JPART 18:543–571

Collaborative Governance in Theory and Practice

Chris Ansell
Alison Gash
University of California, Berkeley

ABSTRACT

Over the past few decades, a new form of governance has emerged to replace adversarial and managerial modes of policy making and implementation. Collaborative governance, as it has come to be known, brings public and private stakeholders together in collective forums with public agencies to engage in consensus-oriented decision making. In this article, we conduct a meta-analytical study of the existing literature on collaborative governance with the goal of elaborating a contingency model of collaborative governance. After reviewing 137 cases of collaborative governance across a range of policy sectors, we identify critical variables that will influence whether or not this mode of governance will produce successful collaboration. These variables include the prior history of conflict or cooperation, the incentives for stakeholders to participate, power and resources imbalances, leadership, and institutional design. We also identify a series of factors that are crucial within the collaborative process itself. These factors include face-to-face dialogue, trust building, and the development of commitment and shared understanding. We found that a virtuous cycle of collaboration tends to develop when collaborative forums focus on "small wins" that deepen trust, commitment, and shared understanding. The article concludes with a discussion of the implications of our contingency model for practitioners and for future research on collaborative governance.

Over the last two decades, a new strategy of governing called "collaborative governance" has developed. This mode of governance brings multiple stakeholders together in common forums with public agencies to engage in consensus-oriented decision making. In this article, we conduct a meta-analytical study of the existing literature on collaborative governance with the goal of elaborating a general model of collaborative governance. The ultimate goal is to develop a contingency approach to collaboration that can highlight conditions under which collaborative governance will be more or less effective as an

Early versions of this article were presented at the Conference on Democratic Network Governance, Copenhagen, the Interdisciplinary Committee on Organizations at the University of California, Irvine, and the Berkeley graduate seminar *Perspectives on Governance.* We thank the participants of these events for their useful suggestions and Martha Feldman, in particular, for her encouragement. We also thank two anonymous reviewers for their thoughtful and useful comments. Address correspondence to the author at cansell@berkeley.edu or aligash@berkeley.edu.

doi:10.1093/jopart/mum032
Advance Access publication on November 13, 2007

approach to policy making and public management.[1] In conducting this meta-analytic study, we adopted a strategy we call "successive approximation": we used a sample of the literature to develop a common language for analyzing collaborative governance and then successively "tested" this language against additional cases, refining and elaborating our model of collaborative governance as we evaluated additional cases.

Although collaborative governance may now have a fashionable management caché, the untidy character of the literature on collaboration reflects the way it has bubbled up from many local experiments, often in reaction to previous governance failures. Collaborative governance has emerged as a response to the failures of downstream implementation and to the high cost and politicization of regulation. It has developed as an alternative to the adversarialism of interest group pluralism and to the accountability failures of managerialism (especially as the authority of experts is challenged). More positively, one might argue that trends toward collaboration also arise from the growth of knowledge and institutional capacity. As knowledge becomes increasingly specialized and distributed and as institutional infrastructures become more complex and interdependent, the demand for collaboration increases. The common metric for all these factors may be, as Gray (1989) has pointed out, the increasing "turbulence" faced by policy makers and managers.

Although Susskind and Cruikshank (1987), Gray (1989), and Fung and Wright (2001, 2003) have suggested more general theoretical accounts of collaborative governance, much of the literature is focused on the *species* rather than the *genus*. The bulk of the collaborative governance literature is composed of single-case case studies focused on sector-specific governance issues like site-based management of schools, community policing, watershed councils, regulatory negotiation, collaborative planning, community health partnerships, and natural resource comanagement (the species).[2] Moreover, a number of the most influential theoretical accounts of this phenomenon are focused on specific types of collaborative governance. Healey (1996, 2003) and Innes and Booher (1999a, 1999b), for example, provide foundational accounts of collaborative planning, as Freeman (1997) does for regulation and administrative law and Wondolleck and Yaffee (2000) do for natural resources management. Our goal is to build on the findings of this rich literature, but also to derive theoretical and empirical claims about the genus of collaborative governance—about the common mode of governing.

DEFINING COLLABORATIVE GOVERNANCE

We define collaborative governance as follows:

> A governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets.

This definition stresses six important criteria: (1) the forum is initiated by public agencies or institutions, (2) participants in the forum include nonstate actors, (3) participants engage directly in decision making and are not merely "consulted" by public agencies, (4) the

1 Thomas (1995) develops a contingency perspective on public participation, though it aims more broadly and is developed from the perspective of public managers.

2 A smaller group of studies evaluates specific types of collaborative governance at a more aggregated level (for example, see Beierle [2000], Langbein [2002], and Leach, Pelkey, and Sabatier [2002]).

forum is formally organized and meets collectively, (5) the forum aims to make decisions by consensus (even if consensus is not achieved in practice), and (6) the focus of collaboration is on public policy or public management. This is a more restrictive definition than is sometimes found in the literature. However, the wide-ranging use of the term has, as Imperial notes, been a barrier to theory building (Imperial 2005, 286). Since our goal is to compare apples with apples (to the extent possible), we have defined the term restrictively so as to increase the comparability of our cases.

One critical component of the term collaborative governance is "governance." Much research has been devoted to establishing a workable definition of governance that is bounded and falsifiable, yet comprehensive. For instance, Lynn, Heinrich, and Hill (2001, 7) construe governance broadly as "regimes of laws, rules, judicial decisions, and administrative practices that constrain, prescribe, and enable the provision of publicly supported goods and services." This definition provides room for traditional governmental structures as well as emerging forms of public/private decision-making bodies. Stoker, on the other hand, argues:

> As a baseline definition it can be taken that governance refers to the rules and forms that guide collective decision-making. That the focus is on decision-making in the collective implies that governance is not about one individual making a decision but rather about groups of individuals or organisations or systems of organisations making decisions (2004, 3).

He also suggests that among the various interpretations of the term, there is "baseline agreement that governance refers to the development of governing styles in which boundaries between and within public and private sectors have become blurred" (Stoker 1998, 17). We opt for a combined approach to conceptualize governance. We agree with Lynn, Heinrich, and Hill that governance applies to laws and rules that pertain to the provision of public goods. However, we adopt Stoker's claim that governance is also about collective decision making—and specifically about collective decision making that includes both public and private actors. Collaborative governance is therefore a type of governance in which public and private actors work collectively in distinctive ways, using particular processes, to establish laws and rules for the provision of public goods.

Although there are many forms of collaboration involving strictly nonstate actors, our definition stipulates a specific role for public agencies. By using the term "public agency," our intention is to include public institutions such as bureaucracies, courts, legislatures, and other governmental bodies at the local, state, or federal level. But the typical public institution among our cases is, in fact, an executive branch agency, and therefore, the term "public agency" is apt. Such public agencies may initiate collaborative forums either to fulfill their own purposes or to comply with a mandate, including court orders, legislation, or rules governing the allocation of federal funds. For example, the Workforce Investment Act of 1998 stipulates that all states and localities receiving federal workforce development funds must convene a workforce investment board that comprised public and private actors in order to develop and oversee policies at the state and local level concerning job training, under- and unemployment. According to our definition, these workforce investments boards are mandated to engage in collaborative governance.

Although public agencies are typically the initiators or instigators of collaborative governance, our definition requires participation by nonstate stakeholders. Some scholars describe interagency coordination as collaborative governance. Although there is nothing inherently wrong with using the term in this way, much of the literature on collaborative governance uses this term to signal a different kind of relationship between public agencies and nonstate stakeholders. Smith (1998, 61), for example, argues that collaboratives involve "representation by key interest groups." Connick and Innes (2003, 180) define collaborative governance as including "representatives of all relevant interests." Reilly (1998, 115) describes collaborative efforts as a type of problem solving that involves the "shared pursuit of government agencies and concerned citizens."

We use the term "stakeholder" to refer both to the participation of citizens as individuals and to the participation of organized groups. For convenience, we will also hereafter use the term "stakeholder" to refer to both public agencies and nonstate stakeholders, though we believe that public agencies have a distinctive leadership role in collaborative governance. Our definition of collaborative governance also sets standards for the type of participation of nonstate stakeholders. We believe that collaborative governance is never merely consultative.[3] Collaboration implies two-way communication and influence between agencies and stakeholders and also opportunities for stakeholders to talk with each other. Agencies and stakeholders must meet together in a deliberative and multilateral process. In other words, as described above, the process must be *collective*. Consultative techniques, such as stakeholder surveys or focus groups, although possibly very useful management tools, are not *collaborative* in the sense implied here because they do not permit two-way flows of communication or multilateral deliberation.

Collaboration also implies that nonstate stakeholders will have real responsibility for policy outcomes. Therefore, we impose the condition that stakeholders must be *directly engaged* in decision making. This criterion is implicit in much of the collaborative governance literature. Freeman (1997, 22), for example, argues that stakeholders participate "in all stages of the decisionmaking process." The watershed partnerships studied by Leach, Pelkey, and Sabatier (2002, 648) make policy and implementation decisions on a range of ongoing water management issues regarding streams, rivers, and watersheds. Ultimate authority may lie with the public agency (as with regulatory negotiation), but stakeholders must directly participate in the decision-making process. Thus, advisory committees may be a form of collaborative governance if their advice is closely linked to decision-making outcomes. In practice (and by design), however, advisory committees are often far removed from actual decision making.

We impose the criteria of *formal* collaboration to distinguish collaborative governance from more casual and conventional forms of agency-interest group interaction. For example, the term collaborative governance might be thought to describe the informal relationships that agencies and interest groups have always cultivated. Surely, interest groups and public agencies have always engaged in two-way flows of influence. The difference between our definition of collaborative governance and conventional interest group influence is that the former implies an explicit and public strategy of organizing this influence. Walter and Petr (2000, 495), for example, describe collaborative governance as a formal activity that "involves joint activities, joint structures and shared resources," and Padilla and Daigle (1998, 74) prescribe the development of a "structured arrangement." This formal arrangement implies organization and structure.

Decisions in collaborative forums are consensus oriented (Connick and Innes 2003; Seidenfeld 2000). Although public agencies may have the ultimate authority to make

3 See Beierle and Long (1999) for an example of collaboration as consultation.

a decision, the goal of collaboration is typically to achieve some degree of consensus among stakeholders. We use the term consensus oriented because collaborative forums often do not succeed in reaching consensus. However, the premise of meeting together in a deliberative, multilateral, and formal forum is to strive toward consensus or, at least, to strive to discover areas of agreement.

Finally, collaborative governance focuses on public policies and issues. The focus on *public* issues distinguishes collaborative governance from other forms of consensus decision making, such as alternative dispute resolution or transformative mediation. Although agencies may pursue dispute resolution or mediation to reduce social or political conflict, these techniques are often used to deal with strictly private conflicts. Moreover, public dispute resolution or mediation may be designed merely to resolve private disputes. While acknowledging the ambiguity of the boundary between public and private, we restrict the use of the term "collaborative governance" to the governance of *public* affairs.

