

THE POLICY SCIENCES EMERGE:
TO NURTURE AND STRUCTURE A DISCIPLINE

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ABSTRACT

The policy sciences may be, some twenty-three years after the program's framework was laid out by Daniel Lerner, Harold Lasswell, and several of their distinguished colleagues in a collected work of that same title, finally emerging as a discernible professional activity. The need to sharpen the identifications, expectations, and demands of individuals beginning to call themselves "policy scientists" is great. This Paper addresses this general need in such specific ways that it may discomfort many; hopefully, such discomfort will be more than matched by the serious, creative efforts of others who are imaginative enough to appreciate the value of a more self-confident and productive discipline.

ACKNOWLEDGMENTS

This Paper has been prepared as a statement of editorial policy for the journal *Policy Sciences*. Entering its fifth year of publication, the journal has prospered under the careful and even-handed leadership of Edward Quade, Editor from 1970 through 1973. In taking over his responsibilities, I should only hope to be in some small ways as successful as he.

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Garry D. Brewer
Editor, *Policy Sciences*

Edward Quade has retired as the journal's founding editor as of the first of this year, and I have accepted the International Advisory Board's invitation to assume editorial responsibilities. Quade has performed an important and highly professional task during his tenure; the journal is on sound financial and intellectual footings and is now in an excellent position to develop and explore the fullest possibilities of the policy sciences.

There are stirrings afoot that appear to indicate that the policy sciences may be, some twenty-three years after the program's framework was laid out by Lerner, Lasswell, and others,¹ emerging as an identifiable, respectable, even desirable professional activity. The creation of numerous training centers in universities and institutes throughout the world, the production of Ph.D.s with degrees in policy analysis, the proliferation of journals with a decided policy-orientation, and the willingness of public and private funding sources to support these and other related activities are all encouraging signs of professional development.

¹Daniel Lerner and Harold D. Lasswell, eds., *The Policy Sciences* (Stanford: Stanford University Press, 1951).

In any emerging, collective activity divergence of opinion and approach is expected, and the field of policy sciences is no exception. An important task for a journal such as *Policy Sciences* is to nurture the discipline by giving all opinions and approaches a fair, but critical, hearing. Merely reading through the list of those who comprise the journal's Editorial Board should indicate just how diverse these could be. However, there exists a concomitant responsibility to structure the discipline by ensuring that the articles selected for publication be of high intellectual quality and interest and that prevalent patterns or styles of successful work be clearly indicated and related to some guidelines or inclusive frameworks. One such framework was originally formulated by Lasswell and is briefly characterized in the following:²

A policy orientation has been developing that cuts across the existing specializations. The orientation is two-fold. In part it is directed toward the policy process, and in part toward the intelligence needs of policy. The first task, which is the development of a science of policy forming and execution, uses the methods of social and psychological inquiry. The second task, which is the improving of the concrete contents of the information, and the interpretations available to policymakers, typically goes outside the boundaries of social science and psychology.

From this general characterization, one may distinguish between the analysis of the decision process and the description of the role knowledge plays in the decision process. Both are important, but to simplify matters somewhat, let us consider the decision process itself as one promising structural orientation for the discipline.

²*Ibid.*, Harold D. Lasswell, "The Policy Orientation," pp. 3-15, at p. 3.

A Sequence of Decision

The process may be conceived as having six basic phases which a policy or program passes through over time:

- o Invention/initiation
- o Estimation
- o Selection
- o Implementation
- o Evaluation
- o Termination

Invention/initiation, the earliest phase in the sequence, begins when a given problem is initially sensed, e.g., "problem recognition" or "identification." Once a problem is recognized, many possible means to alleviate, mitigate, or resolve it may be explored. In this early creative phase, one comes to expect that numerous, ill-resolved, and inappropriate "solutions" will be advanced. Indeed, as much as casting about for answers, this phase concerns sharpened redefinition of the problem. Invention refers to the fragile business of reconceptualizing a problem, laying out a range of possible solutions, and then beginning to locate potentially "best" choices within that range.

Estimation concerns predetermining risks, costs, and benefits associated with each of the various policy solutions that emerge from the invention/initiation phase. Calculation of the likelihoods that the various possible outcomes will occur is largely focused on empirical-scientific and projective issues, e.g., a role knowledge plays *in* the decision process, while the imputation of the desirability of those outcomes is more clearly biased toward normative concerns, e.g., a different and underrated role of knowledge. The objective of

estimation is to narrow the range of plausible policy solutions, by excluding the infeasible or the truly exploitative for instance, and to order the remaining options according to well defined scientific and normative criteria.

Selection calls attention to the fact that ultimately someone or a few must decide on the invented and estimated options, and that is the traditional responsibility of "decisionmakers," however one characterizes the role.

Implementation refers to executing a selected option. It is a phase of the overall process that is little understood, not particularly appreciated, and not well-developed--either conceptually or operationally. However, some indications of the importance of implementation are provided by Pressman and Wildavsky in their recent summary of several Federal programs in Oakland, California.³ To assess the performance of government policies and programs, one must understand the implementation mechanisms underlying that performance. For example, looking at incentive systems--of both the individual and institutional varieties--is one way to get some idea of what is actually happening and why it should be different from what was intended or implied by those more responsible and specialized to the selection phase of the decision process.

