
Policy Change and Learning

An Advocacy Coalition Approach

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Policy Change over a Decade or More

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In the mid-1950s, air pollution was scarcely a subject of public policy debate in the United States. Federal efforts were limited to a tiny program of technical assistance, and only a few states had more than paper programs. Governmental entities with active control programs were largely limited to a few cities—New York, Chicago, Pittsburgh, St. Louis, and Los Angeles—where the problem was perceived as one of dirty air arising primarily from coal combustion.

Ten years later, federal expenditures had risen more than twenty-fold, the number of states with pollution control budgets of more than \$100,000 had increased from three to twenty-two, California had instituted the first controls on automobile emissions, and the 1967 Federal Air Quality Amendments had attempted to provide some federal review of state programs (Davies, 1970:105, 129; Krier and Ursin, 1977). But increasing public concern about environmental degradation, criticism of state and federal programs, and partisan competition for the growing environmental constituency led to passage of the 1970 Federal Clean Air Amendments (Jones, 1975; Ingram, 1978). This landmark law transferred principal responsibility for pollution control from local and state governments to Washington and instituted a massive regulatory program designed to dramatically improve air quality by the mid-1970s. Passage of the 1970 Amendments was probably also assisted by the publication of federally sponsored research reports indicating that air quality posed significant health risks to many people in urban areas as well as increasing evidence that industry, utilities, and automobiles—rather than residential space heating—were the major sources of most pollutants (Sabatier, 1975).

The consensus in favor of stringent pollution control soon weakened, however, as new issues (e.g., energy prices) came to the fore and as people became aware of the technical and political difficulties of implementing such ambitious legislation. By the end of the 1970s, while emissions and air quality levels in many areas had improved, the

implementation of increasingly stringent automotive emissions standards had been delayed several times. Public-policy makers and scholars increasingly became aware that much of the real authority lay with state and local governments (Ingram, 1977; Mazmanian and Sabatier, 1989: Chap. 4; Downing, 1984: Chaps. 11–13). During the 1980s, air pollution remained a controversial issue: The Reagan administration sought—with very mixed results—to substantially weaken the federal program (Vig and Kraft, 1984; Wood, 1988); economists argued for the replacement of uniform legal standards with more flexible economic incentives (White, 1982; Liroff, 1986); California continued to pioneer in a number of areas, such as alternative-fuel (nongasoline) vehicles; and repeated efforts were made to amend the federal law. These efforts finally bore fruit in the 1990 Clean Air Amendments, which strengthened the program in a number of areas, most notably by the adoption of an economic incentive approach to acid rain and the beginning of federal efforts to stimulate alternative-fuel vehicles (Cohen, 1992).

How is one to understand the incredibly complex process of policy change over a decade or more in air pollution control or any other policy area? On the one hand, the stages heuristic discussed in Chapter 1 provides some assistance. It draws attention to the iterative process of agenda setting, formulation, implementation, and reformulation—with major changes in federal law in 1967, 1970, 1977, and 1990. On the other hand, the stages heuristic would have difficulty explaining the continuing role of state and local governments—particularly California—in policy innovation. It also neglects the importance *throughout the policy process* of technical information concerning the effects of air pollutants on human health, the principal sources of various pollutants, the causes of acid rain, and the effectiveness of economic incentives as a policy instrument.

The traditional concerns of political scientists also provide some assistance. The dramatic increase in public support for environmental protection in the late 1960s was an important factor in the passage of the 1970 Amendments, and the public's equivocation over the tradeoff between energy security and environmental protection in the 1970s played some role in the 1974 and 1977 congressional approvals of delays imposing more stringent automobile emissions standards. Likewise, the decentralization of power in Congress from party leaders to subcommittee chairs played a role in the passage of the 1970 Amendments and in the stalemate during the 1980s (Cohen, 1992). And political scientists' focus on "iron triangles"—in this case, the Senate Environment Committee, the House Commerce Committee, the Environmental Protection Agency, and concerned interest groups—certainly constitutes a necessary part of any explanation of federal air pollution policy implemented over the past thirty years. But the traditional preoccupations of political scientists also neglect the critical role of state and local implementing agencies, the continuing importance of California

tance of technical information in framing the debate over such issues as acid rain, the validity of air quality standards (which substantially drive the entire policy process), and the debate over whether the dominant policy instrument should be uniform emissions regulations or more flexible economic incentives. In short, political scientists' traditional focus on specific governmental institutions (Congress, the presidency, interest groups) or specific types of political behavior (popular voting, legislative roll calls) encounters enormous difficulties when dealing with policy change over several decades. Policy evolution over that span of time usually goes way beyond a few critical institutions or types of political behavior to include hundreds of governmental institutions, dozens of important elections in various jurisdictions, and several dozen "iron triangles" at various levels of government. It also involves entire categories of behavior—particularly technical debates over critical policy issues—neglected by the vast majority of political scientists (Sabatier, 1991a, 1991b).

Both the stages heuristic and the traditional preoccupations of political scientists suffer from at least two major limitations in their ability to explain the evolution of air pollution policy in the United States over the past thirty years. First, they both suffer from severe cases of "Potomac fever," of assuming that almost everything of importance occurs in Washington, D.C. In the process, they dramatically underestimate the considerable discretion exercised by state and local agencies when implementing federal law as well as their ability to generate and implement innovative policies on their own.¹ Second, both neglect the role of ideas—particularly ideas involving the relatively technical aspects of policy debates—in policy evolution.

Fortunately, not everyone has been restricted by the blinders imposed by the stages heuristic or the concerns of most political scientists. A critical contribution to understanding policy change over time was made by Heclo's (1974) analysis of British and Swedish welfare policy during the initial decades of this century. On the one hand, Heclo agreed with political demographers who pointed to the role of changing social and economic conditions—such as population migrations, the emergence of new social movements, critical elections, and macroeconomic changes in inflation and unemployment—in providing the constituency base for major policy changes (Hofferbert, 1974; Hibbs and Fassbender, 1981; Burnham, 1970). Equally important in his view, however, was the interaction of specialists within a specific policy area as they gradually learned more about various aspects of the problem over time and experimented with a variety of means to achieve their policy objectives. In essence, Heclo saw policy change as a product of both (1) large-scale social, economic, and political changes and (2) the interaction of people within a policy community involving both competition for power and efforts to develop more knowledgeable means of addressing various aspects of the policy problem.

In many respects, Chapters 2 and 3 of this book represent an attempt

to translate Heclo's basic insight into a reasonably clear conceptual framework of policy change over time. This chapter continues his focus on the interaction of political elites within a policy community or subsystem who attempt to respond to changing socioeconomic and political conditions. The first part presents an overview of the conceptual framework as it applies to policy change over periods of a decade or more. Subsequent sections deal with specific aspects, including external events affecting policy subsystems and the internal structure of subsystems. This chapter touches on—and Chapter 3 examines in some detail—the role of policy-oriented learning in policy change, particularly the conditions under which elites from different advocacy coalitions gradually alter their belief systems over time as a result of formal policy analyses and trial-and-error learning.²

I. AN OVERVIEW OF THE FRAMEWORK

The advocacy coalition framework (ACF) has at least four basic premises: (1) that understanding the process of policy change—and the role of policy-oriented learning therein—requires a time perspective of a decade or more; (2) that the most useful way to think about policy change over such a time span is through a focus on "policy subsystems," that is, the interaction of actors from different institutions who follow and seek to influence governmental decisions in a policy area; (3) that those subsystems must include an intergovernmental dimension, that is, they must involve all levels of government (at least for domestic policy); and, (4) that public policies (or programs) can be conceptualized in the same manner as belief systems, that is, as sets of value priorities and causal assumptions about how to realize them.

