Medical Marijuana Policies: Finding a framework for analysis

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Over half of states in the U.S. have some type of medical marijuana legislation—23 have comprehensive programs, and 11 have limited access policies. These state policies range broadly in their scope, function, implementation, and enforcement. As more states move towards cannabis policies, it is essential to understand *why* these policies are developed, *how* they are developed, *what* the expected outcomes are, and what measures could be used to identify outcomes. The first step in this process is to either identify or develop a framework for medical cannabis policy analysis.

- Is there an existing, validated framework that can be used to evaluate these policies?
- If there is not a single framework that captures the necessary components, how should an appropriate framework be developed?
- What are the components of existing frameworks that would be appropriate to the evaluation of medical cannabis policies?

Toward a Theory of Collaborative Policy Networks: Identifying Structural Tendencies

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Support for the "democratization of the policy sciences" has led to the development of a number of frameworks and theories to enhance the normative, multidisciplinary approach to policy analysis. However, this approach has been challenged for failing to produce the objective empirical and normative standards implied by its scientific aspirations. One consideration that has been advanced under a variety of rubrics is "participatory policy analysis." This is a methodological proposal that expands the range of actors/stakeholders involved in the making and execution of public policy in a discursive or deliberative mode. While much of the research on policy networks is focused on the management and coordination of such networks (i.e., collaborative management), there is little attention on analysis of networks as a participatory policy analytical approach. We propose a theory of "collaborative policy networks" that examines not only the stakeholder composition of a group or the partnerships between any two stakeholders but also the way these stakeholders are embedded in various degrees of institutionalized structure and the discursive tendencies of exchange among them that leads to policy initiative, implementation, evaluation, and possibly termination. Collaborative policy networks are characterized by discursive properties, specifically reciprocity, representation, equality, participatory decision making, and collaborative leadership. We suggest that the results of such research can identify structural signatures of collaborative policy networks that serve as "stamps" of the common nature of such networks that, if fostered, can inform and improve the attempt of networks of partners to achieve policy goals.

Introduction

Support for the "democratization of the policy sciences" has led to the development of a number of frameworks and theories to enhance the normative, multidisciplinary approach to policy analysis (Dryzek, 1990; Fischer & Forester, 1993; deLeon, 1992, 1997). However, this approach has been challenged for failing to produce the objective empirical and normative standards implied by its scientific aspirations (deLeon & Vogenbeck, 2006). One consideration that has been advanced under a variety of rubrics is "participatory policy analysis" (deLeon, 1990). This is a methodological proposal that expands the range of actors/stakeholders involved in the making and execution of public policy in a discursive or deliberative mode. Succinctly, it requires the inclusion of a greater representation of those who effect,

and are affected by, a given policy or, on a more concrete basis, program. The actual mechanism is through an extended series of public discourse with proscribed rules of evidence and argumentation (deLeon, 1992). In this type of networked policy arena, policymaking occurs in an environment in which the stated problems are characterized as "wicked," organizational boundaries are fluid, participation often includes a diverse set of stakeholders, and *ad hoc* structures often emerge (Hajer & Wagenaar, 2003; Innes & Booher, 2003).

Social or policy networks are often cited as the formative structure to achieve a democratic policy science through the emergence of *collaborative policy networks*. We increasingly see interorganizational networks forming to solve major contemporary social and environmental problems facing the public (Brown, 1980; Cooperider & Pasmore, 1991; Gray, 1989; Mandell, 2001; O'Leary, Gerard, & Bingham, 2006; Westley & Vredenburg, 1997). In fact, some argue that certain issues "must be addressed or resolved cooperatively . . . no single organization can act with assurance of predictable outcomes" (Westley & Vredenburg, p. 381). The shift from independent bureaucratic agencies responding individually to public policy needs to the collective action of multiple agencies working together to solve complex public problems draws attention to the need for theory to explain the emergence and evolution of such networks so that they may be modeled as examples for a variety of policy issues.

While much of the research on policy networks is focused on the management and coordination of such networks (i.e., collaborative management) (Agranoff, 2003; McGuire, 2006; O'Leary et al., 2006; O'Toole & Meier, 2001), there is little attention on analysis of networks as a participatory policy analytical approach. We propose a theory of "collaborative policy networks" that examines not only the stakeholder composition of a group or the partnerships between any two stakeholders but also the way these stakeholders are embedded in various degrees of institutionalized structure and the discursive tendencies of exchange among them that leads to policy initiative, implementation, evaluation, and possibly termination (deLeon, 1999). Collaborative policy networks are characterized by discursive properties, specifically reciprocity, representation, equality, participatory decision making, and collaborative leadership. Policy created and implemented within networks of involved stakeholders is found to have better buy-in and community support (Prell, 2003). Further, exchange among members of a policy network may lend themselves to exchange in other policy domains, thereby leveraging social capital developed in one policy domain as a means to improve the benefits of initiating policy networks in other domains.

In this essay, we propose an analytical framework for a theory of "collaborative policy networks" as a mechanism of rigorous empirical analysis. We suggest that the results of such research can identify structural signatures (Monge & Contractor, 2003) of collaborative policy networks that serve as "stamps" of the common nature of such networks that, if fostered, can inform and improve the attempt of networks of partners to achieve policy goals. By structural signatures, we mean the *tendency* for patterns to occur within specific types of networks (Monge & Contractor).

The primary research questions we explore are:

1. Which network properties can be identified within collaborative policy networks?

2. Which of these properties have a high probability of occurring within collaborative policy networks?

3. Can these properties be modeled to inform other types of collaborative policy networks?

This theoretical discussion explores how these emergent networks are formed and sustained, with the expectation that the communication patterns within such networks will be evidence of a more participatory/discursive democracy. We propose a set of hypotheses that can be empirically applied to identify the significant structural signatures of such networks in order to inform the emergence and evolution of collaborative policy networks of a variety of types.

Policy Networks

Although there has been a significant amount of research on policy networks (Hajer & Wagenaar, 2003; Rhodes, 1990), these have been largely focused on the normative characteristics of individuals and their aggregated effect. These analyses, *if* studied at the "whole network" level, are often examined for their descriptive characteristics like key players and levels of cohesion in terms of trust and influence (Provan, 1995). Less research has looked at the structural signatures of exchange among members of policy networks. There are no findings to date to explain the probability of certain network tendencies that may occur in a collaborative policy network. The policy sciences community has yet to embrace a theoretical explanation to explain the emergence and evolution of policy networks by identifying discursive network tendencies that can be generalized to policy networks of various natures. As the scale and scope of policy issues become more global and complex (for example, risk of pandemic influenza, natural disasters, terrorist attacks, and global warming), it is evident that traditional quantitative models of policy development, implementation, and analysis will not alone suffice to effectively explain how to improve and promote democratic problem solving (Dryzek, 1996). The proposed approach seeks to classify the ways in which collaborative policy networks are formed (e.g., spontaneously, through consensus building, legislative fiat, etc.), the structural signatures of these networks (reciprocity, equality, representation, etc.), and the ways that these origins and tendencies can shape the development of the network across time and apply to various types of policy networks.

This article provides two outcomes that lay the foundation for future empirical studies on collaborative policy networks:

1. A review of the theoretical background that has led the call for more rigorous empirical work on collaborative policy networks.

2. A set of testable hypotheses to guide future empirical work.

Review of the Theoretical Background

To examine the participatory policy nature of networks and to understand the dynamics of network ties embedded within horizontally linked members, we briefly review the literature on network theory, social capital, and policy sciences. Networks may be understood as the "structural" elements of collaborative policy networks, documenting such components as reciprocity, equality, and representation, to name a few. Discursive democracy is often operationalized as a form of social capital, defined structurally as "the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu, 1997, p. 46) and is referred to here as "bridging social capital." To Stone (2001, p. 6), conceptualizing "social relations as networks enable us to identify the structure of social relations (for example, whether people know one another and what the nature of their relationship is) as well as their content (e.g., flows of goods and services between people, as well as norms governing such exchanges)." A focus on network characteristics allows us to take advantage of the explanatory force behind the "bonding, bridging, and linking" typology of social capital and its link to an increase in overall discursive democracy through policy networks.

To Hanf and Scharpf (1978, p. 12), the policy network approach is a tool to evaluate the "large number of public and private actors from different levels and functional areas of government and society." Most forms of policy analysis have tended to focus on the hierarchical process that characterizes the process. The network approach looks at the policy process in terms of the horizontal relationships that define the development of public policies (see Hajer & Wagenaar, 2003). Bensen (1982, p. 148) defines policy networks as "cluster[s] or complexes of organizations connected to each other by resource dependencies and distinguished from other clusters or complexes by breaks in the structure of resource dependencies." Heclo (1978, p. 284) famously noted that ". . . it is through networks of people who regard each other as knowledgeable, or at least needing to be answered, that public policy issues tend to be refined, evidence debated, and alternative options worked out—though rarely in any controlled, well-organized way." These horizontal relationships can include individuals, organizations, lobbyists, legislators, or whoever plays a role in policy development.

The driving assumption of this approach is that "deliberation among stakeholders is considered essential for participatory policy analysis, representing a democratic process for clarifying the particular as well as the collective goals and values as well as the potential impacts of alternative policies" (Pelletier, Kraak, McCullum, Uusitalo, & Rich, 1999, p. 103) However, Habermas noted "the success of deliberative politics depends not on a collectively acting citizenry but on the institutionalization of the corresponding procedures and conditions of communication, as well as on the interplay of institutionalized deliberative processes with informally developed public opinions" (Habermas, 1984, p. 298). Democracy in this manner requires a diverse set of participants,

whose opinions are voiced, considered, and argued, all set within an institution-alized structure (deLeon, 1997). As a result, "a coherent, defensible, and democratic policy science is indeed conceivable, but only to the extent it proceeds hand in hand with communicative rationality and discursive democracy" (Dryzek, 1990, p. 19).

While the benefits of networks are evident, we cannot assume that collaborative policy networks do not have pitfalls that would make them an inappropriate struc-ture for policy development and implementation. The blending of multisectoral interests has the classic elements of public–private partnerships and the potential for failure when the mixing of values, norms, power, trust, and experience might clash and produce undesirable conflict and tension. Indeed, collaborative policy networks do not result unequivocally in better policy outcomes, particularly when one takes into account the difficulties in motivating and sustaining collaboration over time and measuring its outcomes. Collaborative policy networks may in fact hinder effective-ness, because as social exchanges become less rewarding or important to members of a network, checks on accountability and reliability are likely to decrease (Monge & Contractor, 2003). Additionally, although collaborative policy networks purport to flatten the power structure, Krackhardt (1994) points out that the "Iron Law of Oligarchy" (which relates the tendency for groups to organize under the direction of few leaders) applies even within a networked structure. The threat of over-embeddedness (when a network member has so many linkages to other actors that have difficulties operating independently) and the "Law of N-Squared" (as network ties increase in number, they run the risk of overwhelming the ability of its members to actively participate in the network) are also potential drawbacks for collaborative management designs (Krackhardt).

However, the value of networks in a limited pool of resources has been increasingly recognized in public policy literature (Olsen, 1971). Historically, the public choice model of human interaction provided the theoretical basis for the use of common pool resources (CPRs), which include natural- and human-constructed resources in which exclusion of beneficiaries through physical and institutional means, is especially costly (difficulty of exclusion) and exploitation by one user reduces resource availability for others (subtractability) (Ostrom, 1999). Elinor Ostrom found that when people work collectively, they can effectively manage resources well (Ostrom & Ostrom, 1977). Her empirical research illustrates how communication between players increases cooperation, leading to higher instances of self-governance and cooperation (Ostrom; Ostrom & Walker, 2002). CPR demonstrates that users who depend on a resource for their livelihood and who have some autonomy to make their own rules are more likely to perceive benefits from restrictions; but without a sense of how their use will affect others within their community, the expectation of benefits is reduced. Users are also interested in the sustainability of the resource so the expected joint benefits will seem to outweigh current costs. In every situation and over time, individual benefits must be viewed as less valuable than the benefits to the com-munity of users; collective-choice rules establish and operate the governance process.

Network Analysis as a Participatory Policy Analysis Approach

The adoption of alternative methods for policy analysis in the latter part of the twentieth century has contributed to the legitimatization and knowledge contributions of the policy sciences. One such notable alternative approach is network analysis, or social network analysis (SNA). Many of the discussed approaches to policy analysis are "characterized by political and administrative jurisdictions that are poorly suited for solving many emerging problems" (Schneider, Scholz, Lubell, Mindruta, & Edwardsen, 2003, p. 143). To understand the relevant stakeholders in the policy arena, the most important issues and manners in which these variables are interrelated represented intractable problems using the traditional approaches to policy analysis. Schneider et al. (2003) and Toonen (1998) recognized that the shift from traditional large-scale government organizations to new regional governmental institutions and nonprofit agencies creates the need to evaluate public policy in terms of influence of the network in which it is based (Hajer & Wagenaar, 2003).

