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Crisis and Policy Reformcraft

*Advocacy Coalitions and Crisis-induced
Change in Swedish Nuclear Energy Policy*



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Abstract

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This dissertation consists of three interrelated essays examining the role of crisis events in Swedish nuclear energy policymaking. The study takes stock of the idea of 'crisis exceptionalism' raised in the literature, which postulates that crisis events provide openings for major policy change. In an effort to explain crisis-induced outcomes in Swedish nuclear energy policy, each essay explores and develops theoretical assumptions derived from the Advocacy Coalition Framework (ACF). The introduction discusses the ACF and other theoretical perspectives accentuating the role of crisis in policymaking and identifies three explanations for crisis-induced policy outcomes: minority coalition mobilization, learning, and strategic action. Essay I analyzes the nature and development of the Swedish nuclear energy subsystem. The results contradict the ACF assumption that corporatist systems nurture narrow subsystems and small advocacy coalitions, but corroborate the assumption that advocacy coalitions remain stable over time. While this analysis identifies temporary openings in policymaking venues and in the advocacy coalition structure, it is argued that these developments did not affect crisis policymaking. Essay II seeks to explain the decision to initiate a referendum on nuclear power following the 1979 Three Mile Island accident. Internal government documents and other historical records indicate that strategic considerations superseded learning as the primary explanation in this case. Essay III conducts an in-depth examination of Swedish policymaking in the aftermath of the 1986 Chernobyl accident in an effort to explain the government's decision not to accelerate the nuclear power phaseout. Recently disclosed government documents show that minority coalition mobilization was insufficient to explain this decision. In this case, rational learning and strategic action provided a better explanation. The main theoretical contribution derived from the three essays is to posit the intensity and breadth of political conflict, strategic action, and analogical reasoning as key factors affecting the propensity for crisis-induced policy change.

Keywords: Crisis, policy change, advocacy coalitions, Swedish nuclear energy policy, learning, strategic action

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To Sofia and Olle

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This dissertation consists of the following essays:

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CRISMART

Crisis Management Research and Training

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¹ *The Handbook for Postgraduate Students*, The Swedish National Agency for Higher Education.

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Daniel Nohrstedt
Uppsala, March 2007

Introduction: Crisis and Policy Reformcraft

“Accidents and calamities ... are the universal legislators of the world.”

Plato, *The Laws*¹

Well into the first decade of the new century, citizens and political leaders are increasingly aware of the changing nature and constant presence of crises. Terrorist attacks, earthquakes, tsunamis, hurricanes, pandemics, industrial accidents, and global warming and its alleged side effects are merely a small selection of the wide spectrum of crisis predicaments modern societies are confronted by. Issues related to crisis management remain high on the political agenda at local, national and international levels. The scientific community has not been unaffected by these developments; on the contrary crisis management has become a booming academic business. Political science makes important contributions to this growing field by offering theoretical tools to understand and explain how states and other political actors plan for, respond to, and learn from crisis events.

Scholars interested in public policymaking have long recognized that crises play an important role in policy change processes. Crises, it is argued, oftentimes serve as “focusing events” that draw public and political attention to policy problems and solutions (Kingdon, 1995, p. 94-100). But while researchers appear to agree that crises often are important causal drivers in the process of policy change it has been difficult to explain why some crises result in major policy change while others tend to fade away without making any major imprints in policy programs. This variability has inspired research addressing the dynamics of crisis-induced policymaking. At present, several integrated research programs seek to come to terms with this problem combining efforts of inductive case-study research with deductive theorizing.

This dissertation seeks to make a contribution to this comparative effort through an analysis of selected crisis episodes from the history of Swedish nuclear energy policymaking. The overall aim is to critically examine, test, and further develop hypotheses dealing with the relationship between crisis and policy change. The hypotheses have been derived from the Advocacy Coalition Framework (see below). As a “case”, Swedish nuclear energy pol-

¹ Plato (1975, p. 164, cited in Nice and Gross, 2001, p. 55).

icy is interesting for several reasons, but one particularly important fact is that this policy area has been hit by crisis events that can be used to assess general theoretical propositions about the crisis-policy change linkage. In Sweden, the 1979 Three Mile Island (TMI) accident and the 1986 Chernobyl accident were two major events that in different ways punctuated nuclear energy policymaking (Baumgartner and Jones, 1993). Based on a conception of 'policy' as goal formulations expressed in specific programs of government (Rose and Davies, 1994; see also Nilsson, 2005), Table 1 illustrates the effects of TMI and Chernobyl on Swedish nuclear energy policymaking.

Table 1: Government nuclear energy policy goals 1975-1991

Government Bill*	Main policy goal related to nuclear power
Bill 1975:30	Expand the number of reactors from 11 to 13.
Bill 1979/80:179	Phase out nuclear power plants by no later than 2010.
Bill 1985/86:100	Start decommissioning towards the late 1990's.
Bill 1986/87:159	Start decommissioning one reactor within the 1993-1995 interval and one reactor in the 1994-1996 interval.
Bill 1987/88:90	Start decommissioning one reactor in 1995 and one in 1996.
Bill 1990/91:88	No starting-point identified, phaseout to be closed by 2010.

**Proposition* in Swedish.

As indicated by Table 1, TMI became one watershed event that contributed to the decision to halt further expansion by establishing the 2010 endpoint for the nuclear power phaseout in Sweden. In contrast, although Sweden was directly exposed to the radioactive fallout from Chernobyl, this event did not spur any additional major changes in Sweden's nuclear energy policy programme. Table 1 indicates that Chernobyl essentially resulted in minor revision of the phaseout time-line. Bearing in mind the limits of cross-case comparison within the same policy sector, these outcomes inspire to analysis of the dynamics of post-crisis policymaking.² More specifically, they turn the attention to the question of how to explain variation in crisis-induced policy outcomes.

While the empirical focus of this analysis is restricted to past crisis episodes, recent developments have again placed Swedish nuclear power in the

² Cross-case comparison between cases within the same sector is generally advantageous because as many variables as possible can be held constant. One major limitation with this research design, following the path dependence logic, is the risk for "case contamination" whereby prior cases in the same issue area have spillover effects that influence policymaking in subsequent cases (tHart and Rosenthal, 1994; see also Kay, 2005).

public spotlight. Following a series of reactor shutdowns during 2006 and 2007 of a total estimated cost of approximately 2,5 billion Swedish crowns (SVT Nyheter, February 15, 2007) and an intensive public debate about the safety culture at the Forsmark nuclear plant, Swedish nuclear power has once again become subject to close scrutiny nationally and internationally. By February 2007, the European Union Energy Commissioner and the Danish government had expressed concerns about Swedish nuclear power safety and the International Atomic Energy Agency (IAEA) has been summoned to conduct safety inspection of Sweden's nuclear power plants (Karlsson, 2007; Magnusson, 2007, Dagens Nyheter, February 16, 2007). The future will show if this ongoing crisis will have any substantive effects on Swedish nuclear energy policymaking. In the meantime, these developments underline the topicality of the nuclear power issue as well as its liability to crisis.

Many excellent social science studies have analyzed the Swedish nuclear energy policy case through an array of theoretical perspectives. Only a small selection of these studies serves well to illustrate this variability. In sociology, Lindqvist (1997) analyzes how different discursive orders emerged in the parliamentary debate. Also relying on discourse analysis, Anshelm (2000) contributes with a rich historical document mapping the Swedish nuclear energy policy subsystem. Another insightful sociological contribution is provided by Lidskog (1994) who investigates the conditions for local acceptance for siting facilities for nuclear waste management. In addition, several studies address the role and development of the Swedish anti-nuclear movement (Jamison et al., 1991; Flam and Jamison, 1994; Kitschelt, 1986). Among public policy analysts, the case of nuclear power has been used to assess theoretical perspectives on policy learning. In one study, Nilsson (2005) explores the role of learning in the integration of environmental concerns into nuclear energy policymaking.³ As a result of the key role of nuclear power in Swedish party politics, the number of political science contributions is vast. In a series of studies, Vedung (e.g. Vedung, 1979; 1980; 2001; Vedung and Klefbom, 2002; Vedung and Brandel, 2001) has analyzed the development and consequences of the nuclear-anti nuclear conflict pattern in the party system. In the same vein, Lewin (1988) has analyzed the dynamics of partisan alliance building. In another study, Algotsson (1996, ch. 6) explores the integration of environmental ideas in energy policymaking. Developments in Swedish public opinion and voting behavior related to nuclear power have also caught some academic interest (e.g. Holmberg, 1988; Granberg and Holmberg, 2002; Holmberg et al., 1977; Giljam and Granberg, 1993). Another group of studies (e.g. Jasper, 1991; Boyle, 1998) have adopted a neo-institutionalist approach seeking to explain cross-national policymaking differences by comparing nuclear power policy de-

³ Nilsson's analysis, which in parts build on the ACF, focuses on a different period (1988 to 2004) than the one of interest in this study.

velopments in different countries, including Sweden. Finally, a study by Sahr (1985) offers a detailed analysis of the process of nuclear energy policy change in Sweden.⁴

Although these studies together have the nuclear power case fairly well covered, in general important questions have been left aside. First, following the key role attached to crises in the academic literature dealing with policy change, it is surprising that previous research on Swedish nuclear energy policy has not yet presented any detailed account of post-crisis policymaking in this domain. In fact, most studies devote marginal analytical attention to Three Mile Island and Chernobyl.⁵ Second, there have been surprisingly few systematic attempts to exploit the history of Swedish nuclear energy policy for the purpose of theory development. Although many studies make important theoretical contributions to various social science disciplines there have been very few initiatives to use insights from this case to critically assess and develop theories of policy change. This is unfortunate since these theories are generally biased towards pluralist systems.

In the three studies of this dissertation, an attempt is made to bridge at least parts of this gap by studying the crisis-policy change linkage in Swedish nuclear energy policy. As the theoretical point of departure, the study explores the *Advocacy Coalition Framework* (ACF) developed in a series of contributions by Paul Sabatier in collaboration primarily with Hank Jenkins-Smith. To some commentators, the ACF offers one of the most promising theoretical approaches to the policy process and it has become increasingly popular among scholars seeking to explain policy change (e.g. Parsons, 1995; Dudley, 2000). Not the least, the relatively large number of case studies applying the ACF to various policy problems is an indicator of its academic popularity. Compared to other theories or frameworks, the ACF is a particularly interesting choice given the overall purpose of this study. First, the ACF conceptualizes crises as an integral part of the policy process. It offers a relatively coherent set of internally consistent assumptions about the relationship between crisis and policy change but these assumptions remain virtually untested against empirical evidence. Second, although there have been attempts to apply the framework to various political systems, it has mainly been applied in policy sectors in the United States.

Thus far, three studies have applied the ACF to Swedish cases.⁶ Berggren (1998) applies the ACF to a local land-use conflict and concludes that the

⁴ In addition to these studies, several Swedish political science dissertations include aspects of this case in comparative studies between cases derived from different policy sectors (see e.g. Stern, 1999; Santesson-Wilson, 2003; Uhrwing, 2001).

⁵ Several Swedish social science studies have been conducted on the aftermath of Three Mile Island and Chernobyl but most of these studies pay marginal attention to the dynamics of post-crisis policymaking in the nuclear energy domain.

⁶ In addition to studies on policy change processes, there may be additional studies exploring the utility of ACF assumptions in accounting for implementation (see e.g. Rydén, 2003).

ACF has limited explanatory capability due to its inability to account for the role of private business in the policy process. In two similar studies, Elliot and Schlaepfer (2001a; 2001b) apply the ACF to the policy process of the development of a forest certification programme. In contrast to Berggren's study, they apply the ACF in a more systematic fashion by testing most of its hypotheses. While this case "shows the value of the ACF" primarily by confirming most of the hypotheses dealing with learning, the findings "provide little basis for the evaluation of ACF hypotheses on policy change" (Elliot and Schlaepfer, 2001a, p. 651, 658). More recently, Hansén (2007) relies on aspects of the ACF to explain developments in Swedish counter-terrorism policy by exploring the proposition that prevailing beliefs will remain stable despite the occurrence of major shocks. While presenting convincing evidence in support of this prediction, Hansén (p. 186) concludes with a call for empirical studies addressing the relationship between actors espousing different beliefs. Thus, following the empirical and theoretical focus of previous Swedish ACF studies, it is difficult to draw any substantial conclusions about ACF's generalizability to the Swedish context. On this basis, there is still a need for empirical studies addressing the assumptions of the ACF in the context of Swedish politics. In terms of theory development, the objective is twofold: to explore the validity of ACF's general *assumptions* of the policy process and to test the *causal mechanisms* that the ACF suggests will operate between crisis and policy change.

Against this background, this study contributes with a systematic evaluation of the ACF in the context of Swedish nuclear energy policymaking. The three essays utilize different methodological approaches to study post-crisis policymaking in this domain. While most European ACF studies rely on case-study methods aiming essentially at a meso-level analysis of advocacy coalition behavior, this study seeks to combine systematic methods of data acquisition and analysis with intensive case study methods in order to carefully assess the role of coalition behavior in post-crisis policymaking. In return, this study generates theoretical and methodological insights that can be of use for further development of the ACF and of policy analysis more generally.

In methodological terms, the combined use of intensive and extensive research methods provides a thorough test of key ACF assumptions related to crisis policymaking. First, an attempt is made to replicate systematic analytical techniques adopted in previous ACF studies. In return, this part of the analysis evaluates ACF assumptions and hypotheses about the nature of the policy subsystem and about coalition behavior at the organizational level. Second, this study also presents an in-depth analysis of the policymaking process, which is fairly unorthodox in the context of existing ACF studies. Nevertheless, this approach enables a fairly detailed evaluation of the role of different motivations for policy choice (cf. John, 2003; Pierre, 2006). For instance, while most previous ACF studies have studied policy-oriented be-

lief system change at the coalition level this analysis partly approaches this issue from the perspective of the small decisionmaking group and the individual decisionmaker. The results confirm some of ACF's strengths but they also expose some of its major limitations. Data presented here supports the assumption that coalitions remain stable over time even in the wake of crisis events like TMI and Chernobyl. On this basis, it is concluded that the ACF has great potential in systematically documenting the major lines of conflict within any given issue. However, it appears that in practice mobilization efforts by minority coalitions have limited influence on post-crisis decision-making. More importantly, the findings underline the role of strategic action as the primary motivation for policy choice in this case. Hereby, this analysis turns the attention to the long-standing debate on the relative role of interests compared to policy-oriented beliefs and it concludes with an attempt to specify the conditions that might help explaining why and how interests become important motivations in policymaking. While identifying aspects of the ACF in need of further conceptual specification, it is concluded that the breadth and intensity of political conflict provides a particularly important contextual condition affecting the propensity for crisis-induced policy change.

Crisis reform studies

In the social sciences, crises regularly show up as crucial facilitators of change in organizations, institutions, and policy. Nowadays, descriptions of change-enabling episodes like "focusing events", "critical junctures", "formative moments", and "punctuations" occur frequently in studies concerned with public policy reforms (e.g. Kingdon 1995; Baumgartner & Jones 2002; North, 1990; Rothstein, 1992; Steinmo, Thelen and Longstreth, 1992). For a long time, however, crises have been considered and discussed primarily as interesting exceptions to phenomena related to patterns of 'ordinary' or 'normal' policymaking. Due to a lack of agreement about the meaning of the term 'crisis' and to the "small n" problem, political scientists have had a hard time searching for patterns in policymaking in relation to extraordinary events of different kinds (Keeler 1993; Baumgartner and Jones 1993). Lately, however, a cross-disciplinary literature has developed in an attempt to bridge this gap. As a complement to studies of governance explaining the stability of public policies and organizations, questions about policy change and institutional reform appear to have gained renewed attention in the social sciences.

Most conceptions of the term 'crisis' focus on the functional adaptation of state agencies to extreme conditions including threat, uncertainty, surprise, and time pressure (see Boin et al., 2005; Rosenthal, Charles and 'tHart, 1989; Hermann, 1963; Stern, 2003; Sundelius, Stern and Bynander, 1997).

