DELIBERATIVE POLICY ANALYSIS

Understanding Governance in the Network Society

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Collaborative policymaking: governance through dialogue

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The Sacramento Water Forum, a group of contentious stakeholders from environmental organizations, business, local government and agriculture, spent five years in an intensive consensus-building process. In 1999 they agreed on a strategy and procedures for managing the limited water supply in northern California's semi-desert. Leaders in the region were sufficiently impressed to set up a similar collaborative policy dialogue around the equally volatile issues of transportation and land use in this fast-growing region. When environmental groups decided to sue the regional transportation agency for not protecting the region's air quality, the business community was ready to pull out of this nascent policy dialogue. They were stopped by a leading businessman and elected official who had been involved in the Water Forum and influenced by this way of working. He told the other business leaders in an eloquent speech, 'We have no choice. We have to stay at the table. There is no alternative.' They accused him of being 'one of them', suggesting he had crossed over to the environmentalist side. This businessman told them they were wrong, saying 'The Water Forum process transformed me. I now understand that collaboration is the only way to solve problems. I do it now in everything I do, including running my business and dealing with my suppliers, employees and customers.'[1] The business community stayed with the process and consensus building around transportation got underway.

The Water Forum is not unique. A collaborative group known as CALFED, including nineteen[2] state and federal agencies with jurisdiction over California

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[1] Quote from interview conducted by Sarah Connick as part of a study of outcomes of water policymaking processes in 1999, funded by the University of California Water Resources Center, Centers for Water and Wildland Resources.

[2] This number keeps expanding as new agencies join.

water and dozens of competing stakeholder groups, has been at work since 1995 to resolve issues over the management of California's limited and irregular water supply. These agencies had conflicting mandates, as some regulated water quality and others parcelled out water to different constituencies. As a result they had often been at odds and seldom cooperated. By 2000 CALFED participants reached agreement on two statewide bond issues amounting to nearly $3 billion for new water-related infrastructure and environmental restoration. They created enough political capital among themselves and the stakeholders to get voters to support passage of these bonds. The group also reached agreement on controversial water-management procedures and quantities of water to be provided to different users in drought years. The group has accepted the new idea that the environment and protection of endangered species have a legitimate claim on the water supply, along with more traditional interests such as farming and urban uses. The group created innovative cooperative strategies for maximizing the availability and reliability of water for all stakeholders (Connick forthcoming; Connick and Innes 2001).

This experiment in intergovernmental cooperation has its roots in an earlier five-year consensus-building process around the management of the San Francisco Bay and Delta which produced new relationships among previously warring parties and educated them in a new form of governance (Innes and Connick 1999). The learning of those early groups was transferred to other players in other settings over time through a linked set of collaborative dialogues. While the stakeholders still at times bring lawsuits against one another or push for competing legislation, they also continue to use a collaborative approach to address and resolve water issues.

While water is the California policy arena where the most sophisticated collaborative dialogues are taking place, parallel experiments are going on in many other arenas, including fiscal reform, school reform, habitat conservation, growth management, transportation planning and planning for sustainable development. This kind of dialogue has been most common at the regional and state levels, where organized interest groups can provide representatives to sit at the table (Innes et al. 1994). At the local level in many cities around the USA citizens are coming together with local agencies in dialogues to deal with budgetary issues, community visioning (Helling 1998), and land-use planning. Around the world communities, regions and even nations are seeking collaborative ways to make policy as an alternative to confrontation, top-down decision-making, or paralysis. People in many other countries, from the nation-state down to the local community, are trying new ways to decide on public action, ways which are more inclusive of interests, more open to new options and opportunities, more broadly discursive and more personally and publicly satisfying. These often produce qualitatively different answers than do the traditional methods. They are at the leading edge of new forms of governance and deliberation

(Bryson and Crosby 1992; Fischer 2001; Forester 1999; Gualini 2001; Healey 1993, 1997, 1998; Meppem and Bourke 1999; Susskind and Field 1996).

There are reasons for the emergence of these practices at this time. We have entered the Information Age (Castells 1996). Technological change is breathtakingly rapid, information flows around the globe in days or even hours, and people from different cultures are exposed to one another as never before. We have less shared identity with our fellow citizens and less stable local communities than we once did. We cannot conduct business as usual, nor can we count on shared values or objectives. Power is increasingly fragmented as globalization creates more and varied sources of power. Even the most powerful public agencies, corporations or individuals cannot produce the results they want when working alone. The terrorist attack on New York and Washington has demonstrated as nothing else before that the USA cannot address its problems alone, but it needs to work with nations around the world.

In this chapter we will outline theory to help understand how and why collaborative policy dialogues work in practice and how they differ from traditional policymaking. We pull together key ideas from the various theory-building pieces the authors have published elsewhere and move beyond those to an overall theory for collaborative dialogue as a deliberative governance strategy (Booher and Innes 2001; Innes 1992, 1996b, 1998; Innes and Booher 1999a, 1999b, 1999d, 2000a). This theory is built in great part on a decade of research by the first author on more than a dozen in-depth case studies of consensus building and collaborative dialogue in a variety of environmental management and planning arenas.[3] The chapter is also informed by twenty years of experience of the second author in developing new forms of policymaking in California. This includes more than a decade as participant, facilitator and organizer of collaborative policy processes at the state and local level on issues ranging across housing, transportation, governance, natural resources, fiscal reform and infrastructure.