The structure of the network is the central focus of the proposed approach. To visualize the horizontal connections within a social structure allows one to see the strength of relationships, the availability of resources, the possibility of political influences, and access to otherwise hard-to-reach populations. Schneider et al. (2003, pp. 143–44) note that network-based structures are characterized by "high levels of interdependence involving multiple organizations, where formal lines of authority are blurred and where diverse policy actors are knitted together to focus on common problems." The network approach has helped to address the problem of attempting to understand what might otherwise seem to be fragmented networks, can lead to the development of common perspectives on policy issues and norms of cooperation and trust (Lin, 2001), and corresponds neatly with the prevalent theme of democratic governance (Hajer & Wagenaar, 2003). According to Schneider et al. (p. 143), "the resulting formal and informal interactions have the potential to increase policy effectiveness at less cost than authority-based structural changes arrived at through formal reorganization."

A network approach to policy analysis has been developed in a variety of ways (Carlsson, 2000; Heclo, 1978; Hjern & Hull, 1998). For example, in his evaluation of subgovernments, Rhodes (1990, p. 297) defines them as "small groups of political actors, both governmental and non-governmental that specialize in specific issue areas." He takes a network approach to understanding how these subgovernments, each focused around policy issues, create successful public policy development. Policy networks have the ability to increase the likelihood and scope of policy agreements "by increasing available information about potential agreements and enhancing the credibility of commitments to fulfill the agreements" (Schneider et al., 2003, p. 144). This is carried out by spanning organizational boundaries, exploring the details of organizational decision making, and discovering barriers to implementation, thus increasing the likelihood of successful policymaking.

Dowding (1995) argues that the most we can learn from a policy network comes from a formal approach in which properties of the network can be explained, but nothing more. He states that "while it has proven useful for cataloging policy pro-

cedures into different types of networks, it cannot be used to provide a fundamental reassessment of the policy process" (136). However, others state that what is useful for policymaking is the very idea that the structure, and how it is designed, can influence the policy process (Carlsson, 2000; Provan, 1995). Thus, the key to the network approach to policy issues is understanding how certain relationships are formed and which parts of the network are the strongest and most knowledgeable (i.e., the best connections to others).

Not only are the features and structure of networks well explained but also numerous theoretical advancements in terms of social networking have been proposed (Borgatti, 1997; Burt, 1992; Granovetter, 1973). Many researchers have made developments in the theory, going beyond evaluation of the structure of the network alone, and understanding how the placement of actors influences such things as power, knowledge, brokering of information, and resource sharing. For example, policy networks have been found to constitute "communities of practice" in which common understandings of best practices and collective learning can take place (Bland, Starnaman, Harris, Henry, & Hembroff, 2000; Cross, Laseter, Parker, & Velasquez, 2006), and provide structure for promoting system-wide change within communities of stakeholder groups (Foster-Fishman, Berkowitz, & Lounsbury, 2001; Lasker, 2003). Taking this one step further, recent advances in social network methodology allow us to test the probability of certain network characteristics occurring in a network, providing indications of characteristics of network ties that may be significant in other types of policy networks.

Carlsson (2000) suggests that a network approach is useful, but claims that, as of now, it is not a viable policy analysis approach because it lacks "a theoretical scaffold" (e.g., a set of guiding principles by which to test the theory of collaborative policy networks over time) and must find theoretical support from well-defined theories such as collective action theory. Monge & Contractor (2003, p. 45) suggest a similar argument, noting "representing networks as matrices or graphs and measuring properties of the network serve useful descriptive purposes ... however, explaining the emergence of networks requires an analytic framework that enables inferences to be made on the basis of theories and statistical tests." The approach proposed here seeks to develop just such a "theoretical scaffold" as the archetype of an analytical framework for understanding collaborative policy networks.

Collaborative Policy Network: "Structural Signatures"

In order to develop an analytical framework, a set of measures must be operationalized so that they can be analyzed both descriptively and empirically. In this case, we propose to operationalize a set of network measures to test which structural tendencies have the highest probability of occurring (Monge & Contractor, 2003). Collaborative policy networks are purported to have discursive properties. These include political support, mutuality of goals, reciprocity (shared resources), representation/diversity, flattened power structures, participatory decision making, collaborative leadership, shared experiences and norms, frequent interaction, the requirement of trust, and conflict resolution. While a formal structure of interaction

is often asserted (for example, a formal hierarchical reporting structure), an informal network structure is inevitable. A "structural signature" refers to the *pattern* of interactions that emerge in a network (Monge & Contractor). For example, we might find that in collaborative policy networks, most ties are reciprocated, and if we empirically test this observation, then we may verify that reciprocal ties have a higher probability of occurring in these types of networks. We would therefore assert that such networks have a structural signature of reciprocity. It is *a priori* unclear, however, just what types of structural network signatures collaborative networks model.

The following list is a set of proposed collaborative policy network structural signatures that we suggest to operationalize in this approach. In each hypothesis, we suggest identifying the probability that a certain characteristic has of occurring. Identification of the probability of a structural signature occurring in a network structure requires the use of an SNA methodology. SNA is the study of the structural relationships among interacting network members—individuals, organizations, etc.—and how those relationships produce varying effects. The fundamental property of network analysis is the ability to determine, through mathematical algorithms, whether network members are connected—and to what degree—to one another in terms of a variety of relationships such as communication, resource sharing, or knowledge exchanges. Furthermore, network analytical techniques can quantify the emergence of networks and their dynamic processes (Wasserman & Faust, 1994).

To identify the probability of a structural signature occurring in a network, one would have to gather network data on the network of interest and then run statistical tests to develop the empirical parameters of the likelihood that the types of ties observed in the network data were likely to occur by chance. In other words, similar to Bernoulli distributions, the observed network would be plotted in comparison to an N number of similar (modeled) networks, and their probability of occurring would be identified. Monge and Contractor (2003) provide a simplified example of what we are looking for by applying such statistical techniques:

> Suppose that in our example of 17 individuals, we were interested in assessing whether the observed network exhibited a structural tendency toward reciprocity (or mutuality). In statistical terms, we want to assess the probability that reciprocity in the observed network is more, less, or just as likely to be found from the sample space of all possible network configurations of 17 individuals . . . (p. 51).

In this way, we can begin to identify patterns among different policy networks in an effort to build a theory of collaborative network policy. If a pattern is detected in many types of policy networks, then it may be safe to assert these findings (cumulatively) as a theory from which the field can continue to grow.

Representation/Diversity. The benefits of a multisectoral network include that they (i) reflect the changing roles and relative importance among the network; (ii) pull diverse groups and resources together; and (iii) address issues that no group can

resolve by itself (Dryzek, 1990; Thomson & Perry, 2006). Quite often, the only way that a network can be sufficiently innovative to produce sustainable results is to be diverse (Granovetter, 1982). According to Witte, Reinicke, and Benner (2002), the major strength of networks is diversity, not uniformity. Representation of all parties may be indicated in a network by a match between stakeholders identified as important to the policy needs and those present in the network. This approach is in contrast to the more common network tendency for "homophily"—that is, that people with similar characteristics tend to form ties with other people who share those characteristics. Shumate, Fulk, and Monge (2005, p. 502) assert that "past alliance studies have found that organizations with status similarity tend to form relationships." However, we propose that in a collaborative policy network, network ties will tend to form, regardless of the similarities among the participants; that is, the emergence of ties will be based on the policy topic at hand, with a tendency to draw together a diverse group of stakeholders. To operationalize and empirically test these assumptions, we propose to operationalize and measure structural signatures that serve as patterns of representation/diversity by identifying the amount of homogeneity among members of a network to test the following hypothesis:

Hypothesis 1: In collaborative policy networks, heterogeneity among stakeholders has a high probability of occurring.

1. Measure: homophily (as attributes of network members).

Reciprocity. Exchanges within the network may include a variety of resources, including tangible and intangible resources. These exchanges ideally occur through reciprocal, trusting, and mutually supportive relationships. Each actor in a network must see that he or she will not only benefit by collaboration but also that the overarching goal will be better achieved by working with other stakeholders. The key to governance in a network structure is the use of resource allocation in an environment that exists not individually, but rather in relation to other units (Burt, 1992). Powell (1990, p. 296) noted an important element of the network: "as networks evolve, it becomes more economically sensible to exercise voice rather than exit . . . benefits and burdens come to be shared." In other words, reciprocity is a means through which parties remain connected to one another, and in turn, enables networks to form and function. Furthermore, Isett and Provan (2005) found that network ties are more reliable in measuring network outcomes when their mutual exchange is reciprocated (confirmed). We employ these structural signatures to identify the mutuality of connections within a collaborative policy network, thus testing the following hypothesis:

Hypothesis 2: In collaborative policy networks, reciprocity of ties has a high probability of occurring.

1. Measure: reciprocity.

Horizontal Power Structure. In a collaborative policy network, it is likely that the actors prefer that the overall network centralization is low, meaning that few actors

hold highly central positions, hence decreasing bridges and structural holes (indicators of influence and power over a network) (Burt, 1992; Monge et al., 1998). Network centralization refers to how well connected are the members of the network, collectively. Lower centralization scores indicate that fewer network members hold highly central positions; positions of brokerage and information sharing are held/shared by a larger number of members. The greater the decentralization of the network indicates that members are more equally interconnected, which in turn increases their willingness to support the collective good (Marwell & Oliver, 1993; Marwell, Oliver, & Prahl, 1988). In other words, organizations that have equal positioning are more involved in mobilizing efforts (Laumann, Knoke, & Kim, 1985; Laumann & Pappi, 1976). The principles of centralization produce a paradox in cases when a hierarchical governance structure is purported (e.g., disaster-preparedness networks constructed in an incident command structure). Within such a structure, certain members are identified to play a central, coordinating role. However, the *informal* network structure is more likely to contain actors whose position will increase their connectivity because it is common that to "accomplish their organizational goals, the agencies must either develop multiple services on their own or coordinate their existing services with other organizations," thereby creating a joint production function (Isett & Provan, 2005, p. 161) and increasing their bridging social capital. We propose testing tendencies of centralization to identify how power is shared within a collaborative policy network. By operationalizing indices of centralization, we propose to test the following hypothesis:

> *Hypothesis 3: In collaborative policy networks, low centralization of ties has a high probability of occurring.*

1. Measure: centralization.

Embeddedness. The theory of embeddedness suggests that people will make choices based on past interactions and will be particularly inclined to initiate network connections with those whom they can trust. Collaborative policy networks may work well when stakeholders are familiar with one another along a continuum of relationship dimensions. Granovetter (1985) asserts that transactions are embedded in social networks, and the trust generated by personal interactions is helpful in discouraging malfeasance. In the private sector, contracts are less common than in the public sector, and therefore, a large degree of exchange interactions are derived from lasting (trusted) relationships (Uzzi, 1996, 1997). In collaborative policy networks, it is unclear whether embeddedness will result in repetitive, multirelationships over time, in the context of both formal and informal relationships. However, if this is true, it can inform a theory of collaborative policy networks in terms of how a network, to address one policy issue, can have "spill-over effects" to other types of policy issues. We propose to operationalize embeddedness as "multiplexity"—that is, the occurrence of multiple types of relationships among members of a network—to determine how the presence of relationships on many dimensions affects embeddedess, trust, and the likelihood of future network development. Specifically:

Hypothesis 4: In collaborative policy networks, multiplexity has a high probability of occurring.

1. Measures: multiplexity, length of relationship.

Trust and Formality. Network ties can exhibit varying degrees of formality, including contractual agreements, regulatory guidelines, procedural processes, and informal exchanges. The level of formality of a relationship can influence the amount of trust within collaborative policy networks. Gulati and Singh (1998) found that as trust develops between partners, the level of formality decreases, leading to the assertion that "familiarity breeds trust." Isett and Provan (2005) suggested that this principle did not apply in a "public network" setting, and that instead, formal ties tend to be maintained over time (regardless of varying levels of trust). Although formal ties remained primarily stable in their study, this did not preclude the addition of informal ties to the dyadic relationships. It is unclear in a collaborative policy network whether the formality of ties will digress over time as trust increases. Isett and Provan provide several explanations for why ties remained formal in their networks, including the need to formalize relationships through contracts in order to meet public reporting requirements. In a collaborative policy network, it is unclear whether the use of contracts is more likely to be present and whether the interactions between intersectoral partners increase or decrease the formality of relationships. In addition to measuring trust based on the formality of ties, we propose to include, additionally, measures of trust based on perceptions of trust toward other network members. For example, an index of trust based on reliability, mission congruence, and transparent communication can inform the nature of trust among partners in a network (Varda, Chandra, Stern, & Lurie, 2008). We propose to test the following hypotheses:

Hypothesis 5a: Trust among stakeholders is correlated to informal relationships.
Hypothesis 5b: In collaborative policy networks, high levels of trust have a high probability of occurring.

