THE STUDY OF MACRO AND MICRO IMPLEMENTATION OF SOCIAL POLICY

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ABSTRACT

The emergent field of implementation analysis lacks a conceptual framework for conducting generalizable research on what goes wrong with social policy and, more importantly, on how to improve policy performance. This essay offers some building-blocks for a framework. It assumes that implementation problems stem mostly from the interaction of a policy with its institutional setting. In the human service delivery arena, the federal macro-implementation problem can be distinguished from the local micro-implementation problem, in part by the differences in the institutional settings of federal and local systems. Federal policy takes place in a loosely coupled setting in which (a) many actors interact to determine who gets what, when, and how and (b) policy passes through and is transmuted by successive levels of implementing organizations. The net result is that the effective power to determine a policy's outcome rests with local deliverers, not federal administrators. Within the local system, the process of micro-implementation consists of the mutual adaptation between local policy (adopted in response to federal policy) and local organizational characteristics. This complex adaptive process inevitably creates uncertainty in how policy will be implemented; the uncertainty cannot be eliminated without removing the local flexibility necessary to make policy work.
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A dozen years ago, when the massive social programs of the Johnson Administration were being launched, hardly anyone spoke of implementation. Five years ago, when the disappointments of these policies and the frustrations of Viet Nam had dulled the high hopes of even the most optimistic reformers, several authors began to focus on implementation as the main problem.¹ Now implementation is "in." Everyone seems to be studying it, if not solving its problems. The next five years are likely to witness an outpouring of case studies reiterating the familiar conclusion: the best laid plans of social reform invariably go astray.

In the rush to get on the bandwagon, studies of bureaucratic politics, organizational analyses of resistance to change, analyses of policymaking and decisionmaking, and cases in public administration have a new focus—"implementation analysis." Whether this shift in research attention will prove valuable remains to be seen. The earlier works had the fatal flaw of examining policy without being relevant to policymakers (accepting the evidence of their nonuse as eloquent, if silent, testimony). Some studies were so preoccupied with the workings of government that they neglected to relate governmental machinations to policy outcomes; others were content to relate policy inputs to outputs without investigating the intervening institutions. The hope of the new breed of analysts is that systematic investigation of implementation—the "missing link" between policy input and output—can provide more direct, more useful, and more readily generalized advice to policymakers.

Yet to realize this hope, research must deal with two problems. First, the literature consists mainly of atheoretical case studies of varying quality—some extraordinarily perceptive, others disappointingly dull—whose claims to generality are questionable because
the cases cannot easily be compared. Studies of policy in education, health, housing, criminal justice, and the like are often described in terms peculiar to the context and in the jargon of their sector. Reviewing a wide sample of these retrospective studies leaves one feeling somehow wiser but still very uncertain as to how to apply this wisdom in other than the special circumstances already passed. Second, most studies treat implementation problems that arise within one level of a policy sector or, at most, between two levels (between the Congress and the federal bureaucracy, say, or between a state agency and the local policy system). Such analysis may, therefore, deal with only part of the complex chain from policy input to outcomes, and not necessarily with the most important part of that chain. This partial perspective raises doubts as to whether recommended "fixes" would have any effect on ultimate outcomes. In brief, implementation analysis lacks a conceptual framework that places individual studies within their larger sectorial context and facilitates cross-sectorial comparisons.²

The faint lines of a framework may be emerging, however. Recent empirical studies as well as several conceptual essays seem to be converging toward three areas of agreement: (1) A broad consensus has developed about the meaning of implementation and the nature of the implementation problem. (2) Researchers, rejecting the simpler formulations of many policy analysts, operations researchers, and planners, seem to agree that a policy's implementation problem derives not only from its design; it derives also from the policy's relationship to its institutional setting. With this sharpened focus on the institutional setting has come an awareness that the enduring characteristics of the setting—the setting's structure—shape implementation in similar ways across diverse policy sectors. In other words, the literature
seems to be moving toward a classification of implementation problems in terms of the structure of the social policy setting. (3) Most implementation researchers seem to consider the study of the implementation process as a process essential for identifying key policy levers in the social policy arena. Several case studies of local social service delivery systems have progressed to the point of defining an analytical approach to describing the local implementation process.

The nascent field of implementation analysis is thus taking shape: it is establishing some working definitions, classifying implementation problems implied by the policy's institutional setting, and describing the process of implementation in local social services delivery systems. Although these areas of agreement do not yet constitute a fully articulated framework—let alone a theory—they portend the future development of comparative and generalizable studies. This essay explores these areas in the hope of furthering that development. The first section charts the domain of implementation analysis—what it is and is not about. The second section sketches the architecture of implementation in social policy sectors. The third proposes a simple model of the process of implementation for local social service organizations. Although we focus throughout on the empirical analysis of implementation difficulties in the human service delivery area, we believe many lessons are implied for predictive analysis in both this and other public policy areas.
THE DOMAIN OF IMPLEMENTATION ANALYSIS

The article of faith that unites implementation analysts is a belief that the carrying out of a policy, the installation of a technology, the realization of a plan, or the enforcement of a law is neither automatic nor assured. On the contrary, both casual observation and systematic investigation suggest that the outcomes of social policies and innovative plans generally have been unpredictable and unfortunate, at least in the eyes of their designers. Academic research seeks to understand and explain this uncertainty in outcomes; policy research aims to do something about it. Few of us trust in an invisible hand to balance the complex forces and organizational dynamics that are the essence of implementation. Rather, we seek to unveil a process that is usually obscured by the mundane incremental decisions of people who are just doing their jobs. The first step is to characterize the nature and the sources of difficulty and uncertainty that arise during implementation. This section begins that task by defining some terms.