Evaluation, as contrasted with the previous phases, is somewhat more backward-looking in practice. Invention/initiation and estimation are anticipatory, and selection stresses the present. Evaluation asks questions of the following sort: What officials and what policies and programs were successful or unsuccessful? How can that performance

³Jeffrey Pressman and Aaron Wildavsky, *Implementation* (Berkeley: University of California Press, 1973).

be assessed and measured? Were any criteria established to make those measurements? Who did the assessment, and what were his purposes? To what ends was the evaluation directed, and were they accomplished? Good evaluation is a scarce commodity, but it is an essential ingredient to the next and final phase of the process.

Termination refers to the adjustment of policies and programs that have become dysfunctional, redundant, outmoded, unnecessary, and so forth. From the conceptual and intellectual points of view, it is not a well-developed phase, but one whose importance in current affairs must not be undervalued. How, for instance, can a policy be rationally adjusted or stopped without its having had a thorough evaluative assessment? Who will suffer from the termination? What provisions of redress have to be considered? What are the costs involved to the individuals affected by the termination? Can they be met from other sources? What might be learned in the termination process that will inform the initiation and invention of new policies in the same or related fields? The list of potentially relevant questions is long, but ignoring it and not making the connection to the other steps or phases in the overall sequence have mostly negative implications for the policy and the people whose lives the policy affects.

Some Emerging Areas of Policy Concern

To make more concrete the ways in which the decision sequence concept could be used to organize and structure policy scientific research, it is helpful to illustrate several policy problems--a common feature of which is that they seem especially amenable to comprehensive, multi-method, and interdisciplinary treatment.

Genetics, particularly the application of some spectacular advances in knowledge, is one general area replete with policy problems. Typically, little attention is being given to problem identification and recognition with respect to the likely positive and negative impacts of applied genetics. For instance, what are the legal rights of clones, genetically identical human replicates? In a desire to prolong life with organ transplantation techniques, what rights and obligations attend the matter with respect to a genetic duplicate "created" primarily as a ready reserve for "spare parts"? Should government take a more active role to control genetic research having clear human applications--or not?

Presuming that there will be numerous false starts and perhaps even major accidents in the early stages of genetic applications, how might a society prepare itself to deal with the living products of misapplication? For example, some empirical work could be done on the closely related cases of Thalidomide (Contergan) children and the rubella deformed cohorts born in the 1960s. How has society coped with these children? How did their parents adjust to the incredible burdens--emotional, financial, personal--represented by the damaged human beings entrusted to them? How have the children themselves fared and what are their lifelong prospects?

The answers to these formidable questions are important for their own sake, but they are more important as guides to the care and treatment of other cohorts yet to be born, damaged by genetic accidents or other unknown horrors. The problems are monumental, but for better or worse they demand full-scale identification and recognition--the first or initiating phase of the decision sequence.

Women's rights presents another significant problem area demanding attention. In the United States, for example, a constitutional amendment is quite near ratification which would guarantee women's equal rights along a general front. However, one suspects that insufficient attention has been given to serious estimations of the likely and (in this case at least) unlikely impacts of the law. No one has thought well or long enough about the risks, costs, and benefits of the proposed constitutional amendment. Besides the relatively few desired outcomes stressed by proponents in the initial deliberations, who can say with any confidence what the law's more pervasive ramifications might be? No one, because the necessary analytic work has just not been done. Now that the selection phase has nearly been completed, there is even more reason to do the hard estimations needed to ensure wanted and beneficial outcomes when the amendment is implemented.

Given the worldwide turmoil attending higher education in the late 1960s and early 1970s, there appears to be a considerable need to reexamine the basic role of the university in society. Indeed, recent cooperative arrangements between Georgetown University and a West German state to send some 500 students to America for college because of the under-capacity of the German and over-capacity of the American systems is one remarkable example of an ad hoc policy whose broader implications for both systems have not as yet been considered. Other demographic and social trends exist in the industrial nations that will have impacts on higher education, e.g., a slow but predictable increase in the cohort of the elderly, a distinct increase in the incidence of early retirement, a mildly accelerating rate of technical obsolescence among certain highly specialized and trained skill groups, all of which point toward a

changing institution and the need for creative policies to cope with those changes.

Financing U.S. higher education has become a chronic problem where many marginal operations have either ceased to operate or are sorely threatened. How might this general problem be resolved? The answer to this question is not likely to be easily solved by resort to increased direct governmental help--the reduction of which in current times has contributed in large part to the problem in the first place. Is the "Georgetown Solution" likely to become more widespread with the United States becoming the world's schoolhouse? Probably, but there are some easily foreseeable difficulties even with that simple answer.

How might a portion of the new knowledge generated by institutions of higher education be "captured" for their benefit as well as society's more generally? For instance, were only a fraction of a percent of the gross receipts from worldwide computer sales returned directly to the university qua institution--the source of most of the intellectual resources responsible for the machines in the first place--there might not have been a cash crisis in American higher education in the 1970s. What creative policies need to be invented to ensure, in spite of short-sighted, punitive, and "political" maneuvers, that the fiscal health of man's investment in knowledge institutions is assured? What will increasing pressures to unionize mean for the kind, quality, and cost of higher education? And so on through a lengthy list of rather obvious, emerging policy questions and issues in which concern for the entire decision sequence is manifest.

