Misunderstanding. N.Y.: Free Press.
Nakamura, Robert. 1987. "The Textbook Policy Process and Implementation Research," *Policy Studies Review* 7 (1): 142-154.
Nelson, Barbara J. 1984. *Making an Issue of Child Abuse*. Chicago: University of Chicago Press.
O'Toole, Laurence. 1986. "Policy Recommendations for Multi-Actor Implementation: An Assessment of the Field," *Journal of Public Policy* 6 (April): 181-210.
Ostrom, Elinor. 1989. *Governing the Commons*. Cambridge: Cambridge University Press.
Page, Benjamin and Shapiro, Robert. 1983. "Effects of Public Opinion on Policy," *American Political Science Review* 77 (March): 175-190,
Peters, B. Guy. 1986. *American Public Policy: Promise and Performance*, 2d ed. Chatham, NJ: Chatham House.
Pierce, John and Doerksen, eds. 1976. *Water Politics and Public Involvement*. Ann Arbor: Ann Arbor Science.
Pressman, Jeffrey and Wildavsky, Aaron. 1973. Implementation. Berkeley: University of California Press.
Ranney, Austin, ed. 1968. *Political Science and Public Policy*. Chicago: Markham.
Ripley, Randall. 1985. *Policy Analysis in Political Science*. Chicago: Nelson-Hall.
Rodgers, Harrell and Bullock, Charles. 1976. *Coercion to Compliance*. Lexington, Mass: D.C. Heath.
Sabatier, Paul. 1986. "Top-Down and Bottom-Up Models of Policy Implementation: A Critical Analysis and Suggested Synthesis," *Journal of Public Policy* 6 (January): 21-48.
_____. 1988. "An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein," *Policy Sciences* 21 (Fall): 129-168.
Salamon, Lester, ed. 1989. *Beyond Privatization: The Tools of Government*. Washington, DC: The Urban Institute.
Schneider, Anne and Ingram, Helen. 1990. "Behavioral Assumptions of Policy Tools," *Journal of Politics* 52 (May): 510-29.
Sharkansky, Ira, ed. 1970. *Policy Analysis in Political Science*. Chicago: Markham.
Stokey, Edith and Zeckhauser, Richard. 1978. *A Primer for Policy Analysis*. NY: W. W. Norton.
Weiss, Carol. 1977. *Using Social Research in Public Policy Making*. Lexington, Mass: D. C. Heath.
Wildavsky, Aaron. 1966. "The Political Economy of Efficiency: Cost-Benefit Analysis, Systems Analysis, and Program Budgeting," *Public Administration Review* 26 (December): 292-310.

Toward Better Theories of the Policy Process

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Any theory of the manner in which governmental policies get formulated and implemented, as well as the effects of those actions on the world, requires an understanding of the behavior of major types of governmental institutions (legislatures, courts, administrative agencies, chief executives), as well as the behavior of interest groups, the general public, and the media. The dominant paradigm of the policy process, the stages heuristic popularized by Jones (1970), Anderson (1975), and Peters (1986), has outlived its usefulness and must be replaced, in large part because it is not a causal theory. In the course of their empirical work, policy scholars have highlighted a number of phenomena that need to be incorporated into theories of the policy process. The development of such theories requires an integration of both political scientists' knowledge of specific institutions and behavior and policy scholars' attention to policy communities, substantive policy information, etc.

Innovations by Policy Scholars in Understanding the Policy Process

At least since World War II, most political scientists have tended to focus on either a specific type of institution (legislatures, the presidency, courts, interest groups, administrative agencies, local governments, political parties) or on specific types of political behavior outside those institutions (public opinion, voting, political socialization). These have become the standard subfields within the discipline.

In contrast, scholars interested in public policy have not been able to stay within these subfields because the policy process spans all of them. In the course of empirical work, policy scholars have highlighted a number of phenomena often neglected by political scientists without a policy focus:

a) The importance of policy communities/networks/subsystems involving actors from numerous public and private institutions and from multiple levels of government;
b) The importance of substantive policy information;
c) The critical role of policy elites vis-a-vis the general public;
d) The desirability of longitudinal studies of a decade or more;
e) Differences in political behavior across policy types.

The Importance of Intergovernmental Policy Communities/ Subsystems

Traditionally, political scientists have been preoccupied with either a single type of institution or with "iron triangles" at a single level of government. The separate, and neglected, field of intergovernmental relations has focused on legal relationships and political culture (Elazar 1984).

Traditionally, political scientists have been preoccupied with either a single type of institution or with "iron triangles" at a single level of government.

Numerous strands of policy research have demonstrated the inadequacy of this focus on single, or small groups of, institutions. Virtually all implementation research, from the early studies of Murphy (1973), Pressman and Wildavsky (1973), and Van Horn (1979) to more recent work by Hjern and Porter (1981), Mazmanian and Sabatier (1981, 1989), Scholz and Wei (1986), and Goggin (1987) has demonstrated that the development and execution of domestic policy in the United States and Western Europe involves numerous agencies and interest groups at

all levels of government. This has been confirmed by studies of fiscal federalism (Reagan 1972; Nathan and Adams 1977; ACIR 1984); by research on the relationship between federal and state laws within a specific policy area (Gray 1973; Rose 1973; Kemp 1978; Lester and Bowman 1989); and by the growing literature on intergovernmental relations in Western Europe (Hanf and Scharpf 1978; Rhodes and Wright 1987; Page and Goldsmith 1987).

In addition, studies of agenda setting (Kingdon 1984; Cook and Scogan 1989), implementation (Sharpe 1985; Mazmanian and Sabatier 1989: Chap. 6), deregulation (Derthick and Quirk 1985), and the entire literature on the use of policy analysis (Weiss 1977a; Nelkin 1979; Mazur 1981) have demonstrated that researchers, specialist reporters, and professional associations are active participants within policy communities. There is also considerable evidence that policy specialists in the chief executive's office (e.g. the Office of Management and Budget) need to be added to the list of actors within policy communities (White 1981; Vig and Kraft 1984).

One of the conclusions emerging from the policy literature is that understanding the policy process requires looking at an intergovernmental policy community or subsystem—composed of bureaucrats, legislative personnel, interest group leaders, researchers, and specialist reporters within a substantive policy area—as the basic unit of study. The traditional focus of political scientists on single institutions, or single levels of government, will help in understanding the effects of institutional rules on behavior and, at times, in understanding specific decisions. But it is usually inadequate for understanding the policy process over any length of time (Jones 1975; Heclo 1978; Kingdon 1984; Sabatier 1988).

The Importance of Substantive Policy Information

Political scientists have traditionally sought explanations of behavior in the preferences, interests, and resources of the actors involved, in institutional rules, and in background socioeconomic conditions. The amount and quality of information used in choice situations has been a neglected topic—except in voting studies, where the public clearly are cognitive misers (Lau and Sears 1986).