Our definition of collaborative governance is meant to distinguish collaborative governance from two alternative patterns of policy making: adversarialism and managerialism (Busenberg 1999; Futrell 2003; Williams and Matheny 1995). By contrast with decisions made adversarially, collaborative governance is not a "winner-take-all" form of interest intermediation. In collaborative governance, stakeholders will often have an adversarial relationship to one another, but the goal is to transform adversarial relationships into more cooperative ones. In adversarial politics, groups may engage in positive-sum bargaining and develop cooperative alliances. However, this cooperation is ad hoc, and adversarial politics does not explicitly seek to transform conflict into cooperation.

In managerialism, public agencies make decisions unilaterally or through closed decision processes, typically relying on agency experts to make decisions (Futrell 2003; Williams and Matheny 1995). Although managerial agencies may take account of stakeholder perspectives in their decision making and may even go so far as to consult directly with stakeholders, collaborative governance requires that stakeholders be directly included in the decision-making process.

A number of synonyms for collaborative governance may cause confusion. For example, "corporatism" is certainly a form of collaborative governance as we define it. Classic definitions of corporatism (like Schmitter's) emphasize tripartite bargaining between peak associations of labor and capital and the state. Typically, these peak associations have a representational monopoly in their sector (they are "encompassing"). If we start with this narrower definition of corporatism, collaborative governance is the broader term. Collaborative governance often implies the inclusion of a broader range of stakeholders than corporatism, and the stakeholders often lack a representational monopoly over their sector. The term "associational governance" is sometimes used to refer to the more generic mode of governing with associations, but collaborative governance may not even include formal associations. The Porte Alegre project, for example, is a form of collaborative governance that includes individual citizens in budgetary decision making (Fung and Wright 2001).

Sometimes the term "policy network" is used to describe more pluralistic forms of state-society cooperation. A policy network may include both public agencies and stakeholder groups. Moreover, policy networks typically imply cooperative modes of deliberation or decision making among actors within the network. Thus, the terms policy network and collaborative governance can refer to similar phenomena. However, collaborative governance refers to an explicit and formal strategy of incorporating stakeholders into multilateral and consensus-oriented decision-making processes. By contrast, the cooperation inherent in policy networks may be informal and remain largely implicit (e.g., unacknowledged, unstated, nondesigned). Moreover, it may operate through informal patterns of brokerage and shuttle diplomacy rather than through formal multilateral processes.

Collaborative governance and public-private partnership can also sometimes refer to the same phenomenon. Public-private partnerships typically require collaboration to function, but their goal is often to achieve coordination rather than to achieve decision-making consensus per se. A public-private partnership may simply represent an agreement between public and private actors to deliver certain services or perform certain tasks. Collective decision making is therefore secondary to the definition of public-private partnership. By contrast, the institutionalization of a collective decision-making process is central to the definition of collaborative governance.

Finally, a range of terms are often used interchangeably with collaborative governance. Such terms include participatory management, interactive policy making, stakeholder governance, and collaborative management. We prefer the term governance to management because it is broader and encompasses various aspects of the governing process, including planning, policy making, and management. The term collaborative is also more indicative of the deliberative and consensus-oriented approach that we contrast with adversarialism or managerialism than terms like participatory or interactive.

A MODEL OF COLLABORATIVE GOVERNANCE

Armed with a working definition of collaborative governance, we collected a wide range of case studies from the literature. We did this in the typical fashion: we systematically reviewed journals across a wide range of disciplines, including specialist journals in public health, education, social welfare, international relations, etc. We also conducted key word electronic searches using a wide variety of search terms, including those described above and many more (e.g., “comanagement,” “public participation,” “alternative dispute resolution”). Of course, we also followed up on the literature cited in the cases we discovered. Ultimately, our model is built on an analysis of 137 cases. Although international in scope, our search was restricted to literature in English, and thus, American cases are overrepresented. Even a cursory examination of our cases also suggests that natural resource management cases are overrepresented. This is not due to any sampling bias on our part but rather reflects the importance of collaborative strategies for managing contentious local resource disputes.

Most of the studies we reviewed were case studies of an attempt to implement collaborative governance in a particular sector. As you might imagine, the universe of cases we collected was quite diverse and the cases differed in quality, methodology, and intent. Although our definition was restrictive so as to facilitate comparison of apples with apples, representing this diversity was also one of our goals. We perceived experiments with collaborative governance bubbling up in many different policy sectors, with little sense that they were engaged in a similar governance strategy. Surely, we felt, these diverse experiments could learn from each other. Yet this diversity proved a challenge. Our original intention to treat these cases as a large-N data set subject to quasi-experimental statistical evaluation was not successful. Since it is useful for both scholars and practitioners to understand how we arrived at our conclusions, we briefly report on the problems we encountered in conducting our meta-analysis.

Early attempts at systematic coding were frustrating, and we soon developed an understanding of our dilemma. Although scholars studying collaborative governance had already made some important theoretical statements, the language used to describe what was happening was far from standardized. We found ourselves groping to find a common language of description and evaluation even as we were trying to "code" studies. Add to this challenge a severe problem of "missing data"—a reflection of the highly varied motivations of the researchers—and we concluded that a quasi-experimental approach was ill advised. Ultimately, we moved toward a meta-analytic strategy that we call successive approximation. We selected a subset of our cases and used them to develop a common "model" of collaborative governance.[4] We then randomly selected additional subsets of case studies. The second subset was used to "test" the model developed in the first round and then to further "refine" the model. A third sample of cases was used to test the second-round model, and so on. The appendix provides a list of the studies evaluated in each of four successive rounds of evaluation.

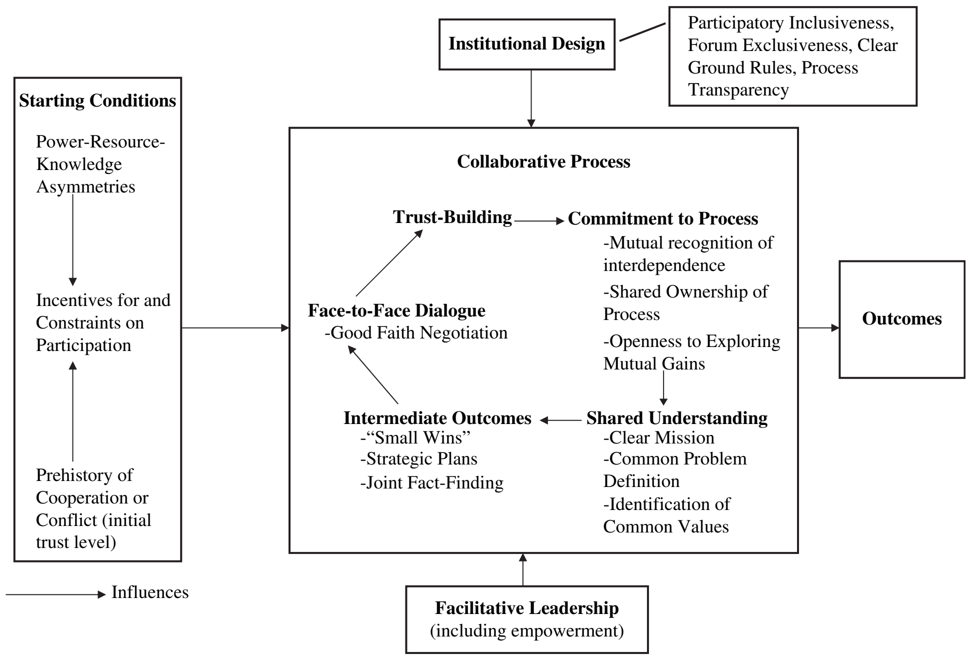
Successive approximation has the advantage of both refining the conceptual model while providing some of the evaluative "discipline" of a quasi-experimental study. However, we are under no illusion that this process yielded "the one" model of collaborative governance. There was a large element of art involved in both specifying and evaluating our model. As we proceeded, we were overwhelmed by the complexity of the collaborative process. Variables and causal relationships proliferated beyond what we felt would ultimately be useful for policy makers and practitioners. Therefore, our model represents a conscious attempt to simplify as much as possible the representation of key variables and their relationships. This goal of simplification led us to stress *common* and *frequent* findings across cases. This approach strengthens the generality of our findings but discounts less universal or frequently mentioned findings from the literature. Toward the end of our analysis, we were ourselves in disagreement about how to represent key relations. We used the final round of case analysis to settle these differences.

One other important clarification needs to be made before we introduce our findings. Our survey of the cases quickly disabused us of the notion that we could use our analysis to answer the question: "Is collaborative governance more effective than adversarial or managerial governance?" Very few of the studies we reviewed actually evaluated governance outcomes. This is not to say that the comparison between collaborative, adversarial, and managerial governance is not relevant to these studies. Experiments with collaborative governance were typically driven by earlier failures with adversarial or managerial approaches. But systematic comparisons were rarely explicitly made. What most studies did try to do was understand the conditions under which stakeholders acted collaboratively. Did they engage in good faith negotiation? Did they pursue mutual gains? Did they achieve consensus? Were they satisfied with the process? In other words, most studies in the collaborative governance literature evaluate "process outcomes" rather than policy or management outcomes.

Figure 1 provides a visual representation of our central findings. The model has four broad variables—starting conditions, institutional design, leadership, and collaborative

4 To avoid recreating the wheel, our first subset was not randomly selected but included many of the most prominent theoretical statements about collaborative governance.

Figure 1
A Model of Collaborative Governance



process. Each of these broad variables can be disaggregated into more fine-grained variables. Collaborative process variables are treated as the core of our model, with starting conditions, institutional design, and leadership variables represented as either critical contributions to or context for the collaborative process. Starting conditions set the basic level of trust, conflict, and social capital that become resources or liabilities during collaboration. Institutional design sets the basic ground rules under which collaboration takes place. And, leadership provides essential mediation and facilitation for the collaborative process. The collaborative process itself is highly iterative and nonlinear, and thus, we represent it (with considerable simplification) as a cycle.

The remainder of the article describes each of these variables in more detail and draws out their implications for a contingency model of collaborative governance.

STARTING CONDITIONS

The literature is clear that conditions present at the outset of collaboration can either facilitate or discourage cooperation among stakeholders and between agencies and stakeholders. Imagine two very different starting points. In one, the stakeholders have a history of bitter division over some emotionally charged local issue and have come to regard each other as unscrupulous enemies. In the other, the stakeholders have a shared vision for what they would like to achieve through collaboration and a history of past cooperation and mutual respect. In both cases, collaboration may be difficult, but the first case must overcome problems of distrust, disrespect, and outright antagonism. We narrowed the critical starting conditions down to three broad variables: imbalances between the resources or power of different stakeholders, the incentives that stakeholders have to collaborate, and the past history of conflict or cooperation among stakeholders.