Crisis scholars have traditionally focused on key actors in ‘the hot seat’ directly involved in operative crisis management operations, their perceptions of more or less acute crisis problems and capacity to respond effectively (e.g. Stern and Sundelius, 2002). Pertaining to a broader socio-political level of analysis, most crises often have a political dimension as well. In many cases, extraordinary events have led to distrust in states’ competence to promote security and to protect the public from all kinds of dangers. Operative challenges might be used to symbolize the malperformance of existing policies and previously spoken and unspoken demands will enter the policy discourse. The ability to predict and prevent the root causes of an event and to cope with the danger effectively once materialized is often questioned, which in turn pose great challenges to political and administrative leadership (‘tHart & Boin, 2001).

It is in the gray area between crisis and aftermath that the stage may be set for non-incremental policy reform. The literature suggests that crises offer some freedom for policymakers to initiate policy reforms, but how and why they act to exploit this freedom is still fairly unknown territory. However, scholarly interest in the policy impact of crisis is growing and hereby our understanding of this phenomenon has advanced. At present, academics seek to come to terms with the multifaceted nature of crisis policymaking in an effort to provide a theoretical foundation identifying crucial factors shaping the policy impact of crises. By aggregating findings from detailed case studies, researchers are at a stage of synthesizing comparative research findings into a more integrated set of general propositions. From this cumulative effort, it is clear that the relationship is not easily dissected into a simple stimuli-response sequence. On the contrary, researchers acknowledge the necessity to elaborate multidimensional conceptions of crisis events and policy outcomes not to mention the diversity of socio-political processes connecting events with outcomes (Boin, et al., 2005; Boin, ‘tHart and McConnell, forthcoming).

Taking the risk of oversimplifying the insights gained from this literature, it is helpful to provide a rough sketch of the basic arguments. As a starting-point, crises are defined as episodic breakdowns of familiar symbolic frameworks that legitimate the pre-existing socio-political order (‘tHart, 1993; see also Bynander, 2003). Such breakdowns can be triggered by natural forces (earthquakes, epidemics), enemies (wars, terrorist attacks) or by technological or political malfunctions (industrial accidents, economic busts). In turn, these events may take on different characteristics depending on if they have external or internal causes, if they realize some previously unthinkable scenario, reveal bureaucratic failure, or expose vulnerabilities and fears. These differences are important because they are likely to affect the course and outcomes of crisis aftermaths. It has been hypothesized, for instance, that crises with causes attributed to external factors are more likely to result in a reformist strategy than are crises with internal causes (Boin et

al., 2005, p. 128). In addition, various other situational and contextual conditions help in explaining crisis outcomes. Conditions including the allocation of blame, path dependency of policies and institutions, timing of events in relation to electoral cycles, mass media attention and portrayal are particularly important factors explaining the direction of crisis policymaking. In this context, crisis experiences oftentimes provide input to political-administrative accountability and learning processes. Such inquiries may fulfill various aims (fact-finding, justification etc.) and may, towards the end, catalyze policy changes (Dekker and Parker, forthcoming; Dekker, forthcoming; Resodihardjo, 2006a; 2006b). Finally, when it comes to crisis outcomes, researchers recognize the necessity of a multidimensional conception including varying degrees of political, policy and institutional change as well as a distinction between symbolic and substantive policy outcomes (Boin, McConnell and 'tHart, forthcoming).

In sum, this literature outlines an array of suggestions on how crises may pave the way for policy change or preserving the status quo. These suggestions have been derived through an iterative process involving both inductive case study and deductive theorizing. As a result, crisis researchers are currently laying the groundwork for a comprehensive typological theory about the crisis-reform linkage.⁷ What characterizes this effort, in short, is an attempt to provide a differentiated depiction of the relationship by outlining a comprehensive map of the causal paths to crisis-induced policy outcomes. While some commentators seem somewhat skeptical about the prospect of successful theory development in this area (Hay, 2002, p. 163, 260; Peters, Pierre, and King, 2005, p. 1289), it appears that an attempt to take crisis research in this direction is seriously underway.

Nonetheless, much inductive work remains before the time is ripe for continuing with deductive efforts of theory testing (Boin, 'tHart and McConnell, forthcoming, p. 22). Placing this study of Swedish nuclear energy policy within this wider framework, it appears that there is a positive outlook for cross-fertilization between the ACF and crisis reform studies. Crisis reform studies point to interesting variations, which the ACF might help explain. Vice versa, the ACF can benefit from incorporating insights from crisis studies. On the basis of the findings reported in the three essays of this dissertation, this study concludes with a few suggestions on how these literatures might be intertwined to advance our understanding about the policy outcomes of crisis events.

⁷ Alexander George and Andrew Bennett (2005, p. 235) define a typological theory "as a theory that specifies independent variables, delineates them into the categories for which the researcher will measure the cases and their outcomes, and provides not only hypotheses on how these variables operate individually, but also contingent generalizations on how and under what conditions they behave in specified conjunctions or configurations to produce effects on specified independent variables."

Theories of the policy process

Given the multifaceted nature of post-crisis policymaking, researchers agree that analytical attention needs to be devoted to the policymaking processes (Birkland, 1998; Boin et al., 2005; Hay, 2002; Kurtz and Brown, 2004). In the view of Parsons (1995, p. xvi), policy process studies focus on “how problems are defined, agendas set, policy formulated, decisions made and policy evaluated and implemented.” Within this research tradition, scholars have developed theoretical models and frameworks seeking to account for the multiple facets and actors that define and motivate the policy process. A few of these theories explicitly attempt to link crises to non-incremental policy change. In addition to the ACF, two candidates stand out as particularly popular.⁸

Within the *Punctuated equilibrium framework*, Baumgartner & Jones (1993) argue that over time, incremental policymaking in democratic states is occasionally interrupted by punctuations, initiated by ‘focusing events’ and ‘chance occurrences’, that pave the way for major change. In their view, policy subsystem participants share a common problem definition (‘policy image’). Therefore, lines of conflict and working procedures remain quite stable over time. If a losing coalition decides to move up an issue to the macro-political system or if a major crisis occurs undermining the prevailing policy image, policies change non-incrementally. The mechanism linking crisis with major policy change is thus the mobilization of new actors, and thereby new problem definitions.

Kingdon’s (1995) *Multiple streams* approach portrays policymaking as consisting of three ‘streams’: problems, policy, and politics. The problem stream entails the problems that actually attract policymakers’ attention. Three conditions bring problems to the fore: indicators, feedback, and crises. Problem recognition is insufficient by itself to place an item on the agenda; there need also to be actors competent and willing to formulate and refine policy proposals. These actors are located in the policy stream, which consists of networks of experts, bureaucrats and academics, in a single policy area. The result of the activities within the networks is a vast number of ideas floating around in the “policy primeval soup” that are tried out in various ways, including papers, hearings, and conversations. Another explanation for high agenda prominence is found in events in the political stream. At certain points in time, the three streams are joined creating opportunities to change policy. In short, the combination of a compelling problem, available

⁸ If one speaks about theories of the policy process in more general terms, that is, theories that seek “to explain how interested political actors interact within political institutions to produce, implement, evaluate, and revise public policies” (Schlager and Blomquist, 1995, p. 653), this list is not exhaustive. One may add, for instance, institutional rational choice (Ostrom, 1990) and the politics of structural choice approach (Moe, 1990; see Schlager and Blomquist, 1995; Parsons, 1995).

alternatives, and a receptive political climate enhances the odds that a subject will become fixed on the decision agenda. The joining of the streams is triggered either by political events, such as a change of administration, or by crises or focusing events in the problem stream.

Together with the ACF, these theories provide slightly different interpretations of the role of crisis in the policy process. All three postulate that a causal connection between crisis and policy change exists but they differ with regard to the definition of policy change and to the causal processes that are assumed to operate between crisis and policy outcomes (Hansén, 2007). Here is not the place to identify the main points of contact between these approaches or the major differences between them because this is a quite extensive undertaking that has also been done elsewhere (e.g. Dudley 2000; Schlager, 1999; Zahariadis 1998; John, 1998; Parsons, 1995; Howlett and Ramesh, 2003). On the basis of these reviews, one can conclude that the ACF has a number of comparative strengths underlining its status as a promising candidate to help disentangle the relationship between crisis and policy change. First, following the most recent modifications it would appear to offer a fairly clear conception of the notion of crisis (Sabatier and Weible, 2007). Second, it seeks to provide a relatively clear-cut criterion to distinguish major from minor policy change (Sabatier and Jenkins-Smith, 1999). Third, it contributes with a set of assumptions on which causal mechanisms are important to explain policy change given the occurrence of a crisis. In addition to the necessity to explore ACF's bounds of applicability outside the United States, these characteristics makes it worthwhile to apply the ACF to the history of Swedish nuclear energy policy.

Crisis and Policy Change Dynamics in the ACF

Let us be clear that the ACF is not first and foremost a theory about crisis and policy change; its aim is to explain policy change more generally. In other words, ACF authors do not explicitly aspire to fulfill the need for a general theory about the crisis-policy change relationship. But notwithstanding its broad empirical focus, the ACF sees crisis events as a key causal driver in the process of policy change and seeks to identify causal mechanisms that may explain policy change given the occurrence of a crisis. On closer inspection, some of the mechanisms identified by the ACF are also an aggregation of findings reported in other literatures. Given the historical developments in Swedish nuclear energy policy where TMI and Chernobyl had somewhat different impacts on the nuclear energy issue, this case provides an opportunity to test the explanatory value of these mechanisms. This analysis will, however, begin by addressing some of the ACF's basic descriptive assumptions about the policymaking process.

Assumptions: pluralistic policy subsystems and stable coalitions

Following the wide ambition to explain policy change over time, the ACF presents a relatively rich account of actors, variables, and hypotheses. For instance, in the most recently published version of the framework it identifies twelve hypotheses dealing with advocacy coalitions, policy change, and learning (Sabatier and Weible, 2007, p. 220). Testing all these in one study would not only be a Herculean undertaking, but also be at odds with the objective of this study. Nevertheless, when addressing the relationship between crisis and policy change one is automatically required to relate to other fundamental questions about what constitutes the main causal drivers in the policymaking process. Exploring the utility of these basic assumptions in the context of Swedish nuclear energy policy, in return, helps evaluate ACF's generalizability to the Swedish political context.

According to Sabatier and Jenkins-Smith (1993), policy change normally occurs over a decade or more and is a function of (1) the interaction of competing advocacy coalitions within a policy subsystem; (2) changes external to the subsystem; and (3) the effects of relatively stable system parameters (e.g. constitutional rules, basic social structure). The policy subsystem is the unit of analysis for understanding policy change, with external changes and stable system parameters constraining and affecting it. The argument is that to understand long-term policy change one should start by broadening the traditional notion of "iron triangles" to include actors at various levels of government as well as journalists, researchers, and policy analysts involved in the generation, dissemination, and evaluation of policy ideas. Sabatier and Jenkins-Smith (1999, p. 119) aggregate these actors within the notion of policy subsystem:

"A subsystem consists of 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, and who regularly seek to influence public policy in that domain."

The notion of a policy subsystem, however, merely presents scholars with a guide to identify the key actors involved in policymaking. In order to advance the understanding of policy change, one would also need a means of simplifying the hundreds of actors involved. To avoid getting overwhelmed by the complex set of actors encountered if focusing solely on autonomous individuals, ACF authors aggregated actors into a number of advocacy coalitions. Coalitions consist of "people from various governmental and private organizations that both share a set of normative and causal beliefs and engage in a nontrivial degree of coordinated activity over time" (Sabatier and Jenkins-Smith, 1999, p. 120). At any time, a policy subsystem is composed of one dominating coalition controlling the executive branch and a number

(usually two to four) of minority coalitions seeking to alter the behavior of government institutions.

Each coalition's belief system consists of a set of basic values, causal assumptions, and problem perceptions that are organized into a hierarchical tripartite structure. This set of beliefs is composed of 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 instrumental decisions and information searches necessary to implement the policy core in the specific policy area (Sabatier and Jenkins-Smith, 1993, p. 30). The deep core includes beliefs about the nature of man (e.g. part of nature versus domination), relative priority of various ultimate values (freedom, power, health etc.), and basic criteria of distributive justice (relative weight of primary groups, all people, future generations etc.), items that operate across virtually all policy domains. The left/right scale is placed in this category. At the next level – policy core beliefs – are a coalition's basic normative commitments and causal perceptions that operate across an entire policy subsystem. This category include fundamental value priorities (e.g. economic development versus environmental protection), basic perceptions concerning the general seriousness of the problem and its underlying causes, and strategies for realizing core values within the policy domain (e.g. division of authority between government and market, the level of government best suited to deal with the problem, and the basic policy instruments to be used). Finally, the secondary aspects refer to a large set of narrower beliefs. This category includes beliefs concerning the seriousness of the problem or the relative importance of various causal factors in specific locales, policy preferences regarding desirable regulations or budgetary allocations, the design of specific institutions, and evaluation of various actors' performance (Sabatier and Jenkins-Smith, 1999, p. 122). The ACF assumes that people's core beliefs are resistant to change and that conflict among participants is a common feature within policy subsystems. This assumption forms the building block of the first hypothesis:⁹

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.

The three categories of beliefs have been arranged in order of decreasing resistance to change. In general, a coalition's deep core beliefs are very resistant to change, policy core beliefs are somewhat less rigidly held, while

⁹ Note that the numbering of the hypotheses as presented here is not consistent with the presentation of these hypotheses in Sabatier and Jenkins-Smith (1999) and Sabatier and Weible (2007).

beliefs in the secondary aspects are assumed to be more readily adjusted in light of new data, new experience, or changing strategic conditions. It is unrealistic to assume that all members of an advocacy coalition have precisely the same belief system. From the hierarchical structure of belief systems it follows, therefore, that most members of a coalition will show substantial agreement on policy core issues. This observation has led to a second hypothesis concerning the internal structure of belief systems:

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

It is correct, as Sabatier and Jenkins-Smith (1999, p. 157) observe, that Hypothesis 2 is partially true by definition since a coalition is defined as people sharing a set of policy core items. It is highly likely, although not logically required, that they will agree more on the policy core than on secondary aspects.

On this basis, identifying a Swedish nuclear energy policy subsystem is the first step in this analysis. The objective here is exclusively descriptive: which actors belong to this subsystem and to what degree has the composition varied between different arenas for participation and over time? Of particular interest here is the nature and also the relative size of the subsystem in general and the coalitions in particular.¹⁰ In a recent attempt to modify the ACF to make a better fit with corporatist systems, Sabatier and Weible (2005, p. 8-9) predict that centralized decision routines and restrictive participation will result in relatively narrow subsystems and rather small coalitions (see also John, 1998; Lundquist, 1980).

Next, an analysis of patterns of coalition stability is conducted by testing Hypothesis 1 and Hypothesis 2. These hypotheses are not assumed to be 'context-dependent' as the assumptions related to the nature of corporatist policy subsystems. Rather, they are based on general observations about the relative stability of policy coalitions (see Zafonte and Sabatier, 2004, p. 77-78) and can thus be expected to hold even when applied to Swedish policy-making.

¹⁰ Some researchers hypothesize that the structural characteristics of policy subsystems can explain policy change. What appears to be most important is the level of 'cohesiveness' or 'closedness' of a policy subsystem; cohesive or closed subsystems tend to resist the entrance of new ideas and actors into the policy process. Conversely, policy stability can be explained by the fact that actors and ideas remain constant over time. Despite the obvious risk of introducing a contaminated explanation, it appears that this hypothesis has attracted some attention among public policy scholars (see Howlett and Ramesh, 2003, p. 156-157, for an overview of this literature).

Mechanisms: coalition mobilization and policy learning

On the notion of policy change, the ACF differentiates between minor and major policy change where the former is conceived as changes in the secondary aspects of a governmental program while the latter refers to change in the policy core aspects. It is thus the scope and the topic of policy change that determine whether it should be classified as minor or major (Sabatier and Jenkins-Smith, 1999). This distinction appears to be consistent with other definitions found in the literature (e.g. Cortell and Peterson, 1999; Rose and Davies, 1994; George, 1979a; Hall, 1993; Howlett and Ramesh, 2003).

From the assumption that policy core beliefs are resistant to change it follows that major policy changes are rare events. In fact, the ACF hypothesizes that:

Hypothesis 3: The policy core attributes of a governmental action program are unlikely to be changed in the absence of significant perturbations external to the subsystem, i.e. changes in socio-economic conditions, public opinion, system-wide governing coalitions, or policy outputs from other subsystems.