In contrast, numerous strands of public policy research have demonstrated the importance of substantive policy information. Virtually all studies of specific policy areas have shown that most participants spend a great deal of time discussing relatively technical topics such as the magnitude of the problems involved, the relative importance of various factors affecting the problem(s), the effects of past policies, and the probable future consequences of policy alternatives (Heclo 1974; Derthick 1979; Nelson 1986; Greenberger et al 1983). This is precisely why subsystems are critical. One must specialize in a particular policy area in order to understand the substantive debates; actors outside the subsystem tend to take cues from those within (Matthews and Stimson 1975; Kingdon 1981).

Only rarely does a specific piece of research strongly influence a major policy decision.

The influence of such information on policy decisions has been extensively researched, and several conclusions have emerged. First, substantive policy information is typically used in an advocacy fashion, i.e. to buttress one's position or to attack an opponent's (Wildavsky and Tenenbaum 1981; Mazur 1981; Jenkins-Smith 1990; Heintz 1988). Second, only rarely does a specific piece of research strongly influence a major policy decision. When that happens, it is usually because a source respected by all participants has done an excellent job (Whiteman 1985; Songer 1988; Cook and Scogan 1989). Instead, the more normal pattern is for a process of "enlightenment" whereby the findings accumulated over time gradually alter decision-makers' perceptions of the seriousness of the problems, the relative importance of different causes, and/or the effects of major policy programs (Caplan et al 1975; Weiss 1977a,b; Derthick and Quirk 1985).

Finally, the importance of substantive policy information suggests that our conception of the content of elite belief systems needs to be broadened beyond the traditional focus on normative and ideological beliefs (Putnam 1976) to include perceptions of problem severity and causal relationships in the policy areas in which elites are specialists (Greenberger et al 1983; Sabatier and Hunter 1989).

The Critical Role of Policy Elites vis-a-vis the Public

Over the past 30 years, political scientists have spent an enormous amount of time and resources seeking to understand public opinion and voting behavior. Both Walker (1972) and Palumbo (1989) found this was either the first or second most frequent category of articles in the major disciplinary journals (theory being the other). Attention has also focused on the congruence between constituent preferences and legislative floor voting.

Several decades of policy research suggest that the general public plays a more modest role in the formulation and implementation of governmental policy than in the discipline's research priorities. On the one hand, there is a fairly strong correlation between important shifts in public opinion and changes in the *general direction* of governmental policy (Page and Shapiro 1983). Popular influence is further enhanced if one includes citizen complaints to agency and legislative officials (Verba and Nie 1972; Johannes 1984) and grass roots response to interest group lobbying campaigns (Loomis 1983). But affecting the general direction of policy and the disposition of a small percentage of cases still leaves some enormous voids.

In air pollution policy, for example, the major issues over the past decade have included the effects of command-and-control strategies versus economic incentives; whether the national air quality standard for ozone should be set at .10 ppm or .08 ppm; the consequences of using tall stacks and scrubbers as control techniques for utilities; the sources and consequences of acid rain; and the importance of inspection and

maintenance programs for controlling automotive emissions (White 1981; Liroff 1986). All of these topics require greater substantive information than the general public (or most legislators) have at their disposal; they require knowledge of precisely when and where to intervene, as well as the ability and willingness to sustain that intervention over many years. It is the members of the air pollution policy community who have that knowledge and commitment and, thus, the ability to actually shape policy over an extended period.

Several decades of policy research suggest that the general public plays a more modest role in the formulation and implementation of governmental policy than in the discipline's research priorities.

The Desirability of Longitudinal Studies of a Decade or More

In this instance, political scientists and policy scholars have pursued similar paths. During the 1960s and early 1970s, most research in both areas involved either cross-sectional designs or short-term case studies of specific decisions or institutions. Recently, both groups of scholars have given greater attention to longitudinal designs for a decade or more.

From a policy perspective, the desirability of a longer time perspective has arisen for several reasons. First, many of the early implementation studies using time frames of 3-4 years resulted in premature assessments of program performance; much fairer evaluations came after a decade or so (Kirst and Jung 1983; Sabatier 1986). Second, if the dominant use of substantive policy information is via "the enlightenment function," that obviously requires a time frame of a decade or more—one of the best examples being the gradual accumulation of economic critiques of the inefficiencies of airline regulation by the Civil Aeronautics Board (Derthick and Quirk, 1985). Third, understanding the significance of particular policy innovations, as well as the relative importance of factors such as changing socioeconomic conditions and policy-oriented learning, requires time spans of several decades (Heclo 1974; Derthick 1979; Nelson 1984; Burstein 1985).

Of course, the optimal strategy is to use pooled cross-sectional, longitudinal designs (Goggin 1986). In policy research, this is complicated by difficulties in obtaining good data across numerous governmental units over a decade or more on anything beside legislative roll calls and government expenditures. But recently scholars have become more adept at obtaining data from government agencies on, for example, enforcement actions. When linked to changes in socioeconomic and political conditions, statutes, and policy outcomes, these designs offer the prospect of more sophisticated analyses (Scholz and Wei 1986; Lester and Bowman 1989; Wood 1990).

Differences in Political Behavior Across Policy Types

Of all the work in public policy over the past two decades, Lowi's (1964, 1972) argument that political behavior varies across policy types—distributive, redistributive, regulatory—has probably had the greatest effect on the discipline of political science.[1] For example, it forms a major organizing principle in several texts on both congressional and bureaucratic behavior (Ripley and Franklin 1980, 1982; Meier 1987).

The basic argument has been criticized for ambiguities in the precise causal process by which behavioral differences are associated with policy types and for difficulties in applying the typology to particular policy decisions (Heclo 1972; Greenberg et al 1977; May 1986). These problems can probably be remedied, however, by focusing on the distribution of costs and benefits across policy categories (Wilson 1973: Chap. 16; Ingram 1978) and by acknowledging that a law can contain different policy types. Lowi would predict different forms of political behavior regarding different parts of many statutes, which is precisely what Mann (1975) found in examining the passage of the 1972 Federal Water Pollution Control Act.

Synthesizing Theories of the Policy Process

Political scientists and policy scholars share a common interest in developing better theories of the policy process than the stages heuristic. Such theories should integrate many of the contributions of policy scholars with political scientists' traditional focus on the preferences, interests, and resources of various actors, institutional rules, and background socioeconomic conditions.

Four such efforts cover the range of approaches that meet the criteria of addressing most of those topics, applying to significant portions of the policy process, and proving useful in a variety of empirical settings:

1. The open-systems framework of Richard Hofferbert;
2. An approach involving rational actors within institutions developed by Elinor Ostrom and her colleagues;
3. John Kingdon's "policy streams" framework;
4. The "advocacy coalition" framework recently developed by Sabatier.

All but the first were developed during the 1980s, suggesting that alternatives to the stages heuristic are finally emerging. Other approaches have also proven useful. They include Ripley's (1985) synthesis of the stages heuristic with a modified version of Lowi's arenas of power and Wildavsky's "cultural" explanations of policy change (Wildavsky 1982, 1987; Coyle and Wildavsky 1987).