Several bodies of thought also inform our theory. In particular, the work of Jürgen Habermas on the concept of communicative rationality has helped us to develop a normative concept for collaborative dialogue. This set of ideas frames conditions for discourse, speech and emancipatory knowledge (Habermas 1981). These ideas converge closely with the actual practices of successful collaborative policy dialogues as practitioners define them (Society of Professionals in Dispute Resolution 1997; Susskind, McKearnon and Thomas-Larmer 1999) and theory about the transformative power of dialogue (Bush and

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[3] These studies involved extensive in-depth interviewing of participants and observers, observation of processes and review of mountains of supporting documents, as well as review of media reports. The research inquired about the incentives for stakeholder collaboration and agreement, the nature of the processes, and the outcomes (Connick forthcoming; Connick and Innes 2001; Innes et al. 1994; Innes and Gruber 2001a).

Folger 1994; Forester 1999). The basic work of Barbara Gray on the nature and practice of collaboration informs this chapter (Gray 1991), as does recent work on dialogue – what it is like, how it works and what it accomplishes (Bohm 1996; Isaacs 1999; Yankelovich 1999). Literature in management focusing on collaborative methods of conducting business has also been influential for us (Brown and Eisenhardt 1998; Drucker 1989; Saxenian 1994; Senge 1990).

Our theory is informed by a view of the world as a complex system at the edge of chaos (Axelrod and Cohen 1999; Holland 1998; Johnson 2001; Kauffman 1995; Prigogine and Stenger 1984). Unlike periods when conditions are stable or slowly changing, rapidly changing conditions allow great creativity while bringing risk. Most importantly, they offer the opportunity to improve the system so it can be more productive, more adaptive and ultimately more sustainable. The way such a complex system can be adaptive and creative, according to these theorists, is if it is well networked so that its various components can coevolve. It must have distributed intelligence among its nodes or agents, each of which has the capacity to make choices based on their local knowledge, and there must be information flowing among these agents as well as regular feedback from its environment. We view collaborative policymaking as not just a method which can solve problems when there is conflict in the traditional policy system. It is, even more importantly, a way to establish new networks among the players in the system and increase the distribution of knowledge among these players. This includes knowledge of each other's needs and capabilities and of the dynamics of the substantive problems in society, whether in transportation, environment or housing policy. Collaborative planning, we contend, has emerged as a highly adaptive and creative form of policymaking and action in the Information Age. It is an emerging mode of governance.

Collaborative policy dialogue is far from the dominant policy discourse, nor is it suited to all policy conditions. Multiple ways of conducting planning and policy coexist uneasily in the policy world. Each of these follows different principles and entails different beliefs about reality, about what is ethical and appropriate, and about how players should or should not be involved. These forms of making policy make sense in different situations. While collaborative dialogue has probably always existed among small groups of equals trying to solve a problem, as a policymaking process applied to complex and controversial public issues including many stakeholders widely differing in knowledge and power, it remains in an experimental stage. Collaborative dialogue on a large scale requires skills, training and adherence to a set of practices that run counter to the norms of discussion to which many people are accustomed. The ability to create, manage and follow up on such processes on a large scale has emerged from the theory and the practice of alternative dispute resolution that goes back to the 1970s. This includes particularly the pathbreaking work of *Getting to Yes* (Fisher and Ury 1981), which twenty years ago laid out new principles

for negotiation. The most important of these are that parties must begin with their interests rather than their positions and that they must neither give in nor insist on their own way. They must learn about each other. They must seek mutual-gain solutions that as far as possible satisfy all interests and enlarge the pie for all. They must persist in both competing and cooperating to make the negotiation produce durable results. The tension between cooperation and competition and between advocacy and inquiry is the essence of public policy collaboration.

Authentic dialogue

To achieve collaboration among players with differing interests and a history of conflict, the dialogue must be authentic, rather than rhetorical or ritualistic (Isaacs 1999). Most of us are so unaccustomed to authentic dialogue in public situations that to create and manage it typically requires the help of a professional facilitator and special training for participants. Stakeholders have been accustomed to concealing their interests and engaging in positional bargaining rather than in discursive inquiry and speculative discussion or interest-based bargaining. They tune out those with whom they assume they disagree rather than explore for common ground.

The methods for creating authentic dialogue are just beginning to be documented and analysed (Susskind, McKearnon and Thomas-Larmer 1999) to see what works, how and why. Experience of seasoned facilitators has shown that an analysis of each of the interests and of the conflicts must be done and shared among the group at the outset. The group must define its own ground rules and its own mission rather than be given these by an external authority. It must design tasks in which members have both interest and expertise (Innes et al. 1994). The facilitator must manage discussion so that participants feel comfortable and safe in saying what is on their minds even if they think others will not like it. Joint fact finding is essential to ensure that all participants agree on the nature of the problem and the conditions which affect it.

Staff of many kinds are critical to such complex dialogues – not only staff to facilitate meetings and mediate outside of meetings, but also to gather and analyse information, keep records of meetings, and prepare materials. For collaboration to work, staff must be trusted by all participants. One of the reasons the Water Forum was so successful was that the group hired its own staff and consultants who were answerable only to them. By contrast, another collaborative group we observed in transportation planning had to rely on the agency staff, who not only had an agenda different from that of the group, but controlled funds on which the participants relied. Needless to say, the participants seldom spoke their minds on many delicate issues. This was one of the main

factors interfering with successful collaborative dialogue in that case (Innes and Gruber 2001a).