In an era of big government and societal settings where change is fast being accepted as an inevitable way of life, it is not surprising that there are identifiable movements to "deinstitutionalize," to terminate policies and programs thought to be outdated, unnecessary and/or dysfunctional. It is from such activities that interest has finally begun to focus on the termination phase of the decision sequence. Close down a prison or a mental facility because it is inhumane, costly, and generally believed to be ineffective in meeting some set of desired objectives; but what becomes of the displaced who still require services? A proportion of any society will break laws and exhibit "unnatural" or at least atypical behavior requiring care not afforded the more "normal" segment. In the haste to terminate one set of no longer wanted or useful policies and programs, what alternatives are created? Are these alternatives, if created, in fact any better, less costly, more effective, more humane, and so forth? The relationship of these fundamental questions to the decision sequence is clear.

One final example of man's insanity is still demanding careful, cautious scrutiny from a policy perspective: nuclear war. Détente may be a signal for a *total* reevaluation of all preexisting strategic policies. For instance, is the "strategic flexibility" euphemism more an excuse to rationalize increased military expenditures and in time to make more "thinkable" a neat, little nuclear exchange against military targets? Or is it an additional degree of freedom for narrowly constrained national decisionmakers who sincerely want to make war less palatable by reducing the world's potential for self-destruction? No one can be sure, but the problem is emerging with a vengeance demanding

the full attention of our best minds. Suppose that the neat little military exchange does occur, how could the chain of events leading to devastation be halted and the total damage minimized? Could war, in a question admittedly too simply posed, be halted short of total destruction, if only some preparation and attention to war termination negotiations were undertaken beforehand? Or if once begun, must a war grind on to a disasterous and unwanted end?

Energy, communications, health, and many other substantive areas are fitting subjects and objects for a policy approach--one which uses ideas such as the decision sequence and many other specialized concepts and methods to foster and improve the existing state of affairs. Even though we have known for some time that policy problems demand comprehensive, multi-method, and interdisciplinary treatment more often than not, it has taken the slow deterioration of the world into a state of permanent crisis to force this realization on many of our more narrowly focused policymaking and academic brethren. There is more work to be done than there are people to do it.

Was the energy crisis, as an obvious example, foreseeable? Probably. But *is* there an energy crisis? It is quite hard to make this determination independent of the questionable and inadequate data supplied by the oil interests--the basic source of information currently existing on the matter. Will the energy problem worsen? Improve in response to technological shifts and breakthroughs? Or moderate as a result of adjustments in life style? How long is the current crisis likely to last? Again, the list of questions is long and in need of attention.

Directions, Expectations, and Possibilities for the Journal

Rather than hunting for scapegoats in this and myriad policy areas, it is time that we began *to show by example* that policy scientists do in fact have something constructive to offer beleaguered policymakers. There is an obligation to alert society's participants to impending problems; the policy scientist has a right to clarify and elucidate the competitiveness and complementarity of interests and objectives of those acting on behalf of society and of the society being acted upon; we should not lose sight of the unique history and rich store of antecedent events leading up to the present and emerging future of various policy settings; and finally, there is the unstinting demand to behave as scientists, and to the greatest extent possible use, modify, and create new tools, techniques, and explanations to understand as well as possible what impedes and supports the realization of better policies--purposive acts taken on society's behalf.

As the Editor of *Policy Sciences* I shall most of all be looking for *quality* work to serve as an example to others who dare to break with traditional ways of viewing their specialized areas of competence. Until there are numerous palpable examples of good policy science to point to with pride, there is little reason to expect much, if any, progress will be made in realizing the program's full potential.

The time seems long past for idle "academic" exercises, a belief supported by many recent events at the very least. Narrowly elegant work that fails to answer the "so what?" question is of far less interest than hard examples of problems that have been identified and dealt with in creative and useful ways. To redirect the focus of the journal somewhat to this general objective, three special issues have

been planned to emphasize and structure the more underdeveloped phases of the decision sequence. At intermittent intervals over the next three years, there will be issues stressing termination, invention/initiation, and implementation. Guest co-editors have been invited to share this responsibility, and the work is already underway.

On the issue of quality control and the nurturing of professional standards, the journal's International Advisory Board itself will be reviewing more of the submitted manuscripts; and it will assist me in judging the best article and best review of the year appearing in the journal. Authors whose work is published are also being asked to assist in these matters in the form of a publication "tax" levied when a manuscript is accepted. A tariff of one reviewed manuscript for every published article does not seem over burdensome.

Finally, no one should expect wrenching changes in the format or content of the journal; there is no reason to instigate such changes given the general good health of *Policy Sciences*. However, in coming issues I hope that subtle shifts of emphasis will be noticeable as growth occurs on the solid foundations already laid. Over time such shifts will result, hopefully, in a better defined and more self-confident journal and profession.

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