The focus on time spans of a decade or more comes directly from findings concerning the importance of the "enlightenment function" of policy research. Weiss (1977a, 1977b) has argued persuasively that a focus on short-term decision making will underestimate the influence of policy analysis because such research is used primarily to alter the perceptions and conceptual apparatus of policy makers over time. A corollary of this view is that it is the cumulative effect of findings from different studies and from ordinary knowledge (Lindblom and Cohen, 1979) that has the greatest influence on policy. The literature on policy implementation also points to the need for utilizing time frames of a decade or more, both in order to complete at least one cycle of formulation, implementation, and reformulation and to obtain a reasonably accurate portrait of program success and failure (Mazmanian and Sabatier, 1989). Numerous studies have shown that ambitious programs that appeared after a few years to be abject failures received more favorable evaluations when seen in a longer time frame; conversely, initial successes may evaporate over time (Bernstein, 1955; Kirst and Jung, 1982; Hogwood and Peters, 1983).

gate unit of analysis for understanding policy change in modern industrial societies is not any specific governmental institution but rather a policy subsystem, that is, those actors from a variety of public and private organizations who are actively concerned with a policy problem or issue such as air pollution control, mental health, or surface transportation. Following a number of recent authors, we argue that conceptions of policy subsystems should be broadened from traditional notions of "iron triangles"—limited to administrative agencies, legislative committees, and interest groups at a single level of government—to include actors at various levels of government active in policy formulation and implementation as well as journalists, researchers, and policy analysts who play important roles in the generation, dissemination, and evaluation of policy ideas (Heclo, 1978; Dunleavy, 1981; Milward and Wamsley, 1984; Scholz et al., 1991).

The third basic premise is that policy subsystems will normally involve actors from all levels of government. To examine policy change only at the national level will, in most instances, be seriously misleading. In the United States and many other countries, policy innovations normally occur first at a subnational level and then may get expanded into nationwide programs; even after national intervention, subnational initiatives normally continue. Air pollution is typical: Cities like Pittsburgh, St. Louis, Chicago, and New York had viable stationary source controls twenty years before any significant federal involvement occurred, and California has consistently been several years ahead of the feds on mobile source controls. Moreover, two decades of implementation research has conclusively demonstrated that state and local implementing officials have substantial discretion in deciding exactly how federal "policy" gets translated into thousands of concrete decisions in very diverse local situations.³

The fourth important premise is that public policies and programs incorporate implicit theories about how to achieve their objectives (Pressman and Wildavsky, 1973; Majone, 1980) and thus can be conceptualized in much the same way as belief systems. They involve value priorities, perceptions of important causal relationships, perceptions of world states (including the magnitude of the problem), perceptions of the efficacy of policy instruments, and so on. This ability to map beliefs and policies on the same "canvas" provides a vehicle for assessing the influence of various actors over time, particularly the role of technical information (beliefs) on policy change.

Figure 2.1 presents a general overview of the framework. On the left side are two sets of exogenous variables—the one fairly stable, the other more dynamic—that affect the constraints and opportunities of subsystem actors. Air pollution policy, for example, is strongly affected by the nature of air quality as a collective good, by the geographical contours of air basins, and by political boundaries, which are usually quite stable over time. But there are also more dynamic factors, including changes in socioeconomic conditions (e.g., public opinion and oil prices).

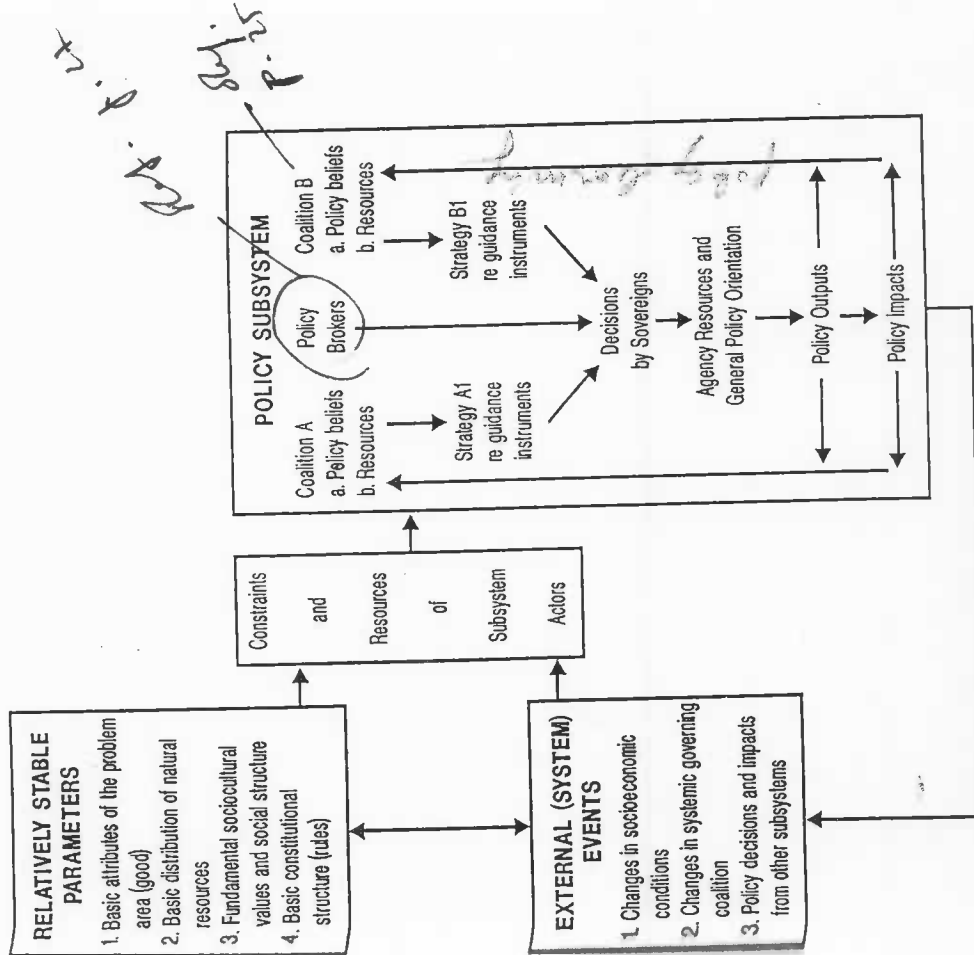


FIGURE 2.1 The advocacy coalition framework of policy change

and in the systemic governing coalition, which provide some of the principal sources of policy change.

Within the subsystem, it is assumed that actors can be aggregated into a number of advocacy coalitions composed of people from various governmental and private organizations who share a set of normative and causal beliefs and who often act in concert. At any particular point in time, each coalition adopts a strategy envisaging one or more institutional innovations that members feel will further policy objectives. Conflicting strategies from various coalitions are normally mediated by a set of actors, here termed policy brokers, whose principal

concern is to find some reasonable compromise that will reduce intense conflict. The end result is one or more governmental programs, which in turn produce policy outputs at the operational level (e.g., agency permit decisions). These outputs—mediated by a number of other factors—result in a variety of impacts on targeted problem parameters (e.g., ambient air quality) as well as in various side effects.

On the basis of perceptions of the adequacy of governmental decisions and the resultant impacts as well as new information arising from search processes and external dynamics, each advocacy coalition may revise its beliefs or alter its strategy. The latter may involve the seeking of major institutional revisions at the collective choice level, more minor revisions at the operational level (Kiser and Ostrom, 1982), or even changes in the dominant electoral coalition at the systemic level, an arena outside of the subsystem itself.

Within the general process of policy change, this framework has a particular interest in policy-oriented learning. Following Heclo (1974:306), policy-oriented learning refers to relatively enduring alterations of thought or behavioral intentions that result from experience and are concerned with the attainment (or revision) of policy objectives. Policy-oriented learning involves the internal feedback loops depicted in Figure 2.1, perceptions concerning external dynamics, and increased knowledge of problem parameters and the factors affecting them. The framework assumes that such learning is instrumental, that is, that members of various coalitions seek to better understand the world in order to further their policy objectives. They will resist information suggesting that their basic beliefs may be invalid or unattainable, and they will use formal policy analyses primarily to buttress and elaborate those beliefs (or attack their opponents' views). Within this assumption of the prevalence of advocacy analysis, Chapter 3 identifies several factors that facilitate learning across advocacy coalitions.

Such learning comprises, however, only one of the forces affecting policy change over time. In addition to this cognitive activity, there is a real world that changes. This world, first of all, involves the realm of system dynamics depicted in Figure 2.1: Changes in relevant socioeconomic conditions and system-wide governing coalitions—such as the 1973 Arab oil embargo or the 1980 election of Ronald Reagan—can dramatically alter the composition and the resources of various coalitions and, in turn, public policy within the subsystem. Turnover in personnel—sometimes resulting from external conditions, sometimes merely from death or retirement—constitutes a second noncognitive source of change that can substantially alter the political resources of various advocacy coalitions and thus the policy decisions at the collective choice and operational levels.