Power/Resource Imbalances

Power imbalances between stakeholders are a commonly noted problem in collaborative governance (Gray 1989; Short and Winter 1999; Susskind and Cruikshank 1987; Tett, Crowther, and O'Hara 2003; Warner 2006). If some stakeholders do not have the capacity, organization, status, or resources to participate, or to participate on an equal footing with other stakeholders, the collaborative governance process will be prone to manipulation by stronger actors. For example, Bradford (1998) demonstrates that attempts by the Government of Ontario to make job training and occupational health and safety policy through collaborative means were thwarted by the privileged status of firms who, through "informal channels," were able to gain access to senior officials. Ultimately, such imbalances produce distrust or weak commitment (Gray 1989, 119; Warner 2006). American environmental groups are notably skeptical about collaborative governance because they feel that it is advantageous to industry groups (McCloskey 2000). Echeverria (2001), for example, criticizes the Platte River Collaborative Watershed Planning Process because he argues that the negotiating table is uneven and weighted toward development interests. He argues that development interests and environmental advocates have widely different capacities. Because their constituency is so large and diffuse, conservation advocates are routinely at a disadvantage in contests with representatives of relatively more cohesive and more easily organized economic interests. Without strong countermeasures to represent less powerful voices and without "neutral" agency leadership, Schuckman (2001) argues that collaborative processes are skewed against environment groups.

The problem of power imbalances is particularly problematic where important stakeholders do not have the organizational infrastructure to be represented in collaborative governance processes. English (2000), for example, argues that the more diffuse the affected stakeholders, and the more long term the problem horizon, the more difficult it will be to represent stakeholders in collaborative processes. In many cases, the problem is that organized stakeholder groups do not exist to represent individual stakeholders collectively (Buanes et al. 2004; Rogers et al. 1993). Another common problem is that some stakeholders may not have the skill and expertise to engage in discussions about highly technical problems (Gunton and Day 2003; Lasker and Weiss 2003; Merkhofer, Conway, and Anderson 1997; Murdock, Wiessner, and Sexton 2005; Warner 2006). A third common problem is that some stakeholders do not have the time, energy, or liberty to engage in time-intensive collaborative processes (Yaffee and Wondolleck 2003). None of these problems are necessarily insurmountable. Proponents of collaboration have pointed to a range of strategies that can be used to empower weaker or underrepresented groups (Fawcett et al. 1995; Lasker and Weiss 2003; Merkhofer, Conway, and Anderson 1997; Mitchell 2005; Schuckman 2001).[5] In terms of a contingency theory of collaborative governance, we draw the following conclusion:

(1) If there are significant power/resource imbalances between stakeholders, such that important stakeholders cannot participate in a meaningful way, then effective

5 Scholars of regulation worry, however, that empowerment might lead to agency co-optation of stakeholders (Seidenfeld 2000).

collaborative governance requires a commitment to a positive strategy of empowerment and representation of weaker or disadvantaged stakeholders.

Incentives to Participate

Given the largely voluntary nature of participation, it is critical to understand the incentives that stakeholders have to engage in collaborative governance and the factors that shape those incentives (Andranovich 1995; Chrislip and Larson 1994; Gray 1989; Nelson and Weschler 1998; Susskind and Cruikshank 1987). This includes analysis of the incentives for public agencies to sponsor collaborative governance. For example, Ebrahim (2004) compares the different incentives Indian forest and irrigation agencies face and shows how positive financial incentives were critical to collaborative success in the irrigation case.

Scholars of collaborative governance have recognized that power and resource imbalances will affect the incentives of groups to participate in collaborative processes (Gunton and Day 2003; Imperial 2005). Gray (1989) argues that power differences among players influence their willingness to come to the table. Environmentalists prefer the traditional congressional hearing process, she points out, because they believe they have the upper hand in that forum. Therefore, she argues that timing considerations will be important: parties that believe that their power is on the rise will be unlikely to want to bind themselves to collaboration.

Incentives to participate depend in part upon stakeholder expectations about whether the collaborative processes will yield meaningful results, particularly against the balance of time and energy that collaboration requires (Bradford 1998; Geoghegan and Renard 2002; Rogers et al. 1993; Schneider et al. 2003; Warner 2006). Incentives increase as stakeholders see a direct relationship between their participation and concrete, tangible, effectual policy outcomes (Brown 2002). But they decline if stakeholders perceive their own input to be merely advisory or largely ceremonial (Futrell 2003).

Although collaborative approaches may be mandated by courts or legislatures, stakeholder participation is typically voluntary. Consequently, the incentives that stakeholders have to enter into collaboration will loom large as a factor in explaining whether collaborative governance can be successful. Incentives to participate are low when stakeholders can achieve their goals unilaterally or through alternative means.

Stakeholders who view themselves as having strong allies in the courts or in legislatures, for example, will often prefer these alternative venues. Venue shopping can easily undercut collaborative processes. Even if such stakeholders tentatively decide to engage in the collaborative process, they may take their claims to an alternative venue if they become disgruntled with the process or its outcomes (Khademian and Weber 1997). Conversely, the incentive for stakeholders to participate is likely to increase when the collaborative process is the exclusive forum for decision making. In the Nevada turtle case, described by Reilly (2001, 133), successful collaboration ensued after the court refused to invalidate the emergency listing of the tortoise as an endangered species. This ruling prevented the courts from being used as an alternative venue.

Incentives to participate in collaborative governance will also increase if stakeholders perceive achievement of their goals to be dependent on cooperation from other stakeholders (Logsdon 1991). For example, the prevalence of collaborative governance in local resource management disputes is probably related to the joint dependence of local groups on a common resource (Heikkila and Gerlak 2005). The implications of this interdependence can sometimes be counterintuitive. Thus, highly antagonistic stakeholders who are also highly dependent upon each other may move toward a successful collaborative process (Imperial 2005; Yaffee and Wondolleck 2003). Reilly (2001), for example, describes the "balance of terror" that kept rival stakeholders at the bargaining table for fear of losing out if they were not involved. Alternatively, stakeholders with a deep foundation of trust and shared values may fail at collaboration because stakeholders find it easier to achieve their goals unilaterally. Perceptions of interdependence, of course, often depend upon political context. Thus, incentives to participate are often shaped by the "shadow of the state," such as threats of regulation or court (Bentrup 2001; Brown 2002; Short and Winter 1999). In the area of endangered species protection, for example, it is common for collaboration to be seen by all stakeholders as preferable to lengthy and costly court battles.

Alternative venues will be particularly attractive to stakeholders when they believe they can achieve their goals unilaterally. We thus propose two additions to our contingency model:

(2) If alternative venues exist where stakeholders can pursue their goals unilaterally, then collaborative governance will only work if stakeholders perceive themselves to be highly interdependent.

(3) If interdependence is conditional upon the collaborative forum being an exclusive venue, then sponsors must be willing to do the advance work of getting alternative forums (courts, legislators, and executives) to respect and honor the outcomes of collaborative processes.

Prehistory of Antagonism and Cooperation

The literature indicates that the prehistory of antagonism or cooperation between stakeholders will hinder or facilitate collaboration (Andranovich 1995; Gray 1989; cf. Margerum 2002). However, we note that when stakeholders are highly interdependent, a high level of conflict may actually create a powerful incentive for collaborative governance. In a number of cases, policy deadlocks can actually create a strong impetus for collaborative governance (Futrell 2003). Such situations often occur in resource management contexts where the deadlock itself imposes a serious cost on both sides of the dispute. Weber describes the origins of a local collaborative as follows: "Exhausted and frustrated from constant battling over the disposition of natural resources and land management approaches, Brown and Swenson [leaders of the two rival groups] decided to sit down and see if there was an alternative, more amicable method for reconciling their differences" (Weber 2003, 59). Therefore, it is clear that high conflict per se is not necessarily a barrier to collaboration. In many of the successful collaborations described in the literature, stakeholders have come to see that they cannot achieve their goals without engaging in a collaborative process with other stakeholders whose interests are often diametrically opposed.

Collaborative governance, however, often builds on a history of rancor that has institutionalized a social psychology of antagonism. As mediators are keenly aware, "us versus them" dynamics are poisonous to successful collaboration. A prehistory of conflict is likely to express itself in low levels of trust, which in turn will produce low levels of commitment, strategies of manipulation, and dishonest communications. In other words, a prehistory of conflict creates a vicious circle of suspicion, distrust, and stereotyping. On the other hand, a history of successful past cooperation can create social capital and high levels of trust that produce a virtuous cycle of collaboration. We, therefore, suggest the following contingency:

(4) If there is a prehistory of antagonism among stakeholders, then collaborative governance is unlikely to succeed unless (a) there is a high degree of interdependence among the

stakeholders or (b) positive steps are taken to remediate the low levels of trust and social capital among the stakeholders.

We note, however, that strong trust and interdependence among subsets of stakeholders may actually discourage collaborative strategies among a wider set of actors. In a network survey of the Bay Area environmental movement, Ansell (2003) found that cliques of environmental groups were less likely to favor collaborative strategies.

FACILITATIVE LEADERSHIP

Leadership is widely seen as a critical ingredient in bringing parties to the table and for steering them through the rough patches of the collaborative process (Burger et al. 2001; Chrislip and Larson 1994; Frame, Gunton, and Day 2004; Gilliam et al. 2002; Gunton and Day 2003; Heikkila and Gerlak 2005; Huxham and Vangen 2000; Imperial 2005; Lasker and Weiss 2003; Margerum 2002; Murdock, Wiessner, and Sexton 2005; Reilly 1998, 2001; Roussos and Fawcett 2000; Saarikoski 2000; Smith 1998; Vangen and Huxham 2003a). Although "unassisted" negotiations are sometimes possible, the literature overwhelmingly finds that facilitative leadership is important for bringing stakeholders together and getting them to engage each other in a collaborative spirit (Chrislip and Larson 1994; Ozawa 1993; Pine, Warsh, and Maluccio 1998; Reilly 2001; Susskind and Cruikshank 1987). In describing three forms of "assisted negotiation," Susskind and Cruikshank (1987) suggest increasingly more interventionist mediation techniques to the extent that stakeholders are unable to directly collaborate. Facilitation is the least intrusive on the management prerogatives of stakeholders; a facilitator's role is to ensure the integrity of the consensus-building process itself. Mediation increases the role of the third party intervention in the substantive details of the negotiation when stakeholders are ineffective in exploring possible win-win gains. Finally, if stakeholders cannot reach a consensus with the help of mediation, the third party may craft a solution (nonbinding arbitration). Vangen and Huxham (2003a) argue that to move collaboration forward, leaders must often intervene in a more directive way to shape the agenda.

Leadership is crucial for setting and maintaining clear ground rules, building trust, facilitating dialogue, and exploring mutual gains. Vangen and Huxham (2003a) argue that leadership is important for embracing, empowering, and involving stakeholders and then mobilizing them to move collaboration forward. Chrislip and Larson (1994, 125) describe the collaborative leader as a steward of the process (*transforming*, *servant*, or *facilitative* leadership) whose leadership style is "...characterized by its focus on promoting and safeguarding the process (rather than on individual leaders taking decisive action)." Scholars assert that collaborative governance requires specific types of leadership. Ryan (2001, 241), for example, identifies three components of "effective" collaborative leadership: adequate management of the collaborative process, maintaining "technical credibility," and ensuring that the collaborative is empowered to "make credible and convincing decisions that are acceptable to all." Lasker and Weiss (2001, 31) argue that collaborative leaders must have the skills to (1) promote broad and active participation, (2) ensure broad-based influence and control, (3) facilitate productive group dynamics, and (4) extend the scope of the process. Successful collaborations may also use multiple leaders, formally and informally, rather than relying on one leader (Bradford 1998; Lasker and Weiss 2003). Huxham and Vangen (2000) emphasize that effective collaborative leadership is likely to be time, resource, and skill intensive.