1. Measures: formality of ties based on the contracts and formality of interaction; trust measured by reliability, congruence of mission, and communication transparency.

Participatory Decision Making. At the heart of the proposed theory is the democratic concept of participatory decision making (deLeon, 1997). We posit, furthermore, that a key element to a participatory democracy is a collaborative decision making process, representing the interests and needs of the multiple stakeholders related to the policy issue. Both the major and minor interests should be represented (Innes & Booher, 2003). Characteristics of such a process require a high level of transparency and equality. To operationalize this area of inquiry, we propose that members of a network that possess decision making roles will correlate with the network members' perception of those decision makers as being transparent and promoting equality (operationalized through cognitive social structures). Cognitive social structures provide information on each network members' perception of how all other members in the

network relate to each other (Krackhardt, 1987). These types of data can help us explore various empirical questions, for example, Are individuals who hold decision-making roles also perceived by others in the network to have transparent attributes? We propose that to test this assumption, data be gathered on the perceptions of each member in regard to others' levels of transparency in terms of mission, goals, and motivations for participation. We propose to test the following hypothesis:

> *Hypothesis 6: In collaborative policy networks, transparent relationships have a high probability of occurring.*

1. Measures: cognitive social structure of transparency, centralization, decision making roles in the network.

Collaborative Leadership. Leadership in a collective action network is often shared and sometimes rotates among stakeholders. In some cases, a very centralized leadership structure is formed, and in others, a variety of leadership positions are created. In a collaborative network, leadership should represent equality and therefore, leadership should be shared by those who are similar in the network. For example, rather than leaders chosen because they have the most financial influence or possess the greatest legitimacy, leaders will be chosen because they are connected to a similar number, and types, of other stakeholders in the network. As a result, stakeholders that are "structurally equivalent" (similar or equal number of ties to others) will hold leadership positions (this represents balance of network ties). We propose to test the following hypothesis:

> *Hypothesis 7: In collaborative policy networks, leaders who are structurally equivalent have a high probability of occurring.*

1. Measures: structural equivalence.

These hypothesized characteristics of collaborative policy networks are illustrated in Figure 1. The patterns and structural signatures that we propose to identify in collaborative policy networks are demonstrated in the second column. An alternative structure (to explain the difference) is demonstrated in the third column. Once a network is realized (that is, data are collected), we can look for these signatures as patterns. Repeated, we can continue to test their probability of occurring and further build a theory of collaborative policy networks.

Broader Impacts Resulting From the Proposed Theory Building

After analyses such as these, we can then answer the final research question, Can these properties be modeled to inform other types of collaborative policy networks? This requires summarizing what kinds of structural signatures of collaborative policy networks are we able to detect, and how these findings can inform the broader discussion, education, and research of discursive platforms for public policy development. Ultimately, we hope to learn, by modeling examples of collaborative policy networks, which types of structural signatures can inform a theory of collaborative
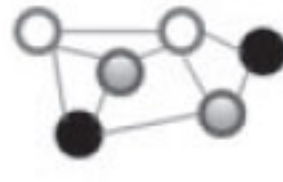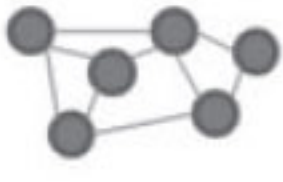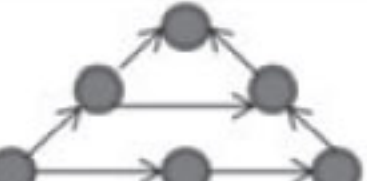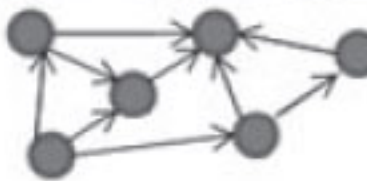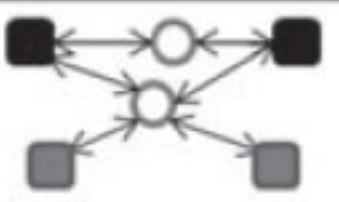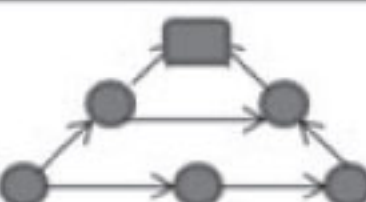
Hypotheses	Assumed Pattern in Collaborative Policy Networks	Alternative Patterns
H$_1$: Representation/Diversity Shade of ○ = different type of organizations (e.g. public, private, nonprofit)		
H$_2$: Reciprocity ⟷ = reciprocal tie		
H$_3$: Horizontal Power Structure		
H$_4$: Embeddedness Thickness of ⟷ = multiple types of relationships (multiplexity)		
H$_5$: Trust & Formality	↑Trust ↑Formality	↑ Trust ↓Formality
H$_6$: Participatory Decision Making	↑Transparency Throughout Network	↓Transparency Throughout Network
H$_7$: Collaborative Leadership Same color ■ = structural equivalent Square ▪ = leadership positions		

Figure 1. Illustrated Collaborative Policy Networks' Hypotheses.

policy networks. This theory should lead to knowledge of how to create, maintain, and sustain networks for such purposes (as well as general policy issues) over time to guide future research and practice to further improve discursive dialogue while maintaining its functional purpose (e.g., to prepare for, and respond to, emergencies). Additionally, understanding these types of tendencies can lead to a better understanding of the democratic and discursive nature of collaborative policy networks (e.g., Do they promote equality, representation, etc.?).

Finally, this research will integrate with education, i.e., by promoting teaching, training, and learning by advancing a theory of collaborative policy networks. Not only can students of public policy and discursive democracy learn from the tendencies of emergent policy networks, but also public entrepreneurs and legislators can conceptualize how to nurture and sustain networks of interested stakeholders to get involved in policy issues. In short, then, a theory of collaborative policy networks, if discerningly applied, can both bring a new analytical insight to the world of public policy theory, as well as the world of workaday policy application.

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The Implementation of Public Policy:
Still the Missing Link

Robbie Waters Robichau and Laurence E. Lynn Jr.

Although theories of public policy and theories of governance both seek to establish relationships between policymaking and its consequences, they do not complement each other very well. Public policy models tend to de-emphasize that which governance theories tend to emphasize: the influence on government performance of implementation, broadly described as the actions taken by those engaged in administration (including managers at all levels, those engaged in service delivery, and third-party agents) after a policy has been lawfully promulgated by elected officials and interpreted by the courts. A comparison of a recently developed theory of public sector performance with several prominent theories of policymaking suggests that multilevel governance theories can supply what continues to be the missing link in public policy theories. At the same time, governance theories might be enriched by the process modeling of public policy theories.

Introduction

The increasing use of "governance" as a conceptual frame for research on the determinants of government performance has produced valuable insights into causal relationships among public choice processes, public management, service delivery, and citizen and stakeholder assessments and reactions. Paralleling these efforts, public policy theorists have developed a variety of models to depict relationships between policymaking processes and their outputs and outcomes. Although both types of research seek to relate policymaking to its consequences, they do not complement each other very well. Public policy models tend to de-emphasize that which governance theories tend to emphasize: the influence on government performance of implementation through administrative systems, broadly described as the actions taken by public managers at all levels, those engaged in service delivery, and third-party agents after a policy has been promulgated by elected officials and interpreted by the courts.

This article offers a preliminary consideration of how theories of governance and of public policy might better complement each other. We juxtapose a theory of

government performance that features the influence of administrative systems on outputs and outcomes (Forbes, Lynn, & Robichau, 2008) with some of the major public policy theories found in Sabatier's edited volume, *Theories of the Policy Process* (Sabatier, 2007). We will argue that, because they do not conceptualize the distinction between policy outputs and policy outcomes, public policy theories tend to slight the administrative processes that constitute implementation. Erwin Hargrove argued in 1975 that implementation was the missing link in the study of public policy (Hargrove, 1975). As we see it, that link is still missing. We will show how even a parsimonious theory of public sector performance framed by a logic of governance (LOG) can provide the missing link.

The discussion will proceed as follows. The next section explains why and how an "LOG" framework was used to develop a theory of public sector performance. The description of this theory will be used to provide insights into how and why government produces its outputs and outcomes. The article will then analyze several public policy theories in relation to what they are missing and neglecting to study, that is, the failure to distinguish between outputs and outcomes and the disregard of administrators' and administrative systems' impacts on policy outcomes. We will conclude with a discussion of how using governance theory can advance public policy theorizing and suggest that governance theories might be similarly enriched by public policy theories.

A Theory of Public Sector Performance

Public governance is defined in this article, following Lynn, Heinrich, and Hill (2001, p. 7), as "regimes of laws, rules, judicial decisions, and administrative practices that constrain, prescribe, and enable the provision of publicly supported goods and services" through formal and informal relationships with third parties in the public and private sectors. Using concepts from positive political economy, Lynn, Heinrich, and Hill develop a multilevel "LOG" that postulates that politics, public policymaking, public management, and service delivery are hierarchically linked with one another in the determination of public policy outputs and outcomes.

A large body of research uses hierarchical logic when designing empirical studies of governance and public management (Boyne, 2003; Boyne, Meier, O'Toole, & Walker, 2006; Forbes, Hill, & Lynn, 2006, 2007; Forbes & Lynn, 2005; Forbes et al., 2008; Heinrich, 2003; Hill & Lynn, 2005; Lynn, Heinrich, & Hill, 2001). Being sufficiently confirmed in theory and in the empirical research literature, the multilevel LOG was used by Forbes, Lynn, and Robichau as the point of departure for a theory of public sector performance which focuses on the operations of the administrative system in the determination of government performance (Forbes et al., 2008). A brief explanation of how the theory was developed will set the stage for showing how public policy theories can benefit from the governance literature and, in particular, the implementation process.

Development of the multilevel theory of public sector performance used in this article drew on findings from an analysis of nearly thirteen hundred published empirical studies, each of which incorporated hierarchical and causal relationships

Table 1. Logic of Governance Levels and Variables

Citizen preferences and interests expressed politically
1. Expressions of citizen preferences and interests
2. Activities of private firms and organizations
3. Activities of interest groups

Public choice and policy designs
1. Socioeconomic context
2. Level/type of government (e.g., state, council/manager)
3. Political atmosphere
4. Fiscal situation/budget constraints
5. Type of ownership (public, nonprofit, proprietary)
6. Mandates by internal government entities (e.g., Office of Management and Budget)
7. Mandates by elected executives
8. Mandates by legislatures
9. Court decisions
10. Other

Public management
1. Initiation of administrative structures
2. Usage of management tools (policy planning, total quality management)
3. Management values and strategies

Service delivery
1. Initiation of program design features
2. Fieldworker/office discretionary behavior
3. Fieldworker/office beliefs and values
4. Initiation of administrative processes and policies
5. Work/treatment/intervention
6. Client influence, behavior, and/or preference (coproduction)
7. Use of resources

Outputs/outcomes
  Outputs; means to an end
1. By government/public sector
2. By markets/firms/private sector
3. By individuals/society

Outcomes; ends
1. By government/public sector
2. By markets/firms/private sector
3. By individuals/society

Stakeholder assessments of policy, agency, or program performance

among at least two levels of governance. The original LOG analyses categorized each study's dependent and independent variables at each level under investigation using the scheme in Table 1 (e.g., in Hill & Lynn, 2005; Forbes et al., 2006, 2007). Policy studies are more likely to inform levels of citizen interests and preferences, public choice and policy design, outputs/outcomes and, to a lesser extent, stakeholder assessments than variables found at the management and service delivery level, which ultimately lie at the heart of policy output production.

In subsequent analyses by Forbes et al. (2008), Scott's conceptualization of organizational effectiveness indicators were used to reclassify the independent and dependent variables in each study (Scott, 2003; Scott & Davis, 2007). Scott says that "proponents of rational, natural, and open system models privilege differing indicators of effectiveness" that can nonetheless be grouped into three general indicator

types that "point to important distinctions regarding what is being assessed" (Scott & Davis, 2007, p. 327).

Scott's typology of effectiveness indicators has three categories: structures, processes, and outcomes. Structural indicators reflect the production function, that is, the way the organization's work is organized. Process indicators measure the quantity or quality of the organization's work, that is, effort or output. Outcome indicators purport to identify changes in an individual or organization that have been the object of some kind of intervention, service, or regulation. Thus, the effectiveness of each level of governance can be measured in terms of some combination of structures, processes, and outcomes.