Originally the concept of ‘external perturbation’ referred to relatively encompassing developments including the ones identified in Hypothesis 3. In the most recent version of the ACF, however, the notion of “internal shocks” was added as an alternative path to major policy change. Likewise, disasters have been added to the list of potentially important perturbations (Sabatier and Weible, 2007, p. 199). Following in the footsteps of Kingdon (1995) and Birkland (1997; 1998; 2004), Sabatier and Weible (2005, p. 11) argued that:

“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.”

By adding the notion of internal shocks, ACF authors more or less deliberately position the framework as a theory about the crisis-policy change linkage. At the least, this modification underlines the tendency that the ACF have moved away from its original focus of analysis towards policy change and formation and away from implementation (cf. Winter, 2006, p. 155).

Mintrom and Vergari (1996) have faulted the ACF (the 1993 version) for neglecting the conditions under which policy change occurs, primarily by questioning the argument laid out in Hypothesis 3. In their view, the ACF overlooks the process by which major policy change takes place. This criticism is only partially warranted. Mintrom and Vergari (1996, p. 425) are right in arguing that “not all exogenous shocks and not all instances of policy learning translate into policy change” and that we therefore “need to better

understand why particular policy changes materialize”. This is correct because Hypothesis 3 does not specify a causal mechanism. In response to this criticism, Sabatier and Jenkins-Smith (1999, p. 148) proposed that:

“perturbations provide an opportunity for major policy change, but such change will not occur unless that opportunity is skillfully exploited by proponents of change, that is, the heretofore minority coalition(s)”.

From this follows that the key to the understanding of the policy impacts of crises lies in how such events affect the strategies and behavior of minority coalitions (Schlager, 1995). What is less clear about this claim, though, is how one should conceptualize and operationalize the notion of “skillful exploitation”. Here, Sabatier and Jenkins-Smith give little guidance and one must turn to other aspects of the theory to clarify the underlying logic of this mechanism. In a wider perspective, this is desirable because policy studies still lack an explanation of how actors ‘seize the moment’ to take advantage of ‘windows of opportunity’ (Goldfinch and ‘tHart, 2003, p. 237).

Following ACF’s model of the individual as being instrumentally rational, one would expect that minority coalitions seek to maximize *resources* to advance their policy aims in the wake of crisis. Here, ACF authors have tried to sketch a typology of resources, including formal legal authority, public opinion, information, membership base, financial means, and skillful leadership (Sewell, 2005; cited in Sabatier and Weible, 2005, p. 10-11). Second, it is also likely that they will attempt to exploit a variety of *venues* for political influence (Sabatier and Jenkins-Smith, 1999, p. 142-144). Third, they can also be expected to seek to persuade the media, the public, and policymakers by different *framing tactics* aiming at magnifying or downplaying the seriousness of the crisis depending on what their beliefs are (Sabatier and Jenkins-Smith, 1993, p. 45). Hereafter, this study will refer to the combined effort of exploiting resources, venues, and framing tactics as ‘minority coalition mobilization’.

The ACF suggests that these actions may cause a change in the balance of power within a policy subsystem. Thus, despite that the ACF is explicitly dismissive of political power (Sabatier and Jenkins-Smith, 1993), it actually sees crisis-induced policy change as the result of altered power relationships within a policy subsystem (see John, 2003). On the definition of power, however, the ACF is less clear although it seems to couple it with coalition resources; if one minority coalition gains additional resources its chances to realize its core beliefs increase.

In addition to minority coalition mobilization, the ACF argues that policy oriented learning plays a key role in explaining policy change. The ACF identifies two explanations for policy change: policy-oriented learning and external shocks (Sabatier and Weible, 2005, p. 7). But these are not necessarily treated as alternative explanations; they oftentimes work in tandem.

Learning in the ACF is simply defined as altered policy core beliefs and this may either occur over time with the gradual accumulation of evidence or as the result of new information arising from an external shock (Sabatier and Jenkins-Smith, 1999, p. 122). Stated differently, if an influential coalition member or members revises core aspects of their belief system in the wake of an external shock it is likely to result in major policy change. Pushed to its extreme, this is a rather self-evident claim bordering on being tautological; it simply postulates that policies change because actors conclude that change supercedes the status quo. However, as indicated by research on cognitive and institutional barriers to learning the dynamics of crisis-induced learning is far from unproblematic (e.g. Breslauer and Tetlock, 1991; Enander and Johansson, 2000; Levy, 1994; Lindgren, 2003; Rose, 1993; Stern, 1997), and deserves therefore to be studied empirically. Furthermore, a distinctive focus on learning generates a point of comparison to evaluate the role of other motives guiding policy choice in the wake of crisis.

An alternative mechanism: political strategy

In the ACF, the ambition to advance policy beliefs rather than interests provides the primary motive for policy choice. The ACF thus rejects the idea that actors are driven primarily by simple goals of economic and/or political self-interest or that self-interested preferences are easy to ascertain. Actors' goals are rather viewed as normally complex and should be derived from empirical analysis. To paraphrase Sabatier and Jenkins-Smith (1993, p. 28):

“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 as causal relationships, and perceived parameter states constitutes a “belief system””.

To begin with, doubts can be raised about the argument that policy beliefs would be more verifiable than interests. From a methodological point of view, it is difficult to see why interests would be terribly different from beliefs when it comes to measurement. In practice, these are just different types of motivations guiding policy choice that can be estimated by the same analytical techniques (cf. George and Bennett, 2005). These criticisms aside, there are also theoretical objections against this argument.

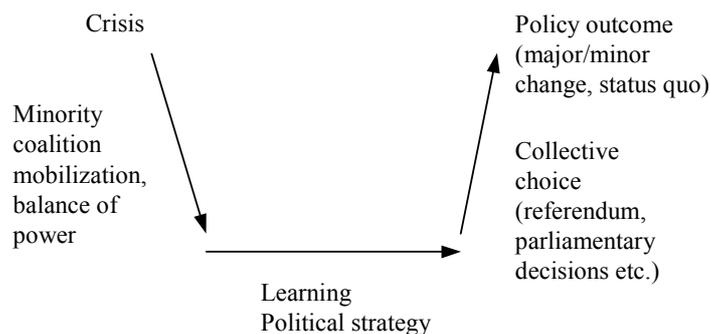
By placing so much emphasis on policy beliefs, Sabatier and his colleagues explicitly reject the widely accepted assumption in political science that considerations related to political power and interests can explain policy choice (Schlager, 1995; Hann, 1995). At closer inspection, the claim that interests are subordinated policy beliefs would appear inconsistent with the idea that the ACF would be particularly applicable to cases involving a high degree of

political conflict. Under conditions of intense political conflict one would expect that the stakes increase for various actors. In addition, this claim is directly at odds with the observation that many crises threaten the legitimacy and political survival of political elites. Facing such a threat, most political leaders can be expected to use any means necessary to clear themselves of the charge of accountability, to restore public confidence and, ultimately, to stay in power (Boin et al., 2005; Bovens, 1998; Brändström and Kuipers, 2003; Dekker and Hansén, 2004). Or, as Rosenthal and Kouzmin (1997, p. 287) put it, “[c]rises are political events par excellence. Not only are they “occasions for decisions,” but they are also occasions for a restructuring of power relations.” On this basis, in the wake of crisis incumbent coalition members may take strategic action to promote certain key interests, which are very different motivations compared to the type of normative policy beliefs promoted by the ACF. As a generic term that incorporates motives related to the maximization of political self-interests, this study uses the notion of ‘political strategy’.

A model of transformation chains

At this point, it is appropriate to sum up the previous discussion on ACF’s view of the causal process operating between a crisis event and subsequent policy decisions. To clarify the nature of this process, it is helpful to place these causal mechanisms within a simple theoretical model. Here, Coleman’s (1990) widely cited model of macro-micro-macro transformation chains as reproduced by Hedström and Swedberg (1998) might be useful.

Figure 1: A model of causal mechanisms



From the ACF, two causal mechanisms have been derived that may explain why a crisis results in policy change: *minority coalition mobilization* and *policy-oriented learning*. To this another mechanism has been added: *political strategy*. These mechanisms can now be combined into a hypothetical

and extremely simplified model of the process of post-crisis policymaking as displayed in Figure 1. Following a crisis event, minority coalitions can be expected to mobilize all available resources to advance their policy aims. They may attempt to attract new members, exploit new venues for influence, alter the public perception of various problems, or use some other resources or framing tactics to change the status quo. Hypothetically, these actions may tilt the balance of power within the policy subsystem in the favor of pro-change groups. In this model, altered power relationships, however, are assumed to be insufficient to bring about significant policy change.

Ultimately, the outcome depends on how the political elite (representatives of the dominant coalition and other influential actors) responds to the pressure caused by the crisis as such and by the actions taken by the minority coalitions. Political elites can be expected to act on the basis of revised policy core beliefs (learning), on a desire to protect or advance key interests (political strategy), or a combination of these two motives. In the final step, these actions are transformed by various institutions for collective choice (parliamentary decision, referendum etc.) into a decision establishing either policy stability or policy change.

Methods and data

Case selection and generalizability

Few observers would dispute that nuclear energy policy is one rather unusual case in the history of Swedish domestic politics. Internationally, Sweden is often cited as a prominent example of a 'corporatist' or 'consensual' political system (e.g. Lijphart, 1984; Lijphart and Crepaz, 1991) but to most onlookers the case of nuclear power does not fit in with this description. Quite on the contrary, argue Elder et al. (1988, p. 189), this case "proved too divisive for the established parties and for the usual concertative mechanisms to handle". This observation has implications for this study, particularly for the ability to draw general lessons from the findings.

In dry academic language, generalizability aims at the ability of a theory to describe and explain phenomena across different social or political entities. From this perspective, scholars have raised doubts as to whether the key assumptions of the ACF would hold when applied in political systems outside the United States (e.g. Carter, 2001; John, 1998). The essence of this critique is not entirely clear although the basic argument seems to be that struggles for influence between institutionally heterogeneous advocacy coalitions are of secondary importance in policymaking in corporatist systems. In such systems, policy formulation is better understood against the back-

drop of concertation between the 'state' and a few peak associations (cf. Parsons, 1995). In an attempt to come to terms with this criticism, Sabatier and Weible (2005) added the proviso to the ACF that subsystems and coalitions can be expected to be relatively small in corporatist systems due to different coalition opportunity structures.

It is clear that Sabatier and his collaborators set wide ambitions for the ACF, indicating that it is applicable to most policy domains and political systems. They add, however, that it is "particularly applicable" to cases involving substantial political conflict and high technological complexity and to OECD countries (Sabatier and Jenkins-Smith, 1999, p. 125; see also Sabatier, 1998). Swedish nuclear energy policy meets these criteria and would therefore qualify as a 'most-likely' case (see Eckstein, 1975). In other words, if the results would not fit with ACF's assumptions this would cast strong doubt on the framework. However, since it is generally extremely difficult to classify cases according to the most-least likely dichotomy, a less deterministic approach to theory development seems more tangible (cf. Hendrick and Nachmias, 1992, p. 312).¹¹

Considering that the ACF has been applied to a variety of policy issues in different political contexts, the present version is fairly well developed and hence, it invites to testing. The ultimate goal with this test is not, however, to explore whether there is reason to reject or retain the ACF decisively since it focuses specifically on the crisis-policy change linkage. Therefore, it is more rewarding to make an effort to specify the bounds of applicability. As mentioned above, the ACF is not a theory about crisis-induced policy change; rather it identifies causal mechanisms that may explain this relationship. In this respect, Swedish nuclear energy policy is a useful case because it entails two historical episodes of crisis policymaking. The objective, then, is to see if processes and outcomes in this case followed the predictions of the ACF. In return, this test is closely tied to the ambition to specify its bounds of applicability since the analysis seeks to identify the conditions under which these mechanisms become activated (George and Bennett, 2005, ch. 6).

In sum, nuclear energy policy should not be regarded as representative of Swedish policymaking more generally. Consequently, if strict epistemological assumptions about the role of crucial cases in theory development are applied, the ability to generalize the results of this analysis to other Swedish policy issues or to other corporatist or consensual political systems is limited. The point is, however, that case studies rarely set such a standard but

¹¹ The main problem with the most-least likely distinction, according to George and Bennett (2005, p. 122-123) is that cases in practice usually fall somewhere in-between these two extremes because a host of contextual factors must be taken into account to make the distinction. From this perspective, it can be argued that parts of this analysis in fact provide indicators of the level of corporatism in the nuclear energy policy domain. For instance, this study presents data on participation at the preparatory stage in Swedish nuclear energy policymaking (for a similar research methodology, see Hermansson et al., 1999, ch. 2).

neither do they recognize complete inability to generalize. Instead, in practice most case studies seek to strike the golden mean by contributing “to the cumulative refinement of contingent generalizations on the conditions under which particular causal paths occur” (George and Bennett, 2005, p. 112). As do the cases submitted to this dissertation.

A multi-method approach

To analyze ACF assumptions and causal mechanisms, this study employs a combination of different analytical methods. The literature identifies a number of ways by which extensive and intensive research may be combined (e.g. Bäck, 2004; Teorell, 2001). In this study the choice of analytical methods has been guided by what has been deemed appropriate given the research questions. Given ACF’s definition of a policy subsystem and the time frame selected for the longitudinal analysis, it was deemed appropriate to rely on extensive methods to explore ACF assumptions about the nature and development of the Swedish nuclear energy policy subsystem. Causal mechanisms are derived by reconstructing the process between ‘causes’ and ‘effects’ (George, 1979a; George and McKeown, 1985; George and Bennett, 2005). On this basis, intensive case study methods are used to analyze the causal impact of minority coalition mobilization, learning and political strategy. By combining these methods, some synergies have been obtained as well. First, the longitudinal study of the policy subsystem identified two relatively stable coalitions, which in turn guided data collection related to coalition behavior in the wake of the Chernobyl case. Second, the combination of different methods has the additional advantage of enabling retrospective validation of scale construction and coalition patterns by comparison between patterns identified using different data.

In the first essay, an analytical framework is developed to explore the nature of the Swedish nuclear energy policy subsystem and to analyze patterns of coalition stability over time. Virtually all previous ACF studies outside the United States (except for Kriesi and Jegen, 2001; Kübler, 2001; Larsen, Vrangbæk and Traulsen, 2006), have identified subsystem and coalition members by intensive case studies. This is problematic because it is generally difficult to assess the validity of the findings and also because it is difficult to compare the results with U.S. studies which more commonly rely upon systematic methods of data acquisition and analysis (see Sabatier and Jenkins-Smith, 1999, p. 128). Another problem stems from ACF’s view of participation. In the ACF, subsystem participants are actors who actively seek to influence public policy with some regularity. Hence, some kind of systematic measure is required to separate regular participants from ‘one-shot’ participants. To overcome these problems and to maximize comparability with previous systematic ACF studies, this analysis seeks to replicate the methods developed in previous systematic ACF studies (notably Zafonte and Sabat-

ier, 2004). It proceeds in four steps: identification of regular participants; coding of their belief systems; identification of coalitions by cluster analysis; and analysis of patterns of coalition stability. While Essay I presents the details of this approach, it is appropriate to turn to some of its potential drawbacks.

Exploring assumptions: From frequent participants to coalition stability

To identify regular participants, data has been derived from two ‘arenas’ in Swedish policymaking: circulation for comment (the so-called ‘remiss’-procedure) and parliamentary committee hearings. Adopting the standard used in previous systematic ACF studies, which have included actors participating for at least three occasions, this data resulted in a total of 116 organizations.¹² The major advantage of relying on these two arenas is that they represent different levels of inclusiveness (the ‘remiss’ is generally open to a wider circle of participants compared to the Riksdag committee), which makes the results less dependent upon norms of participation. But still, the results depend on the arenas selected and it is plausible that alternative arenas would have produced different results.¹³ It is important to note that these measures are not a valid indicator of how ‘active’ each organization has decided to be in this domain. This is due to the fact that according to the Swedish constitution, government agencies are required to respond to requests for statements of opinion while local authorities and interest organizations respond on a voluntary basis.