Implementation is the carrying out of an authoritative decision, i.e., a policy choice. As Pressman and Wildavsky (1973) suggest, a policy decision implies a theory relating goals to expected ends or consequences: the theory assumes that once a policy choice, \( P \), is made, then the outcomes, \( O \), will occur. Implementation analysis is not about whether a policy's goals are fit and proper, which is a matter of values; nor does it concern itself with how they were chosen, which is a study of policymaking. Rather it challenges the theory's validity and presumes that \( P \) does not invariably lead to \( O \). Implementation analysis is, in short, the study of why authoritative decisions (policies, plans,
laws, and the like) do not lead to expected results. To speak in more positive terms, it is the study of the conditions under which authoritative decisions do lead to desired outcomes.

Implementation is not always a serious problem and, in some cases, is hardly a problem at all. In agriculture, health, and manufacturing, for example, the decision to adopt a new technology has often resulted in predictable and sometimes dramatically successful results. The green revolution, the pill, and the polio vaccine are among recent technological advances that point to a seductively simple Research and Development (R&D) model consisting of a sequence of stages (Havelock, 1969): (1) invention of a technology and testing in the "laboratory"; (2) testing and demonstration in the field; (3) communication to potential users; (4) adoption by users. Where is implementation? It really does not matter in these special cases because once the wheat seed is planted, the pill taken, or the serum injected, consequences flow automatically. In short, technology dominates the results.

But, in other cases, this R&D model can be inaccurate and inappropriate. For example, the Rand study of educational change agents examined what happened to approximately 300 innovations after they were adopted by local school districts. Some of these innovations had been tested and developed in regional laboratories supported by the U.S. Office of Education; others had been invented and designed in university settings in the United States or abroad; all had been tried out and used by other school districts. No matter how the data were analyzed, we could find no strong relationship between the type of innovation adopted (i.e., the technology) and outcomes (Berman and Pauly, 1975). Indeed, it became apparent that the same technology was implemented in very different ways in different institutional settings with
very different results, a point I shall return to later. Moreover, factors associated with how the project was implemented explained a relatively high proportion of the variance in outcomes. In other words, in the instance of educational innovations, implementation typically dominates the outcomes (see Gross, et al., 1971; Smith and Keith, 1971; Fullan and Pomfret, 1977).

This example from education may seem extreme because of the "softness" of educational technology, but similar findings apparently hold for the introduction of a wide variety of "hard" technologies in a number of different settings (Burns and Stalker, 1961; Yin et al., 1976). The literature describes cases in which technologies could not be used without adaptation to their institutional setting. For example, Elting Morison (1966) relates how a new aiming device for guns aboard naval ships could not be employed without technical modifications to fit the U.S. Navy's way of doing things and some painful restructuring of Navy routines. In such situations, the implementation of a technology becomes an issue, regardless of how effective the technology is in the laboratory, because the interaction between the technology and its setting is uncertain.

We therefore conclude that whether technology or implementation dominates depends on the relationship between the technology and its host institutional setting, not simply on the hardness of the technology. However obvious this conclusion may seem, public policy in the sixties and seventies often followed an R&D approach that assumed technological dominance and ignored implementation. Case studies of federal demonstration projects for such hard technologies as nuclear power plants
or garbage collection systems, for example, suggest how myopic an R&D perspective can be (Baer, et al., 1976). But the misapplication of an R&D approach has not been limited to public policies utilizing hard technologies. Social policies in the past two decades typically took a technological approach, *à la* the model of placing a man on the moon (Nelson, 1974). Although these policies usually did not involve hard technologies, they generally assumed that either existing or specially created organizations would—or perhaps should—carry out policies in an automatic way analogous to the situations in which technology dominates.

It is easy, with hindsight, to see how mistaken this assumption was for social welfare, housing, health, and education programs. The social planners of the sixties focused on translating the best and the brightest ideas into public policies, not on implementing these policies. They thus failed to heed the lessons of a considerable body of organizational analysis: (1) stable organizations, whether public bureaucracies or private firms, implement *standard* decisions in a programmed and predictable, if not optimal or desirable, way (implementation exists, though it is essentially mechanical); but (2) implementation becomes problematic when an organization confronts a *nonstandard decision* that implies a departure from routine behavior. Had social planners paid attention to these lessons, they might have at least lowered their expectations. Or, better yet, they might have abandoned a technological approach and realized that it is impossible to predict accurately the consequences of policy choices in nonstandard decision situations or to control the process leading from policy to outcome. (For the sake of clarity, we
hereafter reserve the term "policy" to refer to nonstandard decisions (cf. March and Simon, 1958, p.174).

We can summarize this section's discussion of the central concerns of the emerging field of implementation analysis quite simply. Implementation analysis assumes that the input-output policy statement--"if P, then 0"--should be replaced by a chain of (at least) two relationships:

Implementation effectiveness (1) If P, then I (a policy choice, P, leads to a particular implemented program, I).