Analyzing the multilevel governance literature using these indicators led to the following findings. First, the presumption is warranted that implementation is generally hierarchical; influences flow downward through a chain of delegation to the retail level of service delivery. Second, in the great majority of studies, policymaking took the form of structures; that is, the primary function of policymaking was to organize administrative systems to accomplish the purposes of public policies. Third, within administrative systems, management, that is, the authorized and necessary exercise of managerial discretion, took the form of a relatively balanced combination of structures and processes. Finally, measures of service delivery effectiveness were, in most cases, process indicators. The cumulative products of policymaking, management, and service delivery consisted of outputs, which comprised both process and outcome indicators of effectiveness, and the "final" outcomes of policymaking and its implementation.[1]

These findings are incorporated by Forbes, Lynn, and Robichau into their theory of public sector performance. Some of the findings were not so readily accepted, however. For example, most of the investigations were oriented toward outputs rather than outcomes. But few empirical models recognized or incorporated an outputs-cause-outcomes logic; most used either outputs or outcomes without considering how outputs influence the ultimate outcomes of policies and their implementation.

In *Bureaucracy*, James Q. Wilson (1989) helps helps us understand how outputs and outcomes are related. Similar to Scott's explanation, Wilson defines outputs as "the work the agency does" and outcomes as "how, if at all, the world changes because of the outputs" or "results" (p. 158). Grouping outputs as the "work" and outcomes as the "results" enables scholars to think about the logical flow of cause and effect relationships in governance and policy studies. Based on the empirical findings concerning the political science and public administration literature, we found that distinguishing between outcomes and outputs was both possible and instrumental in advancing our theory of public sector performance.

It is possible, however, that, in special cases, outputs of an agency may be unobservable and unknowable (Wilson, 1989). One consequence might be that some agencies will be able to see only outcomes without knowing how outputs influenced them. If outcomes are undesirable, then an agency faces the challenge of trying to decide how to fix the problem without knowing whether it is a question of structure or process. For example, a program like Head Start provides various services, such as

education, health care, parental education and involvement, and nutritious meals to underprivileged children. They claim that children in their programs show improved cognitive and language abilities as well as higher health status ratings when compared to their peer groups (National Head Start Association, 2008); yet, it is hard to say which services produce which results. Outcomes could be produced from any one of these provisions or a combination of services, thereby making the determination of outputs unknowable and unobservable.

Wilson (1989) proceeds to create a typology of four kinds of government agencies based on the extent to which both outcomes and outputs are observable and measurable. He categorizes these agencies as: production (where outcomes and outputs are recognizable); procedural (where outputs not outcomes are observable); craft (where outcomes not outputs are distinguishable); and finally, coping organizations (where neither outcomes nor outputs can be observed) (pp. 158–71).

This useful heuristic has a twofold consequence for thinking about both governance and policy theories. First, how administrators manage their agencies will be dependent on the type of agency in which they work and whether they focus on processes or outcomes. And second, either outcomes and/or outputs are frequently observable; therefore, they can often be measured or at least considered in agency performance. Wilson (1989) states that "people matter, but organization matters also, and tasks matter most of all" (p. 173). If we think of tasks as the work agencies and their agents produce, then depicting outputs as necessary to achieving outcomes seems intuitive.

Further, a significant number of studies "skipped" levels in the LOG, excluding, for example, the mediating effects of management or service delivery in transforming policy structures into outputs and outcomes (see Figure 1). The percentages in Figure 1 are proportions of the total studies in the database that employ this particular causal logic. In the absence of convincing substantive reasons for excluding these
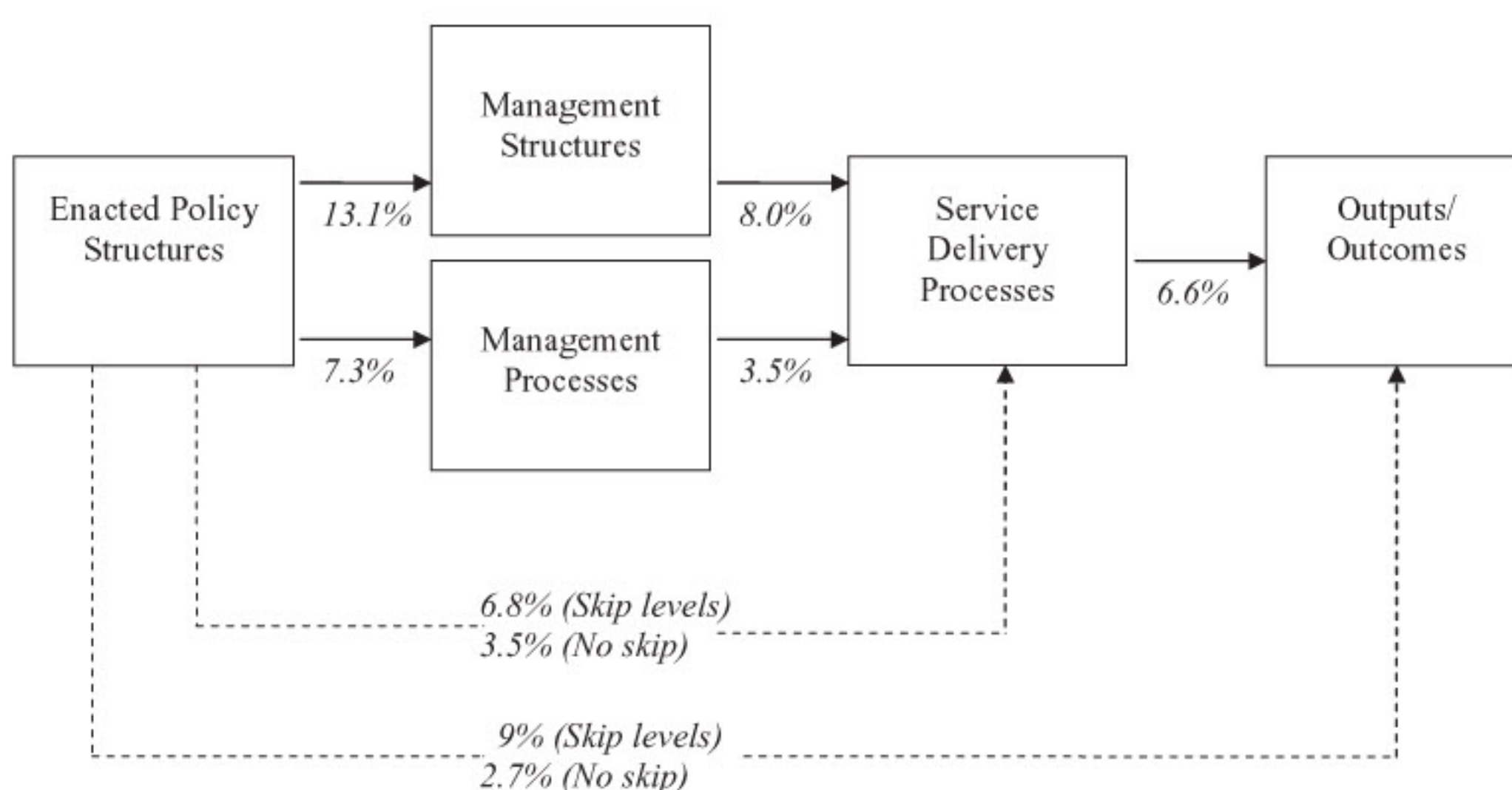

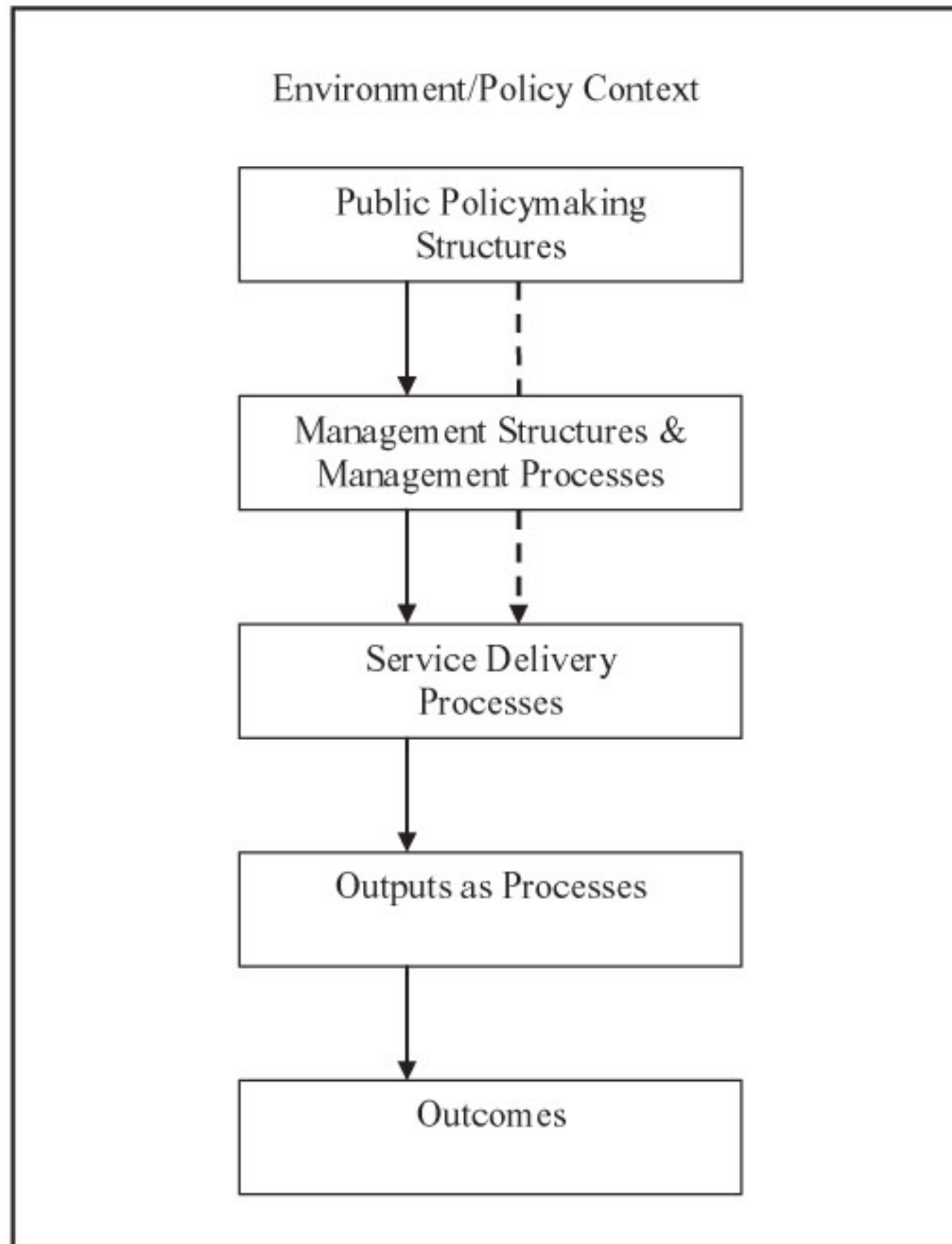**Figure 1.** Empirically Modeled Governance Relationships.

Figure 2. Theory of Public Sector Performance.
*The dotted line represents potential modeling patterns that skip the management level and represent public policies that are self-executing.

mediating effects from explanatory models, there is a high likelihood that the findings of such studies are incomplete or biased. In their analysis of studies concerned with health policy implementation, Forbe et al. (2007) concluded that "in general, the choices of organizational arrangements, administrative strategies, treatment quality, and other aspects of health care services by policymakers, public managers, physicians, and service workers, together with their values and attitudes toward their work, have significant effects on how health-care policies are transformed into service-delivery outputs and outcomes" (p. 453).

The basic theory, then, incorporates both outputs-cause-outcomes logic and all mediating levels (unless it can be plausibly argued that policies have been designed so as to be self-executing, thus requiring little managerial intervention). The theory of public sector performance is depicted in Figure 2. It consists of hierarchically related public policymaking structures,[2] management structures and processes, service delivery processes, outputs, and outcomes, with an acknowledgement of self-executing policies.

It is important to note that these relationships all occur within a social, economic, and political context. Whereas these contextual considerations may influence governance at any level in complex ways, the theory assumes that such contextual influences do not nullify the fundamental hierarchical logic that links the multiple levels of governance, a logic that is the consequence of America's constitutional scheme of governance, which defines the American version of the rule of law.

The implications of this theory have the potential to contribute to public policy theorizing. First, given the hierarchical nature of governance, it is difficult, if not impossible, for policy outputs and outcomes to be produced without administrative systems. Further, it is difficult to imagine that public policy outcomes can occur without administrative system outputs. In part for this reason (and in part because outputs are easier to measure), administrative systems tend to be output-, not outcome-oriented.

Analyzing Policy Theories

With the above discussion as a point of departure, we next examined a selection of the public policy theories included in Sabatier (2007). This examination reveals two problematic aspects of these theories: the failure to distinguish between outputs and outcomes and the imprecise treatment of the role of administrative systems in mediating the relationship of policymaking to its ultimate consequences.