Turning to belief system coding, one is confronted with a host of methodological challenges. This analysis seeks to determine organizations’ positions in the nuclear power issue on the basis of a 48 item-coding scheme applied to three different types of documents.¹⁴ Given that beliefs are constructs which cannot be directly observed (Larson, 1988, p. 252), any discussion about whether these documents reflect the ‘real’ positions is ultimately fruitless “since the “real” policy position of a political actor is a fundamentally elusive, even metaphysical, notion” (Laver and Garry, 2000, p. 260). With this in mind, the main question here is if the coding scheme provides a reliable and valid measure. To deal with the reliability problem, an inter-

¹² Scott (1991, p. 54) recommends network boundaries be determined according to “a theoretically informed decision about what is *significant* in the situation under investigation” (emphasis in original). Following this general rule, this analysis relies upon the criteria identified by other ACF scholars.

¹³ In preparing this study, this procedure was applied to two other arenas: the media (by relying on the *Bibliotekstjänst* database) and the commission of inquiry (by relying on *Kommittéberättelsen*). While the media arena presented an overwhelmingly complex set of actors (of which a substantial share was unidentifiable), the commission of inquiry resulted in a set of actors quite similar to the circulation for comment.

¹⁴ The coding-scheme is presented in Appendix A in Essay I.

coder reliability test has been conducted providing at least one indicator of external reliability.¹⁵ To assess validity one may rely on context-specific inferences about the documents used and compare the results (coalition patterns) with the results reported in other studies. Although the results have not been compared systematically with other studies, the results overall seem to match findings reported elsewhere. These reassurances aside, one remaining problem is that the use of multi-item additive belief scales (due to missing data) generated clusters not exclusively based upon beliefs about the viability of nuclear power. Ultimately, this problem stems from the fact that the Swedish nuclear energy program has been debated in the context of other but related issues such as environmental policy and energy policy more broadly. This points to the difficulty of sharply delineating the boundaries of a policy subsystem, which appears to be a general problem for the ACF and a reflection of the fact that political problems are intrinsically nested in practice (Sabatier and Jenkins-Smith, 1999, p. 137; see also Smith, 1992; McCool, 1998).

Fuzzy cluster analysis has been employed to identify clusters (coalitions) of actors espousing similar beliefs. Fuzzy clustering is a common pattern recognition technique frequently applied in medicine and biology but rarely so in the social sciences. Research findings show that coalitions are not coherent entities with perfectly matched belief systems. Instead, they appear to be much more fluid where the same actors tend to be connected to different coalitions (Larsen, Vrangbæk and Traulsen, 2006; Munro, 1993). From this viewpoint, fuzzy clustering is appropriate because it is capable of estimating internal cohesiveness as well as the level of overlap between coalitions. Moreover, fuzzy clustering has several advantages compared to other clustering methods. It enables organizations to be classified as members of multiple clusters and does not require subjective visual examination of output or *a priori* specification of the number of clusters as is the case in other cluster analysis techniques. Furthermore, it generates membership scores indicating the degree of 'belongingness' for each organization to each cluster, which can be utilized to estimate coalition stability over time. One plausible disadvantage with this method is the situation when objects receive substantial memberships in all clusters. In this scenario, which was occasionally encountered in the present study, the relative difference or 'distance' between clusters can be unrealistically exaggerated. In return, each cluster center is influenced also by objects that essentially belong to other clusters (see Rousseeuw, 1995, p. 286).¹⁶

¹⁵ The results of this test are similar to reliability test results reported in other ACF studies (see Jenkins-Smith and St. Clair, 1993, p. 155; Sabatier and Brasher, 1993, p. 187).

¹⁶ For further discussion about the pros and cons of fuzzy clustering, see the symposium in *Technometrics*, 37 (3), 1995 (see also Kaufman and Rousseeuw, 2005, ch. 4; Boreiko, 2003).

On coalition stability it can be noted that despite the centrality of this topic within the framework, ACF scholars have not yet developed a general measure of stability. Hence, it has been difficult to assess the degree of coalition stability with any precision.¹⁷ In Essay I, different measures of stability are developed and the results are presented below. This analysis has two methodological implications. First, by ACF's explicit focus upon regular participants one takes the risk of underestimating organizations' mobility. Essay I analyzes stability patterns among organizations testifying repeatedly on policy core and secondary aspect items related to nuclear energy. In other words, this analysis excludes all organizations participating regularly that do not testify repeatedly on these items. Hence, if all regular *participants* are considered the coalitions are less stable. Second, it is clear from this analysis that different statistical measures may produce different results, which is a problem that is discussed in further length below.

Assessing causal mechanisms: Process-tracing

With respect to the study of causal mechanisms within the ACF, it should be noted that few previous ACF studies have analyzed policy processes from the perspective of the behavior of smaller decisionmaking units (individuals and small groups). This follows from its focus on subsystems and coalitions as the primary units of analysis and although these units are not treated as monoliths, internal coalition dynamics have as of yet attracted little analytical attention (Schlager, 1995). Stated differently, while the ACF does a reasonably good job in specifying causal mechanisms in theory few studies have yet analyzed these mechanisms against empirical evidence.

In this context, John (2003, p. 481) has called for studies that "identify more precisely the causal mechanisms driving policy change". The plea for a distinct focus on causal mechanisms ultimately derives from the methodological individualist axiom that human action comprises the elementary unit of social life. According to this view, understanding the action and interaction of individuals is required to explain social change (Elster, 1989, p. 13; see also Little, 1991). To some scholars, the study of public policy processes suffers from a general tendency to disregard the causal mechanisms that proceed policy change. In one vein, this criticism has explicitly aimed at the inability to specify mechanisms that link *ideas* to policymaking outcomes (Yee, 1996; Mintrom and Vergari, 1996). This criticism has been juxtaposed to the rational choice tenet of methodological individualism, which holds that individuals are utility maximizers acting on the basis of exogenously predetermined preferences. The argument seems to be that rational choice theorists are somehow better equipped than proponents of the ideational

¹⁷ The difficulty to assess coalition stability over time ultimately derives from the notion of 'relative stability', which forms the basis of Hypothesis 1.

approach to policymaking to identify and study causal mechanisms (cf. Campbell, 2002). However, as argued above, making a distinction between beliefs and interests on the basis of operationalizability is to make things more complicated than they need to be.

To assess the role of learning and political strategy in processes of post-crisis policymaking, this analysis employs the process-tracing procedure, which “attempts to identify the intervening causal process – the causal chain and causal mechanism – between an independent variable (or variables) and the outcome of the dependent variable” (George and Bennett, 2005, p. 206). In this study, process-tracing is used to test whether observed processes match those predicted by the ACF and to evaluate alternative causal paths (i.e. learning and political strategy). The objective has been to recreate the post-crisis decision process as experienced by the key players combined with an analysis of how external conditions affect their actions (see George and McKeown, 1985, p. 35). In the study of beliefs and learning process-tracing is commonplace but with respect to rational choice analysis, studies employing this method are not legion (cf. Levy, 1994; Gerber and Jackson, 1993).¹⁸ Studies of rational action commonly depart from the assumption that interests (or preferences) are exogenously determined. From an epistemological point of view this may be problematic because one may not be certain as to whether observed interests are ‘true’ interests. But there is another more important reason justifying why it is motivated to view interests as endogenous. By deriving motives from empirical analysis it is possible to assess the causal impact of phenomenologically different motivations by the same methodological standards. This also helps in analyzing how external conditions (events and institutions) shape the basic motives guiding policy choice (Wildavsky, 1987; McDermott, 2001).

Unveiling causal mechanisms by process-tracing is not unproblematic, however. To begin with, King, Keohane and Verba (1994, p. 86) warn that in the social sciences there will always be “an infinity of causal steps between any two links in the causal chain of mechanisms”. But according to Yee (1996, p. 84), infinite regress becomes a problem only if one seeks to explain all the relevant causal connections instead of accepting that partial explanations are a more realistic pathway to theory development (see also Parsons, 2000, p. 130). Process-tracing may also suffer from unspecified theories and variables, which in return give rise to validity concerns. Vague theories may, in combination with limited data, make it impossible to eliminate plausible alternative causal processes (George and Bennett, 2005, p. 223). Given a view of science as cumulative, this problem seems nearly unsolvable. It can be dealt with, however, by being explicit about the process of theory specification and data gathering (see King et al., 1994, ch 2). It

¹⁸ However, George and Bennett (2005, p. 208) indicate a growing interest for detailed historical case studies among proponents of the rational choice approach.

appears that these problems would apply to any analytical method and are not just confined to process-tracing. Nevertheless, these problems should be kept in mind when evaluating the findings reported here.

Data

The research questions posed in this study require different methods and hence different sources of data. Thus, the analysis combines official and internal government documents, interviews, memoirs and secondary sources. From the perspective of data availability, Swedish policymaking presents a favourable case because it is generally characterized by transparency. The principle of public access (*'offentlighetsprincipen'*) ensures unimpeded access to various government documents (see e.g. Ministry of Justice, 2000) and the political parties often allow for public access to internal documents. In aggregate, this transparency ensures a high level of tractability in the study of the policymaking process. Specifically, it allows for an analytical approach combining different levels of analysis (subsystem, coalition, and individual decisionmakers).

In preparing Essay I, an interview was conducted (in 2003) with former Secretary of the Parliamentary Standing Committee on Industry and Trade Lars Foyer primarily as a means of reviewing the legislative process related to Swedish nuclear energy policy. To analyze the nature of the Swedish nuclear energy subsystem and patterns of coalition stability, Essay I uses government bills (to determine the beliefs of the ruling party/parties), party motions (opposition parties), and comments (other official and private organizations). Since these are all public documents, they are considered to be reliable. It should be noted that Essay I has coded the comments (*'remiss'*) as they have been reproduced in government bills, which gives rise to several reliability problems.¹⁹ Above all, there is a risk for bias at the stage when the ministry responsible for the issue in question drafts the bill that will be submitted to Parliament. At this stage, ministry officials have influence over which referral bodies should be cited in the bill as well as how the views of these bodies are reproduced. Yet, with respect to the share of referral bodies quoted in the bills a spot test (of the 1986 energy policy bill) showed that most organizations (79 percent) were cited in some length.²⁰ Furthermore, examination of a sample of the original comments showed no obvious indi-

¹⁹ See Essay I for an overview of the 'remiss' procedure.

²⁰ This test was performed by the author. The test showed no indications of systematic discrimination of a particular group of organizations; among those excluded were public agencies (at the national and regional level), interest groups, and research institutes.

cations of reproduction bias in the 1986 bill.²¹ Although these observations only apply to a small sample, they provide one indicator of data reliability.

To analyze policymaking after TMI, Essay II relies primarily on internal government documents and the memoirs of some of the key actors engaged in the post-TMI decision process. Previous studies have found that internal Social Democratic party documents generally provide reliable sources of information (e.g. Svensson, 1994). In this analysis, it has been possible to compare the accounts presented in these documents with memoirs (see e.g. Carlsson, 1999; Peterson, 1999), which provides one additional reliability check of these documents. The analysis of Chernobyl in Essay III draws on the same type of sources in addition to one interview with former Minister of Energy Birgitta Dahl (2006), comments on government bills, protocols and other primary sources (meeting protocols and various types of written communication) from the Chernobyl crisis investigation. With respect to the internal party documents, the Social Democratic party has a 'moving wall' of twenty years. Thus, while these documents were readily available in preparing Essay II on TMI, the Chernobyl study draws on recently publicized documents.²²

Results

In this study, special attention is devoted to ACF's assumptions about the role of 'external perturbations' in processes of policy change. More specifically, the objective is to analyze the policymaking process between crisis and the policies that may come out as a result. It has been argued here that this analysis cannot be carried out with any success unless it pays careful attention to the basic characteristics of policymaking more generally. That is, to develop an account of crisis-induced policy change it is critical to weigh in the role of institutions, actor constellations, and patterns of interaction influencing the making of public policy. Birkland (1998, p. 54) is convincing when he argues that "it is important to test theories of the dynamics of post-event politics, both to explain the dynamics of focusing events and to narrow gaps in policy studies". Thus, while focusing explicitly on the crisis-policy change linkage, this study will also address the validity of some of the ACF's other basic assumptions about the policy process. With this in mind, the following sections report the main findings derived from the three essays.

²¹ This sample included original comments on the 1986 energy policy bill (Government Bill 1986/87:159, Swedish Parliament, 1987) retrieved from the Ministry of Environment and Energy (1987).

²² The author is thankful to the *Labour movement archives and library* for disclosing documents about the aftermath of Chernobyl prior to the official date of publication.

Subsystems and coalition stability

In the foregoing, it has been argued somewhat negligently that the ACF has been “applied in” various political systems and policy issue areas and also that this has been done with some success. A more precise description, perhaps, is that a fairly large number of empirical studies have explored or tested specific aspects, assumptions, and hypotheses presented by the ACF to explain policy developments in different countries and sectors. Not so unexpectedly, one assumption that has attracted much empirical attention is the basic premise that regular subsystem participants can be aggregated into a number of competing and stable advocacy coalitions. Utilizing different methods, previous studies have concluded that the concept of advocacy coalitions provides a useful guide to portray policymaking dynamics. Others, however, maintain that policy subsystems, advocacy coalitions, and highly conflictual patterns of interaction serve well to illustrate policymaking in pluralist systems while being of little use in explaining policymaking in traditionally corporatist or consensual regimes (John, 1998; Carter, 2001). In return, argues Parsons (1995, p. 200):

“we need to see a good deal more use of the framework outside America and with case studies from other polyarchies if we are to come to any conclusions as to its general applicability”.

Essay I, “Belief Coalition Formation and Stability in Swedish Nuclear Energy Policy, 1970-1991”, contributes to this discussion and it also lays the empirical foundation for analyzing the impact of coalition behavior on post-crisis policymaking. By adopting systematic methods of data acquisition and analysis, this essay documents regular participants within the Swedish nuclear energy policy subsystem. Next, it analyzes the long-term composition of a number of ‘belief coalitions’ identified by cluster analysis in order to explore the assumption that these remain stable over time.²³ The most recent modification of the ACF predicts that the nature of corporatist opportunity structures will create narrow subsystems and relatively small coalitions (Sabatier and Weible, 2005). By adopting the analytical methods developed by Zafonte and Sabatier (2004), the data presented here shows that a large number of private and official organizations participated repeatedly in this subsystem, which in return hosted a number of relatively large coalitions. While keeping in mind that the analytical methods employed to set the boundaries of policy subsystems have a direct impact on the results (Scott, 1991), these data also generated mixed results with respect to belief system stability.

²³ Essay I adopts the term “belief coalition” instead of “advocacy coalition” since it does not offer a systematic measure of coordination between actors espousing similar beliefs. This shortcoming is, however, at least partially amended by some qualitative evidence of coordinated behavior (cf. Zafonte and Sabatier, 2004; Weible and Sabatier, 2005; Weible, 2005; 2007).

As demonstrated in Essay I, this was overall a very dynamic policy subsystem with many organizations floating in and out over time. Only a proportion of the 116 regular participants appeared with any regularity in the coalitions. About one third had repeated membership in policy core clusters and one fourth appeared with some regularity in secondary aspect clusters. While these patterns indicate coalition instability, previous ACF studies have analyzed stability patterns among organizations with repeated membership in a *combination* of policy core and secondary aspect clusters (Zafonte and Sabatier, 2004, p. 97). Within this group of organizations (25 in total) there was a 68 percent overlap between memberships in extreme policy core and secondary aspect clusters, indicating fairly consistent testimonies over time.²⁴ This observation, in combination with the fact that very few organizations shifted from one extreme position at one level to another extreme position at the other level, indicates stability and support for Hypothesis 1.

Note, however, that this conclusion only applies to the sample of extreme cluster members. In other words, only a small proportion of all organizations in this subsystem were stable over time while the rest were either participating only sporadically or testifying inconsistently. A harsh interpretation of these results is that they disconfirm Hypothesis 1. However, this sample is the most relevant one following the basic assumptions of the ACF, which aims at regular participants sharing policy core beliefs and secondary aspects. With respect to this sample, the results confirm that the majority of the organizations testified consistently. Furthermore, it can be argued that the extreme clusters provide a ‘*thought test*’ since it can be expected that organizations with extreme beliefs would be less inclined to change views compared to organizations with more moderate beliefs. In summary, these data are consistent with the findings reported by Larsen, Vrangbæk and Traulsen (2006, p. 216) of coalitions with “*a solid cores with fuzzy edges*”. More specifically, the Swedish nuclear energy policy subsystem was composed of a set of organizations with firm positions on core values about the viability of nuclear power and a large share of more ‘*peripheral*’ actors with few, inconsistent, or moderate testimonies.