Leadership is also important for empowering and representing weaker stakeholders. Ozawa (1993), for example, describes what he calls "transformative" techniques in which mediation procedures helps to bring about a "balance of power" among stakeholders. This style of facilitative leadership also helps stakeholders to explore possibilities for mutual gain. Lasker and Weiss (2003, 31–3) argue that facilitative leaders must "give meaningful voice to participants" and encourage participants to listen to each other. Leaders should stimulate creativity by "synthesiz[ing] the knowledge of diverse participants so the group can create new ideas and understanding."

Where incentives to participate are weak, power and resources are asymmetrically distributed, and prior antagonisms are high, leadership becomes all the more important. The requisite leadership qualities may depend on the precise context. The more that stakeholders fundamentally distrust each other, the more leadership must assume the role of honest broker. However, when incentives to participate are weak or when power is asymmetrical, the leader must often intervene to help keep stakeholders at the table or empower weaker actors. These different functions of leadership can create tensions. Intervention to empower weaker actors, for example, may upset the perception that the leader is an honest broker (Warner 2006). Moreover, there are sometimes tensions between the role of neutrality and the role of persuasion. When conflict is high, the role of honest broker is often given to an outside mediator who appears to have no vested interest in the outcome either way. Yet an outside mediator may also have little influence with the various stakeholders. We derive the following conclusions from this logic:

> (5) Where conflict is high and trust is low, but power distribution is relatively equal and stakeholders have an incentive to participate, then collaborative governance can successfully proceed by relying on the services of an honest broker that the respective stakeholders accept and trust. This honest broker might be a professional mediator.

Such an honest broker will also be able to develop trust during the collaborative process by remaining above the fray and by maintaining the procedural integrity and transparency of the collaborative process. However,

> (6) Where power distribution is more asymmetric or incentives to participate are weak or asymmetric, then collaborative governance is more likely to succeed if there is a strong "organic" leader who commands the respect and trust of the various stakeholders at the outset of the process. "Organic" leaders are leaders who emerge from within the community of stakeholders. The availability of such leaders is likely to be highly contingent upon local circumstances.

An implication of this contingency is that the possibility for effective collaboration may be seriously constrained by a lack of leadership.

INSTITUTIONAL DESIGN

Institutional design refers here to the basic protocols and ground rules for collaboration, which are critical for the procedural legitimacy of the collaborative process. Access to the collaborative process itself is perhaps the most fundamental design issue. Who should be included? It is no surprise to find that the literature on collaborative governance emphasizes that the process must be open and inclusive (Andranovich 1995; Burger et al. 2001; Chrislip and Larson 1994; Gray 1989; Gunton and Day 2003; Lasker and Weiss 2003;

Margerum 2002; Martin, Tett, and Kay 1999; Murdock, Wiessner, and Sexton 2005; Plummer and Fitzgibbon 2004; Power et al. 2000; Reilly 1998, 2001) because only groups that feel they have had a legitimate opportunity to participate are likely to develop a "commitment to the process." As Chrislip and Larson (1994) write, "The first condition of successful collaboration is that it must be broadly inclusive of all stakeholders who are affected by or care about the issue." This includes potentially "troublesome" stakeholders. As Gray (1989, 68) observes, disputes over the legitimacy of including specific stakeholders are certain to arise, but ". . .successful collaboration depends on including a broad enough spectrum of stakeholders to mirror the problem." In the coal collaboration she studied, the attempt to exclude certain stakeholders ultimately threatened the legitimacy of the process (Gray 1989, 155).

Broad participation is not simply tolerated but must be actively *sought*. Reilly (2001), for example, found that successful collaboratives pay considerable attention to getting stakeholders to participate and that exclusion of critical stakeholders is a key reason for failure. In his study of the electric industry, Koch (2005, 601) found that collaborative governance required the inclusion of "small firms and public power organizations" that had traditionally been excluded from conventional models of governance. Broad-based inclusion is not simply a reflection of the open and cooperative spirit of collaborative governance. It is at the heart of a legitimation process based on (1) the opportunity for stakeholders to deliberate with others about policy outcomes and (2) the claim that the policy outcome represents a broad-based consensus. Weak or noninclusive representation, therefore, threatens to undermine the legitimacy of collaborative outcomes (Beierle and Konisky 2001; Geoghegan and Renard 2002; Smith 1998).[6] Proactive strategies of mobilizing less well-represented stakeholders are thus often seen as important (Weech-Maldonado and Merrill 2000).

Yet as we saw earlier, stakeholders may not have an incentive to participate, particularly if they see alternative venues for realizing their agenda. The literature suggests that inclusiveness is therefore closely linked to the *exclusiveness* of the collaborative forum (Schuckman 2001; Tett, Crowther, and O'Hara 2003). When the collaborative forum is "the only game in town," it is easier to motivate stakeholders to participate; conversely, when they are excluded, they may be impelled to seek out alternative venues. For example, Kraft and Johnson (1999, 136) found that environmental groups created an "alternative forum" after being excluded from the Fox River Coalition in Wisconsin. Of course, the existence of alternative forums can also be posed as a negative precondition for effective collaboration. As Reilly (2001, 71) puts it, "When alternative avenues exist for resolution, it is theorized that a collaborative method of resolution is not optimal." Fung and Wright (2001, 24) note that "participants will be much more likely to engage in earnest deliberation when alternatives to it—such as strategic domination or exit from the process altogether—are made less attractive by roughly balanced power."

The literature also suggests that clear ground rules and process transparency are important design features (Busenberg 1999; Geoghegan and Renard 2002; Glasbergen and Driessen 2005; Gunton and Day 2003; Imperial 2005; Murdock, Wiessner, and Sexton 2005; Rogers et al. 1993). Both can be understood in terms of procedural legitimacy

6 Franklin (2001) describes the process of exclusion used during strategic planning for 15 federal agencies.

and trust building. Leaders are asking stakeholders to engage in good faith negotiation and to explore possibilities for compromise and mutual gains. But stakeholders often enter into the collaborative process in a skeptical frame of mind. They are sensitive to issues of equity, concerned about the power of other stakeholders, and alive to the possibility of being manipulated. The legitimacy of the process depends, in part, upon stakeholders' perceptions that they have gotten a "fair hearing." Clear and consistently applied ground rules reassure stakeholders that the process is fair, equitable, and open (Murdock, Wiessner, and Sexton 2005). Process transparency means that stakeholders can feel confident that the public negotiation is "real" and that the collaborative process is not a cover for backroom private deals. Clear definition of roles can also be important (Alexander, Comfort, and Weiner 1998). For example, in his study of an Ontario collaboration, Bradford (1998, 565) argues that it was not clear if the role of state officials was to provide "direction to the social partners, clarif[y] expectations about acceptable outcomes [or lead] the planning process." Formalization of governance structures is therefore sometimes seen as an important design feature (Fung and Wright 2001, 2003; Imperial 2005; Weech-Maldonado and Merrill 2000).

The literature seems to be in less agreement about the importance of consensus rules. We have already defined collaborative governance as "consensus oriented," though pointed out that consensus is not always achieved. The issue here is whether all collaborative decisions should formally require consensus. In the collaboratives studied by Margerum (2002), consensus was seen as promoting representation of individual viewpoints and encouraging more cooperation. However, consensus rules are often criticized for leading to "least common denominator" outcomes (Coglianese and Allen 2003; Gunton and Day 2003). They can also lead to decision stalemates (Coglianese and Allen 2003), though it is possible for collaborative processes to begin with consensus procedures and then to revert to other procedures in the case of stalemate (Till and Meyer 2001).

A final institutional design issue is the use of deadlines. Although some authors point to the importance of deadlines (Glasbergen and Driessen 2005), particularly because collaborative meetings can be endless, Freeman (1997) observes that deadlines may arbitrarily limit the scope of discussion. The problem, she writes, is that deadlines may undercut the ongoing nature of the collaboration, inadvertently reducing incentives for long-term cooperation. Susskind and Cruikshank (1987) and Gunton and Day (2003) suggest that timetables, when used, must be "realistic."

THE COLLABORATIVE PROCESS

Process models of collaborative governance sometimes describe collaboration as developing in stages. For example, Susskind and Cruikshank (1987, 95) describe the consensus-building process as having a prenegotiation phase, a negotiation phase, and an implementation phase; Gray (1989) defines a three-step collaborative process: (1) problem setting, (2) direction setting, and (3) implementation; and Edelenbos (2005, 118) identifies a three-step process that includes preparation, policy development, and decision making, with each step having several stages. A stage model of collaboration is important for calling attention to the changing strategies of collaboration as context changes. Yet in our reading of the literature, we were struck at the way in which the collaborative process is cyclical rather than linear. Collaboration often seemed to depend on achieving a virtuous cycle between communication, trust, commitment, understanding, and outcomes (Huxham 2003; Imperial 2005). This cyclical—or if you prefer, *iterative*—process is important across all the stages of collaboration.

We found the collaborative process difficult to represent and we suspect this is precisely because of the nonlinear character of interaction. Our representation of the collaboration process as a cycle is clearly itself a great simplification. Yet it calls attention to the way in which feedbacks from early collaboration can positively or negatively influence further collaboration. It is even difficult to know where to start a description of the collaborative process. However, since communication is at the heart of collaboration, we begin with face-to-face dialogue.

Face-to-Face Dialogue

All collaborative governance builds on face-to-face dialogue between stakeholders. As a consensus-oriented process, the "thick communication" allowed by direct dialogue is necessary for stakeholders to identify opportunities for mutual gain. However, face-to-face dialogue is more than merely the medium of negotiation. It is at the core of the process of breaking down stereotypes and other barriers to communication that prevent exploration of mutual gains in the first place (Bentrup 2001). It is at the heart of a process of building trust, mutual respect, shared understanding, and commitment to the process (Gilliam et al. 2002; Lasker and Weiss 2003; Plummer and Fitzgibbon 2004; Schneider et al. 2003; Tompkins and Adger 2004; Warner 2006).

We argue that face-to-face dialogue is a *necessary* but not *sufficient* condition for collaboration. For example, it is possible for face-to-face dialogue to reinforce stereotypes or status differences or to increase antagonism and mutual disrespect. Yet it is difficult to imagine effective collaboration without face-to-face dialogue. The literature on collaboration abounds with examples of the way stereotypes have been broken down through face-to-face communication.

