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Collaborative Dialogue as a Policy Making Strategy:

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COLLABORATIVE DIALOGUE AS A POLICY MAKING STRATEGY

The Sacramento Water Forum, a group of contentious stakeholders from environmental organizations, business, cities, 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." The business community stayed with the process and consensus building around transportation got underway.

Similar stories abound. El Dorado County in the foothills of the Sierra Nevada mountains, the source of much of California's water, has decided, as a result of the Water Forum experience, to set up a collaborative policy dialogue in their region to deal with the controversial growth, environmental protection and infrastructure development. For the first time in California history, a collaborative group has been set up of the 18 state and federal agencies which have some jurisdiction over California's water supply. This group, known as CALFED, includes agencies on all sides of the water issue. Despite conflicting mandates of its member agencies, some of which are devoted to parceling out water and others devoted to regulating for environmental protection, CALFED has created enough political capital to pass two statewide bond issues amounting to more than $2 billion for new water related infrastructure and environmental restoration. It has reached agreements on controversial water management procedures and on water supplies to be provided to different users in the frequent drought years. It has recognized and accepted the idea that the environment is a water user with legitimate rights to the supply. It has created innovative cooperative strategies for maximizing the availability and supply of water for all players. 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 way of making policy (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 are increasingly using this collaborative approach to address and resolve issues.

While water policy making is the policy arena where the most sophisticated collaborative dialogues are taking place, experiments in collaborative thinking are going on in many other arenas, including fiscal reform, school reform, habitat conservation, 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 discussion table, but various efforts, less visible or documented, are also taking place at local levels ranging across budgetary issues, community visioning, and land use conflict. Indeed, around the world communities, regions and even nations are seeking collaborative ways to make policy as an alternative to confrontation or top-down decision making. The highest profile examples of this sea change in public policy making are the agreements reached in Northern Ireland, the two Koreas and the Israeli–Palestinian conflict. People all over the world, from the nation state down to the 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 of making policy.

There are reasons for the emergence of these new practices at this time in history. 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. Power is fragmented and even powerful agencies or individuals cannot produce the results they want when working alone. We have less shared identity with our fellows and less stable local communities than we once did. We cannot conduct business as usual, nor can we count on shared values or objectives. Instead, in addressing a policy problem, we often have to start from scratch in understanding each other and in understanding what is going on in our societies.

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 policy making. This theory is informed by our view of the world as a complex system, currently at the edge of chaos (Prigogine and Stenger, 1984; Kauffman, 1995). Unlike periods when conditions are stable or slowly changing, these rapidly changing conditions allow great creativity as well as bring risk. Most importantly they offer the opportunity to improve the system so it can be more productive, more adaptive and ultimately more sustainable. The only way a complex, rapidly changing system can be adaptive and creative, however, is if the system is well networked so that its various components can coevolve. It must have distributed intelligence among its nodes or agents and there must be information flowing among these agents as well as regular feedback from its environment. We share with Richard Norgaard (2000) the idea that we must develop a new postmodern narrative from which to operate and that coevolution and methodological pluralism will characterize this new story and the new ways of reaching understandings and making policy through collaborative dialogue. We also share in new thinking emerging in economic theory that a key to achieving better performance from our public policy institutions lies in understanding that the behavior of an individual is directly affected by the behavior of other individuals in a coevolutionary context (Ormerod, 1998; Jacobs, 2000).

Collaborative planning and policy making is not just a method which can solve problems when there is conflict or even paralysis in the traditional policy system. It is, even more

importantly, a way to establish new networks among the players in the system and to increase the distribution of knowledge among these players. This includes knowledge of each others' needs and capabilities and of the dynamics of the substantive problems in society, whether in transportation, environment or housing policy. Collaborative planning has emerged as a highly adaptive and creative way of conducting policy making in the Information Age.