The data more clearly support Hypothesis 2, which predicts greater stability among policy core clusters compared to secondary aspect clusters. Yet, to start with, average membership scores did not indicate any major difference between these categories. With this measure, the difference was only negligible. This observation corroborates findings reported in other systematic ACF studies (Zafonte and Sabatier, 2004; Larsen, Vrangbæk and Traulsen, 2006; Sabatier and Brasher, 1993). However, the data shows that the differences were clearly more visible when alternative stability measures were

²⁴ The notion of ‘*extreme clusters*’ refers to clusters with very high or very low values on the nuclear power threat and viability scale. In other words, these clusters are composed of members that are clearly supportive or dismissive of nuclear power.

employed. While the number of coalition defectors remained the same for both categories, range and the difference between average membership scores in extreme clusters indicated greater stability among policy core clusters.

On the role of crisis events, the ACF postulates that crises can disrupt otherwise relatively stable subsystems. Disruption takes place when new actors enter policymaking or when actors change position from one coalition to another (Sabatier and Weible, 2007, p. 199). The data presented in Essay I enables a preliminary assessment of these dynamics. The aftermath of TMI witnessed a doubling of organizations appearing in Riksdag committee hearings and in the remiss-procedure. Likewise, TMI was followed by significant changes in the coalition membership structure and in the beliefs expressed by different organizations. However, since the course of energy policymaking was ultimately determined by the 1980 referendum these disruption patterns did not seem to have any substantial impact. In contrast, after Chernobyl the number of actors appearing within the subsystem decreased while the coalitions remained somewhat stable. At first glance, these observations would appear to support the idea that major policy change is more likely in open subsystems (see Howlett and Ramesh, 1998, p. 475). However, even if this case demonstrates correlation between subsystem openness and policy change it cast serious doubt over the nature of this relationship. It is simply unlikely that the number of subsystem actors was the key factor explaining policy change and stability in this case. (See below for a more detailed discussion on this issue.)

In conclusion, these data seem to confirm that ACF's hypotheses about belief system consistency hold when applied to this case. The data also corroborate findings reported in other European ACF studies including, for instance, Swedish forest policy (Elliot and Schlaepfer, 2001a; 2001b), Danish pharmacy policy (Larsen, Vrangbæk and Traulsen, 2006) and labor market policy (Compston and Madsen, 2001), Swiss energy policy (Kriesi and Jegen, 2001) and drug policy (Kübler, 2001), and British trunk roads policy (Dudley and Richardson, 1996). Together, these findings indicate broad support for these hypotheses even outside the United States. At the same time, this analysis has shown that the results are heavily dependent on methodological considerations where the relative stability is conditioned by a series of choices, from sample selection to stability measures employed. To deal with this problem in the future, one way forward might be to use simple standardized indicators such as correlation coefficients as in other related fields of research (see e.g. Putnam et al., 1979; Jenkins, 2000).

Beliefs and power

Another criticism against the ACF has been directed towards the assumption that the interests of policy elites are subordinated to policy oriented beliefs

as a guide to policy choice. As mentioned earlier, Sabatier and Jenkins-Smith integrate political interests as a special subcategory within the notion of belief systems but maintain that the ACF “does *not* assume that actors are driven primarily by simple goals of economical/political self interests” (Sabatier and Jenkins-Smith, 1999, p. 130-131, emphasis in original). This, to cite Schlager (1995), Hann (1995) and others, is a questionable assumption in the context of politics.

Essay II, “External Shocks and Policy Change: Three Mile Island and Swedish Nuclear Energy Policy”, takes stock of this assumption by comparing the relative role of policy-oriented (altered core beliefs) with an interest-based explanation for policy choice in the wake of crisis. Following the criticism against the public choice tradition that the notion of ‘self-interests’ is “too flexible to be a useful analytical tool” (Golembiewski, 1977, cited in Scaff and Ingram, 1987, p. 619), this essay adopts a fivefold treatment of interests with potential influence on policy decisions. This typology includes vote-maximization, office-seeking, policy-seeking, representation, and party cohesion. In the focus of this analysis is the decision by the Social Democrats to initiate a national referendum on nuclear power in the wake of the Three Mile Island (TMI) crisis in 1979. Since the Social Democrats had previously opposed a referendum to settle the nuclear power issue, this was defined as an instance of major policy change. Carried out in 1980, the referendum established that Swedish nuclear power should be phased out and the Riksdag eventually decided this should be done no later than 2010. In this essay, a secondary objective is to make a methodological contribution to the pool of existing ACF studies by presenting a process-tracing analysis of the internal decision process of the Social Democratic party leadership in the aftermath of TMI. Inspired by scholars making a strong case for the role of leadership in the process of policy change (e.g. Goldfinch and ‘tHart, 2003; ‘tHart and Gustavsson, 2002; Chabal, 2003; Hermann, 1990; Mintrom, 1997; Mintrom and Vergari, 1996; Schneider, Teske and Mintrom, 1995), Essay I shifts focus from coalitions as homogenous entities to political leaders. The objective is to enable a more detailed analysis of the political motives guiding policymakers in response to crisis events.

Documents from internal party meetings shows that Social Democratic core beliefs related to nuclear power played a minor role in explaining the referendum initiative, which was instead primarily the result of party-strategic considerations. At the time when the accident at TMI occurred, electoral support for the Social Democrats was waning while opposition against nuclear power was increasing within the party organization and among the general public. In addition, the forthcoming electoral campaign was likely to be dominated by the nuclear power issue, which was an undesirable scenario in the context of the Social Democratic electoral defeat in 1976. Despite the fact that the use of referendums generally conflicted with core Social Democratic beliefs and even though the party leadership antici-

pated that the outcome of the referendum would be unfavorable to their nuclear energy policy, the party leaders decided a referendum offered the only conceivable course of action. Thus, since leading Social Democrats did not revise their beliefs about nuclear power and about the referendum as a means to settle the controversy, learning provides an insufficient explanation in this case. Evidence shows that the Social Democratic party leadership was instead motivated by a combination of different strategic objectives. By taking the initiative for a referendum, the leaders hoped that the nuclear power issue would be de-politicized before the election campaign, which in turn would increase their chances of regaining power. They also hoped that a referendum would buy them time to heal the split within the party organization. Finally, the referendum was seen as an act of conscientiousness; it would be irresponsible towards the voters to run an election campaign with information lacking on one of the main issues.

On this basis, Essay II concludes that interests can be one important explanation for post-crisis policymaking and that sometimes policymakers may compromise policy core beliefs to protect short-term political interests. At the same time, the role of learning in explaining crisis-induced policy change is not entirely disqualified. According to the ACF, learning may refer to alterations in the basic *strategies* adopted by coalition actors. This appears to be an appropriate description of the course of events in this case where the TMI crisis revised the Social Democrats' ranking of alternative courses of action. In return, this observation turns the attention to the conditions that make policymakers prioritize strategic action to prevent the loss of political capital above the ambition to realize policy core beliefs.

Coalition mobilization and political leadership

With a distinct focus on political leadership and post-crisis decisionmaking, what is missing in Essay II – among other things – is a careful examination of coalition behavior in the aftermath of crisis. This is a major limitation since the ACF assumes that mobilization efforts by minority coalitions are a key mechanism explaining policy change in the aftermath of crisis. The framework postulates, as mentioned in the foregoing, that crisis-induced policy change is related to pro-change minority coalitions' ability to exploit the opportunity provided by an external event (Sabatier and Jenkins-Smith, 1999, p. 148). In return, even if Sabatier and Jenkins-Smith (1993, p. 45) are explicitly dismissive of “the raw exercise of power” the key role attached to the actions taken by minority coalitions in the quest for policy change postulates, ultimately, that the explanation lies in the (re)distribution of power within the policy subsystem (cf. John, 2003). Generally, this idea is commonplace in the literature dealing with the relationship between crisis and policy change (e.g. Kingdon, 1995; Birkland, 1998; Baumgartner and Jones, 1993; Pralle, 2006). However, with respect to the ACF, the role and influ-

ence of coalition behavior in post-crisis policymaking is one aspect that deserves further theoretical and empirical scrutiny (Schlager, 1995; Kübler, 2001).

In Essay III, “The Politics of Crisis Policymaking: Chernobyl and Swedish Nuclear Energy Policy”, an attempt is made to come to terms with this problem. This article analyzes the Swedish response to the 1986 Chernobyl crisis with special attention devoted to three mechanisms: minority coalition mobilization, learning and political strategy. What is particularly interesting about this case is that the Chernobyl crisis – despite its magnitude and impact on Sweden – was not followed by any major changes related to the Swedish nuclear power phaseout, which invites an analysis of policy continuity despite the occurrence of a major shock. Using the coalition patterns identified in Essay I, this analysis begins by addressing the problem of minority coalition mobilization. The point of departure is ACF’s assumption that minority coalition mobilization is an important precondition for major policy change in the wake of crisis.

Sabatier and Jenkins-Smith (1999, p. 122) embrace the idea recognized by sociologists, policy analysts, and political scientists that the definition or framing of events and problems is important to understand their effects on policy. From this perspective, the ACF shares the assumption of the framing literature that policy frames are resistant to change once established and that this is one important explanation for policy continuity (Peters et al., 2005). The ACF suggests that advocacy coalitions seek to alter public policies by changing the ‘image’ of the problem, that is, the way “policies are discussed in public and in the media” (Baumgartner and Jones, 1991, p. 1046; see also Sabatier and Jenkins-Smith, 1999, p. 142). Yet, by placing so much emphasis on advocacy coalitions’ belief systems, the ACF does not fully consider the ways by which coalitions interpret and portray external events as a means or strategy to altering the public image. A number of scholars have noted that the likelihood for policy change is closely related to the ways by which various stakeholders depict political events (e.g. Boin et al., 2005; de Vries, 2004; Goldfinch and ‘tHart, 2003; Kuipers, 2004; Noll, 2005; Rochefort and Cobb, 1994; Snow et al., 1986; Sylvan and Voss, 1998). In this vein, ‘tHart and Boin (2001, p. 40) have suggested that one way to come to terms with the dynamics of post-crisis policymaking “is to view the crisis-reform link as a political game between proponents of conservationist and reformist orientations”. In such interactions, parties of various positions try to fight down their opponents by various strategies of persuasion aiming at sustaining or dampening a crisis mood and by seeking to create or abort reform momentum. Against this background, the article also analyzes how nuclear power supporters and opponents portrayed the Chernobyl accident.

Evidence shows that with respect to organizational resources, both anti-nuclear and pro-nuclear organizations were relatively well prepared to mobilize campaigns in support for their respective views in the aftermath of

Chernobyl. In this respect, the post-Chernobyl debate followed a predictable pattern where representatives of the two major coalitions defined the causes and consequences of the accident along with their preexisting policy core beliefs. Most organizations testifying repeatedly against nuclear power claimed that the accident illustrated the risks of nuclear power in general. In the view of the People's Campaign Against Nuclear Power, the Environment Union, the Left party and other anti-nuclear power groups, Swedish government authorities exaggerated technological dissimilarities between Soviet and Swedish reactors. In their view, Chernobyl was a reminder that nuclear power was the cause of enormous problems that no technological safety system in the world could master, which in turn justified acceleration of the nuclear power phaseout process in Sweden. In sharp contrast to this view, organizations frequently espousing pro-nuclear views, among them a number of representatives for nuclear energy production companies, the Swedish industry, and the Conservative party, pointed to fundamental differences between Soviet and Swedish nuclear reactors and societal safety standards and resolutely rejected the observation that the accident would motivate any changes in Sweden's nuclear energy program. On the contrary, some organizations objected to a final date for the nuclear power phaseout and argued it would be more cost-effective to contribute to nuclear power safety development in Eastern Europe. Another framing tactic the nuclear power supporters resorted to was to define the nuclear power issue as part of the challenge of dealing with more severe environmental threats, primarily air pollution and global warming.

These observations provide evidence for coalition stability after Chernobyl. According to what is predicted by the ACF, the fact that the line-up of nuclear power supporters and opponents remained stable would have decreased the propensity for major policy change in Sweden's nuclear power program. Therefore, it is interesting to notice that in the aftermath of Chernobyl, the Social Democratic government was still prepared to revise its' position on the nuclear power phaseout if proven justified by additional expert analyses. From this follows that the dynamics of crisis framing *per se* can be insufficient to explain crisis-induced policy change since it merely defines the wider socio-political parameters of policymaking. Therefore, to understand more fully why the Social Democratic government eventually settled on a course of nuclear energy policy preservation, Essay III turns to an analysis of the role and motives of incumbent political leaders.

This article is based upon three interrelated observations that motivate a more distinct focus upon political leadership. First, any political system has its own intrinsic set of decision rules guiding policy choice. These rules specify which actor is entitled to participate in which decisions and what principles should guide conflict resolution (Scharpf, 1989). From this perspective, representatives of government have substantial – although not decisive – influence over the formulation of policy programmes and hereby ful-

fill the role of a veto-player whose agreement is required to instigate a change in policy (Tsebelis, 1995 see also Hay, 2002; Howlett and Ramesh, 2003; Pierre, 2006). Second, the ACF devotes relatively little attention to dominant coalition representatives controlling the executive branch of government (Sabatier and Jenkins-Smith, 1993, p. 22). One way to amend this shortcoming is to introduce a more distinctive focus on governmental policymakers. Third, seeking to grasp the full complexity of policymaking, analysts are in general sparsely interested in those points in time when policies are ultimately determined (Peters and Pierre, 2006). This is one inherent feature of the ACF, which assumes that a time perspective “of a decade or more” is required to explain policy change (Sabatier and Jenkins-Smith, 1999, p. 118). Essay III argues that the necessity to conceptualize policymaking in terms of short-term decision occasions does not conflict with the long-term nature of the policy process. On the contrary, focusing on fairly isolated decisions enable in-depth analysis of the motives and strategies of policy subsystem participants (Gustavsson, 1999). Such studies, in return, can supplement more ‘process-oriented’ studies of policymaking. Decision analysis, in other words, offers an alternative and pragmatic methodology to study the role and influence of the variables ACF assumes are important to explain policy change in the aftermath of crisis.

On this basis, Essay III proceeds with an analysis of the decision by the Social Democratic government not to accelerate the nuclear power phaseout time-line in the aftermath of Chernobyl. Continuing to explore the theoretical assumptions developed in Essay II, this analysis compares the role of altered Social Democratic core beliefs related to nuclear power (learning) with the role of strategic considerations (political strategy). The ACF assumes that learning is generally difficult since policy core beliefs are rigidly held; alternatives posing a challenge to those beliefs are generally screened out (Sabatier, 1987; 1998; see also Hansén, 2007). Contrary to this assumption, Social Democratic leaders appeared to be willing to reconsider their previous position to proceed with the phaseout incrementally and, if proven justified by the findings reported by the crisis investigators, also to alter the deadline for the nuclear power phaseout. Official government statements in the wake of Chernobyl retrieved, for instance, from parliamentary records support this conclusion. However, such data provides a rather unreliable reference to disclose the motives guiding political actors in the wake of crisis, not the least since de-politicization is one common objective in these situations (Parker and Dekker, forthcoming; Boin et al., 2005). To deal with this problem empirically, Essay III brings in other and more reliable sources including records from the internal meetings of the Social Democratic executive committee, the party board and from the crisis investigation. These documents suggest that the Social Democrats gave the investigators free reins to re-assess the risks associated with Swedish nuclear power and thoroughly study different phaseout alternatives.

The documents show that the Social Democratic leadership had strong party-tactical motives to organize an independent crisis investigation. Domestic and international political developments, in addition to Chernobyl, had created an atmosphere requiring firm political leadership vis-à-vis the public. From this point of view, appointing a crisis investigation was perceived as a way to bolster the popular image of the party. But the crisis investigation not only presented the government with an opportunity to strengthen public credibility in an unstable political environment; it was also perceived as a means to avoid renewed destabilization of the nuclear power issue by redefining the issue as part of a new environmental policy initiative. By analyzing public opinion trends related to nuclear power and party support and by anticipating the actions by the other national parties, Swedish industry, and anti-nuclear groups after Chernobyl, leading Social Democrats concluded that the time had come to take the initiative on a broad energy policy compromise framed in the context of a new environmental policy agenda. Essay III argues that this goal derived from a combination of vote-maximization, as manifested by the ambition to take environmental policy issues more seriously in the context of growing environmental concerns within the party organization and among the public and a Green party on the rise prior to the 1988 elections, and policy pursuit (policy seeking) as indicated by the intention to realize environmental policy goals.

