Theories of the Policy Process

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The Advocacy Coalition Framework

Innovations and Clarifications

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The Advocacy Coalition Framework (ACF) is a framework of the policy process developed by Sabatier and Jenkins-Smith to deal with "wicked" problems—those involving substantial goal conflicts, important technical disputes, and multiple actors from several levels of government (Hoppe and Peterse 1993). It arose out of Sabatier's decade-long experience with the implementation literature and both authors' interest in understanding the role that technical information plays in the policy process (Sabatier 1986; Jenkins-Smith 1990; Sabatier and Jenkins-Smith 1988).

The ACF was originally published as a symposium issue of *Policy Sciences* (Sabatier and Jenkins-Smith, 1988). It was revised somewhat in 1993 as a result of six case studies solicited by the authors (Sabatier and Jenkins-Smith, 1993). The early research dealt primarily with U.S. energy and environmental policy, the authors' fields of expertise.

During the 1990s, the empirical base of the ACF became much broader in terms of investigators, political systems, and policy domains. By 1998–1999, of thirty-four published case studies dealing with the ACF, six were by the authors and their students, eight were by other scholars but solicited by the authors, and twenty were by other scholars at their own initiative (Sabatier and Jenkins-Smith 1999, 126)[1]. Of the twenty applications by other scholars, fifteen were conducted by Europeans and Canadians, while eight dealt with policy areas other than energy or the environment (Sabatier and Jenkins-Smith 1999, 126).

Since the 1998–1999 tally, there have been at least fifty-four additional ACF case studies (see Appendices 7.1 and 7.2) and even more publications. Of the case studies, five have been by the original authors or their students and have involved environmental or energy policy in the U.S. Most applications of the ACF have been in Europe (n = 19) and the U.S. (n = 14), but a few researchers have also applied the ACF to policy issues in Asia, Africa, Australia, South America, and Canada. Four studies have applied the ACF on a global scale or comparatively across multiple countries. Of the fifty-four cases since 1998–1999, twenty-six have dealt with environmental or energy policy, while twenty-eight have dealt with economic or social issues, such as taxation, public health, drugs, culture, education, sport, and domestic violence.

This increasing scope of application for the ACF has led to significant revisions of the framework. For example, many Europeans and Canadians have questioned the ACF's pluralist assumptions derived from its birth in the American policy literature (Parsons 1995; Howlett and Ramesh 1995; Lijphart 1999). In response, we have revised the ACF to deal explicitly with European corporatist regimes and the authoritarian executive regimes in many developing countries.

Given the number and diversity of ACF applications, a complete review of this work is beyond the scope of this chapter. Instead, we intend to synthesize much of this research into a set of recent innovations and clarifications to the ACF. This chapter will first present an abbreviated version of the 1999 edition of the ACF. As a preview, Figure 7.1 presents an overview of the role of advocacy coalitions within the policy subsystem and the effects of two sets of factors exogenous to the subsystem that affect the constraints and opportunities affecting subsystem actors over time. This figure has been the core conceptual characterization of the ACF since its inception.

The bulk of the chapter will present three rather important revisions (largely additions) to the 1999 framework:

Filling in the "resources and constraint box" in Figure 7.1 by incorporating a set of "coalition opportunity structures" that mediate how "stable system parameters" affect coalition behavior.

Filling in the "resources" box in Figure 7.1 by specifying a set of coalition resources and some relevant hypotheses.

Adding two more paths of policy change to the ACF's original hypothesis that major policy change requires a shock exogenous to the subsystem:

A. an internal shock path
B. a negotiated agreement path

Throughout this chapter, we shall also clarify key concepts and causal processes, particularly with respect to policy subsystems, the devil shift, and coalition membership. We conclude with a summary of some of the limitations of the ACF and important questions for future research.

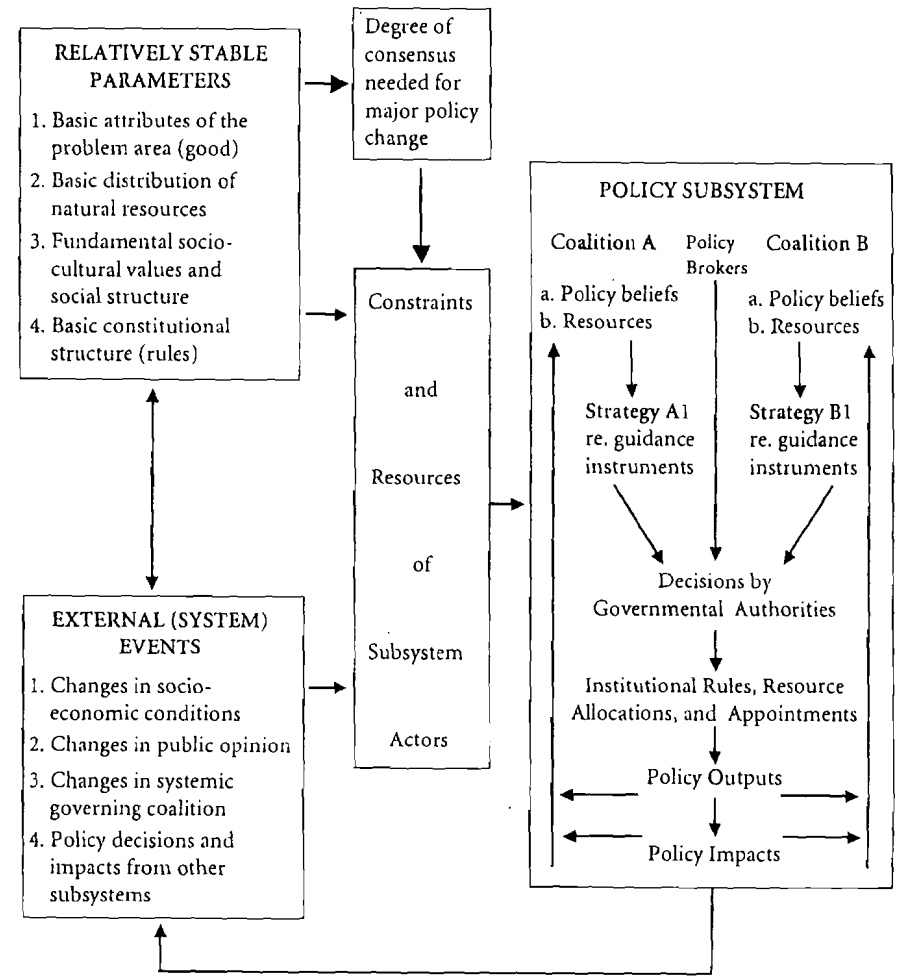

FIGURE 7.1 1998 Diagram of the Advocacy Coalition Framework

AN OVERVIEW OF THE ACF (CIRCA 1999)

The ACF starts with three "foundation stones": (1) a macro-level assumption that most policymaking occurs among specialists within a policy subsystem but that their behavior is affected by factors in the broader political and socioeconomic system; (2) a micro-level "model of the individual" that is drawn heavily

from social psychology; and (3) a meso-level conviction that the best way to deal with the multiplicity of actors in a subsystem is to aggregate them into "advocacy coalitions." These foundations, in turn, affect our dependent variables, belief and policy change, through two critical paths: policy-oriented learning and external perturbations.