Trust Building

The lack of trust among stakeholders is a common starting point for collaborative governance (Weech-Maldonado and Merrill 2000). The literature strongly suggests that the collaborative process is not merely about negotiation but also about building trust among stakeholders (Alexander, Comfort, and Weiner 1998; Beierle and Konisky 2001; Brinkerhoff 1999; Glasbergen and Driessen 2005; Imperial 2005; Murdock, Wiessner, and Sexton 2005; Short and Winter 1999; Tett, Crowther, and O'Hara 2003; Vangen and Huxham 2003b). In fact, when there has been a prehistory of antagonism among stakeholders, we found that trust building often becomes the most prominent aspect of the early collaborative process and can be quite difficult to cultivate (Murdock, Wiessner, and Sexton 2005). This is not to say that trust building is a separate phase from dialogue and negotiation about substantive matters. But good collaborative leaders recognize that they must build trust among erstwhile opponents before stakeholders will risk manipulation. What becomes evident in the case studies is that trust building is a time-consuming process that requires a long-term commitment to achieving collaborative outcomes. Therefore,

> (7) If the prehistory is highly antagonistic, then policy makers or stakeholders should budget time for effective remedial trust building. If they cannot justify the necessary time and cost, then they should not embark on a collaborative strategy.

Commitment to the Process

Although the terminology used varies rather widely in the literature, case studies suggest that stakeholders' level of commitment to collaboration is a critical variable in explaining success or failure (Alexander, Comfort, and Weiner 1998; Gunton and Day 2003; Margerum 2001; Tett, Crowther, and O'Hara 2003). In a survey of American and Australian collaborative groups, Margerum (2002) found that "member commitment" was the most important factor facilitating collaboration. The weak commitment of public agencies to collaboration, particularly at the headquarters level, is often seen as a particular problem (Yaffee and Wondolleck 2003).

Commitment is closely related, of course, to the original motivation to participate in collaborative governance. But stakeholders may wish to participate in order to make sure their perspective is not neglected or to secure legitimacy for their position or to fulfill a legal obligation, etc. By contrast, commitment to the process means developing a belief that good faith bargaining for mutual gains is the best way to achieve desirable policy outcomes (Burger et al. 2001). Such a belief is not altruistic. A developer may believe that the best way to get his houses built is to engage in a good faith bargaining effort with environmentalists. Yet commitment to collaboration can still require a very significant psychological shift, particularly among those who regard their positions in absolute terms (Putnam 2004; Putnam, Burgess, and Royer 2003). As a first step, such a shift requires what is sometimes called "mutual recognition" (Saarikoski 2000) or "joint appreciation" (Gray 1989; Plummer and Fitzgibbon 2004).

Commitment also poses a tricky dilemma. Commitment to the collaborative process requires an up-front willingness to abide by the results of deliberation, even if they should go in the direction that a stakeholder does not fully support. Of course, the consensus-oriented basis of collaborative governance greatly reduces the risks for stakeholders. Yet the dynamics of bargaining can lead in unexpected directions, and stakeholders can experience pressure to conform to positions they do not fully embrace (Saarikoski 2000). It is easy to see why trust is such an important element of collaboration. Commitment depends on trust that other stakeholders will respect your perspectives and interests. It is also easy to see how clear, fair, and transparent procedures are critical for commitment. Before committing to a process that could go in unpredictable directions, stakeholders must feel confident that the procedure of deliberation and negotiation has integrity. A sense of commitment and ownership can be enhanced as involvement increases (Gilliam et al. 2002).

An additional dimension of commitment is sometimes called "ownership of the process." In the typical adversarial or managerial process, nonstate stakeholders are outside observers of the decision making. They may seek to lobby, pressure, or influence public agency decision makers, but it is the agency that is ultimately held responsible for policy outcomes. Collaborative governance shifts "ownership" of decision making from the agency to the stakeholders acting collectively. Again, this implies a tricky dilemma.

Stakeholders are no longer simply critics of the process. They now "own" the decision-making process collectively with other stakeholders who may hold opposing views (El Ansari 2003; Geoghegan and Renard 2002; Weech-Maldonado and Merrill 2000).

Ownership implies shared responsibility for the process. This responsibility requires stakeholders to see their relationship with other stakeholders in a new light, one in which they share responsibility with their opponents. Trust is critical because why would you share responsibility with people you don't trust? If you adopt a "responsible" perspective toward the process, what is to guarantee that your opponent will not take advantage of your willingness to act in good faith? Shared ownership may be hindered by power imbalances or different perceptions about who should take the initiative. During interviews with stakeholders involved in sea urchin harvesting, for example, Warner (1997) found that fishery personnel and divers had different perceptions of their degree of ownership over the collaborative process. Divers viewed themselves as assisting the fishery staff, whereas the fishery staff expected divers to lead the decision-making process in some areas.

Mandated forms of collaboration may be critical where incentives to participate are weak, but mandated cooperation can also disguise the lack of real commitment on the part of stakeholders. Therefore,

(8) Even when collaborative governance is mandated, achieving "buy in" is still an essential aspect of the collaborative process.

High interdependence among the stakeholders is likely to enhance commitment to collaboration, but it may also enhance incentives to act manipulatively and co-optively. These temptations are probably checked where collaboration is not a one-off deal but depends on ongoing cooperation. The literature on collective action, of course, suggests that this horizon of the future can be an important condition for reciprocity. Therefore,

(9) Collaborative governance strategies are particularly suited for situations that require ongoing cooperation.

Shared Understanding

At some point in the collaborative process, stakeholders must develop a shared understanding of what they can collectively achieve together (Tett, Crowther, and O'Hara 2003). Shared understanding is variously described in the literature as "common mission" (Alexander, Comfort, and Weiner 1998; Roussos and Fawcett 2000), "common ground" (Wondolleck and Yaffee 2000), "common purpose" (Tett, Crowther, and O'Hara 2003), "common aims" (Huxham 2003), "common objectives" (Padilla and Daigle 1998), "shared vision" (Manring and Pearsall 2004; Walter and Petr 2000; Wondolleck and Yaffee 2000), "shared ideology" (Waage 2001), "clear goals" (Glasbergen and Driessen 2005; Roberston and Lawes 2005), "clear and strategic direction" (Margerum 2002), or the "alignment of core values" (Heikkila and Gerlak 2005). Shared understanding can also imply agreement on a definition of the problem (Bentrup 2001; North 2000; Pahl-Wostl and Hare 2004). Or, it might mean agreement on the relevant knowledge necessary for addressing a problem.

The development of shared understanding can be seen as part of a larger "collaborative learning process" (Daniels and Walker 2001). Blatner et al. (2001) have developed a useful survey strategy for assessing the extent of collective learning that results from collaboration.

Intermediate Outcomes

A number of the case studies suggest that collaboration is more likely to ensue when the possible purposes and advantages of collaboration are relatively concrete and when "small wins" from collaboration are possible (Chrislip and Larson 1994; Roussos and Fawcett 2000; Warner 2006; Weech-Maldonado and Merrill 2000). Although these intermediate outcomes may represent tangible outputs in themselves, we represent them here as critical process outcomes that are essential for building the momentum that can lead to successful collaboration. These small wins can feed back into the collaborative process, encouraging a virtuous cycle of trust building and commitment (Rogers et al. 1993; Vangen and Huxham 2003b).

These considerations lead us to draw the following conclusions:

> (10) If prior antagonism is high and a long-term commitment to trust building is necessary, then intermediate outcomes that produce small wins are particularly crucial. If, under these circumstances, stakeholders or policy makers cannot anticipate these small wins, then they probably should not embark on a collaborative path.

Joint fact finding is a type of intermediate outcome that a number of authors mentioned in a positive light (Saarikoski 2000). We also note the argument of Vangen and Huxham (2003b) that small wins may not be an appropriate strategy for trust building where stakeholders have more ambitious goals that cannot easily be parsed into intermediate outcomes. They suggest that in this situation, trust can be built by early joint exploration of the overall value of collaboration.

CONCLUSION: TIME, TRUST, AND INTERDEPENDENCE

The term "collaborative governance" promises a sweet reward. It seems to promise that if we govern collaboratively, we may avoid the high costs of adversarial policy making, expand democratic participation, and even restore rationality to public management. A number of the studies reviewed here have pointed toward the value of collaborative strategies: bitter adversaries have sometimes learned to engage in productive discussions; public managers have developed more fruitful relationships with stakeholders; and sophisticated forms of collective learning and problem solving have been developed. Other studies, however, point to the problems that collaborative strategies encounter as they pursue these valued outcomes: powerful stakeholders manipulate the process; public agencies lack real commitment to collaboration; and distrust becomes a barrier to good faith negotiation. Our purpose in this article has been to draw positive and negative findings together into a common analytical framework that can begin to specify the conditions under which we can expect collaborative governance to work (at least in terms of "process outcomes") and where we might expect it to founder.

Based on a meta-analysis of 137 studies of collaborative governance across a range of policy areas, our findings are largely empirically inductive—though we have also sought to build on and incorporate prior theoretical work. In reviewing these empirical and theoretical studies, our goal has been to identify the contingent conditions that facilitate or discourage successful collaboration. In exploring these contingent conditions, our goal has been to move beyond a situation in which collaborative governance is regarded as inherently “good” or “bad.” We want scholars and practitioners to ask themselves about the contextual conditions likely to facilitate or discourage the desired outcomes of collaborative governance. We believe that this “contingency” approach is useful both for practitioners who may be considering the adoption of a collaborative strategy and for scholars designing future research.

As a summary of the critical variables our meta-analysis found to be important in collaboration, figure 1 provides the basic analytical framework for this contingency theory. Practitioners can use this framework to identify key challenges and limitations to a collaborative strategy. Are there serious differences in the power of stakeholders? Do all stakeholders have the organizational capacity to participate in a meaningful way? Is there sufficient leadership to guide the process through difficult patches? How much remedial trust building is necessary? These questions and many more are suggested by figure 1.

We regard this article as offering a contingency “theory” in the sense that it offers a framework for organizing a series of contingent propositions and cause-and-effect relationships. Our claim is not that it is a complete or fully worked out set of propositions or causal relationships but rather that it provides a basis for further empirical testing and theory elaboration. Figure 1, for example, specifies causal relationships between different variables that affect collaborative governance outcomes. This specification is the result of our inductive meta-analysis of a highly diverse set of cases. As described earlier, we adopted a meta-analytic strategy of successive approximation in lieu of a more ambitious quasi-experimental strategy because key concepts in this literature were weakly specified and our “data” were not systematic. For the purposes of future research, figure 1 can be treated as a hypothesis that might be evaluated using a quasi-experimental design.

Two possible strategies for a quasi-experimental design have occurred to us in the course of this research. First, a survey of individual stakeholders might be utilized to operationalize key behavioral variables, such as “commitment to the process.” Good examples of the use of surveys in collaborative governance research include Margerum (2001) and Frame, Gunton, and Day (2004). Pre- and postcollaboration surveys might be a particularly useful strategy for assessing attitudinal change (Blatner et al. 2001). Second, research might be designed to take advantage of “natural experiments” in collaboration: situations where there are multiple independent cases of collaboration operating under the auspices of a similar regulatory program, public agency, or law. Examples include Murdock, Wiessner, and Sexton’s (2005) study of the Environmental Protection Agency’s Project XL or Schneider et al.’s (2003) study of the National Estuary Program.

Our point, however, is not that aggregate statistical analysis is the only useful research strategy that could build on our research. Figure 1 might also suggest further case study research. Case studies are particularly valuable where the interaction between variables is nonlinear, and we believe intensive ethnographic research might be the most successful strategy for developing greater insight into the nonlinear aspects of the collaborative process. Case study research into trust building, the development of shared understanding, and commitment formation would be particularly valuable.