An Open Systems (Funnel of Causality) Approach

Fifteen years ago, Hofferbert (1974) developed a conceptual framework of the policy process with governmental decisions as the dependent variable. As indicated in Figure 1, these were seen as a direct and in-

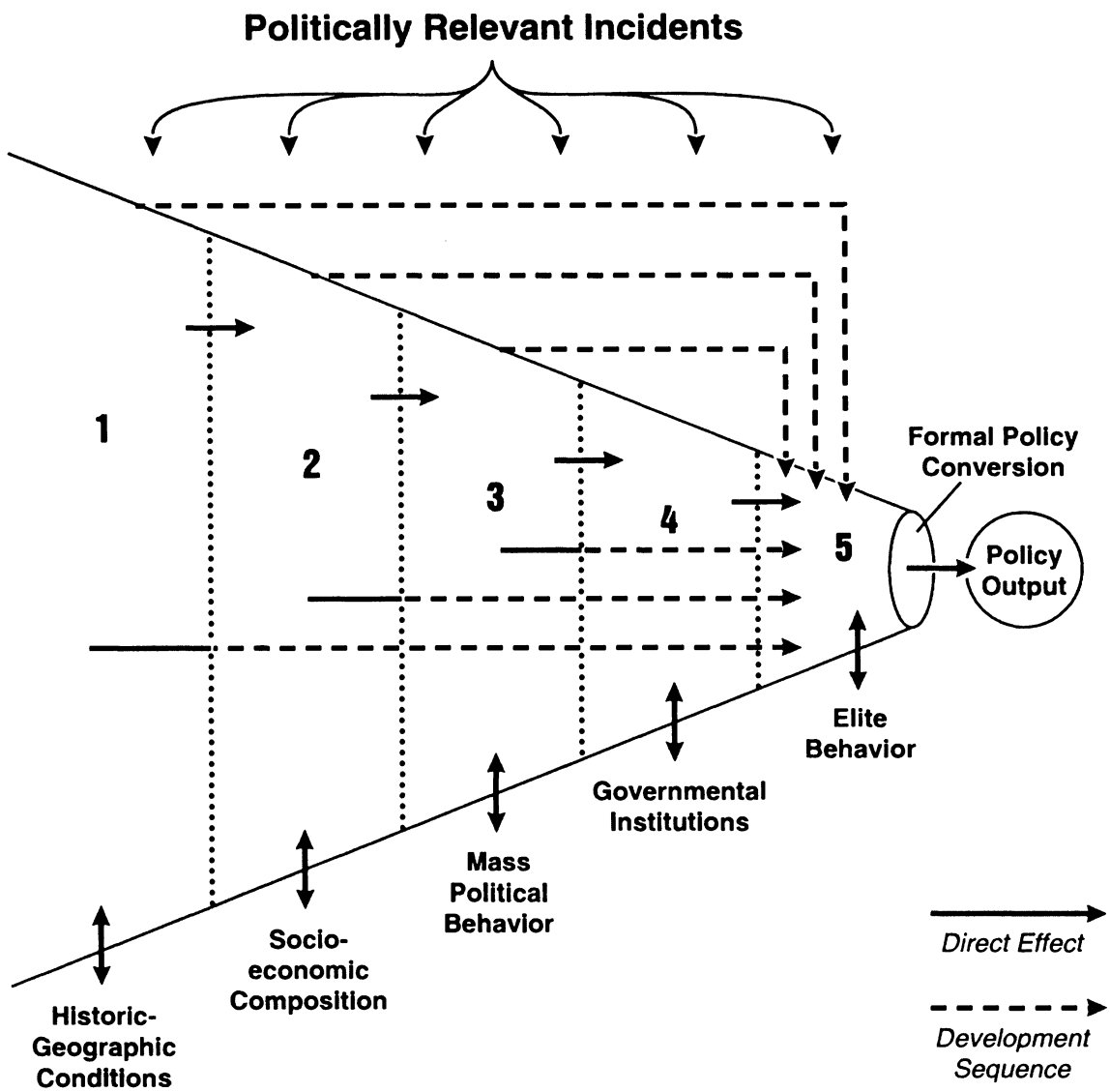
direct function of historical-geographic conditions, socioeconomic conditions, mass political behavior, governmental institutions, and—most directly—elite behavior.

This approach has guided research involving cross-sectional comparisons of policy decisions across states and localities. It has also been criticized for its "black box" approach to governmental institutions and elite behavior, and for its neglect of an intergovernmental dimension (Rose 1973; Eyestone 1977). While subsequent research has partially resolved these problems (Mazmanian and Sabatier 1980; Hofferbert and Urice 1985), the aggregated nature of the variables—and the neglect of individual-level processes—mean that the Hofferbert approach has inherent limitations when dealing with the role of substantive information and interactions within intergovernmental policy communities. In addition, the framework would have to add policy effects and feedback loops to be useful in longitudinal studies.

Finally, Hofferbert assumed that socioeconomic conditions and mass political behavior—as mediated by governmental institutions and elite behavior—drove policy decisions, a view that runs counter to a fair amount of research about the ability of governmental elites to manipulate popular opinion (Dye and Zeigler, 1975; Cobb et al, 1976).

Despite these limitations, the Hofferbert approach constitutes a parsimonious view of the policy process with clear (if perhaps not

FIGURE 1.
Hofferbert's Model for Comparative Study of Policy Formation



Source: Mazmanian and Sabatier (1980: 441).

*This is a slightly truncated reproduction of the model. The numerous direct and indirect paths between sectors 2-5 have been deleted (Hofferbert 1974: Figure VII-1).

always valid) driving forces. It is a useful starting point for cross-sectional comparisons and may still be the dominant paradigm in comparative policy research (Leichter 1979; Lundqvist 1980).

Institutional Rational Choice

In direct contrast to the systems approach of Hofferbert, a large group of rational choice scholars over the past 20 years have started with individual actors—their preferences, interests, and resources—as the basic unit of analysis and then have examined how institutional rules can affect behavior (March and Olsen 1984; Moe 1984). From a policy perspective, the most useful body of work within this tradition has been that of Elinor Ostrom and her colleagues because it combines an actor-based perspective with attention to institutional rules, intergovernmental relations, and policy decisions.

The basic approach is found in Kiser and Ostrom (1982). As can be seen in Part A of Figure 2, it views individual actions as a function of both the attributes (values and resources) of the individual and the attributes of the decision situation. The latter is, in turn, a product of institutional rules, the nature of the relevant good, and the attributes of the community (which would include Hofferbert's socio-economic conditions and community opinion). The principal insight of this approach is that the same individual will behave differently in different decision situations. The focus has been, first, on developing a classification of institutional rules that delineate entry and exit to various positions, the scope of authority for each position, permissible communication among actors in various roles, and means for aggregating individual actions into a collective decision. Next, empirical and theoretical work has demonstrated how changes in a specific rule can significantly affect behavior (Ostrom 1986a, b, 1990).