Outputs and Outcomes

Sabatier (2007) notes that Institutional Rational Choice (IRC) theory is "clearly the most developed of all the frameworks in this volume" (p. 9). In her chapter, on IRC theory, Ostrom discusses an action arena where actors and action situations occur that can lead to predicting outcomes inside this arena. Then, her framework moves from this arena to patterns of interactions, followed by outcomes, in which both are moderated by evaluated criteria. Ostrom (2007, p. 33) states that "evaluative criteria are applied to both the outcomes and the processes of achieving outcomes." But these "processes" are not clearly defined, partly, it would appear, because outputs and outcomes have not been differentiated.

Other policy theories exhibit similar ambiguity concerning outputs and outcomes. For instance, the Multiple Streams (MS) Framework is sensitive to how information affects choice and how inputs gets transformed to outputs; yet, Zahariadis (2007) does not clearly define what he means by "policy outputs" in this chapter. It might be the case that outputs are simply decisions (good or bad) that have been made, the actual policy that is produced from decisions made, or perhaps, both of them combined.

Another policy approach that can be seen as providing vague descriptions about outputs and outcomes is the Network Approach. Adam and Kriesi (2007) state that "the impact of policy networks clearly shows that network structures are not only connected to specific policy outcomes ('what') but also to the type of change ('how') that creates these outcomes. A systematic analysis of the impact of policy networks

requires that the types of networks be linked to the potential for and types of change creating different outcomes" (p. 145). If outputs are regarded as the "work" of an agency or in this case, the "work" of a network, then the reference to "outcomes" seems inappropriate.

Finally, the Social Construction and Policy Design framework (Ingram, Schneider, & deLeon, 2007) has an inherent output focus, which becomes particularly apparent when examining their propositions and diagram.[3] The fundamental idea of this framework is that future policy design stems from past and current policy designs. Moreover, these policy designs are mediated by institutions, culture, and target populations, followed by society and policymaking dynamics (p. 96). But outputs, as distinguished from outcomes, are not clearly defined.

One policy theory acknowledges a distinction between outputs and outcomes. The Advocacy Coalition Framework (ACF) depicts a relationship where policy outputs precede policy impacts (Sabatier & Weible, 2007, p. 202). But, this part of the policy subsystem, in our reading, is not defined or discussed in Sabatier and Weible's chapter or in the previous models of ACF (Sabatier & Jenkins-Smith, 1999).

From a governance perspective, lack of clarity concerning the distinction between outputs and outcomes is problematic. As discussed earlier, outcomes and outputs have distinguishable characteristics (Donabedian, 1966; Hall, 1999; Scott, 1977, 2003; Scott & Davis, 2007; Suchman, 1967). It is hard to tell whether policy theorists assume that those working in the field know the difference or, alternatively, do not think that the difference is important. Our argument is that drawing clear distinctions between outputs and outcomes is essential for understanding how administrative systems are influenced by and, in turn, influence the consequences of policymaking.

Administrators and Administration

Terry Moe (1990) crafts a theory of the public bureaucracy that takes into account politics and political organization in a two-tiered hierarchy in which "one tier is the internal hierarchy of the agency, and the other is the political control structure linking it to politicians and groups" (p. 122). Designed around the politics of bureaucratic structures, Moe emphasizes how political uncertainty and the need for compromise leads to rational bargaining among political actors that, in the end, produces technically irrational agencies. In other words, administrative systems are designed more to protect political bargains struck in order to guard various stakeholder interests than as to facilitate the achievement of outputs and outcomes.

Our examination of the public policy theories discussed in the previous section suggests that the performance of administrative systems is not generally held to be of particular significance to public policy achievement. It seems intuitively clear, however, that managers are in a position to use their discretion to shape the relationship between enacted policy structures and administrative system outputs. Moreover, the analysis of empirical health policy studies cited earlier (Forbes et al., 2006) supports this view. Wilson (1989) notes that public managers have preferences, and in a similar vein, Sabatier and Weible (2007, pp. 194–96) contend that they are

often influenced by "policy core beliefs." Lindblom and Woodhouse (1993) claim that "administrators indeed *are* policymakers" (p. 62). A convincing literature has established the influential role in policy implementation played by "street-level bureaucrats." From a governance perspective, then, the relative neglect of administrative systems in public policy theories seems unwarranted.

We found that administrative systems are either referred to loosely through a discussion of managerial influences on the policymaking process or they are ignored altogether. The Institutional Analysis Framework, for example, is vague on whether the "action arena" and/or the "patterns of interactions" could be seen as places where bureaucracy and its' administrators enable outputs to be achieved. Perhaps, the framework is set up so that administrative influences and implementation occur in both arenas, but without specific discussion of these matters, we are left wondering why such a vital part of the policy process was not discussed explicitly.

Similarly, the MS Framework considers bureaucrats as part of the policy community that is involved in the policy stream, but no logic linking administrators as policy entrepreneurs to administrative system outputs is indicated. Authors of the Network Approach examine how coalitions or networks are formed. They claim that these coalitions are composed of either "state actors" or "system of interest intermediation" (Adam & Kriesi, 2007, p. 134). Adam and Kriesi specifically and clearly define those who belong to the "system of interest intermediation" as "political parties, interest groups, and nongovernmental organizations/social movement organizations" (p. 134). These authors' explanation of "state actors," however, is ambiguous; "state actors constitute a special type, because they 'have access to a very particular resource: their decisions are considered binding in society and are backed by the possibility of legitimate use of force' " (p. 134). In this context, state actors could be viewed as legislators, judges, political appointees, or administrators. For governance scholars, greater clarity and specificity of when, or even if, administrators and their agencies are involved in the policy process is essential.

Administrative Systems

Of even greater concern than the vague references to administrators is that administrative systems as part of the policy process are left out entirely. Policy process theories tend to analyze the progression of policy development through design and negotiation, and then assume that policy outcomes are a result of particular policies. Yet, external policymaking is only the first stage in the logic of how outputs and outcomes are produced.

To see the issue more clearly, several theories of the policy process have been modified to demonstrate visually the point that policy process theories have missing links that are logically and empirically essential to the determination of government performance. Graphically lacing the theory of the public sector performance to some of the major policy process theories enables us to see how they can complement one another in providing further explanatory specificity to current policy and governance theories. By rotating the figures of policy process theories to a vertical orientation, a new and clearer picture emerges about what these theories are emphasizing
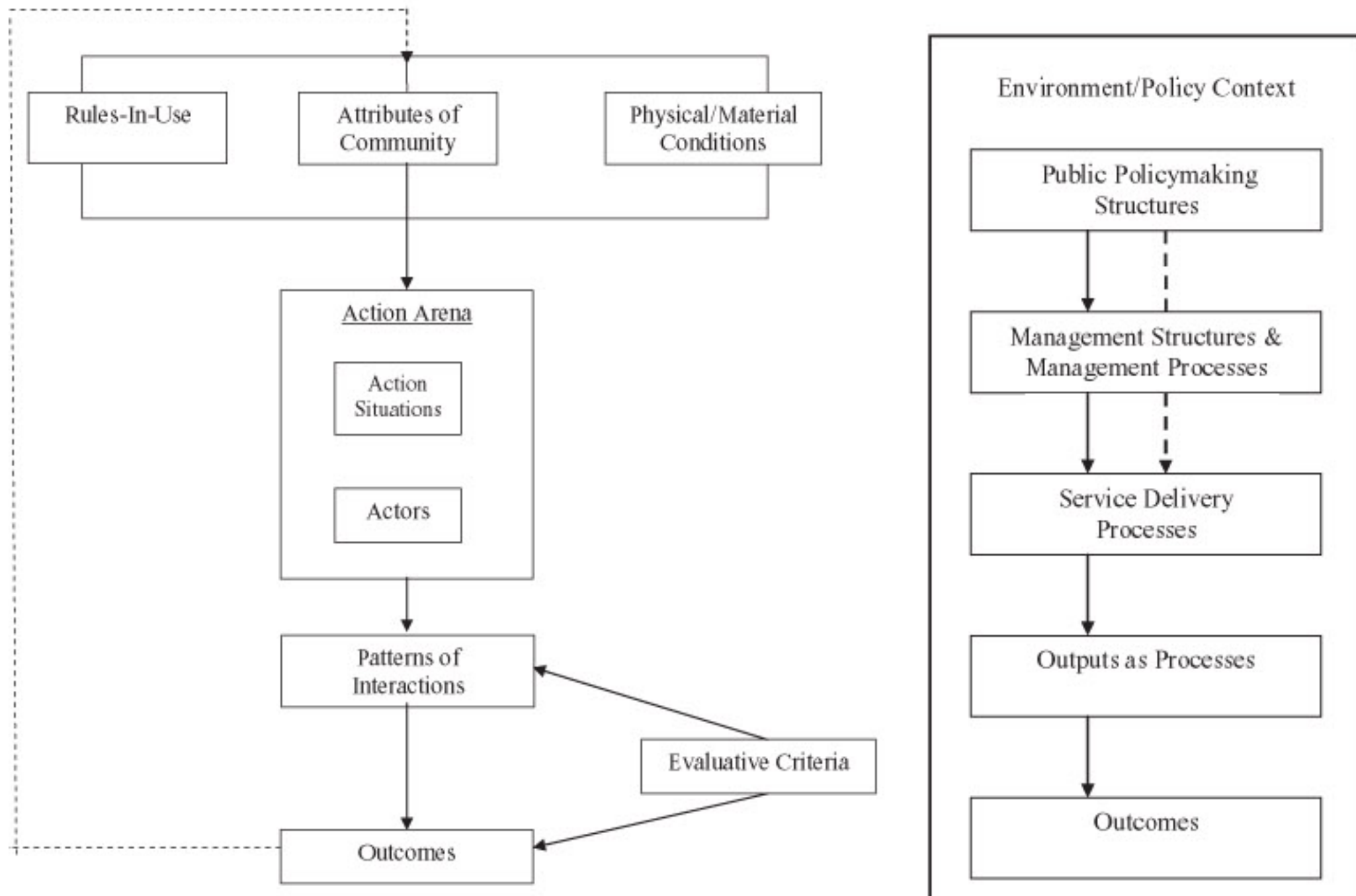
Figure 3. A Framework for Institutional Analysis Modified Hierarchically from Sabatier (2007, p. 27) Juxtaposed with the Theory of Public Sector Performance.

from a governance perspective. Policy theories appear to be focusing primarily on the public choice and policy level of governance and at the output/outcome level, thus, in effect skipping the mediating levels of administration.

The model most closely approximating the LOG is the IRC framework (see Figure 3). Ostrom does consider levels of analysis (i.e., operational, collective choice, constitutional, and metaconstitutional) intermediate to outcomes in her IRC model. However, her main focus is on the effects of rules (which are governance structures) at each level. Her framework might be expanded to include more discussion of the relationships of administrative systems to structures and processes beyond rules. In Figure 3, though, it is difficult to tell whether policymaking structures, management structures and processes, service delivery processes, and outputs as processes all occur in the action arena, in the patterns of interactions, or various links occur before the action arena or even after patterns of interactions.