To be authentic, in our view, a dialogue must meet certain conditions which Habermas has laid out as prerequisites for communicative rationality (Fox and Miller 1996; Habermas 1981). Each speaker must legitimately represent the interest for which he or she claims to speak, each must speak sincerely, each must make statements that are comprehensible to the others, and each statement must be accurate. These speech conditions do not come into being automatically, but our research and practice has shown that skilled facilitators can, over time, help a group to approximate these conditions. Indeed, creating these conditions is the first priority of these professionals and their most developed skill. They can make sure each person at the table truly does speak for the interest they claim to by insisting that only recognized representatives of an interest group participate and that they routinely check back with their constituencies about what they are doing and saying. Sincerity is something individuals in the group can judge for themselves as they engage over time in face-to-face discussion and begin to know each other as people. As for comprehensibility, a good facilitator asks for clarification or examples, tries experimental rephrasing of ambiguous statements and asks for elaboration as needed. Similarly, when information is contested there are many options. In the San Francisco Estuary Project scientists, each selected by stakeholders, spent a weekend with a facilitator and decided consensually on how to measure the health of the estuary (Innes and Connick 1999). What the scientists came up with became the accepted measure, not only by those in the project, but also by state and federal regulatory agencies outside the process, in great part because of the credibility established by the method of reaching agreement. In the Water Forum, the method for getting information all could believe was to select a consultant all could agree on, who would conduct analyses, allow members to ask challenging questions about parameters, assumptions and methodology, then get revised analyses until the data were meaningful and acceptable to all. Negotiation in the USA over environmental regulations uses variations of this method (Ozawa 1991).

Authentic dialogue depends also on the group being able to follow a discussion where it leads rather than being artificially constrained by rules about what can be discussed or what cannot be changed. The group needs to be able to challenge assumptions and question the status quo. For example, in the transportation case the group was never permitted to challenge the assumption that all construction projects agreed on in the past had to be pursued, even though conditions years later suggested other priorities would make more sense. As a result many strategies were never even discussed, though they would have been far more effective in alleviating congestion than implementing the projects in the pipeline. The larger idea that transportation planning should be done on a project-by-project basis and funding allocated by formula to jurisdictions also
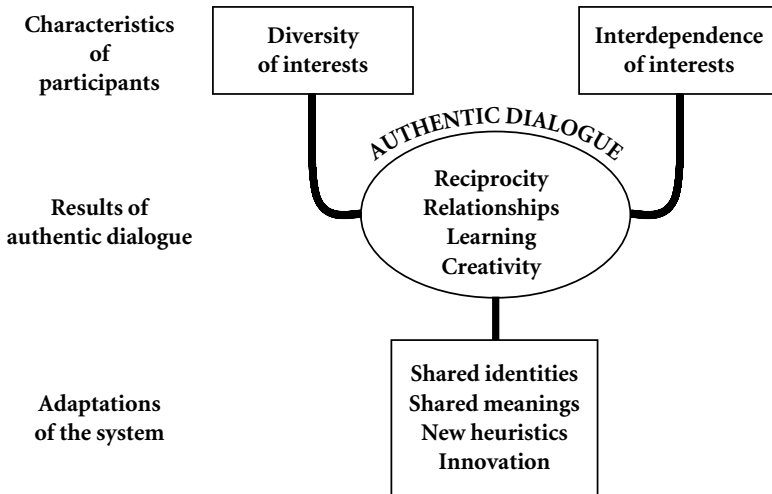
Figure 1.1 DIAD network dynamics

remained entrenched in the thinking of most transportation planners. They ignored calls from stakeholders for a strategic approach to resolving transportation problems or developing a more socially just investment approach. This insistence on the status quo kept the group trapped in the ideas, institutions and practices that led to the problems in the first place. When assumptions are challenged it can open up a discussion and generate new insights. For example, when the Water Forum was stymied in its plans for habitat conservation by requirements for paying into a federal conservation, the stalemate was broken by someone suggesting they should behave like the Boston Tea Party and refuse to pay. While they did not end up doing so, the suggestion allowed them to recognize that institutionalized arrangements are social constructions rather than real limitations and they were able to imagine and negotiate a new funding approach. It is such challenges to the norms that create adaptive governance and allow the system move to higher levels of performance.

Diversity and interdependence

Authentic dialogue can be enough to create agreements and new approaches, but without both diversity and interdependence among stakeholders (see figure 1.1), the truly significant benefits of collaborative dialogue cannot be achieved. As Habermas has argued, all interests need to be engaged in the discourse if a group is to achieve communicative rationality. This inclusiveness ensures that assumptions will be challenged by someone. Such a group, he contends, can get

beyond the assumptions and acceptance of a status quo which preserves the power relations of society and blinds us to the underlying reality of the life world. Professional facilitators have learned a similar lesson in their practice: that all stakeholders should be at the table or engaged in some way in the discourse if agreements are to be durable and fully informed. Excluded stakeholders can and often do destroy agreements (Susskind, McKearnon and Thomas-Larmer 1999). Even if they are not powerful enough to do that, their exclusion may mean the group lacks some of the information those stakeholders could provide about the problem that would make the difference between an effective and ineffective strategy. Finally the exclusion of even weak stakeholders may mean an agreement will fail to garner legitimacy among the public.