Collaborative policy dialogue is far from the dominant policy discourse, however, even in the situations where it could be the most productive. 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 different players should or should not be involved. Moreover, those who try to institute collaborative dialogues often do not have the skills and experience, much less the technical support to implement such dialogues effectively. This often causes a backlash, as participants then conclude such efforts are not productive.

While collaborative dialogue has undoubtedly existed throughout history among small groups of equals trying to solve a problem, as a public policy making process applied to complex and controversial issues including many stakeholders widely differing in knowledge and power, it remains in an experimental stage. 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 laid out new principles for negotiation. The most important of these is that parties must begin with their interests rather than their positions and that they must neither give in nor insist on their way. They must learn about each other. They must seek mutual gain solutions that as far as possible satisfy all interests and in the process, when possible, enlarge the pie for all. As a result, rather than making enemies, they make allies. They must persist in both competing and cooperating and accept this norm. The tension between cooperation and competition and between advocacy and inquiry is the essence of collaboration.

Authentic Dialogue

To achieve collaboration among players with differing interests and a history of conflict, the dialogue must be authentic, not rhetorical or ritualistic (Isaacs, 1999). People must say what they mean and mean what they say. We are so unaccustomed to authentic dialogue in public situations that to create and manage such dialogue typically requires the help of a professional facilitator and special training for participants. Stakeholders in public policy have been accustomed to concealing their interests and engaging in positional bargaining rather than to discursive inquiry and speculative discussion or interest-based bargaining. They tune out a priori those with whom they assume they disagree rather than explore for common ground.

The methods and techniques for creating authentic dialogue are just beginning to be analyzed and documented (Susskind, et al., 1999). For example, experience has shown that an analysis of each of the interests and conflicts must be done at the beginning of the process and shared among the group. The group must define its own ground rules, its own mission, and its own tasks. It must create its own tasks and working committees which have both the interest and the ability to work effectively and make progress. 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 assure participants all agree on the nature of the problem and the conditions which affect it. Staff of many kinds are critical to complex collaborative dialogues — not only staff to facilitate meetings and mediate outside of meetings, but equally important, staff to gather and analyze information, to keep records of meetings, prepare materials, orchestrate the group's activities, and keep pushing them forward so they get past their conflicts. 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 transportation agency staff, who not only had a different agenda from 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.

To be authentic, a dialogue must meet certain conditions (Habermas, 1981; Fox and Miller, 1996): each speaker must legitimately represent the interest for which he/she claims to speak; each must speak sincerely; each must make statements that are comprehensible to others; and each statement must be accurate. These are not only conditions for authenticity, but also for the dialogue to actually influence action. These speech conditions do not come into being automatically, but can be largely ensured by facilitators. They can make sure each person at the table truly does speak for the interest they claim by insisting on only representatives of an organized group or recognized leaders of an interest and insisting that they routinely check back with their constituencies about what they are doing and saying. Sincerity is something that 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 rephrases of ambiguous statements and asks for elaboration as needed. Similarly, when information is contested there are many options. In a predecessor project to the Water Forum, the group invited scientists selected by the different stakeholders to spend a weekend with a facilitator and decide consensually on how to measure biodiversity in the San Francisco Estuary (Innes and Connick, 1999). What these 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, have him/her conduct analyses, then allow all members to ask challenging questions about parameters, assumptions and methodology, and get revised analyses until the data were meaningful and acceptable to all.

Authentic dialogue depends also on the group being able to follow a discussion where it leads rather than be artificially constrained by rules about what can be discussed or what cannot be changed in the system, practice or law. The group needs to be able to challenge assumptions and the status quo because it is such challenges that result in new insights and solutions. Thus the group needs to be able, for example, to challenge the assumption of a cost–benefit analysis or to consider alternatives to existing law or routine practices no matter how entrenched they seem.