This approach to institutional analysis is given a policy perspective in Part B of Figure 2. It defines three levels of institutional analysis—the operational level (e.g. agency permit decisions), the collective choice (e.g., the statute governing the agency), and the constitutional (the constitution governing the legislature). There are two fundamental insights: First, the decisions of a given level basically set the institutional rules of the next lower level. Thus a constitution sets the basic institutional rules for a legislature, while a legislative statute sets the basic rules governing agency permit decisions. Second, it is primarily the decisions of the operational level that directly affect citizens; the decisions of higher levels are guidance to lower levels. This is consistent with findings from a decade of implementation research: what happens in Washington or Sacramento is little more than words on paper until it affects the behavior of street level bureaucrats and, ultimately, target groups.

This is a superb framework for thinking about the effects of individuals and institutions on governmental policy decisions. It has, of course, some limitations. The role of substantive policy information is neglected, as is the range of factors intervening between policy decisions and societal effects. While "community characteristics" are mentioned as one of the three sets of factors affecting a decision situation, they have largely been neglected in the work to date. Finally, the focus on individual behavior within specific institutions renders this framework a little unwieldy for dealing with the multitude of institutions in a policy community.

The Policy Streams Approach

Drawing upon the "garbage can model" of organizational choice (Cohen et al 1972), John Kingdon (1984) has developed an interesting approach to agenda-setting and policy formulation, which may well be expandable to the entire policy process. In his view, policy making can be conceptualized as three largely unrelated "streams": (1) a problem stream, consisting of information about real world problems and the effects of past governmental interventions; (2) a policy stream/community composed of researchers, advocates, and other specialists who analyze problems and formulate possible alternatives; and (3) a political stream, consisting of elections, legislative leadership contests, etc. According to Kingdon, major policy reforms result when "a window of opportunity" joins the three streams: in response to a recognized problem, the policy community develops a proposal that is financially and technically feasible, and politicians find it advantageous to approve it.

The Kingdon approach has many praiseworthy features. It incorporates an enlarged view of policy communities. It gives a prominent role to substantive policy information about real world problems and the impacts of previous governmental interventions. It gets beyond the rigid institutionalism in which many political scientists confine themselves. And it acknowledges the role of serendipity in the policy process.

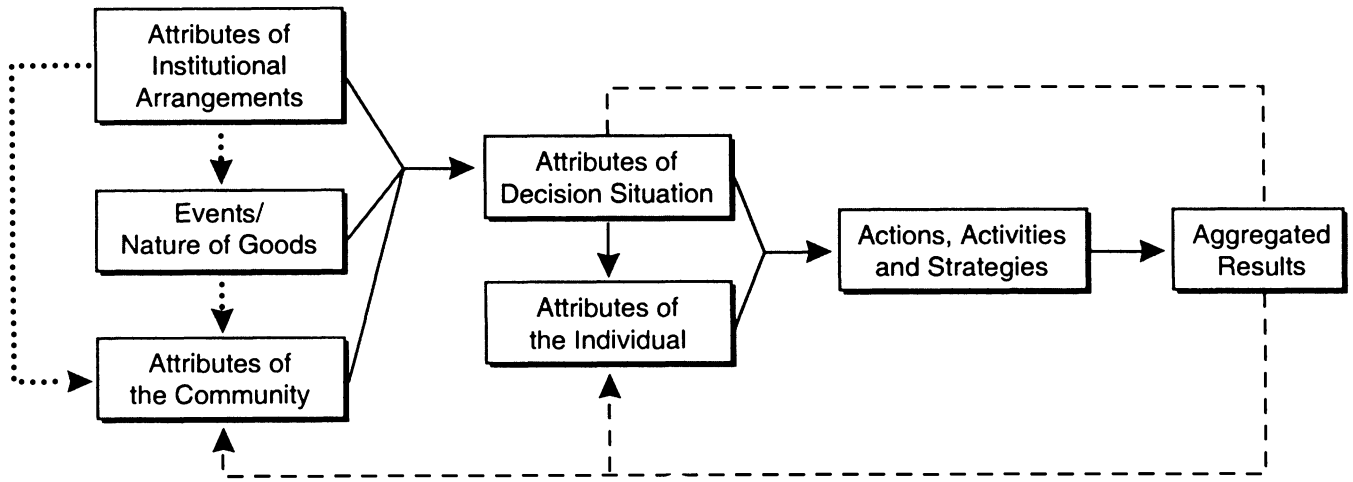
On the other hand, several aspects need further development. The conditions creating windows of opportunity need further analysis, and Jones (1987) has recently made some suggestions in this regard. Sabatier (1988) would contend that Kingdon views policy analysts and researchers as being too apolitical, thus neglecting the role of advocacy analysis and putting too much distance between the "policy" and the "political" streams. Finally, if the framework is to be expanded to include the entire policy process, more attention needs to be given to bureaucracies and courts in implementing those reforms, and more recognition needs to be accorded the intergovernmental dimension in both formulation and implementation.