Stakeholders in a policy dialogue must be *diverse* in order to take full advantage of the creativity that can come from trying to find actions that can respond to a wide set of competing interests. They must also be *interdependent* in order to achieve the kinds of results that will allow them collectively to create an adaptive learning system that can be robust and effective. The stakeholders must be aware that they cannot meet their interests working alone and that they share with others a common problem so they will continue to work together in response to change. Most voluntary collaborative processes are, in our observation, instigated and driven by a shared perception of interdependence around a problem, although this may be only vaguely articulated. For example, the Water Forum stakeholders began to explore collaboration because they concluded they all depended on a limited and interconnected set of water sources, and they understood that improvements to benefit their respective interests could not be accomplished politically without the support of the other interests (Connick forthcoming). Each had many ways to stop things from happening. Only jointly could they take positive action. Similarly, a collaborative group of transportation providers came together in the Bay Area to do transportation investment planning (Innes and Gruber 2001a). They all depended on the same pots of funds and the same transportation system. Similarly, a group of statewide stakeholders ranging across labour, business, agriculture, education and most of the major policy sectors of California formed the California Governance Consensus Project to develop fiscal and governance reform policies (http://www.csus.edu/calst/cgcp/). They were explicit that only stakeholders could join who had something they needed from others and something they could offer that others needed. At first some stakeholders did not know exactly what they had to offer each other. At the outset they often did not understand the problem well enough to know how their actions might be interdependent. For example business interests did not understand how their profits were affected by traffic congestion, and stakeholders from suburbs and inner cities did not understand how the welfare of their citizens and businesses was linked within a region.

Stakeholders begin to learn about their interdependence as they explain their own situations and needs, but they learn most about this as the group goes through the difficult tasks of agreeing on how to define and measure the problem and deciding on their shared mission. A case in point is the San Francisco Estuary Project, where the collaborative group spent two years examining all the relevant science to reach agreement on the state of the estuary. They jointly learned that land use, fisheries, biodiversity and water quality were all linked. In the Water Forum, the group spent over a year developing agreement on a mission to address two coequal objectives of meeting environmental and human needs for the water of the Lower American River. In both cases the participants learned that they each played a part in a regional resource system, that what each was doing had its impact, and that each would benefit from a healthier system. Even the property developers understood that they would not be permitted to build if the water supply was inadequate or if it would have negative impacts on fragile wetlands. And the environmentalists understood that if they agreed not to sue they could obtain the funding to restore habitat and protect fisheries. They came to recognize they were all locked together because the water supply was interconnected and because a complex system of state and federal and local agencies, and many thousands of businesses, residents and others, influenced the quality and quantity and flows of water through formal regulation, investments or failures to invest in treatment or simply thorough their actions. As group members came to understand these linkages, they were increasingly willing to seek cooperative solutions.

In a contrasting example, the regional transportation planning process we studied did not permit the players to discover their interdependence because the agency distributed funds to jurisdictions and agencies according to population-based formulae. As a result the group had neither occasion nor incentive to analyse their interrelationships, nor to understand the contribution of their pro-posed projects to the region. The expenditures did not have to be justified in terms of their contribution to solving the regional transportation problem. Indeed, the group was not working with any definition of the problem, nor of their own mission in relation to it. The group never tried to understand how the region worked as an economy nor how the transportation system affected each jurisdiction's welfare. This failure to recognize and explore interdependence was a central obstacle to collaboration. It accounts in considerable part for the lack of mutual gain outcomes in Bay Area transportation planning (Innes and Gruber 2001a, 2001b).

Not all those who have a stake in public problems are necessarily interde-pendent. Some may be able to pursue and achieve their objectives alone. Some of them may not care about the workings of the system as a whole and be able to extract what they want without collaboration, especially if they have short time horizons. But our research suggests that for the most part in complex

and controversial cases of regional resource management, infrastructure planning, growth management and the like in the USA, few players are sufficiently autonomous and powerful to ignore other players.

Results of authentic dialogue among diverse, interdependent stakeholders

We have identified four categories of immediate or first-order results that authentic dialogue among diverse and interdependent stakeholders can produce: reciprocity, relationships, learning, and creativity (see figure 1.1). We have found these results in most of the dozen or so cases of comparatively productive collaborative dialogues that we have studied or participated in.[4]

Reciprocity

As participants in a collaborative dialogue develop an understanding of their interdependence, they build up reciprocal relationships that become the glue for their continuing work. One can illustrate reciprocity in the classic example of the two businessmen bidding up the price of a shipment of oranges. If they don't identify their reciprocity, one ultimately will pay a high price and the other get no oranges. If they had a collaborative dialogue they might discover that one business needs the oranges for the juice and the other for the peel. If they jointly buy the shipment, the price will be lower and each will be able to meet his needs. This example is simple, but it is far from common that this sort of reciprocity is discovered among diverse players. Axelrod similarly has shown that cooperative strategies are beneficial over time, and that players have an incentive to cooperate if they have continued relationships (Axelrod 1984).

Contrary to popular belief, what stakeholders do in these dialogues is *not* make tradeoffs. That is not what we mean by reciprocity. As we have described elsewhere (Innes and Booher 1999b) a truly collaborative discussion is typically in the form of cooperative scenario building and role playing by participants who tell the stories of what is wrong and develop alternative stories until they find the narrative of the future that is plausible and appealing to all of them.