Technical validity (2) If I, then 0 (the implemented program leads to outcomes, 0).

Implementation analysts, accepting the existential nature of policy, believe that these two relationships are inseparably linked. They reject the hope that a policy's technical validity--how "good" the policy's idea, law, or technology is (cf. Schultz and Slevin, 1975)--can be known before it is implemented. They start instead from the assumption that policy, especially in the social arena, exists only as it is implemented and, therefore, the "goodness" of most ideas cannot be tested apart from their implementation. Thus, the two relationships, the policy's technical validity and its implementation effectiveness, cannot be divorced; taken together, they constitute the domain of implementation analysis.

The first relationship (if P, then I) deals with the "missing link" between policy and outcomes--an implemented program. The literature agrees that the implemented program depends on the complex interplay between the policy choice and the policy's institutional setting, which consists of one and often of many formal and informal organizations.
Symbolically,

\[ I = f(P, \text{Inst.}) \].

The remainder of this essay discusses how researchers think about this deceptively simple relationship.
THE ARCHITECTURE OF MACRO-IMPLEMENTATION

The study of social policy implementation is so difficult because social services are delivered by local organizations (schools, hospitals, health care centers, police departments, welfare agencies, and the like) that are relatively autonomous from federal or state control and, worse yet, have their own implementation problems. Implementing national policy thus consists of not one but two classes of problems. The federal government must execute its policy so as to influence local delivery organizations to behave in desired ways; we call this the macro-implementation problem. In response to federal actions, the local organizations have to devise and carry out their own internal policies; we call this the micro-implementation problem. We hope to make it clear that macro-implementation is a very different process from micro-implementation.  

Essential differences between the processes of micro-implementation and macro-implementation arise from their distinct institutional settings. Whereas the institutional setting for micro-implementation is a local delivery organization, the institutional setting for macro-implementation is an entire policy sector, spanning federal to local levels.

A policy sector usually consists of a collection of many diverse governments, bureaucracies, courts, public and private interest groups, local delivery systems, clients, and individual actors whose complex
interactions are often hard enough to uncover, let alone describe. The interactions in such sectors as education, health, housing, and welfare are sometimes fluid, frequently chaotic, and always conflictual. Nevertheless, policy sectors typically have tacit operating rules of the game, established roles, routinized procedures, and reasonably stable conditions. These enduring patterns of behavior can be called a macrostructure.

How should macro-structure be described? Many studies of federalism (Sundquist, 1969; Seidman, 1970; Reagan, 1972) convincingly dismiss the neat federal-to-state-to-local links pictured in Government I textbooks as nothing but a paper hierarchy. Instead they portray macroimplementation as taking place within a "marble cake" of cooperative feudalism, not the ideal "layer cake" of coordinated federalism (Seidman, 1970, Chap. 6). These metaphors help us guard against being too simplistic. Yet more powerful analytical concepts are necessary to take implementation analysis past the applied wisdom stage.

One potentially useful concept is loose coupling (March and Simon, 1958; Glassman, 1973; Weick, 1976). The behavioral patterns among the public, private, and semi-public organizations and various actors in a policy sector can be seen as constituting a loosely coupled structure. Loose coupling, which is intended to be a neutral term in the sense that "looseness" could be good or bad for implementation, suggests that (1) each organization has its own problems, perspectives, and purposes that reflect its particular structure and culture, and (2) each organization acts more or less autonomously within the overall macro-structure of the sector. Social scientists are a long way
from operationalizing and measuring loose coupling (Weick, 1976), but
the concept helps focus on factors that are comparable from one policy
area to another.

For example, several writers (e.g., Levine, 1972; Pressman and
Wildavsky, 1973) warn us that the more organizations and interorgani-
zational agreements that are needed to implement a policy, the more
uncertain and difficult is implementation. Some researchers have gone
beyond the sheer number of independent actors to suggest factors that
govern the politics of implementation in a loosely coupled sector. For
example, studies in such areas as employment and economic development
(Pressman and Wildavsky, 1973), welfare (Derthick, 1970), housing (Der-
thick, 1972), urban renewal (Wilson, 1967), environmental regulation
(Freeman and Haveman, 1972), and state legislation of mental health
services (Bardach, 1972 and 1977) point to four clusters of factors
associated with the uncertainty and difficulty of macro-implementation:
goal discrepancies, influence and authority differentials, resource
deficiencies, and communication difficulties among organizations. The
importance of these political factors to macro-implementation reminds
us that the process of implementing national policy is very much a ques-
tion of determining who really gets what, when, and how.

Whereas examining the looseness of a macro-structure highlights
political processes, the "coupled" aspect of loose coupling suggests
some related bureaucratic issues. In the federal system, there usually
is a temporal or causal dependence among those organizations in a sector
that are responsible for implementing a policy. That is, the policy
passes through and is implemented sequentially by various organiza-
tions, so that the output of one implementing organization becomes
the input for other organizations. The final implemented program, and hence the policy's outcome, depends on these passages. The problem in a loosely coupled structure is, of course, that each passage creates difficulties and uncertainties: the more passages, the more problems. Most importantly, each passage transforms the input, as we discuss below.