We conclude by emphasizing three core contingencies suggested by our analysis: time, trust, and interdependence. Figure 1 does not fully represent the prominence of these contingencies because their influence is pervasive and not easy to parse as distinct variables. Yet practitioners ought to consider each of these general contingencies before embarking on a collaborative strategy.

Many of the case studies note that collaborative governance is a time-consuming process (Gunton and Day 2003; Imperial 2005; Margerum 2002; Roussos and Fawcett 2000; Till and Meyer 2001; Warner 2006). Consensus building, in particular, requires time and cannot be rushed (Coglianese and Allen 2003; Yaffee and Wondolleck 2003). When remedial trust building is critical, the time necessary for increasing trust is likely to add significant time to the process. Therefore, collaborative governance is probably not a good strategy for situations in which agencies must make or implement decisions quickly. However, it needs to be pointed out that up-front investment in effective collaboration can sometimes save considerable time and energy in downstream implementation. Once stakeholders achieve a working consensus, the literature suggests that implementation can occur quite rapidly. Thus, policy makers might be more favorable to collaborative governance where they expect a difficult implementation process.

Reinforcing Logsdon's (1991) argument about interdependence and the model by Vangen and Huxham (2003b) of trust building, our analysis suggests that agencies ought to consider the interactive effects of trust and interdependence on potential collaboration. We found, for instance, that high conflict situations characterized by low trust could still be managed collaboratively if the stakeholders were highly interdependent. Interdependence fosters a desire to participate and a commitment to meaningful collaboration, and it is possible to build trust in situations of high interdependence. By contrast, where interdependence is weaker, it will be difficult to effectively build trust. Stakeholders will engage in collaboration with one eye on alternative (noncollaborative) strategies. If one stakeholder is threatening to defect from collaboration, the commitment of all stakeholders is likely to suffer, and it will be difficult to develop a sense of ownership, understanding, or trust.

It is important to point out that both trust and interdependence are partly endogenous—they are shaped in positive or negative ways by the collaborative process itself. Thus, stakeholders entering into a collaborative process may not perceive themselves to be particularly interdependent. But through dialogue with other stakeholders and through achievement of successful intermediate outcomes, they may come to a new understanding of their relationship (Heikkila and Gerlak 2005; cf. Warner 2006). Many of the cases we read suggest that stakeholders come to recognize their interdependence through the collaborative process.

Whether collaborative governance is a passing fancy, we do not know. We confidently predict, however, that the demand for better cooperation and coordination between government and stakeholders is unlikely to wane in the near future.

APPENDIX

First approximation (32): Andranovich (1995), Beierle (2000), Booher and Innes (2002), Bryson and Crosby (1992), Chrislip and Larson (1994), Coggins (1999), Daniels and Walker (2001), Echeverria (2001), Fawcett et al. (1995), Freeman (1997), Fung and Wright (2001), Gray (1989), Healey (1996, 2003), Innes and Booher (1999a, 1999b), Kraft and Johnson (1999), Langbein (2002), Lee (2003), Lober (1997), Nelson and Weschler (1998), Ozawa (1993), Reilly (1998, 2001), Schedler and Glastra (2001), Schuckman (2001), Smith (1998), Susskind and Cruikshank (1987), Takahashi and Smutny (2002), Thomas (1995), Weber (2003), and Wondolleck and Yaffee (2000).

Second approximation (30): Ansell (2003), Beierle and Konisky (2001), Coglianese (1997), Conley and Moote (2003), Ebrahim (2004), Ekoko (2000), Elliot et al. (1999), English (2000), Fung (2001), Gebhardt, Kaphingst, and De Jong (2000), Hamalainen et al. (2001), Imperial (2005), Innes and Booher (2003), Leach, Pelkey, and Sabatier (2002), Logsdon (1991), Manring (1998, 2005), McCloskey (2000), Meyer (1996), Mizrahi and Abramson (2000), Murdock, Wiessner, and Sexton (2005), Phillips (2001), Plummer and Fitzgibbon (2004), Schneider et al. (2003), Seidenfeld (2000), Springer, Stokes Sharp, and Foy (2000), Waage (2001), Walter and Petr (2000), Weech-Maldonado and Merrill (2000), Yaffee and Wondolleck (2003).

Third approximation (33): Alexander, Comfort, and Weiner (1998), Borrini-Feyerabend (1996), Bouwen and Taillieu (2004), Bradford (1998), Brinkerhoff (1999), Brown (2002), Coglianese and Allen (2003), Coughlin et al. (1999), Farrington and Boyd (1997), Franklin (2001), Geoghegan and Renard (2002), Gilliam et al. (2002), Gunton and Day (2003), Heikkila and Gerlak (2005), Lasker and Weiss (2003), Lasker, Weiss, and Miller (2001), Lindell (2004), Manring and Pearsall (2006), Margerum (2002), Merkhofer, Conway, and Anderson (1997), Mitchell (2005), Mutimukuru, Nyirenda, and Matose (2002), Plummer and Fitzgibbon (2004), Saarikoski (2000), Short and Winter (1999), Tett, Crowther, and O'Hara (2003), Till and Meyer (2001), Tompkins and Adger (2004), Verstraeten et al. (2003), Warner (1997), Warner (2006), Weaver and Moore (2004), and Weible, Sabatier, and Lubell (2004).

Fourth approximation (42): Abdelhadi et al. (2004), Blatner et al. (2001), Bryson, Cunningham, and Lokkesmoe (2002), Buanes et al. (2004), Burger et al. (2001), Busenberg (1999), Carter et al. (2003), Edelenbos (2005), El Ansari (2003), Frame, Gunton, and Day (2004), Futrell (2003), Geldenhuys (2004), Gemmill and Bamidele-Izu (2002), Glasbergen and Driessen (2005), Heikkila and Gerlak (2005), Huxham (2003), Huxham and Vangen (2000), Innes et al. (2006), Klijn and Koopenjan (2000), Lee (2003), Mahon et al. (2003), Margerum (2001), Martin, Tett, and Kay (1999), Matta, Kerr, and Chung (2005), Mitchell and Shortell (2000), North (2000), Pahl-Wostl and Hare (2004), Pelletier et al. (1999), Pokorny et al. (2004), Power et al. (2000), Redpath et al. (2004), Rhoads et al. (1999), Roberston and Lawes (2005), Rogers et al. (1993), Roussos and Fawcett (2000), Rummery (2006), Ryan (2001), Selman (2004), Sjoberg (2003), Vangen and Huxham (2003a, 2003b), Waage (2001), and Warner (2006).

REFERENCES

Abdelhadi, A. W., H. S. Adam, Mohamed A. Hassan, and Takeshi Hata. 2004. Participatory management: Would it be a turning point in the history of the Gezira Scheme? *Irrigation and Drainage* 53:429–36.

Alexander, Jeffery A., Maureen E. Comfort, Bryan J. Weiner. 1998. Governance in public-private community health partnerships: A survey of the Community Care Network: SM demonstration sites. *Nonprofit Management & Leadership* 8:231–332.

Andranovich, Greg. 1995. Achieving consensus in public decision making: Applying interest based problem-solving to the challenges of intergovernmental collaboration. *Journal of Applied Behavioral Research* 31:429–45.

Ansell, Christopher K. 2003. Community embeddedness and collaborative governance in the San Francisco bay area environmental movement. In *Social movements and networks: Relational approaches to collective action*, ed. Mario Diani and Doug McAdam, 123–44. Oxford: Oxford Univ. Press.

Beierle, Thomas C. 2000. The quality of stakeholder-based decisions: Lessons from the case study record. Discussion Paper 00-56, Resources for the Future.

Beierle, Thomas C., and David Konisky. 2001. What are we gaining from stakeholder involvement? Observations from environmental planning in the Great Lakes. *Environment and Planning C: Government and Policy* 19:515–27.

Beierle, Thomas C., and Rebecca J. Long. 1999. Chilling collaboration: The Federal Advisory Committee Act and stakeholder involvement in environmental decisionmaking. *Environmental Law Reporter* 29:10399.

Bentrup, Gary. 2001. Evaluation of a collaborative model: A case study of analysis of watershed planning in the Intermountain West. *Environmental Management* 27:739–48.

Blatner, Keith, Matthew Carroll, Steven Daniels, and Greg Walker. 2001. Evaluating the application of collaborative learning to the Wenatchee fire recovery planning effort. *Environmental Impact Assessment Review* 21:241–70.

Booher, David E., and Judith Innes. 2002. Network power in collaborative planning. *Journal of Planning Education and Research* 21:221–36.

Borrini-Feyerabend, Grazia. 1996. *Collaborative management of protected areas: Tailoring the approach to the context.* Gland, Switzerland: IUCN–The World Conservation Union.

Bouwen, Rene, and Tharsi Taillieu. 2004. Multi-party collaboration as social learning for interdependence: Developing relational knowing for sustainable natural resource management. *Journal of Community & Applied Social Psychology* 14:137–53.

Bradford, Neil. 1998. Prospects for associative governance: Lessons from Ontario, Canada. *Politics & Society* 26:539–73.

Brinkerhoff, Derick W. 1999. Exploring state-civil society collaboration: Policy partnerships in developing countries. *Nonprofit and Voluntary Sector Quarterly* 28 (Suppl. 1): 59–86.

Brown, A. J. 2002. Collaborative governance versus constitutional politics: Decision rules for sustainability from Australia's South East Queensland forest agreement. *Environmental Science and Policy* 5:19–32.

Bryson, John M., and Barbara C. Crosby. 1992. *Leadership for the common good.* San Francisco, CA: Jossey-Bass.

Bryson, John M., Gary Cunningham, and Karen Lokkesmoe. 2002. What to do when stakeholders matter: The case of problem formulation for the African American Men Project of Hennepin County, Minnesota. *Public Administration Review* 62:568–84.

Buanes, Arild, Svein Jentoft, Geir Runar Karlsen, Anita Maurstad, and Siri Søreng. 2004. In whose interest? An exploratory analysis of stakeholders in Norwegian coastal zone planning. *Ocean & Coastal Management* 47:207–23.

Burger, Joanna, Michael Gochfeld, Charles W. Powers, Lynn Waishwell, Camilla Warren, and Bernard D. Goldstein. 2001. Science, policy, stakeholders, and fish consumption advisories: Developing a fish fact sheet for Savannah River. *Environmental Management* 27: 501–14.

Busenberg, George. 1999. Collaborative and adversarial analysis in environmental policy. *Policy Sciences* 32:1–11.

Carter, Jane, Brieke Steenhof, Esther Haldimann, and Nurlan Akenshaev. 2003. Collaborative forest management in Kyrgyzstan: Moving from top-down to bottom-up decisionmaking. Gatekeeper Series No. 108, International Institute for Environment and Development.

Chrislip, David, and Carl E. Larson. 1994. *Collaborative leadership: How citizens and civic leaders can make a difference.* San Francisco, CA: Jossey-Bass.

Coggins, Goerge C. 1999. Regulating federal natural resources: A summary case against devolved collaboration. *Ecology Law Quarterly* 25:602.