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[4] These include a study of thirteen cases of collaborative policymaking in environmental and growth management (Innes et al. 1994); an in-depth study of collaborative policymaking in regional transportation (Innes and Gruber 2001a, 2001b); studies of estuary management and water resource management (Connick forthcoming; Innes and Connick 1999); a study of state growth management programmes (Innes 1992). Booher has been a leader of several consensus building processes at the state level in California including the Growth Management Consensus Project (Innes et al. 1994: 71–81) and its successor projects including the California Governance Consensus Project. He works professionally managing collaborative efforts to develop state policy on growth, schools, transportation and other infrastructure, as well as on fiscal reform.

Typically in such a process players discover they can make modifications in their actions which may be of little cost to them, but of great value to another player. Many players outside these processes – such as the leadership of the groups who have representatives at the table – continue to think in terms of tradeoffs. For example in the Water Forum, after participants had collaboratively developed new water management criteria and programmes, they had to develop a list of quid pro quos for the leadership of the stakeholder organizations. The purpose was to show what each group had gained and given up so the leadership would feel their representatives had not given too much for what they had gained. The group actually had discussed few of the decisions in terms of quid pro quo, but instead they had had a cooperative discussion about options and scenarios.

Relationships

One of the most important outcomes of collaborative dialogue is that new relationships and social capital are built among players who would not ordinarily even talk to one other, much less do so constructively. When we interviewed participants in even the least productive collaborative processes, almost all of them said they valued and used the new relationships. For example, in the Estuary Project the representative from the US Corps of Engineers, which is responsible for waterway development, said he routinely began to contact the Sierra Club representative before finalizing new projects to decide if they needed to be modified to satisfy environmental concerns.

These relationships often went beyond professional contacts. Over time – and many of the processes lasted for years – the participants developed mutual understanding and sometimes personal friendships. They were able to have an empathetic understanding of why another stakeholder would take a particular view because they understood the conditions and problems other stakeholders faced and the history they had gone through. Participants learned what the issues meant to the others. They were likely to respect one another's views and believe in one another's sincerity, even while continuing to disagree. In some cases a stakeholder would even speak for the other's differing interests if the person was not present. For example, the property developer representative told the Water Forum the group could not go ahead with something that would benefit his interest because the environmental stakeholders were not there and the proposal would not meet their interests. Group members discover they are each individuals with families and hobbies, unique personalities and sincere commitments to their causes and beliefs.

Such relationships did not change stakeholders' interests, but they did change how they expressed interests and they did allow for a more respectful dialogue. They also gave members a greater incentive to seek a mutually satisfactory solution. These relationships allowed each to better hear what others said. These

relationships helped people to build trust among themselves. There was more tolerance when, as in most of the cases we have studied, players also operated outside the processes to influence legislation or bring lawsuits against the interest of other players. They mostly recognized that each had to pursue their stakeholders' interests, though they hoped they could do this collaboratively. For the time being, however, participants learned to live in two worlds: the world of collaborative dialogue and the world of competition and conflict.

Learning

A third outcome of the collaborative dialogues we studied was learning. In our interviews with participants, almost all said they had learned a great deal and many said that this learning was what kept them at the table (Innes et al. 1994). Even when a stakeholder has an instrumental interest in the issue, the individual representing the stakeholder must actually *want* to attend the meetings. Meetings were well attended if there was discussion of stakeholders' interests, the problem and strategies. Meetings where long agendas and formal presentations allowed little dialogue were poorly attended. For learning to occur participants needed to be engaged in a task which they were capable of and interested in. For example, in the transportation case, the meetings where players developed scoring principles for allocating funding were well attended and interesting. All players had projects to be funded and they knew how to assess them. On the other hand, meetings where the task was to design regional system management were poorly attended because the participants did not understand or care about this task. They had no direct responsibility for it and would benefit only slightly. They were given ideas by a consultant and neither engaged in inquiry nor tried to understand the problem. The Water Forum meetings, by contrast, were engaging learning processes because participants chose the tasks and worked collaboratively with consultants to identify information they wanted and assure that its assumptions and methods were acceptable.

Learning was a joint exercise in the productive cases as participants not only listened and asked questions of the experts but also interacted with one another around an issue. They did brainstorming and scenario building, often with different players adding pieces to build a shared story as a way of imagining various strategies and their consequences. They had small and large 'a-ha' experiences during some of the most focused sessions (Innes and Booher 1999b). This learning can be about facts, about what others think, or about how scientists see a problem, but an effective group engages at least in single-loop learning (Argyris 1993) (see figure 1.2). That is they develop a more effective way of solving their problem. For example, in the CALFED case the

Governing → Action → Consequences
Values   Strategies
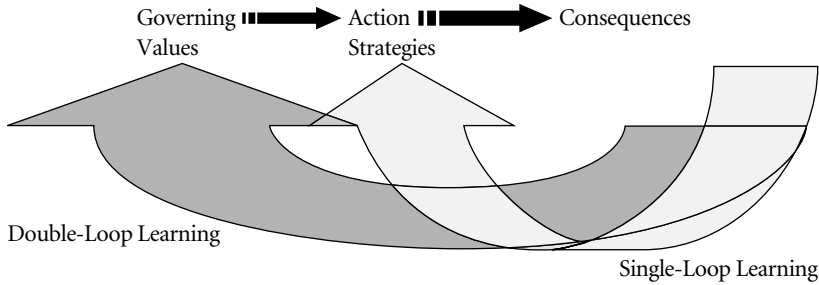
Double-Loop Learning

Single-Loop Learning

Figure 1.2 Learning in collaborative planning
Source: Argyris 1993.

group discovered they could address their shared need to improve the environment and water supply by jointly backing a bond issue to support a series of projects. They could cooperate, plan ahead for crises, develop conservation methods, share water and increase the quantity, quality and reliability of water supply.