Foundations

Policy Subsystem and External Factors. The ACF assumes that policymaking in modern societies is so complex, both substantively and legally, that participants must specialize if they are to have any hope of being influential. This specialization occurs within policy subsystems composed of participants who regularly seek to influence policy within a policy subsystem, such as California water policy. A subsystem is characterized by both a functional/substantive dimension (e.g., water policy) and a territorial one (e.g., California) (Zafonte and Sabatier 1998). The set of policy participants includes not only the traditional "iron triangle" of legislators, agency officials, and interest group leaders, but also researchers and journalists who specialize in that policy area (Heclo 1978; Kingdon 1995) and judicial officials who regularly intervene in a policy subsystem[2]. The ACF assumes that policy participants hold strong beliefs and are motivated to translate those beliefs into actual policy. Because the ACF assumes that scientific and technical information plays an important role in modifying the beliefs of policy participants, it correspondingly assumes that researchers (university scientists, policy analysts, consultants, etc.) are among the central players in a policy process. Since the 1998–1999 ACF rendition, studies have continued to indicate that researchers play an active role in policymaking processes (Herron et al. 2006; Zafonte and Sabatier 2004; Meijerink 2005; Weible 2005).

The ACF is interested in policy change over a decade or more. It also assumes that the beliefs of policy participants are very stable over such a period and make major policy change very difficult. It thus distinguishes mature policy subsystems from nascent ones. Mature policy subsystems are characterized by (Sabatier and Jenkins-Smith 1999, 135–136):

- a set of participants who regard themselves as a semi-autonomous community who share an expertise in a policy domain and who have sought to influence public policy in that domain for an extended period
- agencies, interest groups, and research institutions that have had subunits specializing in that topic for an extended period[3].

In most Organization for Economic Cooperation and Development (OECD) countries, most policy subsystems have been in existence for decades and are thus quite mature. However, 30 years ago, subsystems dealing with environmental and consumer protection were quite young. Furthermore, in developing countries, many subsystems are quite nascent because of the instability of the broader political system and the lack of trained personnel in the subsystem. For an excellent example, see Beverwijk's (2005) book on higher education in Mozambique.

Delimiting the appropriate scope for a subsystem is also complicated by the existence of overlapping and nested subsystems. A local housing agency, for example, is part of a local housing subsystem. But it also overlaps with local land use and transportation subsystems and is nested within state and federal housing policy subsystems. The situation is particularly complicated when dealing with international treaties, which automatically add an international level that has very limited authority to impose its wishes on national and subnational units. For an excellent example of nested subsystems involving climate change, see Sewell (2005).

Identifying the appropriate scope of a subsystem is one of the most important aspects of an ACF research project. The fundamental rule should be: "Focus on the substantive and geographic scope of the institutions that structure interaction." For example, when Zafonte and Sabatier (2004) were trying to decide if an automotive pollution control subsystem existed in the U.S. largely independent of a broader air pollution control subsystem, they found that automotive pollution had its separate title in the Clean Air Act, a very large subbureau within the U.S. EPA, a very large subunit within the California Air Resources Board, very different interest groups on the industry side and somewhat different groups on the environmental side, a quite distinct research community, and a quite different policy community in general. Thus, they felt quite justified in making U.S. automotive pollution control a subsystem separate from the larger U.S. air pollution control subsystem.

The vast majority of policymaking occurs within policy subsystems and involves negotiations among specialists. The behavior of policy participants within the subsystem is, however, affected by two sets of exogenous factors, one fairly stable and the other quite dynamic (see Figure 7.1). The relatively stable parameters include basic attributes of the problem (e.g., the difference between groundwater and surface water), the basic distribution of natural resources, fundamental sociocultural values and structure, and basic constitutional structure. These stable exogenous external factors rarely change within periods of a decade or so, thus rarely providing the impetus for behavioral or policy change within a policy subsystem. They are, however, very important in establishing the resources and constraints within which subsystem actors must operate. The dynamic external factors include changes in socioeconomic conditions, changes in the governing coalition, and policy decisions from other subsystems. These also affect the behavior of subsystem actors, but their ability to change substantially over periods of a decade or so make them critical factors in affecting major policy change. In fact, the ACF hypothesizes that change in one of these dynamic factors is a necessary condition for major policy change. See Kübler (2001) for a very interesting example involving Swiss drug policy.

The Model of the Individual and Belief Systems. The ACF differs from rational choice frameworks primarily in its model of the individual (Sabatier and Schlager 2000; Schlager 1995). While rational choice frameworks assume self-interested actors rationally pursuing relatively simple material interests, the ACF assumes that normative beliefs must be empirically ascertained and does not a priori preclude the possibility of altruistic behavior. In fact, following March and Olsen (1996) the ACF recognizes two systems of normative reasoning: a "logic of appropriateness," in which right behavior means following rules, and "a logic of consequences," in which right behavior involves maximizing good consequences[4]. It's the classic conflict between sociologists and economists. Because each logic starts from fundamentally different premises, this is one more factor to exacerbate compromise.

The ACF stresses the difficulty of changing normative beliefs and the tendency for actors to relate to the world through a set of perceptual filters composed of preexisting beliefs that are difficult to alter (Lord, Ross, and Lepper 1979; Munro and Ditto 1997; Munro et al. 2002). Thus, actors from different coalitions are likely to perceive the same information in very different ways, leading to distrust. The ACF also borrows a key proposition from prospect theory (Quattrone and Tversky 1988: actors value losses more than gains. The implication is that individuals remember defeats more than victories. These propositions interact to produce "the devil shift," the tendency for actors to view their opponents as less trustworthy, more evil, and more powerful than they probably are (Sabatier, Hunter, and McLaughlin 1987; Sabatier and Jenkins-Smith 1999). This in turn increases the density of ties to members within the same coalitions and exacerbates conflict across competing coalitions. Perceptual filters also tend to screen out dissonant information and reaffirm conforming information, thus making belief change quite difficult. The ACF's model of the individual is well-suited to explain the escalation and continuation of policy conflict. As we shall see shortly, it requires further modification to account for deescalation and agreement.

Following the belief system literature of policy participants (March and Simon 1958; Putnam 1976; Peffley and Hurwitz 1985), the ACF conceptualizes a three-tiered hierarchical structure[5]. At the broadest level are deep core beliefs, which span most policy subsystems. Deep core beliefs involve very general normative and ontological assumptions about human nature, the relative priority of fundamental values such as liberty and equality, the relative priority of the welfare of different groups, the proper role of government vs. markets in general, and about who should participate in governmental decisionmaking. The traditional left/right scales operate at the deep core level. Deep core beliefs are largely the product of childhood socialization and, thus, very difficult to change.

At the next level are policy core beliefs. These are applications of deep core beliefs that span an entire policy subsystem (e.g., California water policy). Sabatier and Jenkins-Smith (1999) define eleven components of policy core beliefs

including the priority of different policy-related values, whose welfare counts, the relative authority of governments and markets, the proper roles of the general public, elected officials, civil servants, experts, and the relative seriousness and causes of policy problems in the subsystem as a whole. The general assumption is that policy participants are very knowledgeable about relationships within their policy subsystem and thus may be willing to invest the effort to apply certain deep core beliefs to develop policy core beliefs in that subsystem. However, there is not always a one-to-one correspondence between deep core beliefs and policy core beliefs. For example, while conservatives generally have a strong preference for market solutions, some of them recognize significant market failure (e.g., externalities) in water pollution problems and thus are willing to support much more governmental intervention in this policy area compared with other policy areas. Because policy core beliefs are subsystem-wide in scope and deal with fundamental policy choices, they are also very difficult to change.