Before formalizing matters, let us illustrate the key passages in the familiar sequence of the "long process from policy to operations" (Williams, 1976a). The 1973 Comprehensive Employment and Training Act (CETA) aimed to decentralize manpower training by providing block grants to state and local Prime Sponsors (usually units of government). The legislation was administered by the Secretary of Labor and the Manpower Administration who established regulations, procedures, guidelines, and so on for Prime Sponsors to follow. These regulations, procedures, and guidelines, along with the grants, constituted the government program with which Prime Sponsors had to cope. The government program led to the adoption of local projects, which were usually operated (i.e., implemented) not by the Prime Sponsors but by local service deliverers in the public and private sector who were under contract to the Prime Sponsors. Finally, the way local deliverers implemented their projects determined the policy's outcomes.

This example suggests a chain of four distinguishable passages in the macro-implementation of policy in social service delivery sectors:
Administration (1) If P, then G (an authoritative policy decision, P, leads to a government program, G)

Adoption (2) If G, then A (the government program leads to the adoption of a local project, A)

Micro-implementation (3) If A, then I (the local project leads to an implemented practice, I)

Technical validity (4) If I, then O (the implemented practice leads to outcomes, O).

These linked passages—from policy decision to government program, from program to local project adoption, from adoption to implemented local practice, and from practice to local outcomes—represent basic types of coupling discussed in the literature.

Instead of the term passages, we could have called these couplings the "steps in the policy process." However, the process does not in fact proceed in a step-like fashion. Nor is there a smooth and certain flow from national policy initiation to outcomes. A more appropriate image of macro-implementation is a series of necessary passages whose stochastic linkages define and redefine policy. On the one hand, what happens in the uncertain and on-going process of administration affects adoption; what happens in adoption affects micro-implementation; what happens in micro-implementation affects technical validity. On the other hand, the process can have iterative aspects as well—for example, the outcomes of local CETA projects might alter the administration of the government program. The
remainder of this section discusses each passage, paying particular attention to implementation difficulties that arise from the nature of the linkage between passages.

Administration, the first relationship, is the translation of a policy decision into a specific government program whose presumed objective is to carry out the policy's intent. The literature documents several factors that may cause administration to result in a discrepancy between policy intent and government action. One commonly cited factor concerns the input to the administering agency—namely, an ambiguity in intention in the enabling legislation, court decision, and the like (March and Olsen, 1976). Ambiguity is reflected by multiple goals, often conflicting, and in lack of specificity about means. The Elementary and Secondary Education Act of 1965 (ESEA) provides a classic illustration of multiple and incompatible goals plus a lack of specificity, as several investigators have shown (Bailey and Mosher, 1968; Murphy, 1971). Whatever implementation difficulties it may cause, ambiguity seems both inevitable and desirable in the political process of passing a law (Rein and Rabinovitz, 1974). The issue for implementation analysts, then, is to understand how the administering agency translates an ambiguous policy decision into a government program. It seems obvious that the more ambiguous the intent of a policy, the more latitude the administering agency has in defining a government program. In other words, the more ambiguous the policy, the more the implemented program depends on the characteristics of the administering organizations.
Thus, implementation analysts might look to underlying organizational features of the administering agencies to better understand how policy gets translated into operational government programs. The research in this area has often been more perceptive than analytical. Rather than using classifications of structural features frequently mentioned in the organizational literature—e.g., size, complexity, and formalization (Blau, 1968; Hage and Aiken, 1970; Hall, 1972)—implementation analysts have focused on documenting the difficulties of getting agencies to execute policy faithfully. This research invariably starts with the recognition that most federal legislation is administered by an existing bureaucracy or some combination of existing bureaucracies, perhaps reorganized for the purpose of administering a particular policy. But the bureaucracy marches to its own tune, or indeed may not march at all, as many disillusioned new agency heads have learned. Robert A. Levine, fresh from his experiences in the Office of Economic Opportunity, is neither the first nor the last former official to discover that policy is "implemented by program operators who may or may not be in sympathy with the plans, may or may not have even understood them, but in any case will certainly be governed by their own motives and imperatives, both personal and programmatic" (Levine, 1972, pg.9). In short, implementation analysts begin with an assumption that the translation of policy into program is subject to cooption of the policy by administering agencies.

The next step for research is to formulate some hypotheses, albeit crude ones, that relate cooption to the policy input. For example, the more ambiguous the intent, the more likely is cooption. Implementation analysts also will want to relate the structural
features of administering organizations to the likelihood of cooptation. For example, each operating level between policy initiation and the program finally presented to local deliverers may coopt the "input" it receives from above. The more levels involved in administration (or the larger the size, the greater the complexity, and the more the formalization of the administering agency), the more extensive cooptation is likely to be.

The next passage, the local adoption of projects, may involve another source of implementation uncertainty: a slippage between programmatic guidelines and local response. Slippage can arise in several ways. For one, local delivery systems (school districts, courts, precincts, hospitals, welfare agencies) may not adopt a project if adoption is voluntary. The literature on diffusion of innovations, knowledge dissemination and utilization, and technology transfer examines the non-adoption problem in more or less voluntary situations. It considers adoption to be a function of the characteristics of the "technology;" the incentives offered to adopters, the attributes of the adopter; the political, social and economic condition of the local environment; and the nature of the larger network, market or system in which the local adopter is embedded (Rogers and Shoemaker, 1971; Walker, 1969; Warner, 1974). These findings are less relevant to implementation analysis than might be expected because macro-implementation of social policy usually involves adoptions that are not quite voluntary or that have federal or state strings attached. In these instances, local delivery systems may adopt a project only symbolically. Or they may adopt a project that has little to do with and may even be contrary to the government program and its policy intent. The imple-
mentation literature has analyzed these causes of slippage in terms of compliance and consonance. (Compliance and consonance are special cases of what we previously called authority differentials and goal discrepancies between organizations in a loosely coupled policy sector).