Some problems prove intractable even after creative cooperation on new ways to solve the problem as defined. Double-loop learning may be required. In double-loop learning players rethink what they want to do in the first place, reframe the problem, or decide that they need to apply different values and reconsider their interests (Schön and Rein 1994). The California Governance Consensus Project (CGCP) came about because of double-loop learning. This was an outgrowth of earlier collaborative projects, each of which ended with a reframing of the problem and an identification of a different set of interests. The first project involved stakeholders trying to develop statewide growth management legislation. They came to agreement on many legislative provisions, but learned that without infrastructure funding, growth management could not be successful. This evolved into a second dialogue focused on development and marketing of a bond issue to support infrastructure because legal limitations on state revenue and expenditures would not allow funding from existing sources. When this bond issue failed to win legislative approval, the group evolved again (each time adding or losing stakeholders as appropriate for the task) to focus on a different problem which they had come to conclude lay at the heart of all the issues. Thus was born the CGCP, whose focus was fiscal and governance reform. This group developed agreement on a number of reforms to fiscal structure and learned through focus groups about voter attitudes to these. It disbanded when stakeholders learned that, rather than try to proceed with an all-encompassing proposal for a new statewide structure, it would be more practical for members to negotiate various parts of the proposals in smaller dialogues. They

would work towards incremental changes reflecting the shared understandings they had developed in these linked collaborative dialogues. In this example of continuous double-loop learning the players changed their objectives and altered their strategy as they became more sophisticated about the problem, each other's needs, and what the public would accept under what conditions. This network of players remains highly adaptive as they continue to work on policy.

Creativity

In the effort to solve a problem or find a workable solution, tremendous creativity can be generated within a group (Johnson and Johnson 1997) when techniques like brainstorming and scenario building are used. It is curious how difficult it is for participants not just to 'think out of the box' but to be willing to put forward the half-baked ideas that can start everyone thinking. They hesitate and apologize for making things more complicated. They worry that their idea is foolish (Innes and Booher 1999b). It is even more difficult for people to challenge the status quo or even to recognize assumptions they are making. Those who manage the processes, especially if they are public agencies, may try to set boundaries on what can be discussed and limits on what can be changed. All too often the groups accept these limits and fail to find a way out of their impasses. On the other hand, once they give themselves permission to challenge the status quo and let their imaginations work, then new ideas can and do emerge. With practice, effective process management, appropriate tasks and diverse, interdependent participants, we found that groups such as the Water Forum can be routinely creative.

The Sacramento Water Forum as a model

The Sacramento Water Forum demonstrated these conditions of diversity, interdependence and authentic dialogue. This happened for a variety of reasons, but a key one was that a talented facilitator made sure everyone was heard and that issues were deeply addressed and conflicts resolved through interest-based negotiation (Connick forthcoming). The fact that the project had funding of over $1 million per year, not only for support staff but also for modelling and other research to support the dialogue, was also critical. It was a forum where challenges to the status quo were frequent and creativity was common. It was not controlled by an agency, though it was funded by the City and County of Sacramento. The funding agencies were committed to doing what participants agreed on. This project was successful also because there was a substantial incentive for the water conflicts to be resolved. Environmentalists were suing to stop water projects on the ground that they were endangering species.

The overall supply of ground and surface water was known to be interlinked and highly limited in drought years. Farmers might go out of business and the building industry might have to halt development. Forum stakeholders agreed on projects, conservation measures and habitat restoration, and altered their values to acknowledge it was legitimate for urban, environmental and agricultural interests to share in the water. They modified their views while continuing to pursue their interests, working jointly rather than separately. At the banquet held in May 2000 for 500 supporters and participants, speakers repeatedly referred to 'the Water Forum way' as their new shared model of policymaking.

How collaborative planning can result in system adaptations

During the Water Forum the participants began to change and to act differently as they did to varying degrees in the other processes we studied. This change is the most important result of collaborative planning, beyond formal agreements and new networks of players. We identified four kinds of changes over time which help a complex system turn into a complex *adaptive* system that has the capacity to learn and evolve through feedback, and distributed intelligence (see figure 1.1).

The first change is that the dialogue helps each participant to articulate his or her identity as a stakeholder and individual. Each stakeholder's identity becomes in part contingent on the identity of others as they do in a community where responsibilities and roles are simultaneously differentiated and linked together. Identity development is a critical part of the process because in the contemporary, globalized information society, individual and group identities are under challenge. In public policy many identities compete, often preventing communication, much less cooperation (Castells 1997). For example, the environmentalist whose identity as a warrior against the ravages of the capitalist system on the environment may find that this interferes with communication with the developer whose identity is wrapped up in providing quality housing. Developing and articulating linked and shared identities help to make possible the longer-term cooperation that happens in tightly knit communities.