We find that operationalizing two or three of these policy core beliefs is sufficient to identify at least two advocacy coalitions. However, we recommend operationalizing as many components of policy core beliefs as possible, because the subdivisions within coalitions or the possibility of a third coalition are often explained by disagreement across other components of policy core beliefs. For example, Weible and Sabatier (2005)found two coalitions involved in marine protected area (MPA) policy in California: a pro-MPA coalition and an anti-MPA coalition. The anti-MPA coalition, which primarily consisted of recreational and commercial fishers, was galvanized in their preferences against the establishment of MPAs in California waters. However, recreational and commercial fishers disagreed in their perceptions of the causes of the problem, creating different coordination patterns and a subcoalition split between these two fishing interests.

In some policy subsystems, intransigent debates among coalitions are based on divergent preferences regarding one or more subsystem-wide policy proposals (e.g., expansion vs. prohibition of drilling in the Arctic National Wildlife Refuge). The ACF has termed this type of belief *policy core policy preferences* (Sabatier 1998; Sabatier and Jenkins-Smith 1999). Policy core policy preferences are beliefs that "(i) are subsystemwide in scope, (ii) are highly salient, and (iii) have been a major source of cleavage for some time" (Sabatier and Jenkins-Smith 1999, 134). Policy core policy preferences are normative beliefs that project an image of how the policy subsystem ought to be, provide the vision that guides coalition strategic behavior, and helps unite allies and divide opponents. When translated to secondary beliefs, policy core policy preferences become policy preferences related to specific instruments or proposals dealing with only a territorial or substantive subcomponent of a policy subsystem. For example, in the Lake Tahoe Basin, policy participants are largely divided between developing land versus preserving land (policy core policy preferences) but might agree to restrict development on steep slopes where erosion is severe (secondary beliefs). Policy core policy preferences might be the stickiest glue that binds coalitions together.

The final level consists of *secondary beliefs*. Secondary beliefs are relatively narrow in scope (less than subsystem-wide) and address, for example, detailed rules and budgetary applications within a specific program, the seriousness and causes of problems in a specific locale, public participation guidelines within a specific statute, etc. Because secondary beliefs are narrower in scope than policy core beliefs, changing them requires less evidence and fewer agreements among subsystem actors and thus should be less difficult.

Researchers have modeled the ACF's belief systems using both qualitative and quantitative methods. Liften (2000), Elliott and Schlaepfer (2001 a, b), and Green and Houlihan (2004) are examples of qualitative models of ACF's beliefs system. Herron, Jenkins-Smith, and Silva (2005) and Weible, Sabatier, and Lubell (2004) are examples of quantitative models using questionnaire data. Chen (2003), Zafonte and Sabatier (2004), and Larsen, Vrangbaek, and Traulsen (2006) are examples of quantitative models using content analysis of public documents.

Advocacy Coalitions. Paralleling a growing policy network literature and a growing recognition of the importance of interpersonal relations to explain human behavior (Howlett 2002; Granoveter 1985; Provan and Milward 1995; Schneider et al. 2003; Thatcher 1998), the ACF predicts that stakeholder beliefs and behavior are embedded within informal networks and that policymaking is structured, in part, by the networks among important policy participants. The ACF assumes that policy participants strive to translate components of their belief systems into actual policy before their opponents can do the same. In order to have any prospect of success, they must seek allies, share resources, and develop complementary strategies. In addition, the devil shift exacerbates fear of losing to opponents, motivating actors to align and cooperate with allies.

The ACF argues that policy participants will seek allies with people who hold similar policy core beliefs among legislators, agency officials, interest group leaders, judges, researchers, and intellectuals from multiple levels of government. If they also engage in a nontrivial degree of coordination, they form an advocacy coalition. Coordination involves some degree of working together to achieve similar policy objectives. The ACF argues that advocacy coalitions provide the most useful tool for aggregating the behavior of the hundreds of organizations and individuals involved in a policy subsystem over periods of a decade or more. In any given policy subsystem, there will generally be two to five advocacy coalitions.

The concept of advocacy coalitions is one of the trademarks of the ACF but also the source of much scholarly discussion and criticism. Schlager's (1995) venerable critique is that the ACF provides insufficient justification that actors with similar policy core beliefs actually coordinate their behavior into coalitions. In response to Schlager's criticism, studies have analyzed network data to verify the existence of advocacy coalitions (Zafonte and Sabatier 1998; Weible 2005; Weible and Sabatier 2005). In this effort, Weible (2005) asked policy participants to identify organizational affiliations that they "seek to coordinate with on issues related to MPAs." He found that coordination patterns do overlap as expected in clusters based on policy core beliefs.

The recent empirical research still does not explain how coalitions overcome the free-rider problem of collective action to form and maintain coalition membership over time (Olson 1965). The ACF provides three rationales for overcoming the free-rider problem (Sabatier and Jenkins-Smith 1999, 139–141). First, the transaction costs of participating in a coalition are relative low compared with other forms of collective behavior because of shared belief systems, high trust, and willingness to distribute costs fairly. Second, the perceived benefits of participating in a coalition are exaggerated, especially when policy participants experience the devil shift in high conflict situations. When policy participants experience the devil shift, they exaggerate the power and maliciousness of their political opponents, which amplifies the severity of losses to a rival coalition and boosts the benefits of coordinating with coalition allies. To defend against a powerful political foe, the devil shift will make it more likely that policy participants will seek out like-minded allies to pool their resources and maintain those alliances over time. At the same time, the devil shift will make it less likely that policy participants will interact with opponents because of the value conflicts, distrust, and suspicion. Third, the level of coordination within a coalition varies from strong (e.g., developing a common plan and implementing that plan) to weak (e.g., monitoring ally activities and responding with complementary strategies) (Zafonte and Sabatier 1998; Sabatier and Jenkins-Smith 1999). Weak coordination has lower costs than strong coordination, reducing the threat of free riding. Weak coordination will probably be an important strategy for coalitions in which organizational membership faces legal impediments that limit formalized alliances. To date, no empirical study has investigated these three rationales for coalition formation and maintenance. We encourage research in this area, especially against Schlager's (1995) rival coordination hypotheses and in the context of organizational interdependencies (Fenger and Klok 2001).

Another long-standing debate within the ACF is the relative influence of material self-interests compared with policy core beliefs (Sabatier and Jenkins-Smith 1993; Parsons 1995; Schlager and Blomquist 1996; Elliot and Schlaepfer 2001 a, b; Nohrstedt 2005). Previous research by Jenkins-Smith and St. Clair (1993) on offshore petroleum leasing indicates that self-interest is more important for material groups (organizations motivated for economic self-interest) than purposive groups (organizations motivated by an ideological position). Similarly, Nohrstedt (2005) found that actors traded some policy core beliefs for strategic short-term interests regarding party cohesion and voter maximization. On the other hand, Weible (2005) found that policy core beliefs are a better predictor of coordinated behavior than perceptions of power. Leach and Sabatier (2005) found that an ACF-style model of the individual predicts the success of watershed partnerships slightly better than Ostrom's institutional analysis and

development framework (IAD) model. We hope this will be one of the focuses of future research.