In the education sector, traditions of local control preclude effective federal enforcement of school district compliance with government program guidelines, or even with the spirit of the law. That sector, therefore, provides textbook illustrations of slippage. For example, Title I of the 1965 Elementary and Secondary Education Act, a federal reform initiative targeting over $1 billion annually for the local establishment of "special educational programs for the disadvantaged," has yet to be implemented across the country as intended by Congress. Because the authority upon which local compliance depends is essentially nonoperational, many local districts have used Title I funds as general aid or for the support of symbolic or non-targetted activities, rather than for special compensatory projects (McLaughlin, 1976). Thus, the projects funded by the Act reflect primarily local interests. Consequently, slippage depends on the consonance between these local interests and federal program goals. Where consonance is low, slippage may be affected by how much influence and authority the federal government has to enforce local compliance, as well as by whether the federal government is willing and able to implement monitoring and evaluation procedures (Wholey, 1973).

It is clear that the "long process from policy to operation" essentially breaks down if local projects are not adopted or if adoption is merely symbolic. Although it should be equally clear that
adoption per se does not assure a policy's success, policymakers and their evaluators too often have simply tallied the number of local adoptions of a new medical practice, educational technique, CETA project, aid-to-handicapped provision, or criminal justice procedure, and have then considered the tally to be an adequate measure of a policy's effectiveness. By so doing, they ignore *micro-implementation*, the passage from adoption to locally implemented practices. This unfortunate oversight deserves a name, the *adoption fallacy*--the assumption that the adopted project is the same as the implemented practice.

For example, as part of the federally sponsored Follow Through Planned Variation study, particular educational models (i.e., technologies) were adopted by a variety of different school districts. When federal program administrators asked what the consequences of a specific model were, they implicitly assumed that when different school districts adopted the same educational model they in fact used the *same* model. Research showed this assumption to be erroneous (Elmore, 1976). At each site, the implemented educational practice differed from the sponsor's design; consequently, the same model resulted in distinctive practices across different sites. This phenomenon has been reported in studies of educational reform (Berman and McLaughlin, 1976b), bail reform (Friedman, 1976), Medicaid (Brewer and Kakalik, 1974), and criminal justice (Greenwood, 1973). We call it *mutation*.

Mutation is the adaptation of a project to its local organizational setting during implementation. When there are a number of implementing sites, mutation can be symbolized by rewriting passage (3) as
If A, then \( I_1, I_2, \ldots I_n \).

That is, if \( n \) sites adopt a project, one can expect \( n \) different implemented practices. Or, to put it in functional terms,

\[
I_n = f (A, \text{Org.})
\]

where \text{Org.} stands for the characteristics of each particular local delivery organization.

The significance of the mutation phenomenon goes well beyond the complications it causes federal evaluators and social planners. It suggests that the more projects are susceptible to unique adaptations in their local setting, the less influence the "input" from a government program may have on locally implemented practices or their outcomes.

This hypothesis seems to be consistent, for example, with the Rand study of approximately 300 federally supported educational innovations. The study found that variations in inputs—programmatic management strategies (four federal programs were studies), the type of innovation, and the level of federal funding—explained little of the variation in project implementation and outcome (Berman and Pauly, 1975). Consequently, policy outcomes depended primarily on micro-implementation at the local level, which could be influenced only indirectly by higher levels of government. In these instances, "solving" all the implementation problems of administration and adoption makes little difference, because effective power lies at the base of the macro-structure with the local implementors and the "street-level bureaucrats" (Lipsky, 1971; Dolbeare and Hammond, 1971).
In summary, the study of macro-implementation shows promise but, thus far, few generalizable results. There appear to be several central concepts, factors, and hypotheses in search of an organizing framework. We proposed one likely direction for this search—namely, that macro-implementation (a) takes place within a loosely coupled structure and (b) involves four passages from policy decision to outcome. Although each passage merits concentrated research, micro-implementation may be the most pivotal step because a social policy's outcome depends on local delivery. Consequently, the next section discusses micro-implementation more fully.
MICRO-IMPLEMENTATION

The micro-implementation of federal policy usually implies the need for local organizational change. This observation may seem obvious, but national policymakers too often view the problem differently. They tend to truncate their concerns at the adoption decision and to assume that local implementation is self-executing. On the contrary, the faithful execution of government programs typically requires change in the standard operating procedures that define delivery organizations. Such change never comes easily. Indeed, organizational members may adapt to demands for change in unanticipated ways, which is the crux of the micro-implementation problem.

The last section ended by suggesting that micro-implementation involves the adaptation of a project to its local organizational setting. The preceding paragraph adds the further complication that organizational members also may adapt to the project. But the main point is that, for effectively implemented projects, the project and the organization both change, in interaction with each other. In short, we hypothesize that effective micro-implementation is characterized by mutual adaptation between the project and the organizational setting (Berman and McLaughlin, 1974).