Besides providing additional evidence questioning the ACF assumption that interests are subordinated policy core beliefs in policymaking, the findings reported in this study underlines the importance of studying policymaking through the prism of 'politics'. Most evidence suggest that the Social Democratic decision not to accelerate the nuclear power phaseout was the result of a rational-scientific examination of the risks with nuclear power and its strengths and weaknesses compared to alternative energy sources.²⁵ At the same time, as one additional indicator of the key role of strategic action, the government proposed it would initiate the phaseout a few years earlier than previously planned in order to resist the pressure.

Theoretical implications

One objective of this study has been to derive assumptions and hypotheses from the ACF to explain crisis-induced policy outcomes in Swedish nuclear energy policy. The three studies presented here point to a number of theoretical implications for the ACF. The sections below present and discuss the most important additions and areas that are in need of further specification.

²⁵ In theoretical terms, this can be classified as an instance of "rational learning" by which information searches demonstrate the superiority of existing policies over new alternative policy paths (see e.g. Weyland, 2005, p. 271).

For the sake of clarity, a visual presentation of the most recent ACF diagram has been added in Appendix A.

Internal and external system events

The ACF qualifies the role of external shocks or crises as an independent variable explaining policy change. Sabatier and Jenkins-Smith (1999, p. 120) have defined external shocks quite broadly as pertaining to major socio-economic changes, regime shifts, and policy spillover effects from other subsystems. This definition is too encompassing; these conditions are in constant flux and it is difficult to see which developments would be sufficient to explain major policy change. But this list is also unnecessarily restrictive since it excludes other types of ‘focusing events’ that have the potential to affect policy programs. In return, Sabatier and Weible (2007) added internal shocks (accidents and disasters) as an alternative path for major policy change. This conceptualization of internal shocks, however, tends to be static; it views policy implications of internal shocks as predestinated by postulating that the blame for a crisis will always fall on the dominant coalition. Yet, Sabatier and Weible (2005, p. 12) propose that internal shocks may indicate monumental failures of the policies pursued by dominant coalitions, which in turn can reaffirm the beliefs pursued by minority coalitions who therefore blame the internal shock on the dominant coalition. However, the nature and depth of the political aftermath of crises vary and the external-internal dichotomy is not always easily discernible. Most crises are rather “fuzzy and indeterminate” and whether or not they qualify as monumental failures raising the need for policy change depends on deliberate attempts by various stakeholders to influence public perceptions and emotions. In such “blame-games”, the responsibility for the occurrence and escalation of crisis events becomes the subject to intense debate (Boin et al., 2005, p. 82, 93; see also Bovens and ‘tHart, 1996; Kuipers, 2004).

This underlines the criticism submitted by Parsons (1995, p. 201) that external events are more accurately portrayed as cognitive constructions existing in the minds of subsystem participants, which in turn “point towards a much less well-defined boundary between the subsystem and its outside environment than is contained in the AC framework”. Although this point might be intuitively valid, the ACF still has much to offer in terms of the means and strategies available to organizations seeking to exploit external events in favor for their policy proposals. Nevertheless, as ACF authors have hinted (Sabatier and Weible, 2005, p. 11, note 4), the framework would definitely benefit from continuing to develop a typology of different shocks. But instead of resorting to the external-internal distinction it would be more useful to focus on different dynamics of crisis termination that takes into consideration various states of operational and political ‘closure’ (see Boin et al., 2005, p. 98). In return, this would help in specifying the conditions under

which minority groups mobilize in the quest for policy change and why such efforts carry success.

Dominant coalitions

Ultimately, the ACF seeks to explain policy change. In the ACF, ‘policy’ is conceptualized as the policy core attributes of government programs, which are thus controlled by a dominant governing coalition (i.e. the executive branch of government). But following the framework’s basic premise that a focus on specific governmental institutions is insufficient to understand policy change and its explicit concern for the policy subsystem as the primary unit of analysis, the role of the executive branch remains unclear. At present, the framework treats “decisions by governmental authorities” mainly as a target for minority coalition strategy aiming at policy change. In this respect, government representatives appear to respond somewhat passively to actions taken by minority coalitions and to changing power relationships within a subsystem. This view stands in sharp contrast to the observation that the number of relevant actors decreases with the progress of an issue to the stage of decisionmaking. Aside from all the rules circumscribing the degree of freedom enjoyed by the decisionmakers, they still retain significant latitude to adopt whatever policy they wish. Furthermore, following the fact that these individuals vary in terms of knowledge and backgrounds, one can expect some variability with respect to how they interpret problems and solutions (Howlett and Ramesh, 2003, p. 163-164).

From this perspective, ACF scholars would have to clarify the role of the executive branch of government in the process of policy change and how its behavior is linked to the policy subsystem and the coalitions therein. To be clear, this issue relates to fundamental questions about the policymaking process such as the relative influence of out-of-power groups and the level of government autonomy from these groups. When seeking to broaden the applicability of the ACF to corporatist systems, this issue is *the* most critical because it addresses the relative utility of ACF’s meso-level approach to policymaking dynamics in comparison with a more elite-centered perspective.

Subsystem configuration and crisis-induced policy change

The ACF postulates that “the most important effect of external shock is the redistribution of resources or opening or closing venues within a policy subsystem” (Sabatier and Weible, 2007, p. 199). Hereby, the ACF adheres to the seemingly widespread assumption in the public policy literature that the propensity for major policy change is related to the “disturbance” and relative openness of policy subsystems (see e.g. Baumgartner and Jones, 1993; Forester, 1984; Howlett and Ramesh, 1998; 2003; Smith, 1994). This as-

sumption is the foundation of the notion of skillful exploitation where the deliberate attempts of minority coalitions to exploit a crisis in their favor through recruitment of new members and/or exploitation of various policy-making venues might change the status quo (see above). Major changes in the basic structure of the policy subsystem are thus described as a prerequisite for major policy change. Data on the nature and long term development of the Swedish nuclear energy policy subsystem overall support this assumption but still cast strong doubts on its validity.

Essay I shows that over time, the openness of the Swedish nuclear energy policy subsystem and the coalition structure correlated with policy outcomes in this domain. Specifically, it demonstrates that the 1980 phaseout decision was preceded by a significant increase in the number of frequently participating organizations and a major transformation of the coalition structure. In contrast, the subsystem was substantially narrowed in the wake of Chernobyl, which resulted in minor adjustment of the nuclear power phaseout timeline. Thus, these observations provide tentative support for the hypothesis that the more open the policy subsystem, the greater the likelihood for major policy change (Howlett and Ramesh, 1998, p. 475).²⁶ However, it can still be questioned if subsystem openness had any direct causal impact on policy-making in this case.²⁷

It has been argued that in Swedish policymaking, the remiss-procedure provides an important venue for various groups to influence policymaking in the preparatory phase (e.g. Elvander, 1974). In effect, this well-established routine for policy management has generally ensured a relatively high degree of openness in the Swedish policymaking process.²⁸ However, it is less clear to what extent this procedure affects the *level of receptivity to new ideas* in any given policy sector. The design of this study does not allow for a detailed analysis of the relative weight of the remiss-procedure (or parliamentary hearings) in determining nuclear energy policy outcomes. Nevertheless, following the extremely politicized nature of this issue, it is unlikely that ideas expressed in these fora outweighed other political concerns as the primary explanation for policy choice. Hence, while these observations are insufficient to disconfirm the subsystem configuration hypothesis entirely, they cast strong doubts on its underlying assumptions.

²⁶ Note that this hypothesis is not made explicit in the ACF. Rather, it is stated implicitly through the assumption that the emergence of new subsystem members provides an important resource for some coalitions in the wake of crisis (Sabatier and Weible, 2007).

²⁷ See the section on Subsystems and coalition stability under Results.

²⁸ This observation contradicts Sabatier and Weible's (2007, p. 199-201) argument that traditionally corporatist systems are characterized by low degrees of openness. In return, it calls into question the utility of the notion of "coalition opportunity structure" as a means of ensuring a better fit of the ACF with corporatist systems.

Partisan cleavages

Despite the claim that the ACF is particularly useful in cases involving substantial political conflict, ACF authors have not yet presented a clear-cut explanation of how political (partisan) division affects policy choice and the likelihood for policy change. To begin with, it is important to realize that the degree of political conflict varies from one policy domain to another, which in turn creates differing conditions to carry out policy changes in the wake of crisis (Birkland, 1998, p. 73). On the basis of the findings reported in this study, it can be argued that when policy issues are subjected to a high degree of political conflict, confrontation and sharp disagreements *per se* become one important precondition affecting policymaking in that particular domain. That is, when societal cleavages issues become subject to large-scale conflict between (and within) political parties, ambitions to realize policy core beliefs are unlikely the primary motivation for policy choice. As an amendment to the ACF, it is therefore suggested that *partisan cleavages* deserve to be incorporated into the framework.²⁹ Tentatively, it seems appropriate to adopt Zuckerman's (1975, p. 234) conceptualization of political cleavage "as a type of political division based upon major social divisions".

From the mid-1970's, Swedish nuclear energy policy was subjected to deep partisan division cutting through the left-right spectrum (Lewin, 1988, p. 239). The political parties lined up along this dimension with the Social Democrats, the Conservatives, and the Liberals being supportive of nuclear power and the Left Party Communists and the Center Party placed in the anti-nuclear camp. Growing popular interest and strong opinions in the issue accompanied these developments. In return, nuclear power became one important electoral issue and contributed, for example, to the 1976 regime shift but also to the fall of the new Center Party coalition government in 1978. The political parties hereby realized a strong connection existed between positioning on nuclear power and electoral performance. Therefore, as shown, the Social Democrats in particular were concerned about how their nuclear energy policy initiatives would affect public opinion. Partisan cleavages are therefore an important background variable that delineates the range of policy alternatives available to political decisionmakers. Furthermore, deep partisan division helps in understanding why strategic considerations become a key motive in policymaking.

²⁹ In a recent version of the ACF, Sabatier and Weible (2005, p. 8-9) incorporate 'societal cleavages' as part of coalition opportunity structures. Societal cleavages, however, is merely described as an underlying variable explaining which policy style is adopted. For instance, Sabatier and Weible (p. 8) assume that overlapping societal cleavages "create a tremendous risk of major societal conflict and thus a strong incentive to adopt a corporatist policy style with strong norms of consensus, compromise and accommodation".

Learning, political strategy and policy choice

One recurrent criticism against the ACF is that it underestimates the role of interests and power in the policy process. By the studies presented here, it has been demonstrated empirically that interests and political power can be critical in explaining policy choice in the wake of crisis. These observations, however, do not justify a de-emphasis of ACF's ideational approach to policy analysis in favor for a pure rationalist approach to decisionmaking. Instead it would be more beneficial to incorporate suggestions on how to deal with the complementarity of beliefs and interests in explaining policy choice (Goldstein and Keohane, 1993, p. 4).

Given that one accepts the need for a more distinct focus on political leadership to increase the explanatory capability of the ACF, it is critical to uphold a conceptual distinction between beliefs and interests. As demonstrated by policymaking in the wake of both TMI and Chernobyl, interests ultimately related to vote-maximization were a key motive that helped explain policy choice related to Swedish nuclear energy. Phenomenologically, these motives are obviously fundamentally different from normative commitments related to the viability of nuclear power. One basic although useful amendment to the ACF would therefore be to incorporate *interests* as a separate category of motives guiding coalition behavior in addition to policy oriented beliefs. Besides, if beliefs and interests were held as inseparable it would be difficult to reject the null hypothesis that beliefs are not relevant to policy change (Hoberg, 1996, p. 143).

The literature offers an array of suggestions on the complementarity of ideas and interests but these suggestions are generally inadequately theorized (Blyth, 1997). One fairly clear suggestion is that once beliefs start to spread and become 'institutionalized', that is, get incorporated into the political debate and organizational design, they can affect the interests of subsystem participants (Goldstein and Keohane, 1993, p. 20). The history of Swedish nuclear energy policy offers several examples of this mechanism. Growing environmental concerns within the Social Democratic party and among the general public during the mid-1980's, for instance, put pressure on the party leadership to adopt a more radical environmental policy in order to avoid internal splits and to maximize the chances of winning the 1988 elections. Part of this policy was to intensify efforts to reduce energy consumption and to develop alternative energy sources to initiate the nuclear power phaseout. It seems counterproductive, however, to propose that 'institutionalization of beliefs' should be incorporated into the ACF as a means of managing the problematic relationship between beliefs and interests. This problem can only be dealt with empirically by treating interests as a separate category of motivations influencing policy choice.

Closely related to this is ACF's conception of learning, which following the focus on policy belief systems is concerned with revised understandings

of basic strategies for achieving core values. Following findings reported in Essay II, it would be rewarding to expand this notion to also incorporate revised preference orderings. According to this view, the policy outcome of a crisis can be mediated through shifting perceptions regarding political consequences of different decision alternatives (see Alink, Boin and 'tHart, 2001, p. 303). While in the end one might observe learning-effects relating to both beliefs and interests, this analysis demonstrates that learning about *politics* is important in understanding the policy outcomes of crises (see Bennett and Howlett, 1992; May, 1992). As demonstrated by the aftermath of Chernobyl, learning about political tactics and the conduct of policy knowledge generation can provide important clues to the explanation of how government officials handle pressing problems. In this case, the Social Democratic leadership leaned on previous experiences to anticipate the public reactions and to calculate the political risks. In return they arrived at the conclusion that the crisis inquiry presented the most appropriate political response to the Chernobyl crisis. Similarly, previous experience significantly influenced the organization of the inquiry as well as the overall ambition to work towards clear and time-bound policy goals. In conclusion, these observations suggest that the strategic component incorporated in ACF's notion of learning is too narrow. Learning in the ACF partly refers to strategies related to attainment or revision of belief systems. What this study suggests is that there is also an inherently political-tactical side to learning, which might also be important in explaining policy change. This political dimension recognizes learning about strategic action in pursuit of "what is possible, feasible, and indeed desirable" in politics (Hay and Wincott, 1998, p. 956).

Intra-coalition disequilibrium and the politics of policy formation

With a distinct focus on advocacy coalitions as a means of simplifying the analysis of the policy process, the 'politics' of policy formation is easily overlooked. As mentioned above, one major problem for the ACF is that it does not discern the most important actors within each coalition and assumes that relatively homogenous coalitions contribute to policy formation (Cairney, 1997, p. 888). Lately, ACF authors have tried to deal with this problem by viewing formal legal authority to make policy decisions as an important resource increasing the chance of coalition success. One thing still missing in this picture, though, is the role of informal power relations mediated through political and institutional traditions.

In Swedish politics, the relationship between the Social Democratic party and the labor movement has been particularly important in policymaking. In many areas, the mutual support and coordination between the Social Democrats and the unions, particularly the Trade Union Federation (LO), has pro-

vided the foundation for advances in policy (e.g. Heclø and Madsen, 1987, p. 319; Elvander, 1974, p. 35). With respect to nuclear energy, Sahr (1985, p. 39) notes that the labor movement constrained the policy options available to the Social Democrats partly by underlining the employment-economic growth emphasis and partly by the party's general appeal to workers for voting support. From this perspective, LO was in a favorable position to influence Sweden's nuclear energy policy (Jahn, 1993, p. 72). To the Social Democrats, the trade unions' concern over employment contributed to the sense of threat of the nuclear phase-out to the Swedish welfare and labor market model and in return, the Social Democrats sought to compromise between this position and the antinuclear views (see Vedung, 2001). This observation appears to confirm the conclusion reported by Larsen, Vrangbæk and Traulsen (2006, p. 223) in their study of Danish pharmacy policy "that political processes are not solely driven by all-out conflicts between clear and separate coalitions but is also influenced by norms of consensus".