The basic argument of this framework is that, although policy-oriented learning is an important aspect of policy change and can often alter secondary aspects of a coalition's belief system, changes in the core aspects of a policy are usually the results of perturbation in noncognitive factors

external to the subsystem, such as macroeconomic conditions or the rise of a new systemic governing coalition. While the framework borrows a great deal from Heclo (1974, 1978), it differs in its emphasis on ideologically based coalitions and its conception of the dynamics of policy-oriented learning. It can also be clearly distinguished from analyses that view formal organizations as the basic actors (e.g., Krasnow et al., 1982) or that focus on individuals seeking to attain their self-interest through the formation of short-term "minimum winning coalitions" (Riker, 1962).

Although in presenting the ACF, we will illustrate relevant concepts and hypotheses with examples from U.S. air pollution policy, the ACF should be applicable to a variety of policy issues in most industrial societies.

II. EXTERNAL FACTORS AFFECTING POLICY CHANGE WITHIN SUBSYSTEMS

Policy making in any political system or policy subsystem is constrained by a variety of social, legal, and resource features of the society of which it is a part (Heclo, 1974; Hofferbert, 1974; Kiser and Ostrom, 1982).

Our concern with the analysis of policy change means that stable external factors must be distinguished from more dynamic ones. In addition, the focus on policy subsystems means that a subsystem's relationship to other subsystems and to the broader political system must be taken into account. Thus, the framework distinguishes between (1) parameters that are relatively stable over several decades and (2) those aspects of the system that are susceptible to significant fluctuations over the course of a few years and thus serve as major stimuli to policy change.

Relatively Stable Parameters

The following set of very stable factors may be either within or external to the policy subsystem. The difficulty of changing these factors discourages actors from making them the object of strategizing behavior. These factors can limit the range of feasible alternatives or otherwise affect the resources and beliefs of subsystem actors.

Basic Attributes of the Problem Area (or "Good"). Public choice theorists have shown how various characteristics of goods, such as excludability, affect institutional (policy) options. For example, ocean fisheries and large underground aquifers give rise to common pool problems that markets cannot deal with efficiently and that make them candidates for governmental regulation (Ostrom, 1990).

Other aspects of the good or problem area (or issue area) affect the degree of policy-oriented learning likely to take place. For example, a problem's susceptibility to quantitative measurement affects the policy maker's ability to ascertain performance gaps. The extent of learning is

likewise contingent upon the ease of developing good causal models of the factors affecting a problem. One would thus expect more learning on air pollution than on mental health (see Chapter 3).

Perceptions of various aspects of a good can change over time, often because of the activities of an advocacy coalition. Thirty years ago, cigarette smoking was widely regarded as a relatively harmless activity and there was virtually no concern with the effects of smoking on non-smokers. The situation is quite different today, due in large part to a concerted campaign on the part of a public health coalition led by several surgeons general (Fritschler, 1983).

Basic Distribution of Natural Resources. The present (and past) distribution of natural resources strongly affects a society's overall wealth and the viability of different economic sectors, many aspects of its culture, and the feasibility of options in many policy areas. For example, the United States could encourage utilities to switch from oil to coal in the mid-1970s—with its potentially significant effects on sulfur emissions—while the French, lacking abundant coal reserves, turned to nuclear power as an alternative means of generating electricity.

Fundamental Cultural Values and Social Structure. Large-scale nationalization of the means of production is a viable policy option in many European countries, but not in the United States. Although such norms are not immutable, change usually requires decades.

Similarly, political power in most countries tends to be rather highly correlated with income, social class, and large organizations. Significant changes in the influence of various social groups—whether it be blacks and Chicanos or the auto companies—normally takes several decades. The political resources (or lack thereof) of many interest groups are slowly changing "facts of life" that actors within a subsystem must take into account in formulating their strategies in the short or medium term.

Basic Legal Structure. In most political systems, basic legal norms are quite resistant to change. The U.S. Constitution has not been significantly altered since the granting of women's suffrage in 1920. The institutions of the French Fifth Republic have remained virtually unchanged for thirty years, those of Great Britain for almost a century. Basic legal traditions—such as the role of the courts and the fundamental norms of administrative law—also tend to be rather stable over periods of several decades.

Constitutional and other fundamental legal norms can also affect the extent of policy-oriented learning. For example, Ashford (1981b:16–17) has argued that the concentration of policy-making authority in the British cabinet and higher civil service—coupled with the secrecy that permeates that system—inhibit outsiders from making intelligent evaluations of present policy. In a similar vein, public choice theorists have long argued that decentralized political systems with relatively autonomous local governments facilitate learning by providing arenas for policy experimentation and realistic points of comparison for evaluation.

ing different policy instruments (V. Ostrom, Tiebout, and Warren, 1961; E. Ostrom, 1982).

These relatively stable parameters—the nature of the good, the basic distribution of natural resources, fundamental cultural values and social structure, and basic legal structure—significantly constrain the options available to subsystem actors. Changing them is not impossible, but it is very difficult. Change at this level normally requires a concerted effort by an advocacy coalition for at least a decade—and often several decades. Major changes in public policy within a subsystem are more likely to come from the factors outside the subsystem discussed below.

Dynamic System Events

Changes in the following factors external to a policy subsystem can be substantial over the course of a few years or a decade. Because such changes alter the constraints and opportunities confronting subsystem actors, they constitute the principal dynamic elements affecting policy change. They also present a continuous challenge to subsystem actors, who must learn how to anticipate them and respond to them in a manner consistent with their basic beliefs and interests. The process must be frustrating at times, as actors who have worked for years to gain an advantage over their competitors within a subsystem suddenly find their plans knocked away by (external) events—such as the Arab oil embargo—over which they have little control.

1. *Socioeconomic Conditions and Technology.* Changes in these areas can substantially affect a subsystem, either by undermining the causal assumptions of present policies or by significantly altering the political support of various advocacy coalitions. For example, on the one hand, the dramatic rise in public concern with environmental degradation in the late 1960s played an important role in the passage of the 1970 Clean Air Amendments (Ingram, 1978). On the other hand, the Arab oil embargo of 1973–1974 contributed to such a depression in the domestic automobile industry that the United Auto Workers—previously a strong supporter of stringent air pollution programs—began echoing industry calls for a relaxation of costly and allegedly energy-inefficient automotive pollution controls (Mazmanian and Sabatier, 1989:104).

2. *Systemic Governing Coalitions.* Changes in the dominant coalition at a given level of government, that is, “critical elections” (Burnham, 1970), normally require that the same coalition control the chief executive’s office and both houses of the legislature. Such changes in the system-wide governing coalition are quite rare.

More limited changes are more common but also have lesser effects. The 1980 national election, for example, resulted in both the presidency and the Senate changing from relatively liberal Democrats to relatively conservative Republicans. Although air pollution was only a minor issue in the election—a campaign dominated by the issues of stagflation and the Iranian hostage crisis—President Ronald Reagan attempted to fun-

damentally alter air pollution policy through appointing conservatives to key Environmental Protection Agency (EPA) positions, drastically cutting the EPA’s budget, and proposing major amendments to the Clean Air Act (Vig and Kraft, 1984). In the final analysis, however, he failed. Most of his key appointees were forced to resign in scandal after a couple of years, the budget cuts were gradually restored, and his legislative proposals died in Senate committee. The reason is that members of the clean air coalition remained in control in the House, the Senate Environment Committee, and among EPA career officials (Wood, 1988; Cook and Wood, 1989; Waterman, 1989). Because there was no change in the system-wide governing coalition—but only in the presidency and a portion of the Senate—Reagan was unable to bring about a fundamental change within the air pollution subsystem at even the federal level, let alone in the states (Wood, 1991).

3. *Policy Decisions and Impacts from Other Subsystems.* Subsystems are only partially autonomous. In fact, the decisions and impacts from other policy sectors are principal dynamic elements affecting specific subsystems.

Examples are legion. The search for “energy independence” in the mid-1970s had significant repercussions on U.S. pollution control policy, as the Nixon and Ford administrations sought to require utilities to change from clean-burning natural gas to more abundant coal. Britain’s entry into the Common Market (largely on foreign policy and economic grounds) has had repercussions on subsystems from taxation to pollution control because of the need to comply with European Economic Community (EEC) mandates. And there is evidence that drastic reductions in local tax revenues brought about by Proposition 13 have affected California land use policy by encouraging local governments to become more leery of the service costs of dispersed new housing developments (Inan, 1979).

III. POLICY SUBSYSTEMS: INTERNAL STRUCTURE

The complexity of modern society, the expansion of governmental functions, and the technical nature of most policy problems create enormous pressures for specialization. It is exceedingly difficult, except perhaps in small communities, to be knowledgeable about more than one or two policy sectors. When others specialize—as they do in any moderately large political system—generalists find it difficult to compete.