The Advocacy Coalition Approach

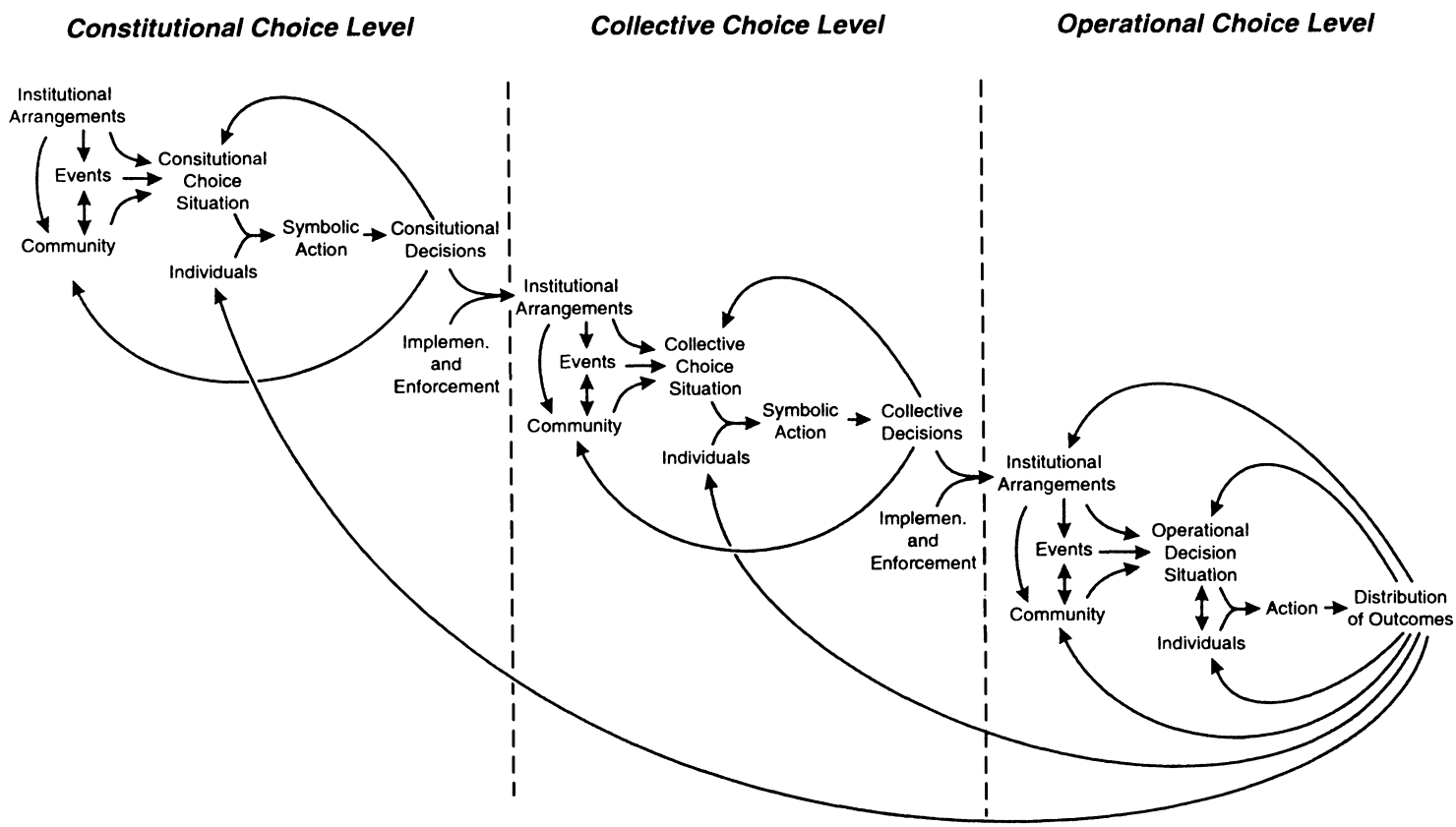
Sabatier (1988) has recently developed a conceptual framework of the policy process that synthesizes many of the features discussed in this paper. It views policy change over time as a function of three sets of factors:

1. *The interaction of competing advocacy coalitions within a policy subsystem/community.* An advocacy coalition consists of actors from many public and private organizations at all levels of government who share a set of basic beliefs (policy goals plus causal and other perceptions) and who seek to manipulate the rules of various governmental institu-

FIGURE 2.
Ostrom's Framework for Institutional Analysis



Part A: The Working Parts of Institutional Analysis



Part B: Three Levels of Institutional Analysis

tions to achieve those goals over time. Conflict among coalitions is mediated by "policy brokers," i.e., actors more concerned with system stability than with achieving policy goals.
2. *Changes external to the subsystem* in socioeconomic conditions, system-wide governing coalitions, and decisions from other policy subsystems. Since 1970, for example, U.S. air pollution policy has been affected by changes in petroleum prices, by Republican electoral victories in 1980, and by decisions from the tax and energy subsystems.
3. *The effects of stable system parameters*—such as basic social structure and constitutional rules—on the constraints and resources of various actors. The strategies available to advocacy coalitions in air pollution policy are, for example, obviously constrained by federalism.

With respect to belief systems and public policies, the framework distinguishes "core" from "secondary" elements. Coalitions are assumed to organize around common core beliefs, such as the proper scope of governmental vs. market activity and the proper distribution of authority among levels of government. Since these core beliefs are hypothesized to be relatively stable over periods of a decade or more, so too is coalition composition. Coalitions seek to learn about how the world operates and the effects of various governmental interventions in order to realize their goals over time. Because of resistance to changing core beliefs, such policy-oriented learning is usually confined to the secondary aspects of belief systems.[2] Changes in the core aspects of public policies require the replacement of a dominant coalition by another, which is hypothesized to result primarily from changes external to the subsystem (i.e., from the second set of factors).

The advocacy coalition framework has been applied to a number of policy areas, primarily dealing with energy and environmental policy (Jenkins-Smith 1988; Heintz 1988; Weyent 1988; Jenkins-Smith and Sabatier, 1991). Thus far, the arguments concerning coalition stability and the prevalence of advocacy analysis have been confirmed, while questions have been raised about the hierarchical structure of belief systems and the framework's neglect of actor interests (as opposed to beliefs). Although further testing will suggest additional modifications and elaborations, the advocacy coalition framework's ability to integrate the concerns of policy scholars with much of the political science literature makes it a promising new approach to the policy process. It shares several similarities with Wildavsky's (1982, 1987) cultural explanations, but gives more attention to the nature of belief systems and the respective roles of policy learning and exogenous factors in policy change.

Future Directions

Public policy shares a characteristic of many subfields within political science: the absence of a commonly accepted, clearly articulated, and empirically verified body of theory. This can partially be attributed to the complexity of the policy process and the recent emergence of the subfield. The 1970s and early 1980s were dominated by largely atheoretical work in substantive policy areas and by research in specific policy stages, particularly formulation and implementation. In the last 5-10 years, however, a number of causal theories (or meta-theories) of substantial portions of the policy process have emerged.

The paramount task facing policy scholars during the 1990s will be to apply these theories in a variety of empirical settings, refining and expanding those that seem promising, rejecting those that do not, and developing new ones to take their place. Everything else is secondary.