Coglianese, Cary. 1997. Assessing consensus: The promise and the performance of negotiated rulemaking. *Duke Law Journal* 46:1255.

Coglianese, Cary, and Laurie K. Allen. 2003. Building sector-based consensus: A review of the EPA's Common Sense Initiative. Working Paper RWPO3, JFK School of Government.

Conley, Alexander, and Margaret A. Moote. 2003. Evaluating collaborative natural resource management. *Society and Natural Resources* 16:371–86.

Connick, Sarah, and Judith Innes. 2003. Outcomes of collaborative water policy making: Applying complexity thinking to evaluation. *Journal of Environmental Planning and Management* 46:177–97.

Coughlin, C., M. Hoben, D. Manskopf, and S. Quesada. 1999. *A systematic assessment of collaborative resource management partnerships.* Ann Arbor: University of Michigan, School of Natural Resources and Environment.

Daniels, Steven, and Gregg B. Walker. 2001. *Working through environmental conflict: The collaborative learning approach.* Westport, CT: Praeger.

Ebrahim, Alnoor. 2004. Institutional preconditions to collaboration: Indian forest and irrigation policy in historical perspective. *Administration & Society* 36:208–42.

Echeverria, John D. 2001. No success like failure: The Platte River collaborative watershed planning process. *William and Mary Environmental Law and Policy Review* 25:559.

Edelenbos, Jurian. 2005. Institutional implications of interactive governance: Insights from Dutch practice. *Governance: An International Journal of Policy, Administration and Institutions* 18:111–34.

Ekoko, Francois. 2000. Balancing politics, economics, and conservation: The case of the Cameroon forestry law reform. *Development and Change* 31:131–54.

El Ansari, Walid. 2003. Educational partnerships for public health: Do stakeholders perceive similar outcomes? *Journal of Public Health Management Practice* 9:136–56.

Elliot, Susan, Donald C. Cole, Paul Krueger, Nancy Voorberg, and Sarah Wakefield. 1999. The power of perception: Health risk attributed to air pollution in an urban industrial neighborhood. *Risk Analysis* 19:621–34.

English, Mary. 2000. Who are the stakeholders in environmental risk decisions? *Risk: Health, Safety & Environment* 11:243–54.

Farrington, John, and Charlotte Boyd. 1997. Scaling up the participatory management of common pool resources. *Development Policy Review* 15:371–91.

Fawcett, Stephen B., Adrienne Paine-Andrews, Vincent T. Francisco, Jerry A. Schultz, Kimber P. Richter, Rhonda K. Lewis, Ella L. Williams, et al. 1995. Using empowerment theory in collaborative partnerships for community health and development. *American Journal of Community Psychology* 23:677–97.

Frame, Tanis M., Thomas Gunton, and J. C. Day. 2004. The role of collaboration in environmental management: An evaluation of land and resource planning in British Columbia. *Journal of Environmental Planning and Management* 47:59–82.

Franklin, Aimee. 2001. Serving the public interest? Federal experiences with participation in strategic planning. *American Review of Public Administration* 31:126–38.

Freeman, Jody. 1997. Collaborative governance in the administrative state. *UCLA Law Review* 45:1.

Fung, Archon. 2001. Accountable autonomy: Toward empowered deliberation in Chicago schools and policing. *Politics & Society* 29:73–103.

Fung, Archon, and Erik Olin Wright. 2001. Deepening democracy: Innovations in empowered participatory governance. *Politics & Society* 29:5–41.

———. 2003. *Deepening democracy: Institutional innovations in empowered participatory governance.* London: Verso.

Futrell, Robert. 2003. Technical adversarialism and participatory collaboration in the U.S. chemical weapons disposal program. *Science, Technology, & Human Values* 28:451–82.

Gebhardt, Thomas, Kimberly Kaphingst, and William De Jong. 2000. A campus-community coalition to control alcohol-related problems off campus. *Journal of American College Health* 48:211–15.

Geldenhuys, Coert J. 2004. Bark harvesting for traditional medicine: From illegal resource degradation to participatory management. *Scandinavian Journal of Forest Research* 19 (Suppl. 4): 103–15.

Gemmill, Barbara, and Abimbola Bamidele-Izu. 2002. The Role of NGOs and Civil Society in global environmental governance. In *Global environmental governance: Options & opportunities*, ed. D. C. Esty and M. H. Ivanova, 1–24. New Haven, CT: Yale Center for Environmental Law and Policy.

Geoghegan, Tighe, and Yves Renard. 2002. Beyond community involvement: Lessons from the insular Caribbean. *Parks* 12 (2): 16–26.

Gilliam, Aisha, David Davis, Tracey Barrington, Romel Lacson, Gary Uhl, and Ursula Phoenix. 2002. The value of engaging stakeholders in planning and implementing evaluations. *AIDS Education and Prevention* 14 (Suppl. A): 5–17.

Glasbergen, Pieter, and Peter P. J. Driessen. 2005. Interactive planning of infrastructure: The changing role of Dutch project management. *Environment and Planning C: Government and Policy* 23: 263–77.

Gray, Barbara. 1989. *Collaborating: Finding common ground for multi-party problems.* San Francisco, CA: Jossey-Bass.

Gunton, Thomas I., and J. C. Day. 2003. The theory and practice of collaborative planning in resource and environmental management. *Environments* 31 (2): 5–19.

Hamalainen, Raimo, Eero Kettunen, Harri Ehtamo, and Mika Marttunen. 2001. Evaluating a framework for multi-stakeholder decision support in water resource management. *Group Decision and Negotiation* 10:331–53.

Healey, Patsy. 1996. Consensus-building across difficulty divisions: New approaches to collaborative strategy making. *Planning Practice and Research* 11:207–16.

———. 2003. Collaborative planning in perspective. *Planning Theory* 2:101–23.

Heikkila, Tanya, and Andrea K. Gerlak. 2005. The formation of large-scale collaborative resource management institutions: Clarifying the roles of stakeholders, science, and institutions. *Policy Studies Journal* 33:583–612.

Huxham, Chris. 2003. Theorizing collaboration practice. *Public Management Review* 5:401–23.

Huxham, Chris, and Siv Vangen. 2000. Leadership in the shaping and implementation of collaboration agendas: How things happen in a (not quite) joined-up world. *Academy of Management Journal* 43:1159–75.

Imperial, Mark. 2005. Using collaboration as a governance strategy: Lessons from six watershed management programs. *Administration & Society* 37:281–320.

Innes, Judith, and David E. Booher. 1999a. Consensus building and complex adaptive systems. *Journal of the American Planning Association* 65:412–23.

———. 1999b. Consensus building as role playing and bricolage: Toward a theory of collaborative planning. *Journal of the American Planning Association* 65:9–26.

———. 2003. Collaborative policymaking: Governance through dialogue. In *Deliberative policy analysis: Understanding governance in the network society*, ed. M. A. Hajer and H. Wagenaar, 33–59. Cambridge: Cambridge Univ. Press.

Innes, Judith E., Sarah Connick, Laura Kaplan, and David E. Booher. 2006. Collaborative governance in the CALFED program: Adaptive policy making for California water. Working Paper Series Paper WP-2006-01, Institute of Urban and Regional Development.

Khademian, Anne, and Edward Weber. 1997. From agitation to collaboration: Clearing the air through negotiation. *Public Administration Review* 57 (5): 396–410

Klijn, E. H., and J. F. M. Koopenjan. 2000. Politicians and interactive decision making: Institutional spoilsports or playmakers. *Public Administration* 78:365–87.

Koch, Charles H., Jr. 2005. Collaborative governance in the restructured electric industry. *Wake Forest Law Review* 40:589.

Kraft, Michael, and Bruce N. Johnson. 1999. Clean water and the promise of collaborative decision making: The case of the Fox-Wolf Basin in Wisconsin. In *Toward sustainable communities: Transition and transformations in environmental policy*, ed. D. Mazmanian and M. Kraft, 113–52. Boston, MA: MIT Press.

Langbein, Laura. 2002. Responsive bureaus, equity, and regulatory negotiation: An empirical view. *Journal of Policy Analysis and Management* 21:449–65.

Lasker, Roz D., and Elisa S. Weiss. 2003. Broadening participation in community problem-solving: A multidisciplinary model to support collaborative practice and research. *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 80:14–60.

Lasker, Roz D., Elisa S. Weiss, Rebecca Miller. 2001. Partnership synergy: A practical framework for studying and strengthening the collaborative advantage. *The Milbank Quarterly*, 79 (2): 179–205.

Leach, William, Neil W. Pelkey, and Paul A. Sabatier. 2002. Stakeholder partnerships as collaborative policymaking: Evaluation criteria applied to watershed management in California and Washington. *Journal of Policy Analysis and Management* 21:645–70.
Lee, Kuang-Chung. 2003. Enhancing collaborative governance for natural area management: Some experiences from Taiwan. *International Planning Studies* 8:35–51.
Lindell, Mats. 2004. From conflicting interests to collective consent in advanced vocational education: Policymaking and the role of stakeholders in Sweden. *Journal of Education and Work* 17:257–78.
Lober, Doublas J. 1997. Explaining the formation of business-environmentalist collaboration: Collaborative windows and the paper task force. *Policy Science* 30:1–24.
Logsdon, Jeanne. 1991. Interests and interdependence in the formation of social problem-solving collaborations. *Journal of Applied Behavioral Science* 27:23–37.
Lynn, Lawrence E., Carolyn J. Heinrich, and Carolyn J. Hill. 2001. *Improving governance: A new logic for empirical research.* Washington, DC: Georgetown Univ. Press.
Mahon, Robin, Sharon Almerigi, Patrick McConney, Christopher Parker, and Leo Brewster. 2003. Participatory methodology used for sea urchin co-management in Barbados. *Ocean & Coastal Management* 46:1–25.
Manring, Nancy J. 1998. Collaborative resource management: Organizational benefits and individual costs. *Administration & Society* 30:274–90.
———. 2005. The politics of accountability in national forest planning. *Administration & Society* 37:57–88.
Manring, Susan L., and Sam Pearsall. 2004. Creating an adaptive ecosystem management network among stakeholders of the Lower Roanoke River, North Carolina, USA. *Ecology and Society* 10 (2): 16. http://www.ecologyandsociety.org/vol10/iss2/art16/ (accessed October 31, 2007).
Margerum, Richard D. 2001. Organizational commitment to integrated and collaborative management: Matching strategies to constraints. *Environmental Management* 28:421–31.
———. 2002. Collaborative planning: Building consensus and building a distinct model for practice. *Journal of Planning Education and Research* 21:237–53.
Martin, Jane, and Lyn Tett, and Helen Kay. 1999. Developing collaborative partnerships: Limits and possibilities for schools, parents and community education. *International Studies in Sociology of Education* 9:59–75.
Matta, Jagannadha Rao, John Kerr, and Kimberly Chung. 2005. From forest regulation to participatory facilitation: Forest employee perspectives on organizational change and transformation in India. *Journal of Environmental Planning and Management* 48:475–90.
McCloskey, Michael. 2000. Problems with using collaboration to shape environmental public policy. *Valparaiso University Law Review* 34:423.
Merkhofer, Miley W., Rarilee Conway, and Robert G. Anderson. 1997. Multiattribute utility analysis as a framework for public participation in siting a hazardous waste management facility. *Environmental Management* 21:831–9.
Meyer, Carrie A. 1996. NGOs and environmental public goods: Institutional alternatives to property rights. *Development and Change* 27:453–74.
Mitchell, Bruce. 2005. Participatory partnerships: Engaging and empowering to enhance environmental management and quality of life? *Social Indicators Research* 71:123–44.
Mitchell, Shannon, and Stephen Shortell. 2000. The governance and management of effective community health partnerships: A typology for research, policy and practice. *Milbank Quarterly* 78:241–89.
Mizrahi, Terry, and Julie Abramson. 2000. Collaboration between social workers and physicians: Perspectives on a shared case. *Social Work in Health Care* 31 (3): 1–24.
Murdock, Barbara, Carol Wiessner, and Ken Sexton. 2005. Stakeholder participation in voluntary environmental agreements: Analysis of 10 Project XL case studies. *Science, Technology & Human Values* 30:223–50.
Mutimukuru, T., R. Nyirenda, and Frank Matose. 2002. Learning amongst ourselves: Towards adaptiveness stakeholders in forest management through social learning, in Mafungautsi. Presented

at The Commons in an Age of Globalisation, the 9th Conference of the International Association for the Study of Common Property, Victoria Falls, Zimbabwe, June 17-21. http://dlc.dlib.indiana.edu/archive/00000882/.