Thus it has long been recognized that political elites concerned with a specific problem or policy area tend to form relatively autonomous subsystems (Griffith, 1961; Fritschler, 1983; Dodd and Schott, 1979; Hamm, 1983). But traditional notions of “whirlpools” and “iron triangles” suffer because they are generally limited to interest groups, administrative

agencies, and legislative committees at a single level of government. They need to be expanded to include journalists, analysts, researchers, and others who play important roles in the generation, dissemination, and evaluation of policy ideas as well as actors at other levels of government who play important roles in policy formulation and implementation (Heclo, 1978; Wamsley, 1983; Kingdon, 1984; Sabatier and Pelkey, 1987).

Traditional notions of "iron triangles" also assume that conflict among participants is relatively restrained—which often is not the case. The ACF argues that the level of conflict will vary depending upon whether the relevant actors disagree on "secondary" versus "core" aspects of their belief systems.

Delimiting Subsystem Boundaries

Let us define a policy subsystem as the set of actors who are involved in dealing with a policy problem such as air pollution control, mental health, or energy. Although it is often useful to begin with a networking approach to identify the actors involved at any particular point in time (Hjern and Porter, 1981), one must also be willing to identify potential ("latent") actors who would become active if they had the appropriate information (Balbus, 1971). In fact, activating latent constituencies is often one of the strategies of coalitions.

Latent constituencies are also an important factor in using technical information to affect policy change over time. For example, federal air pollution officials in the late 1960s identified a number of latent supporters of stricter pollution control programs and then developed several information and participation programs to encourage their involvement (Sabatier, 1975). This explicit effort to use information to expand the range of subsystem actors fundamentally altered air pollution politics in Chicago and several other cities.⁴

Origins of Subsystems

The most likely reason for the emergence of new subsystems is that a group of actors become dissatisfied enough with the neglect of a particular problem by existing subsystems to form their own. For example, dissatisfaction with the *laissez-faire* approach to food safety (e.g., meat inspections) by the agriculture subsystem became so intense in the early 1900s that a new subsystem—centered around what was to become the Food and Drug Administration (FDA)—gradually separated from the agricultural subsystem over a period of several decades (Nadel, 1971: 7-17). Whereas this case involved a minority coalition breaking away to form its own subsystem, in other cases a new subsystem is essentially the product of a subset of a dominant coalition becoming large and specialized enough to form its own; an example would be the emergence of a housing subsystem out of the urban policy subsystem during the 1960s (Earkas, 1971).

Subsystem Actors: Advocacy Coalitions and Policy Brokers

Whatever their origins, subsystems normally contain a large and diverse set of actors. For example, the U.S. air pollution control subsystem includes the following:

1. The Environmental Protection Agency;
2. Relevant congressional committees;
3. Portions of peer agencies, such as the Department of Energy, that are frequently involved in pollution control policy;
4. Polluting corporations, their trade associations, unions, and occasionally, consumer associations;
5. The manufacturers of pollution control equipment;
6. Environmental and public health groups at all levels of government;
7. State and local pollution control agencies;
8. Research institutes and consulting firms with a strong interest in air pollution;
9. Important journalists who frequently cover the issue;
10. On some issues, such as acid rain, actors in other countries.

Given the enormous number and range of actors involved, it becomes necessary to find ways of aggregating them into smaller and theoretically useful sets of categories.

After considering several alternatives, I have concluded that the most useful means of aggregating actors in order to understand policy change over fairly long periods of time is by "advocacy coalitions." These are people from a variety of positions (elected and agency officials, interest group leaders, researchers, etc.) who share a particular belief system—that is, a set of basic values, causal assumptions, and problem perceptions—and who show a nontrivial degree of coordinated activity over time.

I find this strategy for aggregating actors superior to the most likely alternative—that of viewing formal institutions as the dominant actors—because in most policy subsystems there are at least fifty to a hundred organizations at various levels of government that are active over time. Developing models involving changes in the positions and interaction patterns of that many units over a period of a decade or more would be an *exceedingly* complex task (Sabatier and Pelkey, 1987). Moreover, institutional models have difficulty accounting for the importance of specific individuals who move about from organization to organization within the same subsystem (Heclo, 1978). Finally, institutional models have difficulty accounting for the huge variation in behavior among individuals within the same institution, such as Congress, the federal district courts, the AFL-CIO, or even the same governmental agency (Mazmanian and Nienaber, 1979; Liroff, 1986). Thus I prefer to

utilize advocacy coalitions as a more manageable focus of analysis, while certainly acknowledging that formal institutions have some capacity to constrain their members' behavior. Formal institutions also bring critical resources—such as the authority to make certain types of decisions—to the members of a coalition.

In most subsystems, the number of politically significant advocacy coalitions will be quite small. In quiescent subsystems there may only be a single coalition. In most cases, however, there will be two to four important coalitions—the number being limited by all the factors that push actors to coalesce if they are to form effective coalitions (Jenkins-Smith, personal communication; Kingdon, 1984). If one's opponents pool their resources under a common position, to remain without allies is to invite defeat; but allies create pressures for common positions, which tend to harden over time. This hardening of positions is strengthened by the importance of organizational actors (whose positions are usually slow to change) and by the tendency to perceive one's opponents as being more hostile and powerful than they probably are (Sabatier et al., 1987). This argument suggests, then, that there will be greater fragmentation of beliefs in recently formed subsystems than in more established ones (see Chapter 9 for a test of this hypothesis). Since most subsystems have existed for decades, however, one would expect the number of coalitions in each to be relatively small.

For example, the U.S. air pollution subsystem in the 1970s and 1980s was apparently divided into two rather distinct advocacy coalitions. One, which might be termed "the Clean Air Coalition," was dominated by environmental and public health groups, their allies in Congress (e.g., Senator Edmund Muskie, Congressman Henry Waxman), most pollution control officials in the EPA, a few labor unions, many state and local pollution control officials (particularly in large cities with serious problems), and some researchers. It had a belief system that stressed the primacy of human health over economic development and efficiency; (2) a perception that air pollution was a serious health problem in many urban areas; (3) a focus on the inability of markets to deal with negative externalities" such as air pollution; (4) a causal assumption that state and local governments' preoccupation with competitive advantage in attracting industry made them susceptible to industrial "backmail" and thus required a strong federal presence; (5) a deep distrust of the motives of corporate officials and a consequent assumption of the necessity of forcing the pace of technological innovation; and (6) a strong preference for a legal command and control approach rather than reliance on economic incentives.

The competing coalition, which I'll call the Economic Feasibility Coalition, was dominated by industrial sources of air pollution, energy companies, their allies in Congress (e.g., Congressmen John Dingell and James Broyhill), several labor unions (particularly after the Arab oil embargo), some state and local pollution control officials, and several economists. Its belief system (1) stressed the need to balance human

health against economic development and efficiency; (2) questioned the alleged seriousness of the health problem except in isolated instances; (3) believed that increasing social welfare generally required a deference to market arrangements; (4) generally disapproved of a strong federal role (largely on the assumption that their leverage was greater with local officials); (5) placed great emphasis on legally requiring only what was technologically feasible; and (6) expressed support (at least in principle) for the flexibility and cost-effectiveness of economic incentives rather than general legal commands (Downing, 1984).⁵

Not everyone active in a policy subsystem will "belong to" an advocacy coalition or share one of the major belief systems. Some researchers who are otherwise indifferent to the policy disputes may participate simply because they have certain skills to offer (Meltzner, 1976). The same would hold true for bureaucrats who actually adhere to the tradition of "neutral competence" (Knott and Miller, 1987). In addition, there will almost certainly be a category of actors—here termed "policy brokers"—whose dominant concerns are with keeping the level of political conflict within acceptable limits and reaching some "reasonable" solution to the problem. This is a traditional function of some elected officials (particularly chief executives) and, in some European countries like Britain and France, of high civil servants (Doggan, 1975). The courts, "blue ribbon commissions," and other actors may also play the role of policy broker. The distinction between "advocate" and "broker," however, rests on a continuum. Many brokers will have some policy bent, while advocates may show some serious concern with system maintenance. The framework merely insists that policy brokering is an empirical matter that may or may not correlate with institutional affiliation: While high civil servants may be brokers, they are also often policy advocates—particularly when their agency has a clearly defined mission.