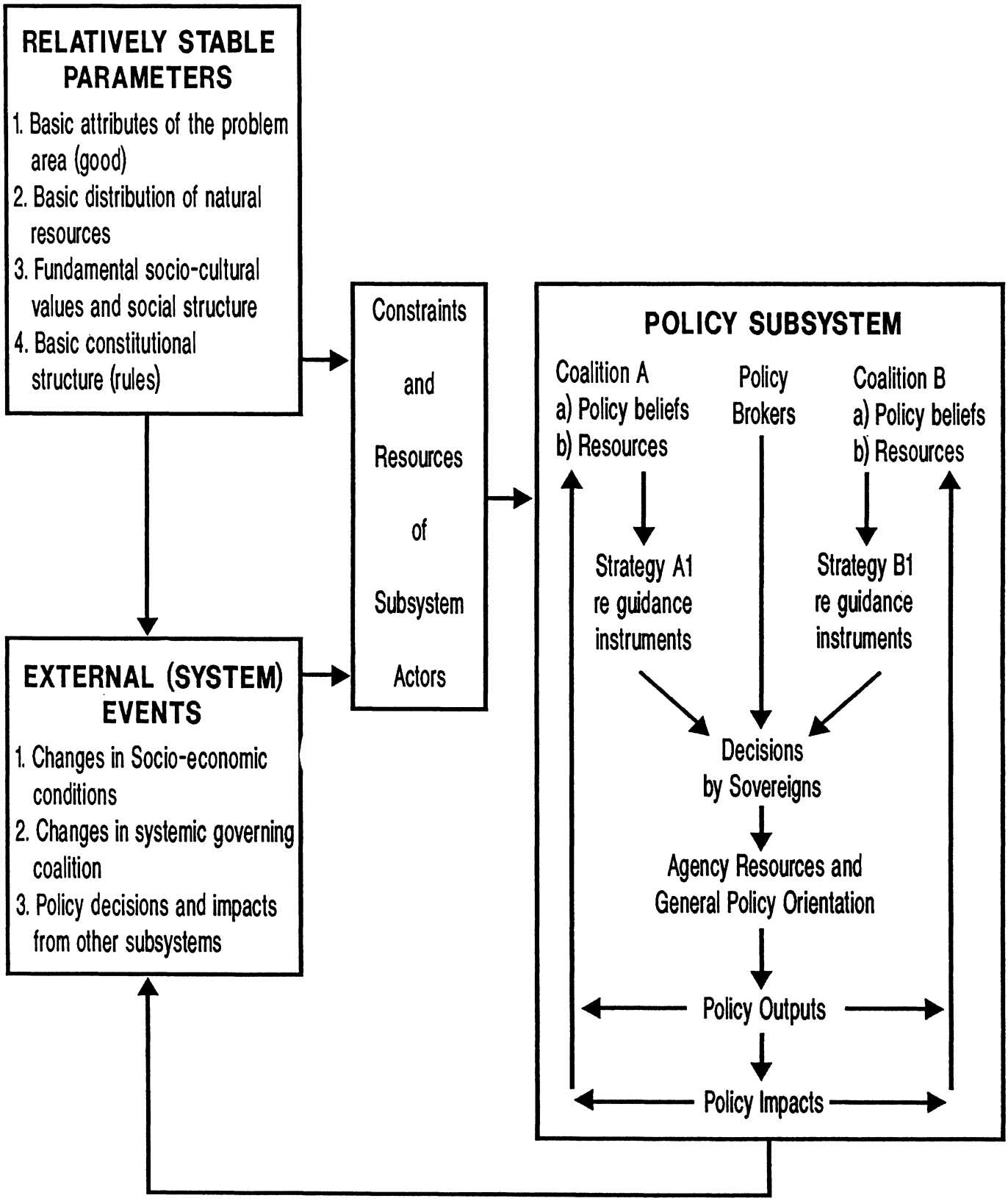
Given the contributions of other subfields to the policy process, policy scholars need to keep in touch with developments in the rest of the discipline. For example, recent work by Sinclair (1989) and by Smith and Maltzman (1989) indicates that congressional policy committees are no longer as autonomous as they once were. If this trend continues and if it applies to other legislative bodies, policy scholars will have to reexamine their assumptions about the importance of policy subsystems/communities.

By the same token, policy process scholars have a great deal to offer political scientists in other subfields. For example, much of the recent empirical and theoretical work in administrative behavior continues to focus on a single agency or on "iron triangles" at a single level of government (Moe 1985; Bendor and Moe 1985). While this may be appropriate in the case of a few federal agencies with monopoly jurisdiction (e.g., the Federal Communications Commission), in the vast majority of policy areas the behavior of specific agencies is affected by a much wider range of actors at multiple levels of government (Scholz and Wei 1986; Sabatier and Pelkey 1987; Wood 1990).

The development and testing of better theories of the policy process will be accelerated if publication outlets specifically devoted to this task can be developed. Westview Press has recently decided to start a book series on this topic.

Ultimately, however, a new scholarly journal will be needed. Political science journals cannot perform this task because the discipline's concerns are not focused on the policy process and historically have been preoccupied with public opinion and voting studies (Walker 1972; Palumbo 1989). The existing set of policy journals is also inadequate, either because of a different focus or because most are so poorly regarded by political scientists that policy scholars in political science departments are reluctant to publish in them.[3] An obvious solution is for the recently reorganized Policy Studies Section of the APSA to develop a journal devoted to publishing theoretical and empirical work of the highest scholarly quality on the policy process. It should deal with factors affecting governmental policy decisions, the intended and unintended impacts of those decisions on society, and the manner in which both decisions and social impacts affect public opinion and elite behavior. The journal should be oriented to academics rather than to practitioners, both to fill the void left by the present set of policy journals and to attract work from scholars in prestigious political science departments. Without such a journal, many

FIGURE 3.
General Model of Policy Change Focusing on Competing Advocacy Coalitions Within Policy Subsystems



political scientists and policy process scholars will continue to be ignorant of each others' work.

Another important feature of the 1990s is likely to be an expansion of the literature on policy design. Design involves the conscious attempt to alter governmental policies in order to achieve one or more objectives. It assumes that pushing specific "levers" will have certain effects, which, in turn, requires knowledge of how bureaucracies, courts, legislators, interest groups, etc. will react (Schneider and Ingram, 1990). The design approach is probably most compatible with the institutional rational choice perspective of Ostrom, although Sabatier's advocacy coalition approach also focuses on the efforts of coalitions to alter institutional rules in order to achieve their objectives.

The policy process is complicated. It can only be understood if political scientists and policy scholars are willing to work together to develop and to test theories of the policy process.

Notes

The author would like to thank Hank Jenkins-Smith, Joe Stewart, Ted Lowi, Aaron Wildavsky, Virginia Gray, John Kingdon, and Robert Hauck for their constructive criticisms of previous drafts of this paper.

1. The only other candidates would be the policy output studies (Dawson and Robinson 1963; Sharkansky 1970; Hofferbert 1974) and the work of Wildavsky (1974) on budgeting.

2. Sabatier (1988: 149-157) hypothesizes that policy-oriented learning is more likely to occur *between* coalitions when the issues are technically tractable, when they deal with important secondary aspects of belief systems, and when coalitions are forced to confront each other in professionalized forums. See Jenkins-Smith (1988) for very similar arguments developed independently.

3. None of the existing public policy journals have developed a focus on the policy process. Some have been preoccupied with techniques of policy evaluation (*Journal of Policy Analysis and Management);* many deal with specific policy areas; while the rest have attempted to deal with the broad range of policy scholars' interests, with much of the work consisting of techniques useful to practitioners or of atheoretical studies of a particular policy area (*Policy Sciences, Journal of Public Policy, Policy Studies Journal,* and *Policy Studies Review*). On the low regard in which political scientists hold existing policy journals—particularly those associated with the Policy Studies Organization—see Giles et al (1989).

References

Advisory Commission on Intergovernmental Relations. 1984. *Significant Features of Fiscal Federalism, 1982-83 Edition.* Washington: ACIR.

Anderson, James. 1975. *Public Policy-Making.* N.Y.: Praeger.

Bendor, Jonathan and Moe, Terry. 1985. "An Adaptive Model of Bureaucratic Politics," *American Political Science Review* 79 (September): 755-774.

Burstein, Paul. 1985. *Discrimination, Jobs, and Politics.* Chicago: University of Chicago Press.

Caplan, Nathan et al. 1975. *The Use of Social Science Knowledge in Policy Decisions at the National Level.* Ann Arbor: Institute of Social Research.