Two Critical Paths to Belief and Policy Change

The ACF's model of the individual has major implications for belief and policy change within a subsystem. In particular, the importance of perceptual filters and the devil shift exacerbates conflict and distrust across coalitions and "group thinking" within coalitions (Janis, 1972). Thus it is exceedingly unlikely that members of a coalition will change policy core beliefs voluntarily. Scientific and technical information may facilitate learning at the secondary level, but not the policy core (Sabatier and Zafonte 2001). Because major change from within the subsystem is impossible, it must come from an external source.

The 1999 version of the ACF identified two paths for belief and policy change: policy-oriented learning and external perturbations. Thus, one of the precursors to policy change is a degree of belief change among some of the policy participants or a replacement of a dominant coalition by a minority coalition. Along these lines, Sabatier and Jenkins-Smith (1999) have distinguished between major policy change (following changes in policy core beliefs) and minor policy change (following changes in secondary beliefs). The effects of policy-oriented learning and external perturbations on belief and policy change are highlighted below.

Policy-Oriented Learning. The ACF defines policy-oriented learning as "relatively enduring alternations of thought or behavioral intentions that result from experience and/or new information and that are concerned with the attainment or revision of policy objectives" (Sabatier and Jenkins-Smith 1999, 123).

The capacity of policy-oriented learning to bring about belief and policy change has been hypothesized to vary depending on the level of the ACF's belief system. Deep core beliefs and policy core beliefs—being more normative—are very resistant to change in response to new information. On the other hand, secondary beliefs are hypothesized to be more susceptible to policy-oriented learning, because the relatively narrow scope requires less evidence and belief change among fewer individuals. For example, it is easier to change people's perceptions of the causes of air pollution in Los Angeles than in the United States as a whole. Whereas external perturbations can lead to rapid changes in subsystem structure and individual policy core beliefs, policy-oriented learning may take ten years or more and have a larger effect on secondary beliefs, which are more pliable to information than policy core beliefs (Weiss 1977).

External Perturbations or Shocks. The ACF has also argued that a necessary but not sufficient condition for major policy change within a subsystem is significant perturbations external to the policy subsystem. Significant perturbations include changes in socioeconomic conditions, regime change, outputs from other subsystems, or disaster. These external shocks can shift agendas, focus public attention, and attract the attention of key decisionmaking sovereigns. The most important effect of external shock is the redistribution of resources or opening and closing venues within a policy subsystem, which can lead to the replacement of the previously dominant coalition by a minority coalition (Sabatier and Jenkins-Smith 1993). External shocks might also change components of the policy core beliefs of a dominant advocacy coalition. For example, during an economic recession, a proregulatory coalition may reconsider any adverse economic effects on target populations from stringent controls (Zafonte and Sabatier 2004). The causal links between an external shock and policy change is an ongoing effort among some ACF scholars (e.g., Nohrstedt 2005).

IMPORTANT MODIFICATIONS TO THE ACF SINCE 1999

This section discusses three important additions to the ACF since 1999 in terms of (1) the context within which coalitions operate, (2) a typology of coalition resources, and (3) two new paths to major policy change.

Coalition Opportunity Structures

One of the most frequent criticisms of the ACF is that it is too much a product of its empirical origins in American pluralism. It makes largely tacit assumptions about well-organized interest groups, mission-oriented agencies, weak political parties, multiple decisionmaking venues, and the need for supermajorities to enact and implement major policy change. These assumptions fit poorly, however, with European corporatist regimes with their restricted participation patterns, long-lasting decision structures, and consensual decision rules (Parsons 1995; Kübler 2001; Greer 2002; Luloffs and Hoppe 2003; Larsen, Vrangbaek, and Traulsen 2006). Questions have also been raised about the applicability of the ACF to the less democratic societies of Eastern Europe and developing countries (Parsons 1995; Andersson 1998). These concerns were partially addressed by Sabatier (1998).

The original ACF diagram had two sets of variables external to the policy subsystem: (1) stable system parameters (e.g., constitutional and social structure and natural resources, which change only very slowly) and (2) external events (e.g., public opinion and economic dislocation, which often change over a decade and which are hypothesized to be a necessary—but not sufficient—condition for major policy change). Both sets of factors affect the resources and constraints of subsystem actors, which in turn affect policymaking within the subsystem. We propose to create a new category of variables known as "coalition opportunity structures" to mediate between stable system parameters and the subsystem.

We borrow heavily from the largely European literature on "political opportunity structures" (Kriesi et al. 1995; McAdam, McCarthy, and Zald 1996; Kübler 2001).

Opportunity structures refer to relatively enduing features of a polity that affect the resources and constraints of subsystem actors. In our case, we are interested in factors that strongly affect the resources and behavior of advocacy coalitions. We identify two sets of variables borrowed substantially from Lijphart (1999):

1. *Degree of consensus needed for major policy change.* In polities such as Switzerland, Austria, and the Netherlands, there are very strong norms for consensus. In countries such as the U.S. with multiple veto points that any major reform must go through, supermajorities are needed. Then there are Westminster systems such as the UK and New Zealand, where decisionmaking is very centralized and the majority party in Parliament seldom garners more than 45% of the popular vote. Finally come authoritarian regimes, which usually incorporate minority rule. In general, the higher the degree of consensus required, the more incentive coalitions have to be inclusive (rather than exclusive), to seek compromise and share information with opponents, and generally to minimize devil shift.
2. *Openness of political system.* This is the function of two variables: (1) the number of decisionmaking venues that any major policy proposal must go through and (2) the accessibility of each venue. For example, countries such as the U.S. with separation of power and very powerful state/regional governments create numerous decisionmaking venues. Combined with strong traditions of accessible bureaucracies, legislatures, and courts, they create a very open system with many different actors involved in the policy process. Such complex systems lend themselves very well to the ACF as an analytical framework. In contrast, corporatist systems tend to be much less open, both because decisionmaking is much more centralized and because participation is restricted to a small number of central government authorities and the leaders of peak associations who observe norms of compromise and acquiescence to decisions. The ACF can be used to analyze corporatist regimes, but the advocacy coalitions will tend to have fewer actors, and the norms of compromise will create incentives for moderates to broker deals across coalitions. In the words of Larsen,Vrangbaek, and Traulsen (2006), in corporatist regimes there is an incentive for coalitions to have "solid cores with fuzzy edges" (i.e., several actors seeking to act as mediators).

In sum, pluralist coalition opportunity structures will tend to have moderate norms of compromise and open decision systems. Corporatist structures involve strong norms of consensus and compromise, and relatively restrictive norms of participation. Westminister systems will tend to have weak norms of compromise and relatively restricted norms of participation. Many developing countries will have weak norms of compromise and restricted participation. Although the ACF is probably most suited to the complexity of pluralist regimes, it can and has been

TABLE 7.1 Typology of Coalition Opportunity Structures

Openness of Political System	Degree of Consensus Needed for Major Policy Change		
	High	Medium	Low
High	Pluralist	Pluralist	
Medium	Recent Corporatist	Westminster	
Low	Traditional Corporatist		Authoritarian Executive

used to analyze corporatist, Westminster, and non/quasidemocratic regimes. The ACF's applicability to corporatist regimes should be enhanced by the increasing openness of many of them via inclusion of more stakeholders in negotiations and the greater accessibility of courts and bureaucracies at multiple levels of government (Lijphart 1999). In addition, adding a section on "negotiated agreements" to the paths to major policy change should enhance the ACF's relevance to corporatist scholars (see below).