Nelson, Lisa, and Louis Weschler. 1998. Institutional readiness for integrated watershed management: The case of the Maumee River. *Social Science Journal* 35:565–76.

North, Peter. 2000. Is there space for organisation from below within the UK government's action zones? A test of 'collaborative planning'. *Urban Studies* 37:1261–78.

Ozawa, P. 1993. Improving citizen participation in environmental decisionmaking: The use of transformative mediator techniques. *Environment and Planning C: Government and Policy* 11:103–17.

Padilla, Yolanda C., and Lesley E. Daigle. 1998. Inter-agency collaboration in an international setting. *Administration in Social Work* 22 (1): 65–81.

Pahl-Wostl, Claudia, and Matt Hare. 2004. Processes of social learning in integrated resource management. *Journal of Community & Applied Social Psychology* 14:193–206.

Pelletier, David, Vivica Kraak, Christine McCullum, Ulla Uusitalo, and Robert Rich. 1999. The shaping of collective values through deliberative democracy: An empirical study from New York's North Country. *Policy Sciences* 32:103–31.

Phillips, Susan. 2001. More than stakeholders: Reforming state-voluntary sector relations. *Journal of Canadian Studies* 35:182–201.

Pine, Barbara, Robin Warsh, and Anthony Maluccio. 1998. Participatory management in a public child welfare agency: A key to effective change. *Administration in Social Work* 22 (1): 19–32.

Plummer, Ryan, and John Fitzgibbon. 2004. Co-management of natural resources: A proposed framework. *Environmental Management* 33:876–85.

Pokorny, Benno, Ravi Prabhu, Cynthia McDougall, and Roberto Bauch. 2004. Local stakeholders' participation in developing criteria and indicators for sustainable forest management. *Journal of Forestry* 102 (1): 35–40.

Power, James, John McKenna, Michael J. MacLeod, Andrew J. G. Cooper, and Gerard Convie. 2000. Developing integrated participatory management strategies for Atlantic dune systems in County Donegal, Northwest Ireland. *Ambio* 29:143–9.

Putnam, Linda L. 2004. Transformations and critical moments in negotiations. *Negotiations Journal* 20:275–95.

Putnam, Linda L., Guy Burgess, and Rebecca Royer. 2003. We can't go on like this: Frame changes in intractable conflicts. *Environmental Practice* 5: 247–55.

Redpath, S. M., B. E. Arroyo, F. M. Leckie, P. Bacon, N. Bayfield, R. J. Gutierrez, and S. J. Thirgood. 2004. Using decision modeling with stakeholders to reduce human-wildlife conflict: A Raptor-Grouse case study. *Conservation Biology* 18:350–9.

Reilly, Thom. 1998. Communities in conflict: Resolving differences through collaborative efforts in environmental planning and human service delivery. *Journal of Sociology and Welfare* 25: 115–42.

———. 2001. Collaboration in action: An uncertain process. *Administration in Social Work* 25 (1): 53–73.

Rhoads, Bruce L., David Wilson, Michael Urban, and Edwin E. Herricks. 1999. Interaction between scientists and nonscientists in community-based watershed management: Emergence of the concept of stream naturalization. *Environmental Management* 24:297–308.

Roberston, John, and Michael J. Lawes. 2005. User perceptions of conservation and participatory management of iGxalingenwa Forest, South Africa. *Environmental Conservation* 32:64–75.

Rogers, Todd, Beth Howard-Pitney, Ellen C. Feighery, David G. Altman, Jerry M. Endres, and April G. Roeseler. 1993. Characteristics and participant perceptions of tobacco control coalitions in California. *Health Education Research, Theory & Practice* 8:345–57.

Roussos, Stergios Tsai, and Stephen B. Fawcett. 2000. A review of collaborative partnerships as a strategy for improving community health. *Annual Review of Public Health* 21:269–402.

Rummery, Kirstein. 2006. Partnerships and collaborative governance in welfare: The citizenship challenge. *Social Policy & Society* 5:293–303.

Ryan, Claire. 2001. Leadership in collaborative policy-making: An analysis of agency roles in regulatory negotiations. *Policy Sciences* 34:221–45.

Saarikoski, Heli. 2000. Environmental impact assessment (EIA) as collaborative learning process. *Environmental Impact Assessment Review* 20:681–700.

Schedler, Petra, and Folke Glastra. 2001. Communicating policy in late modern society: On the boundaries of interactive policy making. *Policy & Politics* 29:337–49.

Schneider, Mark, John Scholz, Mark Lubell, Denisa Mindruta, and Matthew Edwardsen. 2003. Building consensual institutions: Networks and the national estuary program. *American Journal of Political Science* 47:143–58.

Schuckman, Matthew. 2001. Making hard choices: A collaborative governance model for the biodiversity context. *Washington University Law Quarterly* 79:343.

Seidenfeld, Mark. 2000. Empowering stakeholders: Limits on collaboration for flexible regulation. *William and Mary Law Review* 41:411.

Selman, Paul. 2004. Community participation in the planning and management of cultural landscapes. *Journal of Environmental Planning and Management* 47:365–92.

Short, Christopher, and Michael Winter. 1999. The problem of common land: Towards stakeholder governance. *Journal of Environmental Planning and Management* 42:613–30.

Sjoberg, Lennart. 2003. Attitudes and risk perceptions of stakeholders in a nuclear waste siting issue. *Risk Analysis* 23:739–49.

Smith, Susan. 1998. Collaborative approaches to Pacific Northwest fisheries management: The salmon experience. *Willamette Journal of International Law and Dispute Resolution* 6:29.

Springer, David, Deborah Stokes Sharp, and Theresa Foy. 2000. Coordinated service delivery and children's well-being: Community resource coordination groups of Texas. *Journal of Community Practice* 8 (2): 39–52.

Stoker, Gerry. 1998. Governance as theory: Five propositions. *International Social Science Journal* 50:17–28.

———. 2004. Designing institutions for governance in complex environments: Normative rational choice and cultural institutional theories explored and contrasted. Economic and Social Research Council Fellowship Paper No. 1.

Susskind, Lawrence, and Jeffrey Cruikshank. 1987. *Breaking the impasse: Consensual approaches to resolving public disputes.* New York: Basic Books.

Takahashi, Lois, and Gayla Smutny. 2002. Collaborative windows and organizational governance: Exploring the formation and demise of social service partnership. *Non Profit and Voluntary Sector Quarterly* 31:165–85.

Tett, Lynn, Jim Crowther, and Paul O'Hara. 2003. Collaborative partnerships in community education. *Journal of Education Policy* 18:37–51.

Thomas, John Clayton. 1995. *Public participation in public decisions.* San Francisco, CA: Jossey-Bass.

Till, John E., and Kathleen R. Meyer. 2001. Public involvement in science and decision Making. *Health Physics* 80:370–8.

Tompkins, Emma L., and W. Neil Adger. 2004. Does adaptive management of natural resources enhance resilience to climate change? *Ecology and Society* 9 (2): 10. http://www.ecologyandsociety.org/vol9/iss2/art10 (accessed October 31, 2007).

Vangen, Siv, and Chris Huxham. 2003a. Enacting leadership for collaborative advantage: Dilemmas of ideology and pragmatism in the activities of partnership managers. *British Journal of Management* 14:S61–76.

———. 2003b. Nurturing collaborative relations: Building trust in interorganizational collaboration. *Journal of Applied Behavioral Science* 39:5–31.

Verstraeten, Gert, Jean Poesen, Gerard Govers, Katleen Gillijns, Anton Van Rompaey, and Kristof Van Oost. 2003. Integrating science, policy and farmers to reduce soil loss and sediment delivery in Flanders, Belgium. *Environmental Science & Policy* 6:95–103.

Waage, S. A. 2001. (Re)claiming space and place through collaborative planning in rural Oregon. *Political Geography* 20:839–57.

Walter, Uta, and Christopher Petr. 2000. A template for family centered interagency collaboration. *Families in Society: The Journal of Contemporary Human Services* 81:494–503.

Warner, Gary. 1997. Participatory management, popular knowledge, and community empowerment: The case of sea urchin harvesting in the Vieux-Fort area of St. Lucia. *Human Ecology* 25:29–46.

Warner, Jeroen F. 2006. More sustainable participation? Multi-stakeholder platforms for integrated catchment management. *Water Resources Development* 22 (1): 15–35.

Weaver, Mark, and Richard Moore. 2004. Generating and sustaining collaborative decision-making in watershed groups. Paper presented at the Annual Meeting of the Rural Sociological Society, Sacramento, CA, August 11–15.

Weber, Edward P. 2003. *Bringing society back in: Grassroots ecosystem management, accountability, and sustainable communities.* Cambridge, MA: MIT Press.

Weech-Maldonado, Robert, and Sonya Merrill. 2000. Building partnerships with the community: Lessons from the Camden Health Improvement Learning Collaborative. *Journal of Healthcare Management* 45:189–205.

Weible, Christopher, Paul A. Sabatier, and Mark Lubell. 2004. A comparison of a collaborative and top-down approach to the use of science in policy: Establishing marine protected areas in California. *Policy Studies Journal* 32:187–207.

Williams, Bruce, and Albert Matheny. 1995. *Democracy, dialogue, and environmental disputes: The contested languages of social regulation.* New Haven, CT: Yale Univ. Press.

Wondolleck, Julia M., and Steven L. Yaffee. 2000. *Making collaboration work: Lessons from innovation in natural resource management.* Washington, DC: Island Press.

Yaffee, Steven L., and Julia Wondolleck. 2003. Collaborative ecosystem planning processes in the United States: Evolution and challenges. *Environments* 31 (2): 59–72.