Against this background, Smith (2000, p. 111) is correct when concluding that: "the ACF [...] can contribute fruitfully to explaining *elements* of policy change and stability" (emphasis in original). This case suggests that the notion of advocacy coalitions is particularly useful to discern actor constellations and policy positions at the pre-decision stage but that it is perhaps less important in understanding policy choice. Following the concern for policy subsystems, the ACF adopts a decentralized concept of governance emphasizing problem-solving structures rather than formal political authorities and their decisions (cf. Carlsson, 2000, p. 504; see also Sabatier and Jenkins-Smith, 1993, p. 17). In the ACF, the relationship between these two structures still remains fairly well hidden within the 'black box' of policymaking. However, following Wison (2000, p. 255), this problem is not solely confined to the ACF: "[t]he problem of the policy change literature is that different studies focus on different dimensions of the change process. They highlight one dimension but ignore others". Given these problems, one implication for the ACF is that while minor conceptual adjustments and additions may help in making a better fit with non-pluralist systems, its bounds of applicability will ultimately depend on its ability to account for fundamental power relationships within the state. If the ACF is to offer a general theory capable of explaining policy change, part of this task is to develop analytical tools that help in evaluating coalitions' influence on policy choice. Unless this dimension is substantially clarified, it will not be possible to argue convincingly that 'coalitions matter' in policymaking.

Crisis and political risk taking

ACF's model of the individual actor incorporates elements of prospect theory. In essence, prospect theory predicts that actors will accept risks to avoid losses but are reluctant to take risks to make comparable gains. While em-

pirical evidence appears to cast some doubt over this claim (e.g. Kowert and Hermann, 1997), it is incorporated as a basic assumption of the ACF (Sabatier and Jenkins-Smith, 1999, p. 131). Comparative evidence reported here generates mixed support for this prediction, which in turn has implications for the crisis-policy change relationship.

After TMI, the Social Democrats accepted the risk for a referendum outcome inconsistent with their energy policy beliefs in order to avoid potential loss in terms of further internal split of the party organization and possibly another electoral defeat. In contrast, in the wake of Chernobyl, the party leadership was clearly more risk averse; they explicitly preferred a vigilant crisis response in order to eliminate the risk of causing renewed politicization of the nuclear power issue. In terms of their political implications, TMI and Chernobyl were quite similar crisis occurrences. In dealing with these events, the Social Democratic leadership was facing similar political challenges. First, they were confronted with a combination of internal and external pressure for a revised nuclear energy policy and, second, they sensed the risk for another electoral defeat. Furthermore, both events gave rise to some uncertainty about the level of political threat and the long-term implications for the Swedish nuclear energy programme. What is interesting about these developments, then, is that the party leadership under seemingly similar contextual conditions arrived at different strategies to cope with the political risks. Consequently, in this case the prospect theory prediction meets mixed results. Explaining this variation in political risk taking behavior, it can be argued, adds to the overall understanding of crisis-induced policy outcomes.

One rather self-evident factor that helps explain these variations in this case is the power position of the Social Democrats. In 1979, the Social Democrats were in opposition and had therefore little to lose by changing position on the referendum issue. By contrast, in 1986, the Social Democrats were back in power and thus they feared another round of politicization of the nuclear power issue that could eventually contribute to another electoral defeat. Thus, in ACF terms, it can be hypothesized simply that minority coalition members are more inclined than dominant coalition members to take political risks in response to a crisis event. Another potentially important factor is the nature of crisis trajectories. In theoretical terms, TMI was a “frame-braking” event that overthrew the prevailing image of nuclear power as relatively safe (see also ‘tHart and Boin, 2001, p. 35; Baumgartner and Jones, 1991). In Sweden, TMI triggered a rapid process of de-institutionalization manifested by widespread questioning of nuclear power safety within the Social Democratic party organization and among the general public.³⁰ By contrast, even if the pressure for an immediate phaseout was overwhelming after Chernobyl, the Social Democratic leadership concluded at an early stage that the public’s support for the party and its nuclear energy

³⁰ See Essay II for data on public opinion developments.

policy remained. Hence, it can be postulated that the more imminent the threat to core interests in the wake of crisis, the greater the inclination to take political risks.

Researchers claim that there has been little progress in the prospect theory literature in developing criteria to assess the role of problem framing (Boettcher, 2004). Since the ACF explicitly builds its model of the individual on this theory, it is reasonable to criticize the ACF on the same grounds. With respect to the ACF, this issue ultimately links to the distinction between internal and external shocks. This case indicates that the propensity for political risk taking in the aftermath of crisis is related to the framing of political threats, which in turn is conditioned by the extent to which a crisis “de-institutionalizes” a policy sector. That is, the greater the extent to which various actors question existing policies, practices and institutions, the greater the propensity for political risk-taking (see Alink, Boin and ‘tHart, 2001, p. 303; Kuipers, 2004). Although this is a highly tentative proposition, it further underlines the limits of the internal-external crisis dichotomy employed by ACF scholars.

Path dependence

From the start, ACF scholars have made a strong case for studies of the policy process taking a time perspective of a decade or more. The underlying rationale has been the importance of the so-called “enlightenment function”, which holds that policy analysis gradually alters the belief systems of policymakers over time (Sabatier, 1991, p. 148). While this study has presented some evidence in support of this mechanism (for instance, the Social Democratic leadership gradually developed an understanding of the risks associated with nuclear power during the late 1970’s largely influenced by technological information and public opinion), it provides one additional rationale for long-term studies of policy change processes. Even if intensive studies of relatively short decisionmaking processes are able to identify causal factors explaining policy change, it is clear that historical events and decisions condition these factors. This observation, in return, underlines the importance of further integration of short-term and long-term ACF studies.

Stated in more conventional terms, this is to say that policymaking is path dependent (e.g. Thelen, 1999; Pierson, 2000). The basic logic of the path dependence argument emphasizes how effects of earlier decisions (“policy legacies”) constrain subsequent policy choices (Peters, Pierre, and King, 2005, p. 1287). Several observations reported in this study underline the utility of this logic. With respect to leadership, it has been demonstrated that past experiences were extremely important in accounting for policy choice in the wake of TMI and Chernobyl. The electoral defeat of 1976 played a key role in explaining subsequent actions in this domain. Haunted by this unprecedented political setback, Social Democratic party leaders sought to

avoid renewed destabilization of the nuclear power issue. This goal, in turn, appears to contribute to explaining why they generally preferred incremental change in nuclear energy policymaking. In addition, the path dependency logic has potential leverage in explaining minority coalition success. As Essay III concludes, it is plausible that the prospect for minority coalition influence is conditioned by ideological salience, a prehistory of deep socio-political contestation, and resembling past crisis experiences. In essence, these conditions increase the predictability of public crisis response patterns and hence the probability that policymaking will not deviate from the current course (see also Mahoney, 2000).

On the role path dependence in the policy process, the ACF primarily takes a policy evaluation perspective focusing on policy analysis feedback loops in the formulation, implementation, reformulation cycle (Sabatier and Jenkins-Smith, 1993, p. 19). These feedback loops, again, are unlikely to lead to non-incremental change; instead they tend to iterate existing policies and give rise to incremental adjustment by altering secondary aspects (see also Howlett and Ramesh, 2003, p. 217). Findings reported in this study underline the necessity to emphasize another path dependence logic. According to this logic, which is commonplace in historical institutionalism, past experiences have significant influence on policymaking by shaping the interests and strategies of political actors and thereby policy choice (e.g. Steinmo, Thelen and Longstreth 1992).

Propositions

To facilitate further specification of the ACF, this analysis of Swedish nuclear energy policy has identified a number of problems that need to be addressed more thoroughly. This effort has pointed to aspects of the framework that deserve further theoretical elaboration. In summary, the notion of external perturbations, the role of learning about politics, the role of the executive in (or perhaps *vis-à-vis*) the subsystem, and internal coalition power relationships are concepts that are in need of additional clarification. In the foregoing, some tentative suggestions have been discussed on how these areas might be clarified. While these areas might serve as a roadmap for supplementary theoretical work on the basic concepts and assumptions of the ACF, this analysis also points to a number of relatively clear-cut observations about causal relationships. To encourage further empirical analysis addressing the explanatory value of the ACF, these observations are preferably formulated into a number of testable propositions.

First, the evidence reported here stresses the role of interests in explaining policy choice. Given this insight, it might be rewarding to specify the contextual factors that help explain why such motivations come to serve as the guiding motivation in policymaking. Given the conflict-laden history of the nuclear power issue in Sweden, this case suggests that:

Proposition 1. The deeper the political cleavages on any given issue, the greater the probability that core interests of political elites will influence decisions about policy programmes in the wake of crisis.

Proposition 1 challenges the basic assumption of the ACF that policy core beliefs provide the primary motivation for policy choice. Furthermore, it recognizes that variability in fundamental characteristics of policy sectors (particularly the level of politicization) are important in understanding post-crisis policymaking (cf. Dekker and Hansén, 2004). Indirectly, Proposition 1 de-emphasizes the role of policy-oriented learning in accounting for crisis outcomes in policy sectors involving substantial political conflict. In these situations, learning is likely to be subordinated to the perceived necessity to protect vital organizational interests.³¹

Second, with respect to the propensity for political risk taking in the wake of crisis, this analysis has identified two potentially important factors:

Proposition 2a. In response to a crisis event minority coalition members are more inclined than dominant coalition members to take political risks.

Proposition 2b. The more imminent the threat to the core interests in the wake of crisis, the greater the inclination to take political risks.

These propositions address two basic conditions that might help in clarifying why actors take political risks in response to crises. While Proposition 2a is rather self-evident (minority coalition actors have less to lose), Proposition 2b emphasizes that political risk-taking is conditioned by situational constraints. It is an old thought in crisis management research that the subjective experience of threat provides an important clue to the understanding of how actors cope with crisis events (see e.g. Boin, et. al., 2005; Rosenthal, Charles and 'tHart, 1989; Stern, 2003). Arguably, the same is true for post-crisis policymaking: in order to understand the policy implications of crises, it is critical to understand how these events affect the beliefs and interests of political elites (e.g. Parsons, 1995). In return, Proposition 2b confirms the utility of a crisis definition that captures the political dimension of the crisis response process. What is most important given the findings reported here is the extent to which crises constrain the scope for political elites (dominant coalitions and other influential political actors) to defend their policy core beliefs and to preserve public credibility and support. The more limited this scope, the more likely that policy elites will resort to daring political maneuvers to contain pressing political situations.

³¹ This observation is in fact consistent with conditions conducive to policy-oriented learning outlined by the ACF. For instance, Jenkins-Smith and Sabatier (1993, p. 49) argue that learning is particularly difficult in situations where the stakes are high and core beliefs threatened. Given the findings reported in this study, the level of conflict deserves a more prominent role in ACF's explanation for policy change.

On the role of minority coalition mobilization in the wake of crisis, Essay III concludes by outlining five general propositions dealing with the conditions that might explain variability in coalition success. The point of departure for these propositions is the ACF assumption that crises will not lead to major policy change unless they are skillfully exploited by minority coalitions (Sabatier and Jenkins-Smith, 1999, p. 148).³² Yet, since the notion of skillful exploitation remains relatively vague, it is justified to seek to pinpoint the most important conditions facilitating mobilization success (in terms of policy impact).³³ Furthermore, this effort might help in advancing research on how different actors go about seizing the moment in a quest for policy change in the wake of crisis since this explanation is lacking in the literature (Goldfinch and ‘tHart, 2003, p. 237). On this basis, it can be hypothesized that:

Proposition 4. If a policy issue is ideologically salient to the ruling elite, minority coalition mobilization efforts in the wake of crisis are unlikely to be successful.

This proposition is consistent with the basic idea of the ACF that policy core beliefs are rigidly held. Once adopted these beliefs are not easily altered, not even when there is considerable societal and political pressure for change as was the case in Sweden after Chernobyl. On this basis, Proposition 4 postulates that the rigidity of political elites’ policy core beliefs and their receptivity and sensitivity to pro-change pressures are relative to ideological salience. The higher the issue salience (in terms of its perceived centrality to party ideology and to electoral performance) the greater the incentive for political elites to fight and resist demands for major policy change (see e.g. Harmel and Janda, 1994; Olsen and Peters, 1996).

Many crises are characterized by surprise as they occur suddenly and unexpectedly (Parker and Stern, 2002; 2005; ‘tHart and Boin, 2001). TMI and Chernobyl are examples of this type of crisis but at least in the Chernobyl case the immediate aftermath was relatively predictable. In this case, the Social Democratic government anticipated the public reactions and planned their political response accordingly. On this basis, it can be hypothesized that:

³² The underlying logic of this explanation is – following ACF’s assumption about the rigidity of policy core beliefs – that dominant coalition members favor the status quo.

³³ The notion of “success”, in this context, is problematic. Sociologists, for instance, emphasize the broad variety of goals and forums minority groups aim at in their attempts to achieve change. For instance, Giugni (1998, p. 385) observes that most work on social movement outcomes has looked at the impact of movement activity on government policy or legislation, thus treating political authorities and institutions as the primary target for these groups. At the same time, Giugni points out that movements might as well aim at the larger public (in efforts to change attitudes and opinions) in their attempts to provoke political change (see also Andrews and Edwards, 2004; Burstein, 1991).

Proposition 5. If the issue has a prehistory of deep socio-political contestation the ruling elite is likely to be able to anticipate the nature and intensity of post-crisis mobilization patterns, which in turn reduces the chances of minority coalitions to influence policymaking.

In ACF terms, Proposition 5 is consistent with the assumption that coalitions remain stable over time. It recognizes that conflict between stable coalitions increases the predictability of how different actors will respond to crisis events. Clearly defined coalition boundaries and a history of political confrontation thus increase the likelihood that dominant coalition members will be able to prepare to meet crisis-induced demands for policy change. In the opposite scenario where policy positions are much less discernible, public reactions to crisis events are presumably largely unpredictable, which makes the outcome of post-crisis policymaking less certain.

One specific feature characterizing the Swedish nuclear energy policy domain is that it has been exposed to two major crisis events within a relatively short period of time. This feature places nuclear energy policymaking in a subcategory of cases that tend to be more crisis-prone than others. It can be hypothesized that antecedent crisis management experiences affect the propensity for minority coalition influence on post-crisis policymaking:

Proposition 6. If an event resembles prior crisis experiences in the same domain, attempts by minority coalitions to achieve policy change are unlikely to be successful.

More generally, Proposition 4, 5 and 6 relate to the logic of path dependence where previous experiences of political conflict and crisis ordeals increase the probability that policymaking will not deviate substantially from the status quo. Crises are given a special role in the path dependence literature as one of the few forces capable of steering public policymaking into radically different paths. According to Kuipers (2004, p. 41), the explanation for the key role of crisis lies in the creation of ‘crisis narratives’, which are described as discursive constructions that “point at systemic flaws and combine reform proposals with existing demands among key constituencies”. These narratives are capable of defeating mechanisms for institutional reproduction that serve to maintain policy stability and of opening new venues to change oriented actors (see also Pralle, 2006).³⁴ Essay III shows that after Chernobyl members of the nuclear energy opposition coalition questioned the safety of Swedish nuclear power and the pressure for immediate shutdown of the nuclear reactor program was overwhelming. In response, the Social Democratic government called for some minor alterations of the phaseout timeline. Thus, in this case the creation of a crisis narrative seemed insufficient to pave the

³⁴ This argument is similar to the ACF assumption that crises may affect the distribution of subsystem resources and venue access.

way for a major policy reversal. Part of the explanation in this case seems to be that the government anticipated the public reactions, which enabled it to stay in control of the policymaking process by placing the crisis inquiry on the Energy Council and by inviting representatives for both minority coalitions to participate. This again underscores the utility of the political dimension of learning.³⁵

Nuclear energy policy is a special case also because of the dichotomous relationship between proponents and opponents of nuclear power technology. This conflict has been demonstrated empirically in this case where the majority of regular participants in this sector occupied extreme positions while only a limited number of organizations took more moderate views (see Essay I). From this perspective, it can be hypothesized that the nature of political conflict adds to the explanation of crisis-induced policy change:

Proposition 7. If confronted with contradictory or mutually exclusive demands for policy change in the wake of crisis, it would be less difficult for a ruling elite to opt for a middle-way solution, which increases the likelihood for policy programme continuity.

Generally, it is argued that technological complexity and the lack of sufficient information leads to incremental policy development (Lindblom, 1959). The case of Chernobyl and Swedish nuclear energy policy suggests that incrementalism might also be the result of policymakers trying to avoid escalating uncontrollable value conflicts (see Stewart, 2006; Hayes, 1987).