Figure 7.2 provides a summary of the possible impact of coalition opportunity structures on the overall conceptual framework. The major impact is through the translation of relatively stable parameters into more specific constraints and resources affecting policymaking in the long run. Coalition opportunity structures also impact short-term resources and constraints.

Typology of Coalition Resources

Since the ACF's inception, the flow diagrams depicting the policy subsystem and exogenous factors have always depicted advocacy coalitions as having both (1) policy beliefs and (2) resources. Much subsequent research has focused on the content of belief systems, but virtually none has focused on coalition resources. In his dissertation applying the ACF to global climate change, Sewell (2005) uses a typology of political resources borrowed from Kelman (1987). Below, we present a typology of policy-relevant resources that policy participants can use in their attempts to influence public policy. It overlaps about 40% with the Kelman and Sewell set of resources and somewhat more with Weible (2006).

A. *Formal legal authority to make policy decisions.* The ACF views actors in positions of legal authority as potential members of advocacy coalitions. This includes many agency officials, legislators, and some judges. When that happens, it is a major resource to the coalition (Sabatier and Pelkey

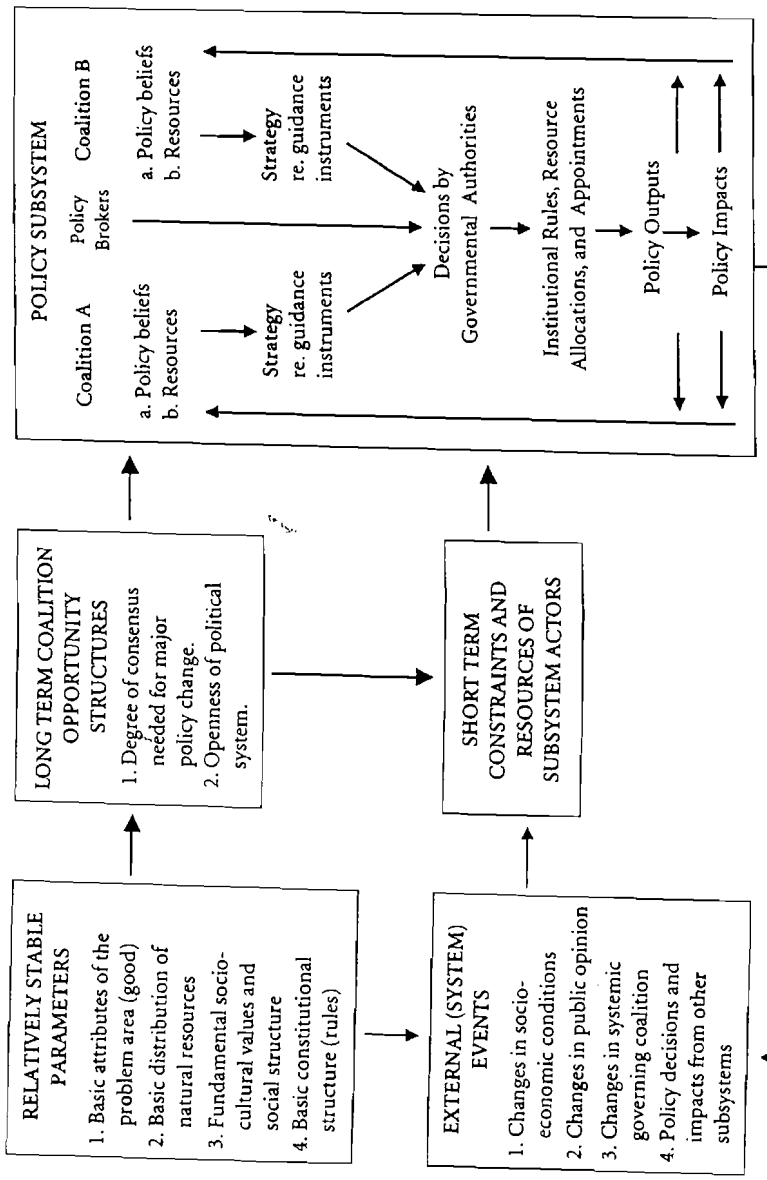

FIGURE 7.2 2005 Diagram of the Advocacy Coalition Framework

1987). One of the most important features of a dominant coalition is that it has more of its members in positions of formal authority than do minority coalitions. Major strategies for coalitions include placing allies in positions of legal authority through elections or political appointments, as well as launching lobbying campaigns to sway officials with legal authority.

B. *Public opinion.* Opinion polls showing support for a coalition's policy positions are a major resource for policy participants. A supportive public is more likely to elect coalition supporters to legislative and other positions of legal authority and to help sway the decisions of elected officials. A typical strategy for advocacy coalitions is to spend a lot of time trying to garner public support.

C. *Information.* Information regarding the problem severity and causes and the costs and benefits of policy alternatives is an important resource for a coalition. Unless there is a hurting stalemate (see below), the ACF assumes that information is a resource utilized by policy participants to win political battles against opponents. Strategic uses of information include solidifying coalition membership, arguing against an opponent's policy views, convincing decisionmaking sovereigns to support your proposals, and swaying public opinion. Stakeholders often spin or even distort information to bolster their argument (Mazur 1981; Jenkins-Smith 1990). This is one of the reasons why the ACF emphasizes the role of researchers within coalitions.

D. *Mobilizable troops.* Policy elites often use members of the attentive public who share their beliefs to engage in various political activities including public demonstrations and electoral and fund-raising campaigns. Coalitions with minimal financial resources often rely very heavily upon mobilizable troops as an inexpensive resource.

E. *Financial resources.* Money can be used to purchase other resources. A coalition with ample financial resources can fund research and organize think tanks to produce information; bankroll sympathetic candidates, thereby gaining inside access to legislators and political appointees; launch media campaigns to earn public support; and advertise their policy positions to strengthen their number of mobilizable activists.

F. *Skillful leadership.* The literature on policy entrepreneurs demonstrates how skillful leaders can create an attractive vision for a coalition, strategically use resources efficiently, and attract new resources to a coalition (Mintrom and Vergari 1996; Muller 1995). Public policy research also describes how most antecedents to policy change (e.g., external shocks) dispose a political system to change, but skillful entrepreneurs are needed to bring about actual changes in policy (Kingdon 1995; Mintrom and Vergari 1996).

Although each of these resources can be conceptualized rather easily, operationalizing them and then aggregating across resource types has proven

extraordinarily difficult. To date, the major operationalizations have been found in measuring information sources with network data (Weible 2005)and leadership in qualitative studies (Minstrom and Vergari 1996).

Alternative Paths to Major Policy Change: Internal Shocks

The original version of the ACF focused on shocks external to a subsystem as a necessary cause of major policy change (Sabatier and Jenkins-Smith 1988). An example would be the impact of the 1979 Iranian revolution on U.S. automotive pollution control policy via an oil embargo and the election of Ronald Reagan as President. The basic logic is that major change within a subsystem is largely impossible because of perceptual blinders and devil shift. An external shock provides a stimulus to change which is, by definition, largely outside the control of subsystem actors. We now add internal shocks (e.g., disasters from within policy subsystem) as providing an alternate path for major policy change. For example, the Santa Barbara oil spill was a disaster strongly affected by actors internal to the petroleum subsystem.