Cobb, Roger et al. 1976. "Agenda Building as a Comparative Process," *American Political Science Review* 70 (March): 126-138.

Cohen, Michael, James March, and Johen Olsen. 1972. "A Garbage Can Model of Organizational Choice," *Administrative Science Quarterly* 17 (March): 1-25.

Cook, Fay Lomax and Skogan, Wesley. 1989. "Agenda Setting: Contingent and Divergent Voice Models of the Rise and Fall of Policy Issues," Unpublished paper, Northwestern University.

Coyle, Dennis and Wildavsky, Aaron. 1987. "Requisites of Radical Reform: Income Maintenance Versus Tax Preferences," *Journal of Policy Analysis and Management* 7 (Fall): 1-16.

Dawson, Richard and Robinson, James. 1963. "Interparty Competition, Economic Variables, and Welfare Policies in the American States," *Journal of Politics* 25 (May): 265-289.

Derthick, Martha. 1979. *Policymaking for Social Security.* Washington: Brookings.

_____ and Quirk, Paul. 1985. *The Politics of Deregulation.* Washington: Brookings.

Dye, Thomas and Zeigler, L. Harmon. 1975. *The Irony of Democracy,* 3d ed. North Scituate, Mass.: Duxbury Press.

Eyestone, Robert. 1977. "Confusion, Diffusion, and Innovation." *American Political Science Review* 71 (June): 441-447.

Giles, Micheal, Franzie Mizell, and David Patterson. 1989. "Political Scientists' Journal Evaluations Revisited," *PS* 22 (Sept.): 613-617.

Goggin, Malcolm. 1986. "The 'Too Few Cases/Too Many Variables' Problem in Implementation Research," *Western Political Quarterly* 38 (June): 328-347.

_____. 1987. *Policy Design and the Politics of Implementation.* Knoxville: University of Tennessee Press.

Gray, Virginia. 1973. "Innovation in the States: A Diffusion Study," *American Political Science Review* 67 (December): 1174-1185.

Greenberger, Martin, Garry Brewer, William Hogan, and Milton Russell. 1983. *Caught Unawares.* Cambridge, Mass.: Ballinger.

Hanf, Kenneth and Scharpf, Fritz, eds. 1978. *Interorganizational Policy Making.* London: Sage.

Heclo, Hugh. 1972. "Review Article: Policy Analysis," *British Journal of Political Science* 2 (January): 83-108.

_____. 1974. *Social Policy in Britain and Sweden.* New Haven: Yale University Press.

_____. 1978. "Issue Networks and the Executive Establishment," in *The New American Political System,* ed. by A. King. Washington: American Enterprise Institute.

Heintz, H. Theodore. 1988. "Advocacy Coalitions and the OCS Leasing Debate," *Policy Sciences* 21 (Fall): 213-238.

Hjern, Benny and Porter, David. 1981. "Implementation Structures: A New Unit of Administrative Analysis," *Organization Studies* 2: 211-227.

Hofferbert, Richard. 1974. *The Study of Public Policy.* Indianapolis: Bobbs-Merrill.

_____ and Urice, John. 1985. "Small Scale Policy: The Federal Stimulus versus Competing Explanations for State Funding of the Arts," *American Journal of Political Science* 29 (May): 308-329.

Ingram, Helen. 1978. "The Political Rationality of Innovation," in *Approaches to Controlling Air Pollution,* ed. by Ann Friedlaender. Cambridge: MIT Press, pp. 12-56.

Jenkins-Smith, Hank. 1988. "Analytical Debates and Policy Learning," *Policy Sciences* 21 (Fall): 169-212.

_____. 1990. *Democratic Politics and Policy Analysis.* Pacific Grove, CA: Brooks/Cole.

_____ and Sabatier, Paul, eds. 1991. *An Advocacy Coalition Model of Policy Change and Learning,* Manuscript submitted for publication.

Johannes, John. 1984. "Congress, the Bureaucracy, and Casework," *Administration and Society* 16 (May): 41-69.

Jones, Charles. 1970. *An Introduction to the Study of Public Policy.* Belmont, Ca.: Wadsworth.

_____. 1975. *Clean Air.* Pittsburgh: University of Pittsburgh Press.

_____. 1987. "Presidents and Agendas: Who Defines What for Whom?" Unpublished paper, University of Virginia.

Kemp, Kathleen. 1978. "Nationalization of the American States: A Test of the Thesis," *American Politics Quarterly* 6 (April): 237-247.

Kingdon, John. 1981. *Congressmen's Voting Decisions,* 2d ed. N.Y.: Harper & Row.

_____. 1984. *Agendas, Alternatives, and Public Policies.* Boston: Little, Brown & Co.

Kirst, Michael and Jung, Richard. 1983. "The Utility of a Longitudinal Approach in Assessing Implementation" in *Studying Implementation,* ed. by Walter Williams. Chatham, NJ: Chatham House, pp. 119-48.

Kiser, Larry and Ostrom, Elinor. 1982. "The Three Worlds of Action," in *Strategies of Political Inquiry,* ed. E. Ostrom. Beverly Hills: Sage, pp. 179-222.

Lau, Richard and Sears, David, eds. 1986. *Political Cognition.* Hillsdale, NJ: Lawrence Erlbaum Assoc.

Leichter, Howard. 1979. *A Comparative Approach to Policy Analysis.* Cambridge: Cambridge University Press.

Lester, James and Bowman, Ann. 1989. Implementing Intergovernmental Policy," *Polity* 21 (Summer): 731-753.

Liroff, Richard. 1986. *Reforming Air Pollution Regulation.* Washington: Conservation Foundation.

Loomis, Burdett. 1983. "A New Era: Groups and the Grass Roots," in *Interest Group*