To underscore the importance of mutual adaptation, let us translate this concept into symbolic terms. Earlier, we represented micro-implementation by the relationship

\[ I = f(A, \text{Org.}), \]
which means that an implemented local practice is a function of the adopted project and characteristics of the implementing organization. We now suggest that this simple relationship needs to be replaced by the simultaneous relationship

\[
\text{Project adaptation (Mutation)} \quad (3.1) \quad I = f(A, \text{Org.})
\]

\[
\text{Organizational adaptation} \quad (3.2) \quad \text{Org.} = f(A, I).
\]

The simultaneous form of these micro-implementation equations argues that what happens to a project depends not only on project and organizational characteristics, but also on what happens to the organization because of the project and because of the way the project is implemented.\(^{10}\)

The federal Right-to-Read program provides an illustration of mutual adaptation. Projects sponsored by Right-to-Read offered schools a step-by-step management plan for implementing innovations that were usually aimed at improving reading scores. Most projects examined in a national sample (Berman and McLaughlin, 1976b) ran into insuperable implementation difficulties because the initial plan did not allow for unforeseen contingencies (e.g., teachers' strikes, uncooperative parents, or principals' transfers) and the project staff were unable to adapt the plan accordingly. The staff of other projects followed the Right-to-Read plan symbolically and carefully avoided altering their classroom practices; these failures of organizational adaptation also meant that these projects could not raise reading scores. In contrast to these cases of ineffective implementation, the few projects that appeared to improve student performance were implemented by a process of mutual adaptation:
plans were revised and modified according to conditions in the schools as well as to teachers' and students' characteristics and the school's standard operating procedures and classroom practices were changed to better deal with project requirements.

At an even more microscopic level, these adaptive processes consist of many decisions made over time by many local actors. The sequence of decisions describes the path of micro-implementation. We assume that the input to the local delivery system of a government program becomes translated into practice by a sequence of local decisions, i.e., a path, that is not uniquely determined by the input. The particular micro-implementation path that is followed depends on the interplay of the project with the local organizational setting. A natural starting point for empirical research is to describe implementation paths.

Some Micro-Structural Characteristics

Before offering a framework for describing implementation paths, a few words of caution are in order. It would be easy but shortsighted to record decisions and events without taking into account the structure of the local delivery system that the project seeks to change. The gestalt of local system dynamics needs to be understood before analyzing the foreground of project implementation. We cannot suggest a theoretical way to do so because local organizations differ considerably across different policy sectors, so that a single organizational model may not be applicable to all situations. At this primitive stage in the development of implementation analysis, it seems more prudent to apply one or more existing organizational models than to invent a new organizational theory. Whatever organizational approach one chooses, however,
current research suggests some structural features of public delivery systems that appear to be both generalizable and significant for implementation.

Public delivery systems are appropriately thought of as systems because the delivery organization (school, hospital, welfare agency) is embedded in a local setting to which it delivers services (to students, to patients, to clients) and with which it interacts. And the local setting is, in turn, embedded in a larger environment (e.g., general social and economic conditions) that affect the organization directly and indirectly, though the local organization generally cannot affect the larger environment. Organization theorists suggest that the distinctive organizational characteristics of public social service systems, as compared to private business in the market sector, derive from the labor intensive nature of the delivery task, the ambiguity of output criteria, and the openness of the delivery organization to its environment. (Thompson, 1967; Meyer, 1977). These same traits define the context for implementation.

First, the delivery of the social service (learning, medical care, public assistance) consists of the continuing interactions over time between a professional deliverer and a recipient of the services. These bilateral interactions (between teacher and student, between doctor and patient, or between caseworker and welfare recipient) require the "intensive" use of professional techniques whose "selection, combination, and order of application are determined by feedback from the [client]" (Thompson, 1967, p.17). In this situation, analysts cannot assume projects can, will, or should be implemented uniformly across individual deliverers.
The works of Michael Lipsky (1971) and James Q. Wilson (1967) deal with this issue, though in divergent ways.

Second, questions about value, fact, and the lack of basic delivery theory about "outputs" plague many social service delivery areas. Which "outputs" should be measured, how they should be measured, or indeed whether they are measurable at all are more than academic or political controversies. These uncertainties imply that "productivity" or "output" often cannot, need not, and usually does not strongly influence authoritative decisions within the organization. Several related implementation problems in social services areas follow from this "output" difficulty. For example, because the technical validity of an implemented program is often a disputable and sometimes a moot issue, policy evaluations of projects typically serve political and bureaucratic ends (Cohen, 1970; McLaughlin, 1975). Consequently, project adaptation during implementation frequently reflects not feedback from project outcomes, but rather bureaucratic and political adjustments to the process of implementation itself.

Third, social service delivery organizations are extraordinarily "open" to their local environments. Their nonmarket and public nature implies an environment whose "causal texture," to borrow Emery and Trist's concept (1965), is an odd mixture of placidity and turbulence. Placidity reflects the captive clients and the absence of a market in public delivery situations. But turbulence sporadically arises because public organizations must respond to exogeneous events (e.g., changes in government policies, trends in economic and social conditions, and fads in technology) as well as interact with their strictly local environment. They are, in short, prone to uncontrollable and uncertain
events. For example, "decisions" by administrators in public schools are never the last word; they can be modified, compromised or reversed by school boards, whose composition varies over time and whose members are subject to special interest groups, anxious parents, and their own political ambitions. Moreover, the environment's turbulence can have a magnified effect on implementation. The appointment of a new Police Chief, the election of a mayor, the forced retirement of a superintendent, the revolts of clients, the walkouts of practitioners, the inroads of inflation, and so on—the list is very long indeed—may merely perturb the system as a whole, yet have a traumatic impact on the implementation of struggling projects whose survival is at stake. The implementation path of a project can thus be profoundly shaped by unforeseen and unforeseeable events.