Our arguments for the importance of both internal and external shocks partly follow the rationales in the "focusing events" literature (Kingdon 1995; Birkland 1997, 1998, 2004). For example, following Birkland's (2004) arguments, focusing events attract public attention; highlight policy vulnerabilities, failures, or neglect; and bring new information into the policy process. This has the potential to tip the balance of power among policy participants, providing the potential for major policy change.

This new revision to the ACF acknowledges that major internal shocks can also occur from within a policy subsystem and can lead to major policy change. The focusing event literature highlights many of these events as well. Examples of internal shocks include the Exxon Valdez spill (Busenberg 2000) and aviation disasters (Birkland 2004). The ACF differs from the "focusing event" literature, however, by continuing to make a distinction between internal and external shocks. The distinction follows the ACF's premise that policy subsystems are the most useful unit of analysis for understanding and explaining policy change. The distinction also helps to identify the type of shock, the response by policy participants, and the potential outcomes (i.e., the possibility for belief and policy change)[6].

Consistent with the model of the individual and causal assumptions within the ACF, there are two ramifications from internal shocks related to policy change, one of which is shared with external shocks. These ramifications assume, as we do, that most policy subsystems are dominated by one advocacy coalition with one or more minority advocacy coalitions[7].

1. *Internal and external shocks redistribute critical political resources.* Both internal and external shocks put the public spotlight on a problem in a policy subsystem and have the potential to draw in new—or redistribute—critical resources (public support, financial support, etc.). This shift in resources may tip the power structure of the policy subsystem from one dominant advocacy coalition and one or more minority coalitions to two or more competitive advocacy coalitions or, in a complete reversal, to a different dominant advocacy coalition with more than one different minority advocacy coalitions.
2. *Internal shocks confirm policy core beliefs in the minority advocacy coalition(s) and increase doubt within the dominant coalition.* Internal shocks that indicate monumental failures of the policies and behaviors of a dominant advocacy coalition also strongly affect the belief systems of policy participants. For the minority advocacy coalition members, internal shocks confirm their policy core beliefs (e.g., regarding the causes or seriousness of the problem in the policy subsystem). This galvanizes the membership of minority coalitions. For the dominant advocacy coalition, internal shocks increase doubt about their policy core beliefs and put into question the effectiveness of their policies.

In sum, the ACF is recognizing the importance of—and maintaining the distinction between—internal and external shocks as causes for policy change. Internal and external shocks differ in that an internal shock directly questions policy core beliefs of the dominant coalition, while the relevance of those beliefs is less clear in the case of an external shock.

Alternative Paths to Major Policy Change: Negotiated Agreements

Clearly, there are situations—such as Lake Tahoe in the 1980s (Sabatier and Pelkey 1990) in which coalitions that have been fighting for decades come to a negotiated agreement representing a substantial change from the status quo. If the ACF is to be relevant to the study of collaborative institutions and corporatist regimes, it must be modified to identify the conditions under which—in the absence of a major external or internal perturbation—agreements involving policy core changes are crafted among previously warring coalitions.

Fortunately, a solution emerges by combining (1) the hypotheses from the ACF concerning policy-oriented learning across coalitions (Sabatier and Jenkins-Smith 1988; Sabatier and Zafonte 2001) with (2) the literature on alternative dispute resolution (ADR) (Bingham 1986; Carpenter and Kennedy 1988; O'Leary and Bingham 2003; Susskind, McKearnan, Thomas-Larmer 1999; Ury 1993). This fusion is possible because many ADR theorists, particularly Carpenter and Kennedy (1988), utilize a model of the individual that stresses the role of perceptual filters and distrust in creating a spiral of escalating conflict.

Both ACF and ADR start with a situation in which individuals in a dispute (1) are grouped into coalitions consisting of individuals with similar beliefs and interests, (2) often interpret the same piece of information in very different ways, (3) distrust their opponents' ability to negotiate fairly and to keep their promises, and (4) distrust their opponents' ability to understand, let alone recognize as legitimate, their own goals and interests.

In such a situation, both the ADR literature and the ACF's discussion of the characteristics of "professional fora" come to very similar prescriptions concerning the design of institutions for negotiating and implementing agreements[8]. Nine of these prescriptions are highlighted below:

1. *Incentive to negotiate seriously: a hurting stalemate.* The basic precondition to successful negotiations is a situation in which all parties to the dispute view a continuation of the status quo as unacceptable. The ACF refers to this as "a policy stalemate," while the ADR literature refers to it as "a hurting stalemate" (Zartman 1991). The assumption is that individuals satisfied with the status quo have little incentive to give up anything in negotiations; thus negotiating with them is probably a waste of time.
2. *Composition.* Both frameworks stress the necessity of including representatives from all relevant groups of stakeholders, even those labeled "difficult" (so long as they represented a significant group of stakeholders). This assumes that, at least in the U.S., there are so many venues of appeal for actors excluded from negotiations that it is better to include them from the start rather than waste time in negotiations likely to be nullified or circumvented by appeals from excluded stakeholders.
3. *Leadership.* Sabatier and Zafonte (2001) argue that the chair of the professional forum called to resolve disputes among scientists from competing coalitions should be a respected "neutral" whose role is to remind participants of professional norms. The ADR literature stresses the importance of neutral and skilled mediators (Bingham 1986) and of facilitators skilled at running meetings.
4. *Consensus decision rule.* This is the defining characteristic of much of the ADR literature (Carpenter and Kennedy 1988; Susskind, McKearnan, Thomas-Larmer 1999). While not explicitly mentioned in Sabatier and Zafonte (2001), the basic logic behind consensus is the same as for inclusion: given the multitude of venues of appeal in most Western political systems, a dissatisfied party can wreck the implementation of any agreement. Therefore, this model advocates including them in the negotiations and granting them veto power.
5. *Funding.* Because the ACF views most administrative agencies as belonging to coalitions, it assumes that funding for a consensus process should come from sources who are members of different coalitions (Sabatier and Zafonte 2001).
6. *Duration and commitment.* Given the complexity of stakeholder negotiations and the time it takes to sort out technical issues—let alone find "win-win" solutions—a half-dozen meetings over a year or so is probably the minimum. In addition to agreeing to participate over an extended period of time, there should be continuity in the participation of representatives from a given organization. Turnover kills trust-building, because specific trust is a product of personal relationships. Finally, participants in a forum/partnership should be required to report regularly to their constituents, lest they agree to compromises that will ultimately prove unacceptable to their group.
7. *The importance of empirical issues.* Both the ACF and ADR agree that primarily normative issues (e.g., abortion) are not ripe for negotiation, because there is virtually no prospect of changing an opponent's views. Thus, a substantial portion of the conflict must deal with empirical issues—primarily the seriousness and causes of the problem—which, with time and effort, can be at least partially resolved by researchers and other stakeholders from different coalitions.
8. *The importance of building trust.* Both literatures assume that negotiations begin with massive distrust between opponents. A necessary condition for reaching an agreement is that participants come to trust their opponents to listen carefully to their views, look for mutually acceptable compromises, and keep their promises. This takes time, effort, and carefully crafted process rules promoting fair and respectful treatment of all participants (Leach and Sabatier 2005).
9. *Alternative venues.* Although the American political system generally provides multiple venues of appeal to dissatisfied stakeholders, agreements are more likely to occur and to be implemented when alternative venues are relatively few in number and/or relatively unappealing. In the ADR literature (Ury 1993), this is known as BATNA (Best Alternative to a Negotiated Agreement). Stakeholders are more likely to negotiate seriously if their alternatives to the stakeholder negotiation are relatively unattractive (Leach and Sabatier 2005).