The concept of an advocacy coalition assumes that shared beliefs provide the principal "glue" of politics. Moreover, as shall be discussed shortly, it assumes that people's core beliefs are quite resistant to change. These assumptions lead to one of the critical hypotheses of the entire framework:

Hypothesis 1: On major controversies within a policy subsystem when core beliefs are in dispute, the lineup of allies and opponents tends to be rather stable over periods of a decade or so.⁶

Thus the framework explicitly rejects the view that actors are primarily motivated by their short-term self-interest and thus that "coalition convenience" of highly varying composition will dominate policy making over time. This claim is consistent with the evidence from a number of studies, including (1) the history of U.S. energy policy by Wildavsky and Tenenbaum (1981), (2) Marmor's (1970) analysis of the politics of Medicare in the United States, and (3) numerous analyses of the composition of majority coalitions in multiparty European parliaments over the

past several decades, which have found that—in contrast to Riker's (1962) "minimum winning coalition" model—coalition formation has been quite constrained by ideology.⁷

Of course, coalition stability could be the result not of stable beliefs but rather of stable economic and organizational interests. This objection raises very thorny methodological issues, in part because belief systems are normally highly correlated with self-interest and the causation is reciprocal.⁸ For example, Sierra Club leaders and steel company executives typically have quite different views on air pollution control, but this (1) because their organizations have quite different (economic) interests or (2) because people join organizations—and put in the effort to rise to prominence in them—out of affinity with the organization's stated goals? This framework uses belief systems, rather than "interests," as its focus because beliefs are more inclusive and more verifiable than interests. Interest models must still identify a set of means and performance indicators necessary for goal attainment; this set of interests and goals, perceived causal relationships, and perceived parameter states constitutes a "belief system." While belief system models can thus incorporate self-interest and organizational interests, they also allow actors to establish goals in quite different ways (e.g., as a result of socialization) and are therefore more inclusive. In addition, I personally have great difficulty in specifying *a priori* a clear and falsifiable set of interests for most actors in policy conflicts (see also Kingdon, 1988). Instead, it seems preferable to allow actors to indicate their belief systems (via questionnaires and content analyses of documents) and then empirically examine the extent to which these change over time.

Advocacy Coalitions and Public Policy

Coalitions seek to translate their beliefs into public policies or programs (which usually consist of a set of goals and directions, or empowering, to administrative agencies for implementing those goals). Although pressures for compromise generally result in governmental programs that incorporate elements advocated by different coalitions, the 1970 Federal Clean Air Amendments incorporated to an unusual degree most elements of the belief system of the Clean Air Coalition. The 1977 and 1990 Clean Air Amendments incorporated some compromises imposed by the Economic Feasibility Coalition (such as the 1977 delays in imposing more stringent auto emissions standards and the 1990 amendments' use of economic incentives in the acid rain program), but the overall philosophy of the federal Clean Air Act remains consistent with most beliefs of the Clean Air Coalition.

In any intergovernmental system, however, different coalitions may be in control of various governmental units. For example, the Economic Feasibility Coalition was apparently more powerful in Sun Belt states during most of the 1970s than at the national level. In fact, one of the strategies of any coalition is to manipulate the assignment of pro-

gram responsibilities so that the governmental units that it controls have the most authority (Schattschneider, 1960).

While belief systems will determine the *direction* in which an advocacy coalition (or any other political actor) will seek to move governmental programs, its *ability to do so* will be critically dependent upon its resources. These include such things as money, expertise, number of supporters, and legal authority. With respect to the last, this framework acknowledges one of the central features of institutional models—namely, that rules create authorizations to act in certain ways (Kiser and Ostrom, 1982; Ostrom, 1990). The ACF differs from many institutional theories, however, in viewing these rules as the product of competition among advocacy coalitions and in viewing institutional members as providing resources to different coalitions.

The resources of various coalitions change, of course, over time. Some of this is intentional. In fact, most coalitions seek to augment their budgets, recruit new members (especially those with legal authority, expertise, or money), place their members in positions of authority, and employ the variety of other means long identified by interest group theorists (Truman, 1951; Berry, 1977). Some coalitions have a more difficult time than others in maintaining an effective presence and increasing their resources over time. This is particularly true in consumer and environmental protection, where the groups that originally championed regulation have had more difficulty than the regulated industries in finding sufficient organizational resources to monitor and to intervene in the extended process of policy implementation (Bernstein, 1955; Nadel, 1971; Quirk, 1981). Even more severe difficulties confront economically disadvantaged groups in their efforts to muster the resources necessary to remain active over any extended period of time (Goodwin and Moen, 1981).

Although coalitions will seek to increase their resources, the advocacy coalition framework argues that *major* shifts in the distribution of political resources will usually be the product of events *external* to the subsystem and largely external to activities of subsystem coalitions. For example, members of the Economic Feasibility Coalition attempted to utilize the 1973–1974 oil crisis and the 1980 election of President Reagan to increase their resources, but those changes were not sufficient to enable them to overcome the Clean Air Coalition on issues relating to the policy core incorporated into the 1970 Clean Air Amendments. In contrast, Chapters 4 and 5 of this book explore cases illustrating how subsystem coalitions successfully exploited and amplified opportunities arising from external events.

Policy-Oriented Belief Systems

In its conception of the belief systems of individuals and coalitions, the framework has three basic points of departure. The first is Aizen and Fishbein's (1980) "theory of reasoned action"—basically an extended

utility model in which actors weigh alternative courses of action in terms of their contribution to a set of goals, but in which the preferences of reference groups (such as members of one's coalition) are accorded a more prominent role than in most utilitarian models. Second, rationality is limited rather than perfect. Thus the framework relies heavily upon the work of March and Simon (1958), Nisbett and Ross (1980), Kahneman et al. (1982), and many others in terms of satisficing, placing cognitive limits on rationality, carrying out limited search processes, etc. Third, because subsystems are composed of policy elites rather than members of the general public, there are strong grounds for assuming that most actors will have relatively complex and internally consistent belief systems in the policy area(s) of interest to them (Wilker and Milbrath, 1972; Cobb, 1973; Axelrod, 1976; Putnam, 1976:87-93; Buttel and Flinn, 1978).

These, however, are only starting points, for they tell us very little about what will happen when experience reveals anomalies—such as internal inconsistencies, inaccurate predictions, and invalid assertions—among the beliefs. Assuming some social and psychological pressures for belief consistency and validity, are conflicts resolved in an essentially random process—that is, with all beliefs accorded the same logical status—or are some beliefs more fundamental than others and thus more resistant to change? What, in short, is the *structure of the belief systems of policy elites*?

The literature on political belief systems is a mine field of conflicting theories and evidence.⁹ But the most useful approach seems to be a synthesis of Putnam's (1976:81-89) review of the normative and cognitive orientations of political elites, Axelrod's (1976) work on the complexity of their causal assumptions, an adaptation of Lakatos's (1971) distinction between "core" and other elements of scientific belief systems, and Converse's (1964) contention that abstract political beliefs are more resistant to change than specific ones (also Peffley and Hurwitz, 1985; Hurwitz and Peffley, 1987).

Given that the basic strategy of the framework is to use the structure of belief systems to predict changes in beliefs and attempted changes in policy over time, that structure must be stipulated a priori if the argument to come in Hypotheses 2 and 3 is to be falsifiable. The unsettled nature of the field makes this a risky undertaking. Nevertheless, on the assumption that clarity—even if wrong—begets clarity and eventually improved understanding of a phenomenon, the framework proposes the structure of elite belief systems outlined in Table 2.1.