In summary, the institutional characteristics of local delivery systems—labor-intensive technologies based on bilateral interactions; multiple, conflicting, and generally unmeasurable social goals; and an uncertain and uncontrollable environment—form the context for micro-implementation. The art of describing implementation paths requires the analyst to somehow take this background into account.

The Phases of Micro-Implementation

Implementation analysts carry a special burden. To describe the path of micro-implementation, they must perceive the same phenomenon from two points of view. From the federal or state perspective, micro-implementation begins with local adoption decisions and ends when local
systems have incorporated new practices or terminated them. But from the local perspective, "implementation" refers to a narrower process—the carrying out of local policy, rather than the carrying out of federal policy. We have, in effect, a Russian doll of implementation-within-implementation. For the sake of clarity, we will refer to the carrying out of local policy as deliverer implementation; deliverer implementation is then but one phase of the overall micro-implementation process.

As we suggested earlier, micro-implementation implies the need for organizational change, and the literature on this subject suggests a three-phased model. For reasons to be discussed, we call the phases mobilization, deliverer implementation, and institutionalization. This division makes empirical sense because the kinds of decisions and the cast of actors are different for each phase. In the mobilization phase, the local organization's officials (managers, supervisors, superintendents) decide about project adoption and plan for its execution. These plans are put into operation by deliverers, not managers, during implementation. But an implemented practice may be short-lived unless officials take appropriate actions to institutionalize it—i.e., to make the implemented practice part of the organization's standard operating procedures.

We use the term mobilization rather than more common expressions (e.g., initiation, selection, or adoption) to evoke an image of the mixture of political and bureaucratic activities that are the real core of starting a new practice. Several aspects of these activities may be
particularly crucial for describing the project's path. The local organization's goals and agenda at the project's outset may profoundly affect its fate. If local priorities do not accord with those of the federal government, adoption decisions may be merely pro forma (e.g., compliance with desegregation or with the Lau-Nichols ruling on providing bilingual education). School districts have been known to accept the quid of federal funds without serious intentions of delivering the desired quo, an opportunistic strategy on which they do not hold a monopoly. Such initial motivations tend to last throughout the project's life, but are immediately evidenced in the second major activity of mobilization, planning.

The literature agrees that adequate planning with respect to resources, personnel, procedures, and the like is critical for implementation and institutionalization, although no consensus exists on the ingredients of adequate planning. But more important than the plan itself is the effect the process of planning may have on the generation of political, bureaucratic, and personal support within the delivery organization. The literature hypothesizes (a) the importance of broad participation in planning as a means for generating deliverer commitment, (Giacquinta, 1973; Pullan and Pomfret, 1977) and (b) the significance of coalition building and bargaining for cementing the bureaucratic commitments of managers (Cyert and March, 1963; Hargrove, 1975, p.53).

The key to describing the next phase, deliverer implementation, is adaptation. In the process of translating the adopted project or plan into an operational reality, deliverers repeatedly make two kinds of decisions, which must seem trivial compared to Presidential,
Congressional, and Judicial alternatives: they choose to adapt project plans to their standard behavior or to adapt their behavior to the plan. These possible choices suggest the hypothesis that implementation can follow one of four paths:

(1) *nonimplementation*, no adaptation in the project plan or in deliverer behavior;

(2) *cooptation*, no adaptation in deliverer behavior, but adaptation in the project to accommodate existing routines;

(3) *technological learning*, no adaptation of the project plan but adaptation of routinized behavior to accommodate the plan;

(4) *mutual adaptation*, adaptation of both the project and deliverer behavior.

It would be remiss not to point out that the Rand study of educational projects found no implementation that could be described as technological learning; projects were either adapted to local conditions or not implemented at all. Moreover, the only projects that seemed to produce effective outcomes were those whose paths showed mutual adaptation (Berman and McLaughlin, 1977).

The implemented practice cannot produce a continuing flow of outcomes unless it becomes a routinized part of the local delivery system, i.e., becomes institutionalized. Sometimes institutionalization is a by-product of implementation. But stable organizations have a knack of allowing new and even "successful" practices to fade away, especially
when the macro-policy that precipitated local adoption is no longer an "idea in good currency" (Schon, 1971). In these and many other situations, effective implementation does not guarantee institutionalization; indeed, the two can work against each other (Ford Foundation, 1973).

Implementation analysts as well as students of organizational change have neglected the study of institutionalization as a process, despite its apparent importance for the long-run effect of policy. Recent empirical work, however, provides at least three clues relevant to describing the path of a project. First, institutionalization involves at least one and perhaps a cycle of decisions by managers to routinize the implemented practice so that it becomes incorporated into organizational procedures (Yin, in preparation; Berman and McLaughlin, 1977). Second, these decisions are similar to the adoption decision in the sense that they turn on local bureaucratic and political considerations. Third, these authoritative decisions by local managers are, like everything else in the complex world of implementation, not self-executing; they too must be carried out by deliverers.