In sum, the ADR and the ACF are very complementary. Both have similar models of the individual and similar hypothesis. From the ACF, the ADR predictions are placed in a broader conceptual framework of the public policy process. From the ADR, the ACF becomes more adaptable to collaborative institutions and another major source of belief and policy change.

CONCLUSIONS

Since 1988, the ACF has developed into one of the most promising public policy frameworks (Schlager 1995; Parsons 1995; Schlager and Blomquist 1996; Johns 2003). There have been over 100 publications by researchers from around the world on topics as diverse as sport policy, environmental policy, domestic violence, drug policy, and nuclear policy. It has proven useful to researchers using quantitative methods, qualitative methods, or both. The goal of this article was to summarize briefly the literature since Sabatier and Jenkins-Smith (1999) to clarify some of the ACF's terms and causal arguments and to present some recent innovations.

The ACF is not without limitations. First, some argue that the ACF states the obvious. Any experienced policy practitioner can identify the sides of a political

debate. Although some applications of the ACF merely identify the competing sides of a political debate, the purpose of the ACF is much broader: to explain belief change and policy change over long periods. This chapter identifies four paths to major policy change within the ACF: (1) policy-oriented learning, (2) external shocks, (3) internal shocks, (4) a hurting stalemate. In addition, the ACF provides a theoretical guide to researchers for understanding the complexities of political conflict and mobilization. It starts by identifying the properties of policy subsystems, the stable and unstable parameters of the broader policy system, and the different components of policy core beliefs. This chapter adds to the list of key variables by listing categories of coalition resources.

Second, a growing criticism of the ACF is that it is constantly being revised and modified, thereby creating a "moving target" to criticism. A cursory read of the literature indicates, however, that the ACF obviously is not moving fast enough to avoid a healthy dose of skeptical examination. To us, the capacity to revise the ACF every six years or so (e.g., 1993, 1999, 2006) is a strength of the framework and a productive path of science. That is why we insist on clear concepts and falsifiable hypotheses (see Appendix 7.3). We want to be clear enough to be proven wrong. But when we are proven wrong—as in the pluralist assumptions in early versions of the ACF—we reserve the right to revise the framework in response to those criticisms so long as those revisions are consistent with the basic principles of the ACF. Those basic principles have not changed since 1988, but they have been expanded:

1. The model of the individual has remained rooted in social psychology, but its attributes have been clarified by Edella Schlager.
2. The focus of policymaking has always been the policy subsystem, but we now have a clearer method for identifying subsystems.
3. The key political actor has always been the advocacy coalition, and network analysis has confirmed that coalitions are principally held together by common beliefs.
4. The concern with the role of science in policy—the core stimulus for developing the ACF in the first place—has remained, but we now have a better idea of how to use professional forums to facilitate learning across coalitions.

Of the recent revisions to the ACF, demarcating a list of resources and coalition opportunity structures is clearly filling in holes that have been in the basic ACF diagram since 1988. The two new paths of major policy change relate to the importance of subsystems and the ACF's model of the individual.

Third, a long-standing criticism of the ACF is that it does not address the collective action problem (Schlager 1995). We hope that the continued integration of network analysis into identifying coalitions will continue to address this issue (Zafonte and Sabatier 1998; Smith 2000; Fenger and Klok 2001; Weible 2005; Weible and Sabatier 2005) and strongly recommend the examination of the three

rationales for collective action in the ACF, which ideally would be tested against Schlager's rival coordination hypotheses.

Fourth, one of the underdeveloped aspects of the ACF is the absence of clearly conceptualized and operationalized institutional variables that structure coalition formation and behavior, as in the institutional analysis and development framework (Ostrom 2005). This chapter takes steps in this direction by introducing political opportunity structures; however, more is needed, especially at the policy subsystem level.

Finally, despite attempts to be clear and explicit in the concepts and causal processes within the ACF, there remain many unanswered and unexplored questions. To us, this is not a limitation of the ACF but an exciting opportunity that we hope will generate future research. Some of the important questions include:

1. What are the network properties of subsystem participants and advocacy coalitions (Smith 2000; Fenger and Klok 2001; Weible 2005)? How inclusive and exclusive are coalitions? Do coalitions have "solid cores with fuzzy edges" (Larsen, Vrangbaek, and Traulsen 2006)? How do policy participants form and maintain coalition membership over time (Schlager 1995)?
2. How do political opportunity structures affect coalition beliefs, resources, stability, and strategies (Zafonte and Sabatier 2004; Kübler 2001)?
3. After an external or internal shock, what are the causal processes that lead to policy change (Nohrstedt 2005)?
4. What is the role of power, resources, policy leaders/entrepreneurs, and functional interdependence in coalition membership, behavior, stability, and strategies (Mintrom and Vergari 1996; Fenger and Klok 2001; Green and Houlihan 2004; Weible 2005; Larsen, Vrangbaek, and Traulsen 2006)?
5. What is the relative importance of individual and organizational welfare concern (material self-interest) compared with other policy core beliefs in coalition formation and maintenance (Elliot and Schlaepfer 2001 a, b; Nortstedt 2005)?
6. How do rapid innovations in technology and science affect the structure of policy subsystems (Chen 2003)?
7. To what extent do policy participants frame events, especially external and internal shocks, to support coalition goals (Dudley and Richardson 1999; Green and Houlihan 2004)?
8. To what extent can the ACF be applied to global policy subsystems (Liftin 2000)?
9. To what extent can the ACF be used as a practical tool for policy makers (Weible 2006)?

We hope that these questions will be pursued in the next wave of ACF analyses.

This chapter elaborates upon the extent to which the ACF generalizes beyond American pluralism and furthers our understanding of policy change and coali-

tion activities. We encourage researchers interested in the ACF to explore the behavioral and policy ramifications of its assumptions and to test, apply, and expand its hypotheses.

NOTES

1. The actual number of publications is higher, because there is usually more than one publication per case study.

2. Examples of judicial authorities being members of subsystems and even advocacy coalitions include (1) the role of the federal courts, particularly the Fifth Circuit Court of Appeals in enforcing school desegregation policies (Rodgers and Bullock, 1976); (2) the role of Judge Boldt (NRC 1996)(substantially changing fishery policy in the Pacific Northwest); and (3) the role of the Federal District Court in Fresno, California, in protecting the water rights of San Joaquin Valley farmers (Hundley 2001) .

3. For example, if one wanted to know if there was a subsystem in "California water policy," one would inquire if there were agencies, interest groups, and research institutions whose scope (or the scope of important subunits) was California water. The answer is clearly affirmative. But the answer is also clearly affirmative for Los Angeles water policy and Modesto water policy. Putah Creek water policy is in transition from nascent to mature. Agency subunits with this scope have existed for some time. However, the interest group and research infrastructure is only five to eight years old.