Table 2.1 outlines three structural categories: a deep core of fundamental normative and ontological axioms that define a person's underlying personal philosophy, a near (policy) core of basic strategies and policy positions for achieving deep core beliefs in the policy area or subsystem in question, and a set of secondary aspects comprising a multitude of instrumental decisions and information searches necessary to implement the policy core in the specific policy area. The three structural categories are arranged in order of decreasing resistance to

Core Values
Policy Strategy
Instrumental
Administrative
(Assumptions)

TABLE 2.1 Structure of Belief Systems of Policy Elites*

Defining characteristics	Deep (Normative) Core	Near (Policy) Core	Secondary Aspects
	Fundamental normative and ontological axioms	Fundamental policy positions concerning the basic strategies for achieving normative axioms or deep core.	Instrumental decisions and information searches necessary to implement policy core.
Scope	Part of basic personal philosophy. Applies to all policy areas.	Applies to policy area of interest (and perhaps a few more).	Specific to policy area/subsystem of interest.
Susceptibility to change	Very difficult; akin to a religious conversion.	Difficult, but can occur if experience reveals serious anomalies.	Moderately easy; this is the topic of most administrative and even legislative policymaking.
Illustrative components	1. The nature of man: i. Inherently evil vs. socially redeemable. ii. Part of nature vs. dominion over nature. iii. Narrow egoists vs. contractarians. 2. Relative priority of various ultimate values: freedom, security, power, knowledge, health, love, beauty, etc. 3. Basic criteria of distributive justice: Whose welfare counts? Relative weights of self, primary groups, all people, future generations, nonhuman beings, etc.	1. Proper scope of governmental vs. market activity. 2. Proper distribution of authority among various units (e.g., levels) of government. 3. Identification of social groups whose welfare is most critical. 4. Orientation on substantive policy conflicts, e.g., environmental protection vs. economic development. 5. Magnitude of perceived threat to these values. 6. Basic choices concerning policy instruments, e.g., coercion vs. inducements vs. persuasion. 7. Desirability of participation by various segments of society: i. Public vs. elite participation. ii. Experts vs. elected officials. 8. Ability of society to solve problems in this policy area: i. Zero-sum competition vs. potential for mutual accommodation. ii. Technological optimism vs. pessimism.	1. Most decisions concerning administrative rules, budgetary allocations, disposition of cases, statutory interpretation, and even statutory revision. 2. Information concerning program performance, the seriousness of the problems, etc.

*The Policy Core and Secondary Aspects also apply to governmental programs.

change, that is, the deep core is much more resistant than the secondary aspects.

U.S. air pollution policy once again serves as an example, in this case to illustrate the structure of belief systems. The Clean Air Coalition and the Economic Efficiency Coalition have been fundamentally divided over the extent to which the pursuit of individual freedom in a market economy should be constrained in order to protect the health of "susceptible populations" (e.g., those already suffering from respiratory diseases). Members of the Clean Air Coalition argue that the protection accorded susceptible populations should be virtually absolute, while members of the Economic Efficiency Coalition have been more willing to put these populations at some risk in the interests of individual liberty and increased production. This normative difference in the policy core of the two coalitions probably reflected a deep core difference in the relative priority accorded freedom (or efficiency) versus equality, a conflict underlying many policy disputes (Rokeach, 1973; Okun, 1975).

Differences on this issue and others helped members of the two coalitions to adopt quite different positions on such policy core issues as the proper scope of government (vs. market) activity, the proper role of the federal government, the advantages of using coercion vs. other policy instruments, the overall seriousness of the air pollution problem in the United States, and so on. These are the sorts of issues that were decided in the 1970 Clean Air Amendments and that, despite numerous attacks, have remained largely unchanged in law since then (Mazmanian and Sabatier, 1989:Chap. 4). While there have been some issues (most notably, nondegradation and acid rain) since 1970 that have involved core disputes, most policy making has focused on secondary aspects, such as determining which air quality standards are adequate to protect susceptible populations, which auto emissions standards would minimize emissions without wrecking the domestic auto industry, the feasibility of using parking surcharges as a tool for reducing vehicle miles traveled, and the technical validity of various techniques for monitoring atmospheric emissions.

It would be absurd to assume that all members of an advocacy coalition have precisely the same belief system. But, based upon the assumption that elite belief systems are hierarchical (i.e., that abstract beliefs are more salient and more resistant to change than more specific ones), the ACF hypothesizes that most members of a coalition will show substantial agreement on the policy core issues outlined in Table 2.1, which need to be addressed by any belief system. In addition, positions these issues will be slower to change than those concerning the secondary (implementing) aspects of a belief system. In short:

Hypothesis 2: Actors within an advocacy coalition will show substantial consensus on issues pertaining to the policy core, although less so on secondary aspects.

Hypothesis 3: An actor (or coalition) will give up secondary aspects of a belief system before acknowledging weaknesses in the policy core.

While this argument leaves open the precise amount of consensus on the policy core necessary for an advocacy coalition to be said to "exist," its basic thrust should be quite clear. It is also far from self-evident, as it disagrees with those who proclaim the end of ideology (Bell, 1960), perceive the domination of short-term "coalitions of convenience" (Riker, 1962), view specific beliefs as more salient than abstract ones (Wilker and Milbrath, 1972), or see policy change as a muddled process in which policy technocrats play a major role (Heclo, 1978).

Methods for investigating the content of belief systems include elite surveys, panels of knowledgeable observers (Hart, 1976), and content analysis of relevant documents (Axelrod, 1976). Given the rather technical nature of many secondary aspects and the focus on changes in beliefs over a decade or more, content analyses of government documents (e.g., legislative and administrative hearings) and interest-group publications probably offer the best prospects for systematic empirical work on changes in elite beliefs (see the Methodological Appendix).

The entire notion of a belief system organized around a set of core values and policy strategies, plus implementing activities, assumes some psychological predilection for instrumental rationality and cognitive consistency on the part of policy elites. It does not, however, take issue with the implications of Simon's recent work suggesting that cognitive structures resemble semiautonomous filing cabinets into which one places new information (Newell and Simon, 1972; Simon, 1979). Instead, the framework supposes that policy elites seek to better understand the world within a particular policy area ("filing cabinet") in order to identify means to achieve their fundamental objectives. Such thought produces pressures for evaluative consistency (Tesser, 1978:295).

The framework also presumes some (modest) selection pressures in favor of policy elites with a capacity for reasoned discourse involving the major issues relevant to their policy subsystem (e.g., air pollution control). Insofar as policy discussions among insiders are based on reasoned argument, actors holding blatantly inconsistent or unsubstantiated positions will lose credibility. That loss may not be completely debilitating for their position, but it will force them to expend scarce political resources in its support and will eventually be to their competitive disadvantage (Brewer and de Leon, 1983).

Once something has been accepted as a policy core belief, however, powerful ego-defense, peer-group, and organizational forces create considerable resistance to change, even in the face of countervailing empirical evidence or internal inconsistencies (Festinger, 1957; Argyris and Schon, 1978; Janis, 1983). The literature on cognitive dissonance and selective perception is enormous and far from conclusive (Abelson

et al., 1968; Wicklund and Brehm, 1976; Greenwald and Ronis, 1978; Innis, 1978). But, when salient beliefs and/or the egos of policy elites are at stake, the evidence of selective perception and partisan analysis is strong enough to warrant a prominent place in any model (Schiff, 1962; Smith, 1968; Steinbruner, 1974; Cameron, 1978; Innis, 1978; Nelkin, 1979; Mazur, 1981; Fiske and Taylor, 1984; Etheredge, 1985).

IV. COALITION LEARNING AND EXTERNAL PERTURBATION

Policy change within a subsystem can be understood as the product of two processes. First, advocacy coalitions within the subsystem attempt to translate the policy cores and the secondary aspects of their belief systems into governmental programs. Although most programs will involve some compromise among coalitions, there will usually be a dominant coalition and one or more minority coalitions (Wamsley, 1983). Each will seek to realize its objectives over time through increasing its political resources and through policy-oriented learning (to be discussed in the following chapter). The second process is one of external perturbation, that is, the effects of *system-wide* events—changes in socioeconomic conditions, outputs from other subsystems, and changes in the system-wide governing coalition—on the resources and constraints of subsystem actors.

The framework argues, however, that the policy core of an advocacy coalition is quite resistant to change over time. This leads to the following hypothesis:

Hypothesis 4: The core (basic attributes) of a governmental program is unlikely to be significantly revised as long as the subsystem advocacy coalition that instituted the program remains in power.

This hypothesis assumes that a coalition seeks power to translate its core beliefs into policy. It will not abandon those core beliefs merely to stay in power, although it may well abandon secondary aspects and even try to incorporate some of the opponents' core as *secondary* aspects of the program.

Likewise, the relative strength of different advocacy coalitions within a subsystem will seldom be sufficiently altered by events *internal* to the subsystem (i.e., by efforts to increase resources or to "outlearn" opponents) to overthrow a dominant coalition. Hence:

Hypothesis 5: The core (basic attributes) of a governmental action program is unlikely to be changed in the absence of significant perturbations external to the subsystem, that is, changes in socioeconomic conditions, system-wide governing coalitions, or policy outputs from other subsystems.

These hypotheses suggest that, while minority coalitions can seek to improve their relative position through augmenting their resources and "outlearning" their adversaries, their basic hope of gaining power within the subsystem resides in waiting for some *external* event to significantly increase their political resources.