Politics, ed. by A. J. Cigler and B. A. Loomis. Washington: Congressional Quarterly Press, pp. 169-190.
Lowi, Theodore. 1964. "American Business, Public Policy, Case Studies, and Political Theory," *World Politics* 16 (June): 677-715.
_____. 1972. "Four Systems of Policy, Politics, and Choice," *Public Administration Review* 32 (July/August): 298-310.
Lundqvist, Lennart. 1980. *The Hare and the Tortoise: Clean Air Policies in the U.S. and Sweden.* Ann Arbor: University of Michigan Press.
Mann, Dean. 1975. "Political Incentives in U.S. Water Policy: Relationships between Distributive and Regulatory Politics," in *What Government Does,* ed. Matthew Holden and Dennis Dresang. Beverly Hills: Sage, pp. 106-116.
March, James and Olsen, Johan. 1984. "The New Institutionalism: Organizational Factors in Political Life," *American Political Science Review* 78 (September): 734-749.
Matthews, Donald and Stimson, James. 1975. *Yeas and Nays.* N.Y.: Wiley.
May, Peter. 1986. "Politics and Policy Analysis," *Political Science Quarterly* 101 (1): 109-125.
Mazmanian, Daniel and Sabatier, Paul. 1980. "A Multivariate Model of Public Policy-Making," *American Journal of Political Science* 24 (August): 439-468.
_____, eds. 1981. *Effective Policy Implementation.* Lexington, Mass.: D.C. Heath.
_____. 1989. *Implementation and Public Policy,* rev. ed. Lanham, MD: University Press of America.
Mazur, Allan. 1981. *The Dynamics of Technical Controversy.* Washington: Communications Press.
Meier, Kenneth J. 1987. *Politics and the Bureaucracy,* 2d. ed. Monterey, CA: Brooks/Cole.
Moe, Terry. 1984. "The New Economics of Organization," *American Journal of Political Science* 28 (November): 739-777.
_____. 1985. "Control and Feedback in Economic Regulation: The Case of the NLRB," *American Political Science Review* 79 (December): 1094-1116.
Murphy, Jerome. 1973. "The Education Bureaucracies Implement Novel Policy: The Politics of Title I of ESEA," in *Policy and Politics in America,* ed. by Allan Sindler. Boston: Little, Brown, pp. 160-199.
Nathan, Richard and Adams, Charles. 1977. *Revenue Sharing: The Second Round.* Washington: Brookings.
Nelkin, Dorothy. 1979. *Controversy: Politics of Technical Decisions.* Beverly Hills: Sage.
Nelson, Barbara J. 1986. *Making an Issue of Child Abuse.* Chicago: University of Chicago Press.
Ostrom, Elinor. 1986a. "An Agenda for the Study of Institution," *Public Choice* 48: 3-25.
_____. 1986b. "A Method of Institutional Analysis," in *Guidance, Control, and Evaluation in the Public Sector,* ed. F. X. Kaufman, G. Majone, and V. Ostrom. Berlin: de Gruyter, pp. 459-475.
_____. 1990. *Governing the Commons.* Cambridge: Cambridge University Press.
Page, Benjamin and Shapiro, Robert. 1983. "Effects of Public Opinion on Policy," *American Political Science Review* 77 (March): 175-190.
Page, Edward and Goldsmith, Michael, eds. 1987. *Central and Local Government Relations.* London: Sage.
Palumbo, Dennis. 1989. "Bucking the Tide: Policy Studies in Political Science, 1978-88," Paper presented at the PSO Conference on Advances in Policy Studies, Atlanta.
Peters, B. Guy. 1986. *American Public Policy: Promise and Performance,* 2d ed. Chatham, NJ: Chatham House.
Pressman, Jeffrey and Wildavsky, Aaron. 1973. *Implementation.* Berkeley: University of California Press.
Putnam, Robert. 1976. *The Comparative Study of Political Elites.* Englewood Cliffs: Prentice Hall.
Reagan, Michael. 1972. *The New Federalism.* N.Y.: Oxford University Press.
Rhodes, R. A. W., and Wright, Vincent, eds. 1987. *Tensions in the Territorial Politics of Western Europe.* London: Frank Cass & Co.
Ripley, Randall. 1985. *Policy Analysis in Political Science.* Chicago: Nelson-Hall.
_____ and Franklin, Grace. 1980. *Congress, the Bureaucracy, and Public Policy.* Homewood, IL: Dorsey.
_____. 1982. *Bureaucracy and Policy Implementation.* Homewood, IL: Dorsey.
Rose, Douglas. 1973. "National and Local Forces in State Politics: The Implications of Multi-Level Analysis," *American Political Science Review* 67 (December): 1162-1173.
Sabatier, Paul. 1986. "Top-Down and Bottom-Up Models of Policy Implementation: A Critical Analysis and Suggested Synthesis," *Journal of Public Policy* 6 (January): 21-48.
_____. 1988. "An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein," *Policy Sciences* 21 (Fall): 129-168.
_____ and Hunter, Susan. 1989. "The Incorporation of Causal Perceptions into Models of Elite Belief Systems," *Western Political Quarterly* 42 (September): 229-261.
_____ and Pelkey, Neil. 1987. "Incorporating Multiple Actors and Guidance Instruments into Models of Regulatory Policymaking." *Administration and Society* 19 (September): 236-263.
Schneider, Anne and Ingram, Helen. 1990. "Behavioral Assumptions of Policy Tools." *Journal of Politics* 52 (May): 510-529.
Scholz, John and Wei, Feng Hieng. 1986. "Regulatory Enforcement in a Federalist System." *American Political Science Review* 80 (Dec.): 1249-70.
Sharkansky, Ira, ed. 1970. *Policy Analysis in Political Science.* Chicago: Markham.
Sharpe, L. J. 1985. "Central Coordination and the Policy Network." *Political Studies* 33 (September): 361-381.
Sinclair, Barbara. 1989. *The Transformation of the U.S. Senate.* Baltimore: Johns Hopkins University Press.
Smith, Steven and Maltzman, Forrest. 1989. "Declining Committee Power in the House of Representatives." Paper presented at the APSA Annual Meeting, Atlanta, September.
Songer, David. 1988. "The Influence of Empirical Research: Committee vs. Floor Decision Making." *Legislative Studies Quarterly* 13 (Aug.): 375-392.
Van Horn, Carl. 1979. *Policy Implementation in the Federal System.* Lexington, Mass.: D.C. Heath.
Verba, Sidney and Nie, Norman. 1972. *Participation in America.* New York: Harper & Row.
Vig, Norman and Kraft, Michael, eds. 1984. *Environmental Policy in the 1980s.* Washington: Congressional Quarterly Press.
Walker, Jack. 1972. "Brother, Can You Paradigm?" *PS* 3 (Fall): 419-422.
Weiss, Carol. 1977a. *Using Social Research in Public Policy Making.* Lexington, Mass.: D.C. Heath.
_____. 1977b. "Research for Policy's Sake: The Enlightenment Function of Social Research." *Policy Analysis* 3 (Fall): 531-545.
Weyent, John. 1988. "Is There Policy-Oriented Learning in the Analysis of Natural Gas Policy Issues?" *Policy Sciences* 21 (Fall): 239-262.
White, Lawrence J. 1981. *Reforming Regulation.* Englewood Cliffs: Prentice Hall.
Whiteman, David. 1985. "The Fate of Policy Analysis in Congressional Decision Making." *Western Political Quarterly* 38 (June): 294-311.
Wildavsky, Aaron. 1974. *The Politics of the Budgetary Process,* 2d ed. Boston: Little, Brown.
_____. 1982. "The Three Cultures: Explaining Anomalies in the American Welfare State." *The Public Interest* 69 (Fall): 45-58.
_____. 1987. "Choosing Preferences by Constructing Institutions: A Cultural Theory of Preference Formation." *American Political Science Review* 81 (March): 3-22.
_____ and Tenenbaum, Ellen. 1981. *The Politics of Mistrust.* Beverly Hills: Sage.
Wilson, James Q. *Political Organizations.* New York: Basic Books.
Wood, B. Dan. 1990. "Modeling Federal Policy Structures with Dynamic Structural Equations." Paper delivered at the 1988 meetings of the Midwest Political Science Association, Chicago.

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