We have come full cycle. The phases of the local process of change (i.e., micro-implementation) are not nearly as neat or linear or discrete from each other as analysts might like. One can only hope that more empirical work will shed light on their interrelationships.

**THE PROSPECTS FOR IMPLEMENTATION ANALYSIS**

The battle for recognition of implementation as a critical element of policymaking has been won. But the analysis of implementation is just getting beyond the stage of isolated case studies and applied wisdom. It is time to design research so that knowledge from individual
studies in different policy sectors can be cumulated and compared. To do so, we need a loose framework that defines key concepts and identifies major factors affecting implementation. This essay offered some concepts—macro- and micro-implementation, loose coupling, implementation passages, mutation, mutual adaptation, the phases of micro implementation—that reflect current research and may contribute to the development of a framework.

As the research pace quickens, however, analysts have a responsibility to convey a realistic assessment of how much increased scientific knowledge can reduce the uncertainties and difficulties that inhere in implementation. Because implementation—like other human problem solving activities (Simon and Newell, 1972)—arises from the interaction of a policy with its setting, we cannot anticipate the development of a simple or single retrospective theory of implementation that is "context-free." Nor can we expect predictive analysis to yield cures-alls for the uncertainties of implementation. Indeed, this essay suggests three reasons why federal policymakers should be wary of any such proposed schemes: (1) macro-implementation inevitably involves politics; (2) the federal government typically has limited leverage to influence the behavior of local implementors, who have the effective power in the policy system; and (3) micro-implementation cannot be effective unless local delivery organizations undergo an adaptive process that can neither be predicted accurately nor controlled from the outside. In light of these sources of uncertainty, implementation analysis could
make a major contribution to more effective policy by developing institutionally-grounded heuristics to help policymakers adapt their decisions as implementation problems arise. This more modest, yet still difficult goal seems feasible.
NOTES

1. Although many of these works will be cited, this paper does not present a systematic review of the literature. See Hargrove (1975) for an excellent overview of the state-of-the-art.

2. For some preliminary frameworks, see Bunker (1972), Rein and Rabinovitz (1974), Schultz and Slevin (1975), Smith (1973), and Van Meter and Van Horn (1975).

3. For the sake of simplification, this section ignores two significant implementation problems when the use of a new technology is a matter of public policy—how adoption is fostered, and how the continued use of technology is promoted. A subsequent section discusses both problems.

4. We use "technology" in a narrower sense than its usual connotation in several branches of social science. Economists, for example, consider technology to encompass systems of non-machine interaction, and they are becoming more concerned with the organizational aspects of that interaction (Nelson and Winter, 1977). Our discussion focuses on cases in which a technology is new to a user; the issue is understanding how the user responds to the technology's introduction. Consistent with this emphasis, we along with Webster, define technology as "a technical method of achieving a practical purpose." We exclude from this definition the interaction of the technical method with its proposed institutional setting. Institutional setting is hard to define precisely, but we can identify how it is used in this paper. In its most limited use, we mean a formal organization (e.g., a school district) or a part of one (e.g., a classroom); in its broadest sense, we mean the complex set of interrelated organizations and actors that make up a national policy sector. We hope our meaning will be clear from the context.
5. The literature on organizational and administrative behavior has largely ignored implementation until recently. One reason for this neglect may have been its preoccupation with characterizing routinized behavior and with exploring the consequences of such behavior for the stability of the organization. For example, several works have used simple models for allocational routines in state governments (Anton, 1966), school districts (Gerwin, 1969), cities (Crecine, 1969), and federal programs (Davis, et al., 1969).

6. Although our discussion focuses on federal social policy, the distinction between macro- and micro-implementation can be used in other contexts—for example, state and local relationships. More generally, it could be applied to the study of implementation in any complex organization where the delivery (or technical) task is connected only tenuously to high level management decisions, as in the case of the defense department (Allison, 1971). This paper calls this type of organization a loosely coupled system.

7. Weick (1976) explores a variety of ways that loose-coupling can help or hurt the adaptability of organizations to environmental stress; his comments apply equally well to implementation.

8. For a discussion of the implementation of CETA, see Hargrove (1975, pp.42-52); Williams (1976a, pp.17-20); and Mirengoff and Rindler (1976).

9. Macro-implementation is often more complex than the relationship indicated above because (a) one government program can lead to the adoption of different projects—i.e., if \( G \), then \( A_1 \ldots, A_m \); and (b) more than one governmental program in the sample policy sector usually exists—i.e., if \( P \), then \( G_1, \ldots, G_p \).
10. It is not our intention, nor is it possible, to offer a fully specified model for the analysis of mutual adaptation. For example, this essay does not identify organizational or project characteristics. Moreover, to simplify presentation, we have omitted discussing technical validity and the relationship of outcome to project adaptation and organizational adaptation. As the first section of the essay suggested, we believe that a project's outcome can affect the project's and the organization's adaptation.

11. The literature on planned change in organizations typically uses some model of stages, whether three stages or more. For example, see Lewis (1958); Bennis (1966); Bennis, et al., (1969); Hage and Aiken (1970); Giacquantia (1973); and Yin, (1977).
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