In examining the MS Framework, it must first be noted that Zahariadis (2007, p. 65) regards this framework as one that "could conceivably be extended to cover the entire process of policymaking at various levels of government, it is examined here only in its capacity to explain policy formation (agenda setting and decision making)." Despite this caveat, locating where "policy outputs" occur in the policymaking environment is challenging but nonetheless necessary in developing better theories of the policy process. Perhaps "policy outputs" could follow the policymaking structures, or they could be at the lower level of outputs as processes in comparison to the theory of public sector performance (see Figure 4). If
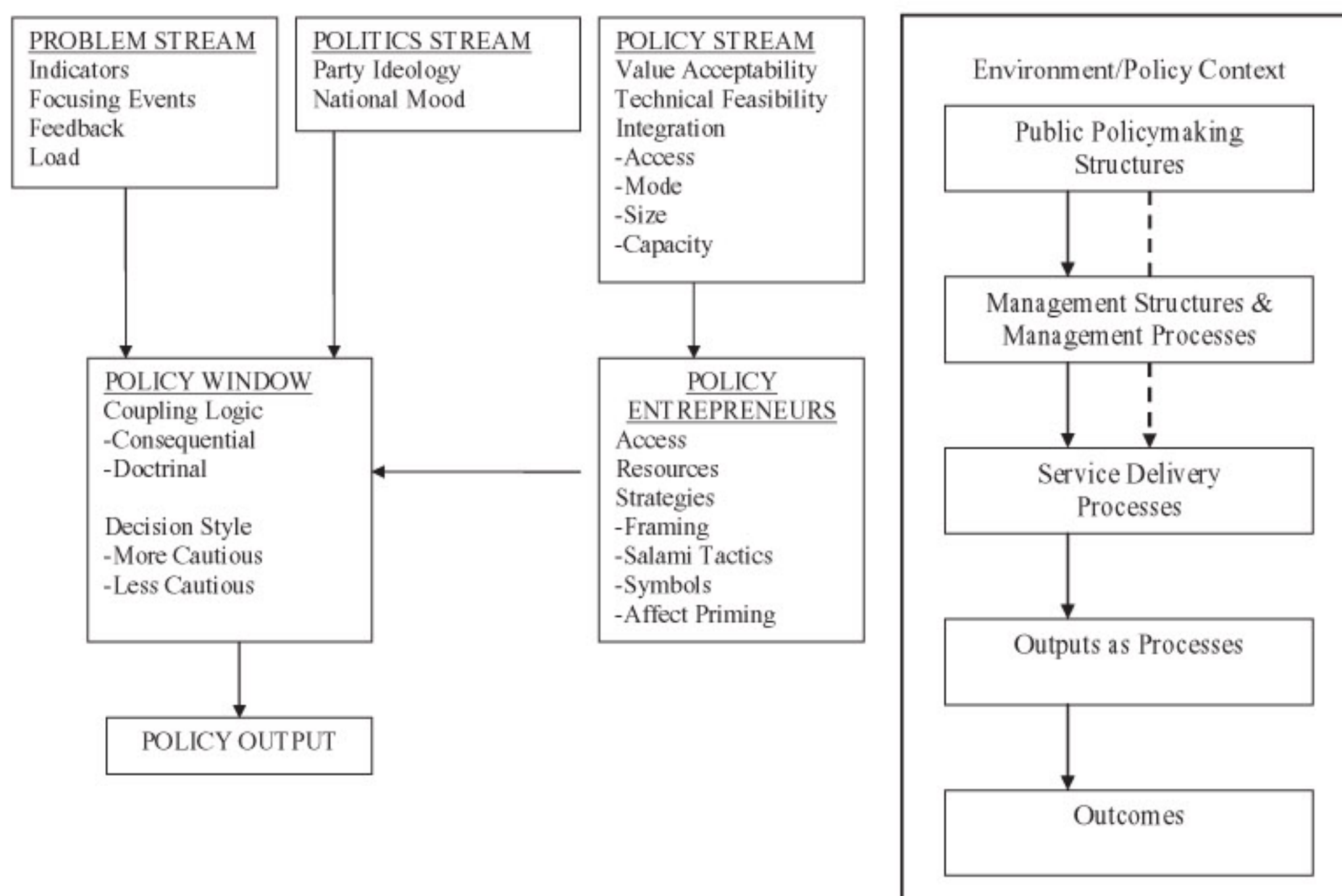
Figure 4. Diagram of Multiple Streams Framework Modified Hierarchically from Sabatier (2007, p. 71) Beside the Theory of Public Sector Performance.

the MS framework is to be expanded to account for the complete policy process or used by governance scholars to obtain greater insight into the policy process, then one step in doing so would be to clarify the role of administrative systems in output production. Zahariadis contends that some critics of this framework question whether the three steams are independent of one another and that "stream independence is a conceptual device" (p. 81). In the comparison to the theory of public sector performance, all three streams would fall into a larger category of public policymaking.

The Network Approach is juxtaposed with the theory of public sector performance in Figure 5. Although Adam and Kriesi (2007) note that depicting network structures as being vertically organized violates network premises, doing so does produce an interesting way of thinking about the structures and processes of networks and how they interact with other levels of governance. The "structure of policy networks" could involve participants from multiple levels of governance. That such capacious networks eliminate all vestiges of hierarchical governance is an issue to be investigated, not assumed, however.

The final illustration is from a 2005 version of the ACF.[4] Although its predominant focus is on what happens before and while policy structures are being determined, the framework does assume that the results of this process are "policy outputs and impacts." Policy outputs and impacts occur in the context of the policy subsystem, which offers an opportunity for elaborating on the explanatory logic of the framework. As noted earlier, the ACF, like many other policy theories gives short
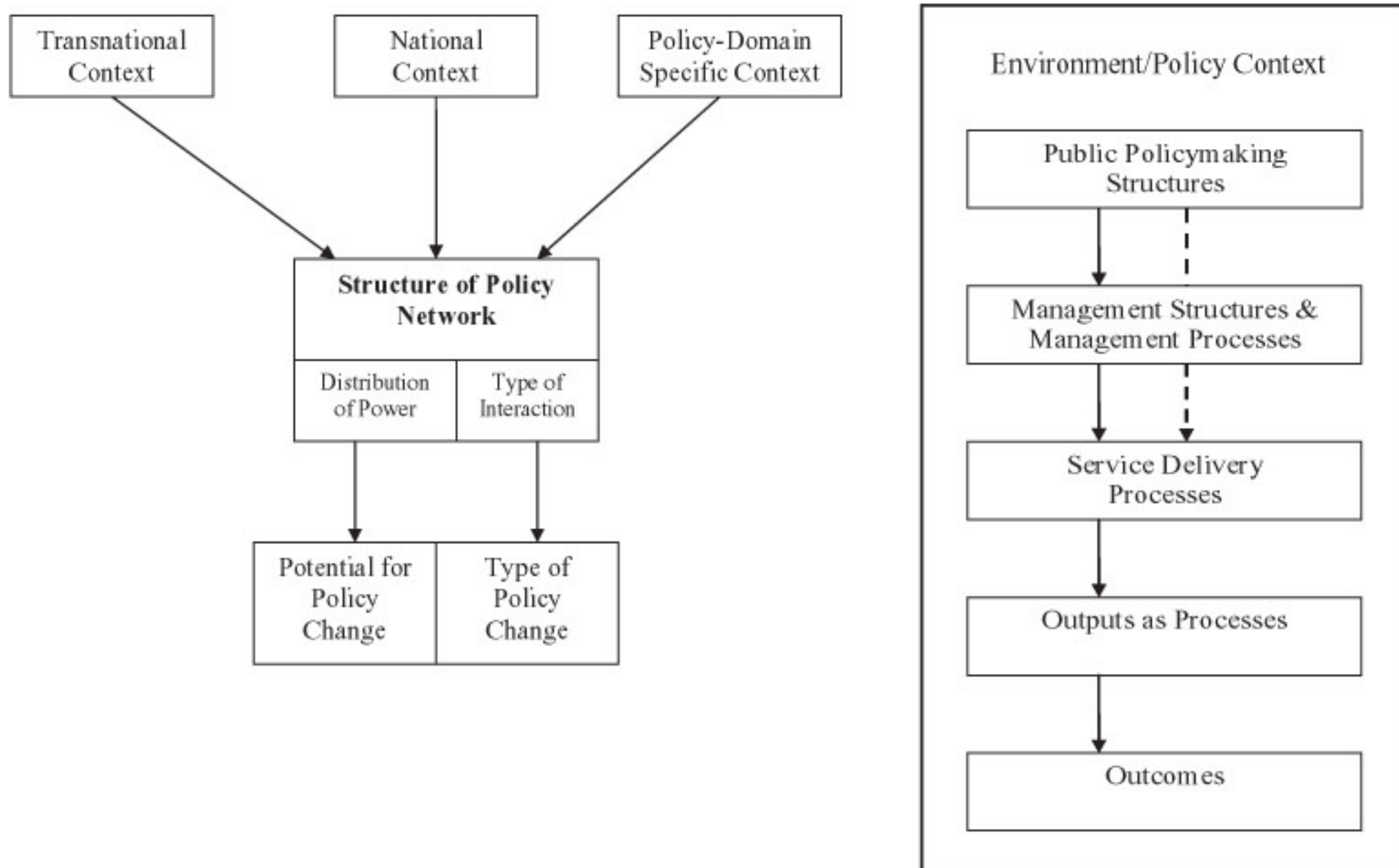
Figure 5. The Network Approach Summary Modified Hierarchically from Sabatier (2007, p. 148) Beside the Theory of Public Sector Performance.

shrift to the influence of administrative systems on the production of outputs. These systems arguably account for much of the fundamental complexity found in policy subsystems. Expanding upon implementation in the policy subsystem, based on what has already been studied in the governance literature (i.e., the role of management and distinguishing outcomes from outputs), would give both governance and policy scholars insights into one another's fields. In Figure 6, it is easy to imagine that the levels of management structures and processes and service delivery processes in the theory of government performance could be incorporated to follow the "institutional rules, resource allocations and appointments" part of the ACF diagram.

Conclusion

The argument in this article is that the policymaking process happens within the context of governance, which is usefully defined within the framework of a multi-level LOG and formally expressed in terms of a parsimonious theory of public sector performance. The policy theories examined in this article are implicitly or explicitly embedded in the larger arena of governance, but the links between policymaking and the multiple levels of governance within administrative systems are not made explicit and their influence on outputs and outcomes are not carefully considered. By including these levels into policy theories, they could become more complete and insightful.
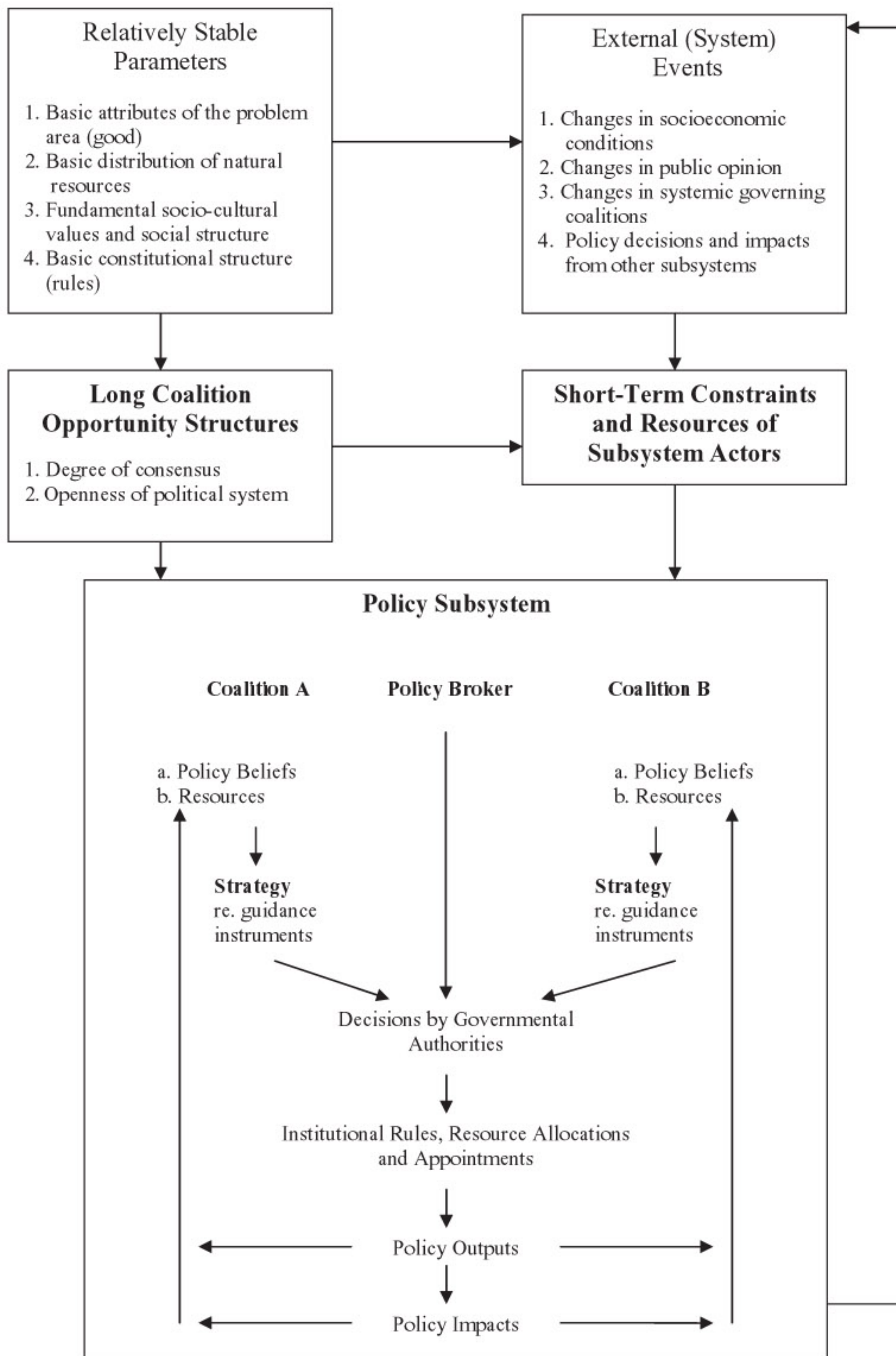
Figure 6. 2005 Diagram of the Advocacy Coalition Framework Modified Hierarchically from Sabatier (2007, p. 202).

A similar prospect is available to governance theorists. The interactions linking the "stakeholder assessments of policy, agency, or program performance," "citizen preferences and interests expressed politically," and the "public choice and policy designs" levels in the LOG (see Table 1) as well as the types of influences on governance originating in the environment and policy context might be better specified if public policy theories were adapted to the LOG's hierarchical logic. In general, theorists from these two traditions are likely to profit by reading each other's work.