Finally, the Chernobyl case shows that it might be difficult for political actors to estimate the level of political threat emanating from a crisis and that this uncertainty in return affects policymaking. Thus, it can be hypothesized that:

Proposition 8. If the ruling elite is uncertain about the level of political risk emanating from a crisis, it is unlikely to give in to minority coalition demands for major policy change.

The basic logic of Proposition 8 fits nicely with the threat rigidity thesis introduced by Staw, Sandelands and Dutton (1981), which suggests that actors, when confronted with a threat to vital interests, will resort to a rigid response in an attempt to reduce the threat. In the Chernobyl case, this behavior is manifested by the decision to launch the crisis inquiry, which the Social Democratic leadership hoped would prevent escalation of the political conflict over nuclear power.

³⁵ See the section on Learning, political strategy and policy choice.

Fostering theoretical integration

The propositions introduced in this analysis suggest that useful insights about the crisis-policy change relationship can be gained at the nexus between ACF theory and crisis reform theory. In aggregate, this effort of cross-fertilization might help advance the understanding of the policy outcomes of crisis events. First, ACF theory can foster further development of crisis reform theory by offering a framework to analyze coalition behavior.³⁶ As previously mentioned, it is widely accepted that the activities of pro-change groups are one critical factor explaining policy change in the wake of crisis. According to this interpretation, out-of-power groups can be expected to use crisis events to advance their policy aims (e.g. Birkland, 1998). In this respect, the ACF can be helpful to identify these pro-change groups in a systematic manner and to locate major lines of conflict in any given issue.³⁷ Furthermore, the ACF provides analytical tools to advance our understanding of how these groups use various instruments (resources, venues, framing-tactics) in the wake of crisis and to assess which instruments may be effective. Thus, instead of speaking somewhat diffusely about ‘pressure for change’, the ACF offers a possibility to discern how this pressure is created through the deliberate actions of pro-change minority coalitions (see also Schlager, 1995, p. 265). Essay III on the Chernobyl crisis presented in this study might serve as an example.

Second, ACF theory can help in addressing the role of various motivations for policy choice. Even if crisis reform research has come quite far in showing how various situational and political factors relate to different crisis responses, “[l]ittle is known with regard to the motivations of policy-makers that lead to a *choice for a crisis management approach* – be it a conservative or reformist one” (Alink, Boin and ‘tHart, 2001, p. 303, emphasis in original; see also Noll, 2005; ‘tHart and Boin, 2001). In a strict sense, the ACF would not be particularly useful to explicate these motivations due to its inability to incorporate interests. Nevertheless, it offers a comprehensive framework of policy oriented learning, which, if slightly adjusted and tied in with a more balanced discussion of the role of interests (Schlager, 1995), might be used as a starting-point for in-depth case studies of the motivations explaining policy choice in the wake of crisis. The case study of the TMI crisis presented here might serve as an illustration.

Conversely, crisis reform theory can contribute to further development of the ACF. While the ACF accentuates the role of structural factors in explain-

³⁶ In addition, it may be noted that crisis researchers already adopt ACF’s taxonomy of different types of policy-oriented beliefs to document degrees of crisis-induced policy change (Boin, ‘tHart, and McConnell, forthcoming, p. 11).

³⁷ The term ‘systematic’ does not necessarily refer to studies drawing on extensive coding projects and statistical methods but to analyses utilizing belief system items to locate contending groups of actors either by intensive or extensive research methods.

ing policy choice (including constitutional structure and coalition opportunity structure) its assumptions about situational and political factors are still underdeveloped. For instance, ACF's conception of external shocks or perturbations is not specific enough. Having the ambition of developing a typology of different shocks (Sabatier and Weible, 2007, p. 210, note 6), it would be natural for ACF scholars to turn to crisis research for guidance. Compared to recent developments in crisis reform theory, the ACF is a relatively static theory giving limited space for contextual effects on policy outcomes (cf. Prysby and Books, 1987). The ACF predicts that coalitions will respond rationally to crisis events by maximizing resources to alter public policy. Hence, if a crisis is not followed by any major policy change, the ACF attributes the cause to insufficient minority coalition mobilization efforts. Yet, as shown in this analysis of the aftermath of Chernobyl, coalition behavior might have limited impact on policymaking even when resources are mobilized. In this particular case, pressure for change explained symbolic policy outcomes but did not generate any substantive policy changes. Hence, in this case, part of the explanation can be attributed to situational and political factors affecting the relative power and influence of coalitions in the policymaking process. With respect to the ability to take these factors into careful consideration, crisis reform theory is presently much better equipped compared to the ACF.

The prospects for generalizability and theory development

What are the prospects for further development of the ACF? Clearly, the focus of this study is too narrow to provide a basis for decisively rejecting or retaining the ACF as a theory of policy change. With the microscope zoomed in on the crisis-policy change relationship, the number of assumptions and hypotheses explored remains too limited to constitute a rigid 'test' of the framework as a whole. Furthermore, as discussed above, Swedish nuclear energy policy is a rather unusual case from which it may be risky to generalize. Nevertheless, despite these qualifications this study has identified both strengths and weaknesses in the ACF affecting the prospects for further theoretical development. Although specifically tailored to this case, these findings and implications might be useful to illustrate what is at stake when seeking to further expand the applicability of the ACF.

Laudan's (1977) standards for theory evaluation lend structure to this assessment. Following in the footsteps of Lakatos, Laudan (1977, p. 66) makes the point that theories should be assessed by estimating their "progressivity", that is their problem-solving effectiveness over time. From this perspective, progressive theories "maximize the scope of empirical problems, while at the

same time, minimizing the scope of unsolved anomalous or conceptual problems". Simply put, empirical problems are all phenomena in need of explanation and these count as 'solved' when observed results are a close approximation of the predicted result. Anomalous problems arise when observations are inconsistent with theoretical predictions. Conceptual problems include internal inconsistency and vague and unclear concepts (see e.g. Simowitz and Price, 1990). Thus, for a theory to be progressive it should have a record of significant correspondence between predicted and observed outcomes and exhibit specific and clear concepts. Conversely, a theory bears traits of degeneration if empirical observations are largely inconsistent with theoretical predictions and the concepts are vague.

When assessing the implications emerging from the case of Swedish nuclear energy policy by these standards, the ACF shows signs of both progression and degeneration. First, the ACF has a mixed postdictive record in this case. While the framework's hypotheses regarding long-term coalition stability seem to hold (given that ACF's methodological guidelines are applied), doubts have been raised concerning the role of learning and minority coalition mobilization in the wake of crisis. Second, some of ACF's key terms are relatively clearly defined. Above all, ACF's notion of belief systems offers a means to systematically identify (belief) coalitions and to determine precisely the degree of policy change. But while Sabatier (1999, p. 5; 2000, p. 137) embraces conceptual clarity as the fundamental precept of science, this study shows that the ACF is plagued by internal conceptual problems. Key ACF concepts related to the policy change process including external shocks, dominant coalitions, and skillful exploitation still remain under-specified and ambiguous. Following Laudan (1977, p. 49), it can be argued in ACF's defense that some ambiguity is necessary to extend theoretical concepts to their broadest applicable domain. However, given Sabatier's strong emphasis on falsifiability further specification of these terms is required. Arguably, this will be possible without reducing the framework's bounds of applicability.

In an attempt to deal with these degenerative problems, this study has identified a few amendments that would be required to make a better fit between the ACF and Swedish nuclear energy policymaking. Two important amendments include *interests* as a basic motivation for policy choice and *political cleavages* as a contextual precondition for public policymaking. In this analysis, these two factors have been treated as closely interwoven since deep partisan cleavages increase the stakes for political actors and hence the propensity that interests will guide policy choice. A key question for the judgment concerning the overall progression of the ACF is if these additions are consistent with the framework's core elements. Interests and partisan cleavages have been introduced to account for anomalous observations in this case. That is, these additions are critical to compensate for ACF's inability to explain variation in crisis-induced policy outcomes in the case of

Swedish nuclear energy policy. Partisan cleavages are clearly consistent with the core elements of the ACF, which is assumed to be particularly applicable to cases involving substantial political conflict. The major advantage of advancing partisan cleavages as a theoretically important variable within the ACF is that it is given a more prominent role in the explanation for policy change. By contrast, introducing interests as a motivation for policy choice would seem to be directly at odds with the core assumption of the ACF that individuals act primarily to realize their policy-oriented beliefs. At the same time, the place of interests within the ACF has been subject to long-standing debate and in return Sabatier and Weible (2007, p. 198) recently identified this issue as “one of the focuses of future research”. Thus, it seems that there is some prospect for a more balanced future discussion among ACF scholars about the role of different motivations and mechanisms in explaining policy change.

Meanwhile, the amendments introduced in this study serve as one indication of ACF’s bounds of applicability. The ACF predicts that policy-oriented learning and coalition mobilization explain major crisis-induced policy change but evidence reported here shows that these factors did not have any decisive influence on nuclear energy policymaking. One tentative explanation for this anomalous finding is the intensity and breadth of the political controversy characterizing Swedish nuclear energy policymaking. As the controversy deepened during the 1970’s the political parties realized a strong connection existed between nuclear energy policymaking and electoral performance. In return, vote-maximization emerged as an important motive for policy choice in this area. Although strictly limited to the Social Democratic party, this analysis of the aftermath of TMI and Chernobyl shows that the party leadership made careful evaluations of how different courses of action would affect the public’s image of the party and, ultimately, the prospects for electoral success.

Much of the debate about ACF’s generalizability to European political systems has revolved around the possibility of applying the basic assumptions to corporatist systems. In response, the ACF was recently widened with the notion of “coalition opportunity structure” as a means of increasing ACF’s compatibility with these systems by emphasizing variability in system openness and the degree of consensus needed for major policy change (Sabatier and Weible, 2007, p. 199-201). While this seems to be a valid modification (which, however, requires further empirical evaluation), this study suggests that the utility of the ACF also hinges on its ability to account for the (varying) significance of political parties in policymaking. From this perspective, it is equally motivated to ask how well the ACF works when applied in systems with different *political party structures*. This study has identified a few areas of clarification linked to this issue. For instance, it has called for a stronger emphasis on internal coalition power-relationships and dominant coalitions.

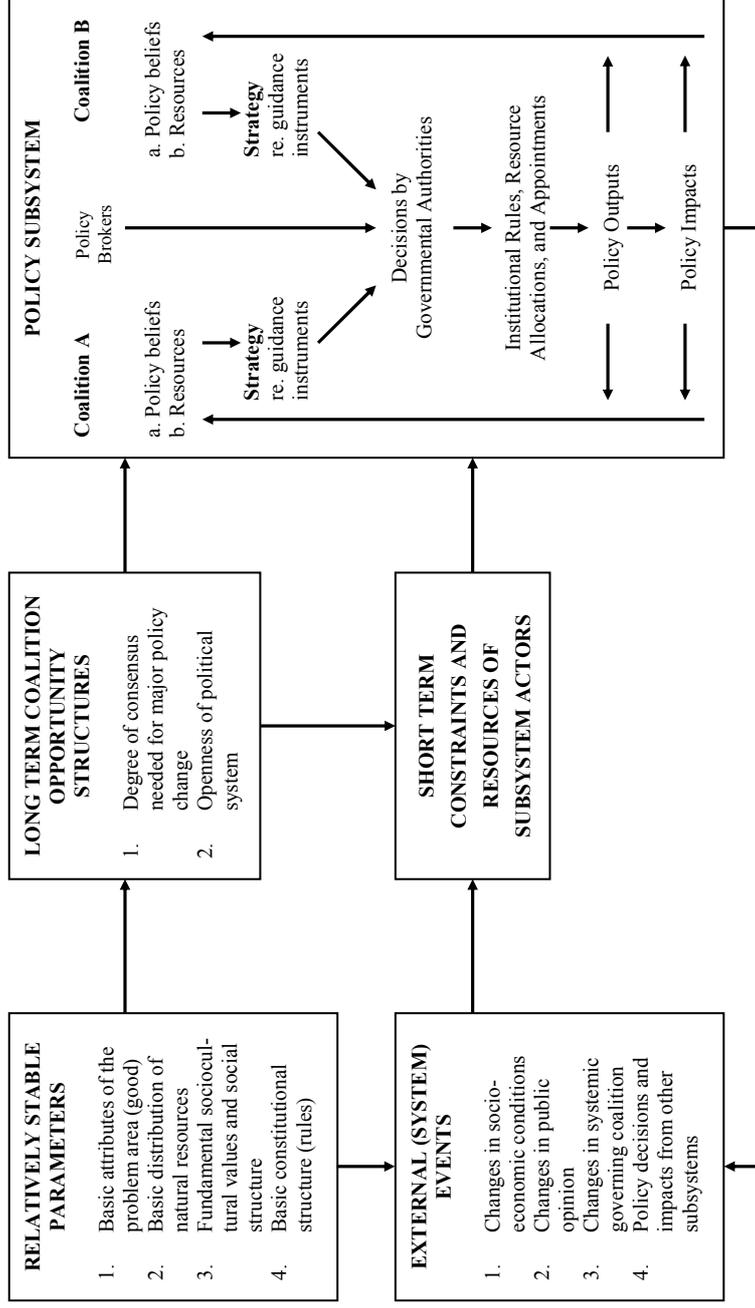
Towards the end, the validity of the ACF depends on its ability to demonstrate more clearly how the political party system is related to policy subsystems and advocacy coalitions. It seems reasonable to argue that in practice the basic features of the political party system (in terms of party strength, party discipline and policy distance) condition advocacy coalition formation. Thus, it should be recognized that the way the political party system is organized affects the emergence, nature, and influence of advocacy coalitions in policymaking (cf. Timmermans and Bleiklie, 1999). The need to address this relationship is particularly pressing in the context of highly politicized issues, such as nuclear energy policy. When dealing explicitly with politicized problems where political parties are obviously situated at the front line, ACF authors would need to provide a more straightforward argument defending the superiority of heterogeneous advocacy coalitions to political parties. From this viewpoint, a general recommendation to European ACF scholars is to take a step back and address the validity of ACF's basic assumptions about the policymaking process. Ultimately, it would be worthwhile to ask why and how advocacy coalitions – as relatively coherent political entities – matter in policymaking. Or, to put it in Lakatosian language, instead of continuing expanding ACF's protective belt it would be more useful to ask more straightforward questions relating directly to its inner core.

In conclusion, the theoretical implications generated from this study call for a widening of the ACF to expand its generalizability to this case. There is an obvious risk, however, that these amendments just add to the seemingly constant flow of new modifications of the framework and contribute to a gradual transformation of the ACF into a heuristic device (see John, 2003; Parsons, 1995; Zahariadis, 1998). This tendency would clearly deviate from the original submission of the ACF as a testable model. In this respect, the ACF emerged from an attempt to strike a balance between simplification and recognition of the complexity of public policymaking (see Sabatier, 1999). Originally, it sought to offer an alternative to the traditional focus of political science on single institutions or single levels of government in understanding policy change (e.g. Sabatier and Jenkins-Smith, 1993, p. 212). The point here, though, is that the problem of where to draw the line for additional amendments is overshadowed by the far more fundamental problem relating to the generalizability of ACF's core assumptions to different political systems and situations. On the basis of the findings reported here, this should be a greater concern for Sabatier and his co-authors than the issue of as to whether the ACF qualifies as a heuristic device or a falsifiable theory.

At the same time, Dryzek (1986, p. 316) emphasizes that the ability of a theory to adapt to the shifting nature of empirical problems should also be part of a judgment of its progression. From this viewpoint, it should be recognized that the questions posed by the ACF are in fact part of the much bigger puzzle of how to grasp the changing nature of the state-society rela-

tionship. On the development of Swedish policymaking, for instance, it has been noted that the state has become less coherent. Sectoral interests have advanced within the administrative state, which is developing into an ideological battleground. In the meantime, the role of the political parties as the primary producers of policy-oriented ideology is being challenged (Lindvall and Rothstein, 2006, p. 61). What these trends indicate, among other things, is that the nature of the policymaking process remains an open empirical question. Future studies will reveal if the ACF can offer a useful theoretical map to navigate in the shifting political landscape in Sweden and abroad.

Appendix A. Diagram of the Advocacy Coalition Framework



Source: Sabatier and Weible (2007, p. 202).

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