The second change that helps the system become more adaptive and 'intelligent' is that individuals begin to develop shared meanings. As they discussed biodiversity, for example, in the San Francisco Estuary Project, participants began to see this issue in a common way; or, as they discussed drought, they developed common definitions of drought and its implications. This is a process of socially constructing concepts around which policy will be built, as stakeholders did, for example, in three states as a part of implementing state growth management programmes (Innes 1992). The dialogue speeds up a process of

building shared meaning that could take years, or perhaps never happen,[5] but which is essential if the policy is to be genuinely agreed on, much less implemented. Once stakeholders have developed shared meanings, they do not have to check in with each other all the time to coordinate, but act in concert because they understand issues in parallel ways and have shared purposes. Their networked relationships give each player feedback that allows them to act more intelligently and to have a beneficial effect on the workings of the system they all share, whether it is water, transportation or ecology.

The third adaptation of the system is that the individuals in such groups may develop new heuristics. That is they may agree on, explicitly or de facto, new rules of thumb to guide their actions. They tend, for example, to use the heuristic that it is better to bring people together when there is a problem than to institute a lawsuit, push for self-interested legislation or use some other confrontational technique. The new heuristics include listening to others, treating them respectfully, looking for common interests rather than differences, and challenging assumptions. Many other heuristics about how to deal with the problem develop from a long-term collaborative process, though these are often not recognized for the significant changes they represent. These heuristics can replace the old ones that were causing the problem, or at least failing to solve it. In the paradigm where the world is machine-like and predictable, heuristics were not nearly as important as they are in complex evolving situations. It made sense in a stable conditions to try to control outcomes through top-down rule making, setting standards, and rewarding and punishing specified behaviour. Policymakers tried to design a policy machine such that when it was set it in motion it would produce specified outcomes.

Heuristics became more important as it became clearer that machine thinking does not work well today. Individuals do what makes sense to them, given the local knowledge they each have and the feedback each gets from others with whom they are networked through a communication system such as collaborative dialogue. They do so relying on the shared heuristics they have developed from collaborative dialogue. The result is not predictable because this is a self-organizing system. There is ample evidence that such a system of distributed intelligence among linked autonomous agents can produce more desirable outcomes for a complex system at the edge of chaos than a policy devised by the most brilliant analyst or powerful bureaucrat. Through multiple actors working on what they each do and know best, complex problems can be addressed effectively (Axelrod and Cohen 1999; Innes and Booher 1999c; Kelly 1994). The system cannot be controlled, but it can be made more intelligent and adaptive. Instead of assuming, for example, that regulation must be

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[5] Hajer's story of the competition of discourses around environmental protection illustrates the importance of developing shared language and meanings (Hajer 1995).

detailed and rigid, a collaborative group usually recognizes future uncertainties and develops heuristics to deal with these. Many of them have created follow-up collaborative groups to monitor, modify and guide implementation of the principles and programme developed in the first stage. They are apt to use performance measures as a guide to self-regulated action rather than detailed rules to dictate behaviour.

Finally, what emerges from collaborative dialogue can be genuine innovation – not just creative ideas, but ideas that get turned into new practices and institutions. These often would not even be imaginable without the collaborative involvement of stakeholders and the social capital that they create. For example, in CALFED several new ways of managing water were developed. The group created a novel cooperative approach among competing stakeholders scattered around the region to collectively identify when the water levels were too low. Each provided agreed-upon observations of the level of a particular river or of the dead fish observed in a specified location. All talked by computer or telephone conferencing the day of the observation and all were able to agree within a few hours when particular channels or flows should be altered to protect the environment. In the past these decisions had been made crudely on the basis of arbitrary standards set months ahead of time. Decisions were not timely because they involved weeks of data gathering and bureaucratic decision-making on whether the regulation should start, often delayed by lawsuits. Regulations went into effect either too soon or too late and were typically followed by challenges and complaints on all sides that the process was too draconian, not draconian enough, or somehow unfair. Instead this collaborative model for managing the water flows operates in real time, is sensitive to actual conditions, and depends not on a simplistic formula but on a complex set of indicators. Because the decision is the result of a collaborative discussion by observers who represent different interests the complaints are few, even if some do not like the results. The first time this was done, some stakeholders concluded that the decision was premature and the results harmful to them. They agreed nonetheless that the process was much better than in the past and simply needed refinement. Instead of suing CALFED, those harmed rolled up their sleeves to improve it.

We found many other innovations in the collaborative dialogues we studied. One involved new ways of designating habitat and protecting species without having to limit construction across vast territory. Disputes over such designations of habitat had dragged out over years in the past while species died off. The new approach allowed a mutual-gain solution (Innes et al. 1994). In other processes we found innovations in ways of evaluating projects, sharing resources and responsibility, legislation linking together issues that had not been linked before such as housing and sales-tax revenues, and new ways of measuring crucial phenomena such as biodiversity or transportation access.

Obstacles to collaborative dialogues

Collaborative policy dialogue and collaborative action do not fit readily into the institutional arrangements for public choice and action that exist in most nations and at most levels of government. These are typically organized around hierarchical bureaucratic agencies, guided by strict mandates, and they work by applying *a priori* rules. Legislative bodies deliberate with limited time and knowledge of a problem and produce one-size-fits-all legislation. There is strict separation between public and private actors, at least in public settings. These standard policy institutions tend to categorize public participation as a separate activity for which the responsibilities of public agencies can be met with formal public hearings or advisory committees.

