we should start to tackle some of these problems with the hope that gradually some progress can be made.

In one sense, the measurement problem is not an adequate critique of the theoretical framework: The real question is not whether all of the utilities are measurable, but whether they are worth measuring. On the latter point, we would clearly argue, yes. In fact, one purpose of a scheme such as this is to include and make us aware of things that we might be able to measure. Even the quality of services may not be measurable, but we would not want to drop it from our scheme because we

want to remain sensitive to this variable and a potential cost or benefit of some policy.

Finally, one might ask how such a general scheme relates to the interests of historians, even those interested in a more scientific approach to the study of history. Historical data are indispensable in order to confront our research strategy. To answer the questions that interest us, one needs longitudinal as well as comparative data. The advantages of time series data as a quasiexperimental technique are well known, but they have seldom been applied to the nation-state level (Campbell and Stanley 1966; Suchman 1967). By using longitudinal data, we should gain a better understanding of how changes in one variable are related to other variables than by using our cross sectional strategies.

5. CONCLUSION

If we are to make theory relevant to practice we must first develop some theory, certainly more than the Marxists and the functionalists have done. We need as a starting point a scheme that gives us a set of utilities or policy objectives and outcomes, and that provides a way of coding the means employed to achieve them. The proposed scheme does this within a single coherent typology of general variables. It does not cover all policy debates, but it does cover a majority of them, and in the process, we have remained faithful to the concerns of both the Marxists and the functionalists.

To make the scheme more complex and interesting, we have made a number of suggestions. First, we have argued that the various classes

or categories of variables may be related in particular ways. Second, we have suggested which utilities are likely to result in the most conflict and what the coalitions among groups are likely to be. Third, we have indicated how to study the more traditional problem of who wins and why, at the same time that we are studying the consequences of groups using particular means for specified objectives. Fourth, we have briefly sketched how the typology raises interesting questions about negative side effects and the problem of the sufficiency of means. Fifth, we have tried to indicate how the scheme allows one to ask more subtle questions and to add more substantive detail in a systematic way. Sixth, and finally, we have noted that the scheme does not solve the historical problem of the specific recommendation for the concrete cultural context; it merely allows one to codify findings in a general way.

If the authors of a scheme are unwilling to test its utility, the framework is not worth much. We are presently engaged in several research projects involved with science, education, industry, and health that will explore the usefulness of this scheme. But others need to do this, asking themselves the same questions regarding the scheme: How well does it code policies and their debates; how well does it codify findings into some general hypotheses; and how well does it make both our research and our recommendations more subtle and helpful?

Behind all of this is a series of assumptions about policymakers. They need to be told what has worked elsewhere, which requires the ability to codify policies tried elsewhere. They need to be told why it has worked, which requires the knowledge of some causal

connection. They need to be told for whom it works and under what circumstances. They need to be told its side effects and how much is required for it to work. Only policy research can provide these data. The answer to these problems requires some general model of societal change that helps us to understand which groups will oppose certain kinds of policies and why. Again, our scheme tries to unite an interest group perspective with a general variable approach. Finally, policymakers need to be given recommendations that are viable within their system of thought. The fact that this has not been done in the past is one reason why policy studies have had little impact on policy decisions.

There is no doubt about our concern for bridging the theory and practice gap; but there may be doubt about whether this framework and our general ideas will indeed build the right kind of theory. This remains to be seen.

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