4. In fact, philosophers have long distinguished two systems of ethics: deontological (rule-based) and utilitarian/teleological (consequence-based). Frankena 1963.

5. See Sabatier and Jenkins-Smith (1999, 133) for a complete listing of the belief system components for policy elites.

6. We hope to flesh out a typology of internal shocks and policy ramifications in the future.

7. We will address internal and external shocks on different policy subsystem structures at a later time.

8. This really is a case of "parallel discovery." Pelkey introduced Sabatier to the ADR literature in approximately 1999 or 2000; shortly thereafter, they began working together on the Watershed Partnership Project. However, Sabatier and Zafonte had laid out their basic arguments for successful professional fora in papers delivered in Rotterdam in Summer 1995 and at the AAAS Meetings in Seattle in February 1997. These papers were eventually published in Sabatier and Zafonte (2001).

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Appendix 7.1
Applications by ACF Authors & Students, 1998–2006, Cases 1–5

Author(s)	Author's Affiliation	Year	Study Geographic Scope	Study Substantive Topic
Zafonte & Sabatier	UC, Davis	1999, 2004	U.S.	Air pollution
Weible, Sabatier, & Lubell	UC, Davis	2004, 2005	California, U.S.	Marine protected areas
Leach & Sabatier	UC, Davis & Center for Collaborative Policy	2005	California & Washington, U.S.	Watershed partnerships
Weible & Sabatier	UC, Davis & Georgia Institute of Technology	2006	California & Nevada, U.S.	Lake Tahoe water policy
Herron, Jenkins-Smith, & Silva	U of New Mexico & Texas A&M U	2002, 2005	U.S.	Nuclear security

Appendix 7.2
Applications by Other Scholars, 1998-2006

Author(s)	Author's Affiliation	Year	Study Geographic Scope	Study Substantive Topic
Applications in Australia, Canada, and European Countries, Cases 1–8				
Berggren	Umeå Univ.	1998	Sweden	Land use
Dudley & Richardson	Univ. of Oxford	1999	European Union	Steel policy
Greenway & Grantham	Univ. of East Anglia & Univ. of Brighton	1999	U.K.	Roads & transport policy
Jordan & Greenaway	Univ. of East Anglia	1998	U.K.	Coastal water policy
Radaelli	Univ. of Bradford	1999	European Union	Tax policy
Abrar, Lovenduski, & Margetts	Birkbeck College, Univ. Cambridge	2000	U.K.	Domestic violence
Liftin	Univ. of Washington	2000	Canada	Climate change policy
Smith	Univ. of Sussex	2000	U.K.	Industrial pollution policy

Author(s)	Author's Affiliation	Year	Study Geographic Scope	Study Substantive Topic
Applications in Australia, Canada, and European Countries, Cases 9–25				
Compston & Madsen	Cardiff Univ. & Univ. of Copenhagen	2001	Denmark	Paid leave
Kübler	Univ. of Zurich	2001	Switzerland	Drug policy
Bryant	Univ. of Toronto	2002	Canada	Public health
Chen	Univ. of Melbourne	2003	Australia	Censorship
Wolsink	Univ. of Amsterdam	2003	The Netherlands	Land planning
Beyers & Kerremans	Leiden University & Katholieke University	2004	European Union	Economic / development policy
Finsterwald	The Schweizerische Gesellschaft für Gesundheitspolitik	2004	Switzerland	Health care
Loeber & Grin	Univ. of Amsterdam	2004	The Netherlands	Water quality
Owens	Cambridge Univ.	2004	U.K.	Transport & mineral policy
Schofield	Aston Univ.	2004	U.K.	Health policy
Wellstead, Davidson, & Stedman	The Canadian Forest Srevice's Northern Forestry Centre	2004	Canada	Forest Policy
Ladi	University Scheffield	2005	Greece	Environmental Policy
Meijerink	University of Nijmegen	2005	The Netherlands	Coastal Flooding Policy
Nohrstedt	Uppsala University	2005	Sweden	Nuclear Policy
Saint-Pierre	Institute national de la rescherche scientifique	2005	Quebec, Canada	Cultural Policy
Breton, Richard, Gagnon, Jacques, & Bergeron	Deakin University	2006	Quebec, Canada	Public Health/ Tobacco policy
Larsen, Vrangbaek, & Traulsen	The Danish University of Pharmaceutical Sciences	2006	Denmark	Pharmacy Policy
Applications in U.S., Cases 26–39				
Ellison[a,b]	Missouri State University	1998	U.S.	Endangered Species Act & water policy
Fenger & Klok	Erasmus University & University of Twente	2001	U.S.	Offshore Oil & gas
Ameringer	Univ. of Wisconsin, Oshkosh	2002	U.S.	Federal antitrust policy
Burnett & Davis	CA Environmental Protection Agency & Colorado State Univ.	2002	U.S.	Forest policy
Freudenburg & Gramling	University of Wisconsin & University of CA	2002	U.S.	Offshore oil leasing

Author(s)	Author's Affiliation	Year	Study Geographic Scope	Study Substantive Topic
Dolan	Univ. of Central Florida	2003	U.S.	Economic policy
Leschine, Lind & Sharma	Univ. of Washington, National Marine Fisheries Service, & Columbia River Inter-tribal Fish Commission	2003	Washington State, U.S.	Water policy
Sobeck	Wayne State University	2003	U.S.	Drug policy
Toavs	Virginia Politechnic Institute & State University (dissertation)	2004	U.S.	Information resource management
Fischhendler & Zilberman	Hebrew University Jerusalem	2005	California, U.S.	Water Policy
Mavis & Shorn	Vanderbilt University	2005	Tennessee, U.S.	Women's Health
Nicholson-Crotty	University of Missouri-Columbia	2005	Colorado, U.S.	Natural Resource Management
Davis	University of Colorado	2006	U.S.	Forest/Wildfire Policy
Layzer	Massachusetts Institute of Technology	2006	New England, U.S.	Fishery Management
Applications in Asian Countries, Cases 40–42				
Sato	University of Tokyo	1999	Japan	Smoking control
Kim	Korea University	2003	Korea	Water policy
Hsu	Colorado State Univ.	2005	Taiwan	Nuclear Policy
Applications in Africa & South American Countries, Cases 43–45				
Carvalho	Woods Hole Research Center	2001	Brazil	Metallurgical development
Arnold	Center for International Migration & Development	2003	Chile	Forest policy
Beverwijks	University of Twente	2004	Mozambique	Education policy
Applications Comparing Multiple Countries, Cases 46–49				
Elliott & Schlaepfera,[b]	WWF International & Swiss Federal Institute of Technology	2001	Canada, Indonesia, & Sweden	Forest policy
Farquharson	The Univ. of Melbourne	2003	Global	Tobacco policy
Sewell	Massachusetts Institute of Tech. (dissertation)	2005	U.S., Japan, & the Netherlands	Climate change policy
Green & Haulihan	Loughborough Univ.	2004, 2006	Canada & U.K.	Sport policy

Appendix 7.3
Hypotheses in the 1999 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 rather 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): Elites of purposive groups are more constrained in their expression of beliefs and policy positions than elites 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 socioeconomic conditions, public opinion, systemwide 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 have 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 exists a forum that 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 effects on policy—at least in the short run—by altering the views of policy brokers.

PART FOUR

Frameworks Comparing Policies Across a Large Number of Political Systems