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Notes

1. Scott (2003, p. 366) asks two questions that help clarify process indicators of effectiveness: "What did you do?" and "How well did you do it?" Service delivery process indicators that measure "What did you do?" are often more appropriately regarded as outputs in the logic of governance (LOG). Answers to the question of "How well did you do it?" take the form of what we refer to as "outputs-as process" indicators or "final" outputs. Examples include the number of students passing a state examination or vaccinations given in a given year.

2. The construct "policy structures" is similar to the construct "policy designs" as used by Schneider and Sidney (2008). Policy design elements include "problem definition and goals to be pursued, benefits and burdens to the distributed, target populations, rules, tools, implementation structure, social constructions, rationales and underlying assumptions." See also Schneider and Ingram (1997). In the LOG framework, policy variables have traditionally been identified as type of ownership, level of government, policy design elements, mandated actions/behaviors, and fiscal/resource constraints.

3. *Proposition 1*: Policy designs structure opportunities and send varying messages to differently constructed target groups about how government behaves and how they are likely to be treated by government. Both the opportunity structures and the messages impact the political orientation and participation patterns of target populations. *Proposition 2*: The allocation of benefits and burdens to target groups in public policy depends upon their extent of political power and their positive or negative social construction on the deserving or undeserving axis. *Proposition 3*: Policy design elements, including tools, rules, rationales, and delivery structures, differ according to the social constructions and power of target groups. *Proposition 4*: Policymakers, especially elected politicians, respond to, perpetuate, and help create social constructions of target groups in anticipation of public approval or approbation. *Proposition 5*: Social constructions of target groups can change, and public policy design is an important, although certainly not a singular, force for change. The seeds for altering social constructions can often be found in the unanticipated or unintended consequences of previous policy designs" (Ingram et al., 2007, pp. 98–108).

4. Unfortunately, we were unable to place the theory of public sector performance beside the Advocacy Coalition Framework (ACF) diagram due to the complexity of the ACF figure.

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A Quarter Century of the Advocacy Coalition Framework: An Introduction to the Special Issue

Christopher M. Weible, Paul A. Sabatier, Hank C. Jenkins-Smith, Daniel Nohrstedt, Adam Douglas Henry, and Peter deLeon

About two decades ago, Paul Sabatier (1991) urged scholars to develop better theories and empirics for understanding policy processes. Sabatier's proposition, in collaboration with Hank Jenkins-Smith, became the advocacy coalition framework (ACF) (Jenkins-Smith, 1990; Sabatier, 1988; Sabatier & Jenkins-Smith, 1993). The original version of the ACF sought to make important contributions to the policy process literature by responding to several perceived "needs": a need to take longer-term time perspectives to understand policy change; a need for a more complex view of subsystems to include both researchers and intergovernmental relations; a need for more attention to the role of science and policy analysis in public policy; and a need for a more realistic model of the individual rooted more deeply in psychology rather than microeconomics.

The ACF has since become a foundation for guiding theoretically driven inquiry into some of the questions that lie at the core of policy process research: How do people mobilize, maintain, and act in advocacy coalitions? To what extent do people learn, especially from allies and from opponents? What is the role of scientists and scientific and technical information in policymaking? What factors influence both minor and major policy change? Since its inception, these questions have been explored in a variety of contexts from around the world (Weible, Sabatier, & McQueen, 2009).

With applications and recognition come criticisms. One criticism came from Edella Schlager (1995), who challenged ACF researchers to develop an explanation for collective action, particularly to support the existence of coalitions not only by shared beliefs but also by shared patterns of coordination. More than 15 years later, researchers have responded with an increasing number of applications that identify coalitions by both shared beliefs and coordination patterns (Henry, Lubell, & McCoy, 2010; Weible & Sabatier, 2005). Another criticism centered on the applicability of the ACF to subsystems outside of the United States (Sabatier, 1998). In response, dozens of researchers, such as Kübler (2001) and Hirschi and Widmer (2010), have applied

the ACF in different national contexts, and efforts are now shifting toward developing effective strategies for applying the ACF as a foundation for comparative public policy research and for understanding its limitations of applicability in different political systems.

Of course, challenges in ACF-directed inquiry remain and readers will find in this issue of the *Policy Studies Journal (PSJ)* a collection of eight ACF applications that continue to test and develop the theories within the framework. Six of the eight applications in this special issue sprung from an international workshop on the ACF at the University of California-Davis in September 2010. The workshop brought together scholars from around the world to discuss the genesis of the framework, current theoretical and methodological challenges, and current and new lines of inquiry. Two additional articles were submitted to *PSJ* by the authors independent of the workshop organizers. Each article in this collection was subjected to, and survived, the same peer-review process as all other *PSJ* publications. This collection of eight articles illustrates some of the strengths and weaknesses of current ACF scholarship and point to next steps for scholars interested in advancing the understanding and explanation about policy process. This introduction does not provide a thorough overview of the ACF as done in Sabatier (1988), Jenkins-Smith (1990), Sabatier and Jenkins-Smith (1993, 1999) and Sabatier and Weible (2007), among others. Readers are also directed to the articles themselves for more detailed descriptions of the ACF.

An Overview of the Advocacy Coalition Framework Compilation

The compilation and origin of authors typifies current ACF applications and developments (see Table 1). Participating authors come from Canada, Sweden, Switzerland, and the United States. Substantively, three focus on subsystems in the United States, three on subsystems in Europe, and one on 17 subsystems across Canada, Europe, and the United States. The breadth of this compilation range from Albright's article on policy change in Hungary's flood management to Pierce's

Table 1. The International, Geographic, and Substantive Scope of the Compilation

	University/Country	Policy Subsystem Description
Henry (2011)	West Virginia University/United States	Transportation policy, California, United States
Matti and Sandström (2011)	Luleå University of Technology/Sweden	Carnivore management, Sweden
Pierce (2011)	University of Colorado Denver/United States	Foreign policy on Israel, United States
Ingold (2011)	University of Bern/Switzerland	Climate policy, Switzerland
Nohrstedt (2011)	Uppsala University/Sweden	Intelligence policy, Sweden
Albright (2011)	Loyola University Chicago/United States	Flood management policy, Hungary
Montpetit (2011)	Montreal University/Canada	Biotechnology policy, Europe, and United States
Shanahan, Jones, and McBeth (2011)	Montana State University, Harvard University, Idaho State University/United States	Not an empirical application but devoted to theory development

historical analysis of coalitions involved in United States policy on the creation of Israel. One application by Shanahan et al. (2011) posits several hypotheses that explore the intersections of the role of policy narratives in the ACF.

The global scope of applications in this issue of *PSJ* may pose challenges for readers seeking to make sense of the current trend in ACF research and how these trends fit into the past. To assist in the cognitive digestion of this collection and to put this collection into the ACF research program, we have asked the authors to position their article and findings into the broader ACF research program. Thus, the reader will get a sense of past ACF scholarship from each article in this collection.

We also find it useful to make sense of this collection by interpreting the ACF as an actual "framework" that supports multiple theoretical areas of emphasis. Drawing from Laudan's (1978) epistemology of research traditions and the institutional analysis and development (IAD) framework (Ostrom, 2005; Schlager, 2007), a framework provides a foundation for descriptive and prescriptive inquiry by establishing a set of assumptions, scope, and general classifications and relations among key concepts. As a framework, the ACF's assumptions have been clearly established since its conception: the policy subsystem remains the primary unit of analysis; a long-term time perspective is needed for understanding subsystem affairs; the expansive set of actors involved in policy systems may be aggregated into coalitions; and policy designs are interpreted as translations of coalition beliefs (Sabatier, 1988). These assumptions guide researchers toward a better understanding and explanation of a range of topics including the formation and maintenance of coalitions, learning, and policy change. In addition, the flow diagram (adapted from Sabatier & Weible, 2007) specifies some of the key concepts and their relations in the overall process depicted by the ACF (see Figure 1).

Six of the eight articles in this compilation emphasize three major theoretical lines of inquiry within the ACF (see Table 2). The first involves a theoretical emphasis on coalitions where questions focus on why coalitions form, their structure, and their stability over time. Henry (2011) uses an egocentric network correlation method to compare the influence of power and beliefs in structuring coalitions. Matti and Sandström (2011) use Quadratic Assignment Procedure to relate coordination and beliefs within coalitions in a Swedish carnivore management policy subsystem. Ingold (2011) uses block models to identify coalitions on Swiss climate policy. Pierce (2011) examines coalition stability through Tabu clustering of organizations from coded legislative testimonies in his study of U.S. foreign policy on Israel.

Whereas this compilation of articles highlights innovations in analyzing coalitions, the same cannot be said about the study of policy-oriented learning, the second theoretical line. Only Albright (2011) discusses learning and even she is cautious in her claims that learning contributed to policy change in the contexts of flood management in Hungary.

Nohrstedt (2011) and Albright (2011) share a major emphasis on the third theoretical line of inquiry, policy change. The outcome they seek to understand is not coalition membership, structure, or stability, but rather the role and behavior of coalitions in policy change. In both applications, the analysis of policy change is more qualitative than quantitative, with an emphasis on understanding causal
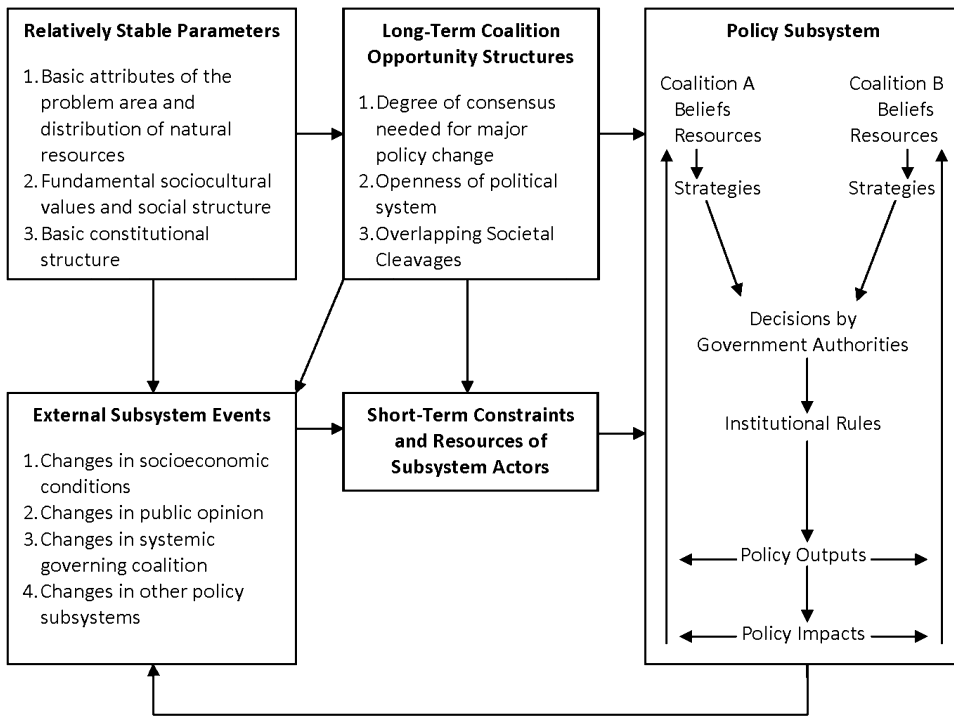
Figure 1. Flow Diagram of the Advocacy Coalition Framework, Circa 2007.

Table 2. Comparison Table of Advocacy Coalition Framework Special Issue Compilation

	Theoretical Emphasis		
	Advocacy Coalitions	Policy-Oriented Learning	Policy Change
Henry (2011)	•		
Matti and Sandström (2011)	•		
Pierce (2011)	•		
Ingold (2011)	•		•
Nohrstedt (2011)	○		•
Albright (2011)	○	○	•

•, major emphasis; ○, minor emphasis.

mechanisms by tracing the steps from stimuli to change; that is, how did the coalitions respond to external events that led to policy change. More the exception is Ingold (2011), who not only uses sophisticated methods to model coalitions, but also examines the role of brokers in helping two coalitions reach a negotiated agreement on Swiss climate policy.

Table 2 shows only six of the eight contributions to the special issue. The remaining two focus on less well-established theoretical emphases within the framework. One is about the role of science in policy—an area that the ACF was initially designed to study but few authors have taken on the task. This compilation exhibits one of the few with a contribution by Montpetit (2011), who examines the role of scientists in

17 biotechnology policy subsystems. Montpetit's propositions challenge the ACF on its depiction of the role of science in policy subsystems and helps clarify future directions in this area. His main argument is that the level of policy subsystem conflict affects the participants' perception of the credibility in science and that scientists may be more divided than other subsystem participants. Similar to arguments by Heintz and Jenkins-Smith (1988) and Jenkins-Smith (1990), Montpetit represents recent scholarship that essentially reverses the causal direction by saying that controversy generates scientific uncertainty rather than the other way around. Readers should also recognize that Montpetit's ACF application does not include the measurement of coalitions, learning, or policy change; that is, he emphasizes different theoretical terrain within the framework compared with the rest of the articles in this compilation.