Collaboration is discouraged in such a conventional policymaking context. Federal and state law and practice in the USA embody expectations for both the making and implementing of policy that are often in conflict with collaboration, and policy players are unaccustomed to this approach. Collaborative policy dialogues are typically ad hoc, organized for a particular issue in a particular place and time. They involve stakeholders selected to fit the problem. They involve both public and private members in conditions of equality of discourse. This is in contrast to the conventional situation of the public responding to carefully developed proposals by public agencies, which maintain their prerogative to determine what they will explain, what information they will consider relevant and what issues can be discussed.

Collaborative dialogue, by contrast, engages scientists and agency staff with lay people who challenge analyses and assumptions, using their local knowledge which, in the dialogues, has a legitimate status. For example in the Estuary Project, fishermen told the group the bass fishery was depleted. The scientists said there was no evidence, but when they were forced to confront this assertion they did new studies and discovered the fishermen knew things they did not. Collaborative dialogues may engage representatives of federal and state agencies together in a setting where the usual hierarchical chain of command and formal communications among agency heads has to be set aside for authentic and spontaneous discussion among staff. Such dialogues involve participants in speculating about ideas that may not be legal at the time of discussion. They may pull together enough interests to effect change in the legal status quo. Legislative bodies sometimes object to collaboration as undermining their prerogatives. Public agencies may oppose or sabotage it or try to control the processes.

There are few, if any, government forums and arenas set up in most local and regional contexts in the USA where collaboration could happen easily (Dodge 1996). For example, in the USA, local governments, which make decisions on development, usually have neither incentive nor opportunity to

discuss proposals with neighbouring jurisdictions. Nor do they have the chance to come up with mutually beneficial growth plans that would assure necessary services and revenues to each community and provide for needed housing and transportation in the area surrounding new development. State and federal laws not only do not encourage collaboration, they often actively interfere. For example, a federal law prevents non-governmental advocates from being regularly involved in policymaking processes with agency staff on ongoing committees.[6] Conflict of interest laws prevent the most knowledgeable and motivated stakeholders from coming to the table to help make policy if they might at some stage benefit. So-called 'pork barrel' practices of allocating funding to powerful players or jurisdictions make collaboration not only unnecessary but threatening to the whole allocation arrangement. Institutions, practices and expectations tend in general to discourage collaboration at the present time in most US policy settings. It does happen, however, in spite of these obstacles.

Alternative models of planning and policymaking

One of the obstacles that is most pervasive is the degree to which other models of policymaking are firmly institutionalized in both practice and law. We have identified four main models that are simultaneously in use in many, if not most, public policy processes in controversial or complex policy problems in the USA (Innes and Booher 2000a; Innes and Gruber 2001a, 2001b). These include the technical bureaucratic model, the political influence/pork-barrel model, the social movement model and the collaborative model (see figure 1.3). Each is useful under different conditions of diversity and interdependence among interests. Often, however, an inappropriate model is used because it is familiar and institutionalized. The technical bureaucratic model focuses on analysis, regulation and implementing stated objectives. It works best where there is neither diversity nor interdependence among interests. Technicians and bureaucracies need to respond to a single set of goals and decision-maker, and in typical practice analyses are not focused on interdependencies (though this could change with more sophisticated technology and complexity modelling). The political influence model involves a leader in allocating divisible benefits, typically projects, to powerful players and amassing power through the loyalties he or she establishes. This works well with diverse interests, but since each interest is focused on getting a piece of the pie and the political leader is busy amassing power, little or no horizontal dialogue takes place among interests. The social movement model involves one or more interests excluded

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[6] The Federal Advisory Committee Act (Public Law No. 92-463).

	low	Diversity	high
low	Technical bureaucratic *Convincing*		Political influence *Coopting*
high	Social movement *Converting*		Collaborative *Coevolving*

Interdependence of interests

Figure 1.3 Four styles of planning
Source: Adapted from Innes and Booher 2000a.

by the power structure, coalescing around a vision and amassing grassroots support to influence the decisions through protest, media attention and sheer numbers. This method recognizes the importance of interdependence but does not deal with the full diversity of interests. Collaboration is the model which incorporates both high diversity and interdependence. A useful way to think of the contrasting models is in terms of four Cs. The technical model is about *convincing* policymakers through analysis of what is the right course of action. The political influence model is about *coopting* the players so they will buy into a common course of action. The social movement model is about *converting* players to a vision and course of action. The collaborative model is about stakeholders *coevolving* to a common understanding, direction and set of heuristics. These planning models each have their strengths, beyond their differential ability to deal with diversity and interdependence, and each works in a different way in practice. Each tends to be useful at a different phase of a policymaking effort. Moreover, individuals during their careers may move from one model to another or they may select a model depending on the task. All the models may be at work simultaneously, sometimes in competing ways, in a particular setting. In such cases practitioners of one approach often distrust or disdain those working in another. Aalborg planners (Flyvbjerg 1998), for example, were resentful of the political influence-based policymakers, while the latter were uninterested in the analyses the technicians produced. Social movement planners may disdain collaborative ones because they have 'sold out', and technical planners may disdain social movement planners as naive or unresponsive to 'neutral and scientific information' (Innes and Gruber 2001b).

The technical bureaucratic model works well in conditions of comparative certainty where there is only one interest – in effect, where there is agreement