If Hypothesis 5 is correct, the type of policy-oriented learning discussed in the next chapter is unlikely by itself to significantly alter the *policy core* attributes of a governmental action program. But it can still lead to substantial changes in the secondary aspects. Learning by a minority coalition may demonstrate such major deficiencies in the core of a program that the majority will acknowledge these deficiencies or, more likely, a system-wide learning process will occur in which system-wide leaders eventually overturn the dominant coalition. A possible example would be the efforts of economists over the past twenty years to demonstrate the inefficiencies of governmental regulation of airline fares and entry—a campaign that eventually led to the abolition of the Civil Aeronautics Board (Derthick and Quirk, 1985; Brown, 1987; Nelson, 1987). The airline deregulation case is analyzed in detail in Chapter 5.¹⁰

V. CONCLUSION

This chapter has presented the basic features of the advocacy coalition framework (ACF) of policy change over periods of a decade or more. The next chapter will discuss the dynamics of policy-oriented learning—one of the principal features of the ACF—in greater detail.

The ACF starts from three premises that, in my view, are prerequisites for any theory of policy change. First, it deals with periods of sufficient length to incorporate the enlightenment function of policy research and to give some attention to policy-oriented learning. Periods of a decade are also long enough to incorporate at least one policy cycle (consisting of formulation, implementation, and reformulation) at a specific level of government. Second, the ACF focuses on policy subsystems—rather than specific governmental institutions—as the principal unit for understanding policy change. This premise follows a long tradition in the policy literature, although the expansion of the list of subsystem actors beyond traditional iron triangles to include the generators and disseminators of ideas, as well as an intergovernmental dimension, is fairly recent. Third, the ACF emphasizes the intergovernmental nature of policy subsystems. Subsystems will usually include actors from all levels of government, and there is no *a priori* assumption that national actors are more important than subnational ones.

The ACF then incorporates four additional major building blocks. First, it follows Pressman and Wildavsky (1973) and Majone (1980) in assuming that public policies can be conceptualized in the same manner as political belief systems, that is, as sets of value priorities, perceptions of important causal relationships, perceptions of the seriousness of the

Problem, and perceptions of the efficacy of various sorts of institutional relationships as means of attaining those value priorities. Second, it builds upon aspects of Majone (1989) and the political belief system literature (Putnam, 1976) in assuming that both policies and belief systems have a structure composed of a very abstract deep core, a policy core relating to that specific subsystem, and a large number of secondary aspects. The abstract levels are hypothesized to be stable, in large part because they are largely normative issues inculturated in childhood and largely impervious to empirical evidence. Third, the ACF chooses advocacy coalitions—that is, sets of actors from both public and private institutions at various levels of government who share critical aspects of a belief system—as the principal vehicle for aggregating individuals into a manageable number of units. It perceives a coalition as seeking to manipulate institutional rules and actors in order to achieve its policy goals. The ACF thus represents a fundamental departure from most political science research, which tends to aggregate by type of institution (such as the Congress, presidency, and interest groups), usually at a single level of government. The choice of advocacy coalitions facilitates a focus on policy-oriented learning, as the actors within a coalition share basic values and search for means to accomplish them. It also facilitates an intergovernmental focus: A coalition doing poorly in Washington is not helpless but instead can focus its efforts at subnational levels where it is more powerful. Fourth, the ACF follows Heclo (1974) in distinguishing the internal dynamics within a subsystem from the perturbations in the broader political system and socioeconomic environment. It goes out on a limb by hypothesizing that the latter are necessary for changes in the core of governmental policy within a subsystem.

The ACF certainly represents a radical departure from the stages metaphor in its focus on belief systems, policy-oriented learning, subsystem vs. external system, and aggregation by advocacy coalitions and in its ability to deal with multiple, interacting sets of cycles, consisting of formulation, implementation, and reformulation, at different levels of government (or in different states or localities at the same level). It also differs from the stages metaphor in that it identifies two specific motors of change: (1) individuals' efforts to achieve their goals over time (with individuals aggregated into coalitions) and (2) the effects of perturbations exogenous to the subsystem (i.e., changes in system-wide governing coalitions, changes in socioeconomic conditions, or policy outputs from other systems) on the resources and beliefs of subsystem actors, and eventually on policy change.¹¹

The ACF also differs from other major theories of the policy process: Lowi's *Arenas of Power* (Lowi, 1964, 1972; Ripley and Franklin, 1984: 22). The ACF ignores the fundamental tenet of this approach, namely, the policy process differs substantially in distributive, regulatory, redistributive arenas. Such differences may exist, but they are not as important enough to include in the ACF.

Kingdon's *Multiple Streams* (Kingdon, 1984). Kingdon is one of the

few political scientists to deal seriously with the role of ideas and analysis in policy making. But the ACF views the "analytical" stream as much more integrated with the "political" stream than does Kingdon; it deals with the entire policy process, not just agenda setting and policy formulation; and it tries to relate Kingdon's "windows of opportunity" for major policy change to specific types of changes in events exogenous to the policy subsystem (see Sabatier, 1991a).

3. *Hofferbert's Funnel of Causality* (Hofferbert, 1974; Mazmanian and Sabatier, 1980). The ACF incorporates Hofferbert's emphasis on the importance of the socioeconomic environment but differs from him in distinguishing the policy subsystem from the broader political system, emphasizing policy-oriented learning, and stressing intergovernmental relations.

4. *Statist Theory* (Skocpol, 1979; Skowronek, 1982). The ACF completely rejects the fundamental tenet of this approach, that there exists a unified, relatively autonomous "state." In fact, this approach strikes me as highly dubious in countries like the United States, given federalism, the diversity of interests and values represented by various governmental institutions, and the permeability of most institutions to external influences. Statist theory is even misleading in supposedly centralized regimes like France (Ashford, 1981a).

5. *Institutional Rational Choice* (Kiser and Ostrom, 1982; Ostrom, 1990; Chubb and Moe, 1990). The ACF agrees with these scholars that institutional rules affect individual behavior. But it goes beyond them in viewing such rules as the product of strategies by advocacy coalitions over time. It also expands the range of guidance instruments from institutional rules to include changes in budgets and personnel (Sabatier and Pelkey, 1987). Finally, it gives socioeconomic conditions more importance than do most institutional rational choice scholars.

6. *Traditional Pluralist Theory* (Truman, 1951). On the one hand, the ACF accepts Truman's emphasis on the importance of interest-group competition in molding governmental institutions. On the other hand, advocacy coalitions are *not* simply constellations of interest groups; their "members" also include legislators, agency officials, researchers, and journalists. Second, the ACF completely rejects Truman's naive assumption that all latent interests will be effectively represented (Sabatier, 1992). Third, the ACF emphasizes policy-oriented learning and hierarchical belief systems, concepts completely neglected by Truman. Finally, unlike Truman, the ACF does not rely on cross-cutting cleavages to assure system stability; instead, the emphasis is on stable system parameters (e.g., social structure), policy brokers, and stable belief systems.

In short, the ACF differs significantly from not only the stages metaphor but other theories of the policy process as well. While it borrows elements from many of them—particularly Hofferbert, institutional rational choice, and pluralism—the basic insight was taken from Heclo's book on the evolution of welfare policy in Britain and Sweden. Moreover, several of the fundamental elements—including the importance of

intergovernmental relations, the role of policy-oriented learning, and the ability to conceptualize public policy as a belief system—are derived primarily from the implementation literature (Pressman and Wildavsky, 1973; Mazmanian and Sabatier, 1981, 1989).