The last contribution is by Shanahan et al. (2011) on policy narratives. These scholars work from a narrative policy framework (NPF) that provides an approach for studying text, dialogue, or discourse with an eye toward how such policy stories influence policy processes and outcomes. From the narrative policy frameworks, the authors bring policy narratives to the ACF, specifically at the subsystem or meso level of analysis. The focus centers on how policy narratives can help to either measure or explain various ACF concepts, i.e., belief systems, policy learning, public opinion, and strategy. Thus, the NPF offers a new method of inquiry that can be transparent and systematic in analysis and that widens the ACF by marrying bounded rationality and belief systems with an interpretation of social construction in assessing how coalitions engage in strategic framing.

Examining the compilation of articles makes clear that the authors' research questions lead to different theoretical foci. There is also a strikingly similar pattern for methods of data collection and analysis (see Table 3). In studying coalition structure, for example, Henry (2011) and Matti and Sandström (2011) use survey data

Table 3. Comparing Research Questions, Data Sources, and Time Perspectives

	Research Question(s)	Primary Data Sources	Time Perspective (years)
Henry (2011)	What is the structure of advocacy coalitions?	Questionnaire Data	1
Matti and Sandström (2011)	What is the structure of advocacy coalitions?	Questionnaire Data	1
Ingold (2011)	What is the structure of advocacy coalitions and its effect on policy change?	Questionnaire Data	10
Pierce (2011)	What is the structure of advocacy coalitions and how stable are the advocacy coalitions?	Legislative Content Analysis	20
Nohrstedt (2011)	What explains policy change?	Legislative Content Analysis	10
Albright (2011)	What is the relationship between shocks and policy change?	Interviews and Document Analysis	200
Montpetit (2011)	What is the role of science and scientists in policy subsystems?	Questionnaire Data	1

with a time perspective of 1 year or less. Ingold (2011) also relies on survey data to analyze coalition structure but does take a longer-term perspective of 10 years to understand coalition stability. Similarly, Pierce's historical inquiry into coalition stability is based on the coding of legislative hearings using a time perspective that spans more than two decades. Nohrstedt (10 years) and Albright (200 years) both take long-term time perspectives to understand policy change. Montpetit's perspective is short term and comparative across 17 policy subsystems to investigate the role of science and scientists using questionnaire data. Recall that one of the ACF's assumptions is that researchers should take a time perspective of 10 years or more to understand subsystem affairs. Given this assumption, then, how can we reconcile the patterns found in Table 3? First, the ACF assumption that scholars should take a time perspective of 10 years or more remains useful advice, but is more applicable to some research questions than to others. Second, the 10-year recommendation is more of a "vintage test" for subsystems—hypotheses of network structure, for example, may be tested using cross-sectional data; however, in order for the ACF hypotheses to be valid, the subsystem has to have some degree of maturity (~10 years). And third, studies of shorter duration should be seen in the context of the longer-term dynamics within the subsystem. Regardless of the interpretation, this compilation underscores the methodological pluralism that has characterized ACF scholarship, especially in the last decade.

Where Do We Go Next?

The ACF has established itself as a valid research program within the field of policy process research. This special issue highlights the emerging strengths within ACF scholarship including nuanced empirics and theory development about coalitions and policy change as well as new theoretical directions in understanding science in policy and policy narratives. Where do we go from there?

Focus on Theory Testing and Development within the Advocacy Coalition Framework

Table 2 shows that the set of scholars in this collection focus on theoretical categories within the framework.[1] Take, for example, the articles by Henry (2011) and Nohrstedt (2011). Henry seeks to understand coalition structure without a focus on policy change or learning. Alternatively, Nohrstedt seeks to understand policy change with relatively little attention to coalition structure. The different foci by Henry and Nohrstedt reflect their respective research agenda, but also the limits of their attention; that is, parallel attention to all three theoretical categories within the ACF is generally arduous and, thus, it is often more cost-effective to focus on one at a time.

Despite their different emphases and foci, the articles by Henry, Nohrstedt, and the others in this special issue fall within the scope of the ACF. As a single framework, the ACF provides a general depiction of the policy process (see Figure 1). This depiction usually involves the emergence and interaction among coalitions,

learning within and between coalitions, and major and minor policy change. As a general process, the ACF is invaluable because it provides an international community of scholars a common language of important concepts, basic relations among concepts, and a shared scope of inquiry. Even more important, the ACF provides a means for numerous scholars to contribute toward shared and improved knowledge over the important puzzles of the policy process. In this respect, the best level of abstraction for understanding and utilizing the ACF is as a framework that provides the basis for establishing a research program among an international group of scholars, and that provides direction for adjacent but distinct theoretically focused inquiry.

Beyond its role in fostering an international research program, the ACF also provides a rich foundation for theoretical development. Making progress in understanding coalitions, learning, and policy change requires theoretical, empirical, and methodological specialization. Drawing on past experience, progress has been made in response to Schlager's criticism about collective action in coalitions, in part, through the specialized empirical efforts by multiple scholars on developing theory about coalition stability and structure as the outcome variables. Similar efforts are needed for learning and policy change. In this respect, we find that theories provide the best analytical approach for developing and testing hypotheses within the ACF.

The three theories in Table 1 are clearly interdependent. But, if we take Albright (2011) and Nohrstedt (2011) as examples, their contributions are less about coalition structure and stability, but more about explaining change by understanding changes in coalition resources and strategies following major events. Coalitions for Albright and Nohrstedt represent a *means* to an end. In contrast, coalitions are the *end* for Henry, Pierce, and Matti and Sandström. Only Ingold integrates both. While the same scholar should strive toward scientific rigor in understanding and interrelating coalitions, learning, and policy change, achieving such rigor is a nontrivial achievement for experienced and nascent scholar alike.

One of the strengths of thinking of developing theories within the ACF is that it allows for the emergence of new areas of inquiry, such as the development and testing of a theory related to science in policy as shown by Montpetit (2011) and the role of policy narratives in policy processes by Shanahan et al. (2011). Scholars have the opportunity to carve out theoretical niches and to explore and develop these niches over time. Such developments need and should not be limited to those shown in this special issue. One may interpret the ACF as supporting a micro theory of cognition (i.e., hierarchical beliefs, biased assimilation, and "devil shift") that is a powerful driver of theoretical development in all these other higher-level theories. Others may disagree and, instead, view the ACF as borrowing assumptions from micro-cognition theories belonging more in the domain of psychology or social psychology. Putting differences in interpretations aside, we leave it to future scholarship to delineate what is important and what is not in a research program supported by the ACF. Among the next steps are to identify and develop both new and old theories within the ACF and to provide guidelines for relating theories and advice about how to bring theories into research practices.

Using the Advocacy Coalition Framework for Comparative Public
Policy Research

The internationalization of the ACF is making the framework a viable approach for comparative public policy research. To make this happen, the ACF theories need to be contextualized by the subsystem within the broader governing system. This involves a clearer articulation of the properties of policy subsystems as a means for comparisons and of the interdependence of policy subsystems to broader governing systems. To make this happen, one clear step is to apply the ACF in different governing systems, especially South America, Africa, and Asia. Additionally, important issues related to its applicability in the European context still remain. There is also a need for subsystem comparisons within the same governing system, such as education, social, welfare, economic, and foreign policy, as well as across national, regional, and local governmental levels within federal and unitary systems. In all of these efforts, the best strategy is to practice diligence toward transparency in methods and analysis to permit comparisons across case studies conducted by different researchers.

Revisiting Policy-Oriented Learning

A traditional strength of the ACF has been its focus on policy-oriented learning. Only Albright's (2011) piece touches learning in her empirical analysis in this compilation. The challenges in studying policy-oriented learning involve theoretical and methodological issues. First off, how can we define learning theoretically and operationally? What are instances of nonlearning? Can we claim belief change is an indication of learning or is learning best seen through changes in institutions? Does not reinforcement of beliefs, which would reduce uncertainty in the world, also represent an indication of learning? What time spans are appropriate for the study of changing beliefs? How can "learning" that serves chiefly to undermine scientific consensus (Orestes & Conway, 2010) be accommodated in theories of policy-oriented learning? How can the kinds of "motivated reasoning" and belief-system defenses (see, e.g., Kahan, Jenkins-Smith, & Braman, 2011) posited in the ACF's conception of the individual be reconciled with learning? If there were an area within ACF deserving of innovations in theory and methods, it would be policy-oriented learning.

Developing the Role of Coalition Resources

Sabatier and Weible (2007, pp. 201–2) identify six categories of coalition resources: formal legal authority to make policy decisions, public opinion, information, mobilizable troops, financial resources, and skillful leadership. Building from this categorization, contributions in this special issue by Albright (2011), Nohrstedt (2011), and Ingold (2011) continue to advance the literature in this area by exploring how changes in the distribution of coalition resources contribute to policy change. But these applications also raise challenges and questions. Both Nohrstedt and

Ingold, for example, measure resources differently. Moreover, Nohrstedt makes the theoretical argument that resources can be hierarchically arranged with regards to their usefulness to coalitions in generating policy change. Some questions to answer involve issues of context and timing. Are some resources more important in corporatist systems compared with pluralist systems or in parliamentary systems compared with presidential systems? Are some resources more important in maintaining coalition members compared with fostering cross-coalition learning? What is the relationship between events and the redistribution of resources in generating policy change or stasis (Nohrstedt & Weible, 2010)? How and to what extent do coalitions capitalize on new resources to achieve greater influence in policy subsystems? Clearly, the contributions in this special issue do not answer these questions but they continue the effort toward developing better empirical approaches and an understanding of the role of resources in policy processes, an effort that we hope continues.

Investigating the Largely Unexplored

This special issue highlights some of the major components of the ACF from coalitions to policy change, but other components of the ACF were addressed minimally or not at all. Researchers are encouraged to investigate rarely explored areas within the ACF including coalition defection (Jenkins-Smith, St. Clair, & Woods, 1991), the devil shift (Sabatier, Hunter, & McLaughlin, 1987), negotiated agreements (Sabatier & Weible, 2007), political opportunity structures (Kübler, 2001), self-interest (Nohrstedt, 2008), multiple events rather than a single event for policy change (Smith, 2000), public opinion (Herron & Jenkins-Smith, 2006; Jordan & Greenaway, 1998), and using the ACF as a policy analysis tool (Weible, 2007).

Relating the Advocacy Coalition Framework to Other Frameworks and Theories

For decades, scholars have provided multiple frameworks and theories for understanding policy processes. By mentioning the distinction between frameworks and theories, questions may arise about the relationship between the ACF and other theories and frameworks. Take the IAD framework as an example. The relationship between the ACF and the IAD framework is too complicated to discuss fully in this essay and is open to multiple interpretations. Nonetheless, we view both frameworks as complementary perspectives of different aspects of policy processes. The most striking difference is the unit of analysis: ACF focuses on policy subsystems and the IAD framework focuses on action situations. Whereas an action situation can be interpreted as a policy subsystem, the descriptive and explanatory power of institutions within the IAD framework weakens considerably at the policy subsystem level, something recent scholars within the IAD framework are grappling with (Ostrom, 2009; Poteete, Janssen, & Ostrom, 2010). In contrast, the ACF is best applied at the subsystem level and less within specific action situations (e.g., decision making in a partnership). While subsystems are certainly shaped by various institutional configurations, the specifics of these arrangements become most apparent in

the venues (interpreted as a type of action situation) in which coalitions seek to influence subsystem behavior partly through institutional change or stasis. We quote Sabatier (1987, p. 684): "A logical extension of this [IAD framework] is to view policy change as partially the product of attempts by various actors to structure action situations—chiefly institutional rules regarding the range and authority of participants—so as to produce the desired operational decisions." Most importantly, the main point in comparing the ACF and the IAD framework is not to answer all the comparative questions, but to recognize that both frameworks represent different research programs marked by different research cultures, assumptions, scopes, and emphases on major concepts.

Finally, this compilation is the second special issue published in *PSJ* devoted exclusively to a particular framework in policy process research: The first compilation was devoted exclusively to the IAD framework and published in *PSJ* issue 39.1 (see Ostrom, 2011, among others). A forthcoming special issue will feature a compilation of the punctuated equilibrium theory with guest editors Bryan Jones and Frank Baumgartner. We hope readers agree that these compilations represent significant milestones in the continued maturation of *PSJ* as the premier outlet for policy process research.

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Note

1. The theoretical categories in Table 2 match Sabatier and Jenkins-Smith's (1993, 1999) demarcation of the ACF's hypotheses by coalitions, learning, and policy change.

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