NOTES

1. Fortunately, this situation is changing. A number of recent studies do an excellent job of exploring the intergovernmental dimension in several policy areas (Anton, 1989; Wood, 1991; Scholtz et al., 1991).
2. This chapter borrows heavily from Sabatier (1987, 1988).
3. The debate in the implementation literature between "top-downers" and "bottom-uppers" is *not* over whether "street level bureaucrats" exercise considerable discretion. Everyone agrees on that. Instead, the debate is over whether central decision makers have any real capacity to constrain that discretion or if they should basically accommodate themselves to whatever the street level bureaucrats wish to do (Sabatier, 1986; Palumbo, 1988).
4. On the one hand, the actual activation of latent interests depends upon the perceptions and strategies of actors within the subsystem. On the other hand, an analyst interested in predicting future events within a subsystem would do well to also identify latent constituencies and the circumstances under which they could be mobilized.
5. Beginning in the 1980s, one might consider adding a third, the Economic Efficiency Coalition. Its belief system relies very heavily on principles of welfare economics and includes both (1) critiques of EPA regulations and (2) a preference for substituting economic incentives for command and control regulation. Dominated by research economists such as Bob Hahn, Larry White, and Lester Lave, it could also include many officials in the EPA's Office of Policy Analysis, the Office of Management and Budget (OMB), the Environmental Defense Fund (EDF), and the California Legislative Analyst's Office, as well as a few legislators, notably former Senator Tim Wirth (Liroff, 1986; Cook, 1986; the 1988 symposium in the *Columbia Journal of Environmental Law*; Hahn and Hester, 1989). I have chosen not to add it as a third coalition, in part because most economists traditionally mirrored the views of the Economic Feasibility Coalition (see, for example, Wirth, 1982) and, in part, because it is not clear that the EDF and Wirth share the MIB's passion for critiquing EPA rules on welfare economics principles.
6. A weaker hypothesis would suggest that an advocacy coalition will consist of a set of fairly stable members with compatible policy cores and (2) temporary members who float in and out depending upon the particular policy disputes. For example, Ackerman and Hassler (1981) report that the ranks of the Clean Air Coalition were augmented during the mid-1970s by western coal companies, whose supply of low-sulfur coal led them to join environmentalists in seeking stringent emissions controls on utilities (which would give them a competitive advantage against high-sulfur midwestern coal). But this alliance was frequently disrupted when Congressman Henry Waxman, one of the leaders of the Clean Air Coalition, suggested a uniform nationwide tax on utilities as a means of dealing with the acid rain problem and dealing equitably with the costs of midwestern coal companies and utilities.
7. The literature on coalition formation in multiparty parliamentary regimes found both minimum size and ideological constraints to be important factors with their relative importance varying by country (Browne, 1970; de Swann,

1973; Taylor and Laver, 1973; Dodd, 1976; Warwick, 1979; Hinckley, 1981; Browne and Dreijam, 1982; Franklin and Mackie, 1984; Zariski, 1984). Unfortunately, the literature on (interest-group) coalitions within subsystems over periods of at least a decade appears to be remarkably sparse and unsophisticated, with the study by Wildavsky and Tenenbaum (1981) among the more suggestive. The problem probably resides in methodological difficulties in determining what constitutes a coalition when using, for example, legislative and budgetary hearings as a data base.

8. In the case of air pollution control, the willingness of western coal companies to side with environmentalists against midwestern coal companies would be a case of self-interest (competitive market advantage) over laissez-faire ideology (Ackerman and Hassler, 1981). But the reluctance of manufacturers of pollution control equipment to openly ally themselves with environmentalists in most controversies over the past twenty years would suggest that ideology can likewise restrain the pursuit of self-interest.

9. Among the major strands in this literature are (1) the work of Converse (1964) and many others who view the Left-Right continuum as critical; (2) the "operational code" studies examining elite assumptions concerning the nature of political conflict (George, 1969; Putnam, 1973); (3) the work of Axelrod (1976) diagramming the causal assumptions of policy elites; and (4) the work of Conover and Feldman (1984) on "schema theory." For a summary of much of this literature, see Putnam (1976:Chap. 4). The distinction between "secondary aspects" and "core" is rather similar to Steinbruner's (1974) distinction between "cybernetic" and "cognitive" levels of thinking and to Argyris and Schon's (1978) analysis of "single" and "double loop" learning.

10. Brown and Stewart (Chapter 5) conclude that, while the economic critique played a critical role in deregulation, it was not sufficient to bring about a change in the policy core of federal airline policy. In short, their analysis basically supports Hypothesis 5, although they would argue that the distinction between internal and external events is not as clear as I have made it.

11. The basic forces producing change within a policy subsystem are thus similar to biological theories of change within an ecosystem. There are both individuals striving for specific goals and exogenous perturbations. This similarity is quite intentional. The major difference is that the ACF does not identify a single, dominant human goal analogous to biologists' assumption that individual organisms are "seeking" to maximize their reproductive success.

Table 2 Hypotheses in the 1993 version of the ACF

Hypotheses concerning advocacy coalitions

Hypothesis 1: On major controversies within a policy subsystem when policy core beliefs are in dispute, the lineup of allies and opponents tends to be stable over periods of a decade or so.

Hypothesis 2: Actors within an advocacy coalition will show substantial consensus on issues pertaining to the policy core, although less so on secondary aspects.

Hypothesis 3: An actor (or coalition) will give up secondary aspects of his (its) belief system before acknowledging weaknesses in the policy core.

Hypothesis 10 (new in 1993): Élités of purposive groups are more constrained in their expression of beliefs and policy positions than élités from material groups.

Hypothesis 11 (new in 1993): Within a coalition, administrative agencies will usually advocate more moderate positions than their interest-group allies.

Hypotheses concerning policy change

Hypothesis 4 (revised in 1993): The policy core attributes of a governmental program in a specific jurisdiction will not be significantly revised as long as the subsystem advocacy coalition that instituted the program remains in power within that jurisdiction – except when the change is imposed by a hierarchically superior jurisdiction.

Hypothesis 5 (1997): Significant perturbations external to the subsystem (e.g. changes in socio-economic conditions, public opinion, system-wide governing coalitions, or policy outputs from other subsystems) are a *necessary, but not sufficient*, cause of change in the *policy core* attributes of a governmental program.

Hypotheses concerning policy learning, particularly across coalitions

Hypothesis 6: Policy-oriented learning across belief systems is most likely when there is an intermediate level of informed conflict between the two coalitions. This requires that:

- (a) Each has the technical resources to engage in such a debate; and that
- (b) The conflict be between secondary aspects of one belief system and core elements of the other or, alternatively, between important secondary aspects of the two belief systems.

Hypothesis 7: Problems for which accepted quantitative data and theory exist are more conducive to policy-oriented learning across belief systems than those in which data and theory are generally qualitative, quite subjective, or altogether lacking.

Hypothesis 8: Problems involving natural systems are more conducive to policy-oriented learning across belief systems than those involving purely social or political systems because in the former many of the critical variables are not themselves active strategists and because controlled experimentation is more feasible.

Hypothesis 9: Policy-oriented learning across belief systems is most likely when there is a forum which is:

- (a) Prestigious enough to force professionals from different coalitions to participate; and
- (b) Dominated by professional norms.

Hypothesis 12 (new in 1993): Even when the accumulation of technical information does not change the views of the opposing coalition, it can have important impacts on policy – at least in the short run – by altering the views of policy brokers.

Table 3 Revised structure of belief systems of policy élites* (1966)

	Deep core	Policy core	Secondary aspects
Defining characteristics	Fundamental normative and ontological axioms.	Fundamental policy positions concerning the basic strategies for achieving core values within the subsystem.	Instrumental decisions and information searches necessary to implement policy core.
Scope	Across all policy subsystems.	Subsystem-wide.	Usually only part of subsystem.
Susceptibility to change	Very difficult; akin to a religious conversion.	Difficult, but can occur if experience reveals serious anomalies.	Moderately easy; this is the topic of most administrative and even legislative policy-making.
Illustrative components	1 The nature of man: (i) Inherently evil v. socially redeemable. (ii) Part of nature v. dominion over nature. (iii) Narrow egoists v. contractarians. 2 Relative priority of various ultimate values: freedom, security, power, knowledge, health, love, beauty, etc. 3 Basic criteria of distributive justice: whose welfare counts? Relative weights of self, primary groups, all people, future generations, non-human beings, etc.	<i>Fundamental normative precepts:</i> 1 Orientation on basic value priorities. 2 Identification of groups or other entities whose welfare is of greatest concern. <i>Precepts with a substantial empirical component:</i> 3 Overall seriousness of the problem. 4 Basic causes of the problem. 5 Proper distribution of authority between government and market. 6 Proper distribution of authority among levels of government. 7 Priority accorded various policy instruments (e.g. regulation, insurance, education, direct payments, tax credits). 8 Method of financing. 9 Ability of society to solve the problem (e.g. zero-sum competition v. potential for mutual accommodation; technological optimism v. pessimism). 10 Participation of public v. experts v. elected officials.	1 Seriousness of specific aspects of the problem in specific locales. 2 Importance of various causal linkages in different locales and over time. 3 Most decisions concerning administrative rules, budgetary allocations, disposition of cases, statutory interpretation, and even statutory revision. 4 Information regarding performance of specific programs or institutions.

* The policy core and secondary aspects also apply to governmental programs.