For example, in the transportation case where collaborative dialogue largely failed, the group was never permitted to challenge the assumption that all construction projects agreed on in

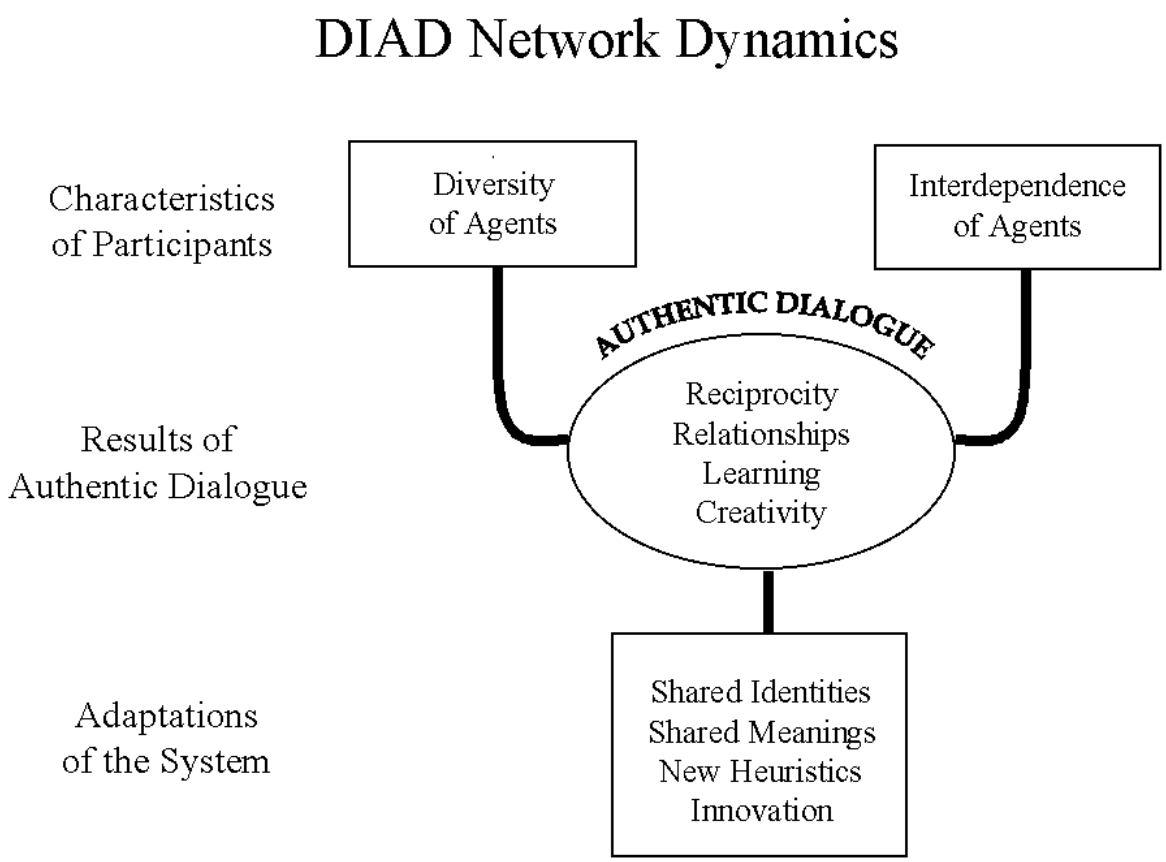
the past had to be pursued, even though conditions years later suggested other priorities. As a result, many strategies were never even discussed though they would have been far more effective in alleviating congestion than the projects in the pipeline. The ideas that transportation planning should be done on a project by project basis and that funding should be allocated by formula remained entrenched in the thinking of most transportation planners. They ignored calls from outside groups for a strategic approach to resolving transportation problems or for developing a more socially just investment approach, and even those who were part of the collaborative process felt constrained and did not raise these issues publicly in the discourse. This was important because merely asking these questions can open up a discussion, generate new insights and allow people to recognize that their assumptions and institutionalized arrangements are social constructions rather than real limitations on what they can do. Such challenges to assumptions are required if these processes are to achieve anything like the communicative rationality Habermas lays out as complementary to instrumental rationality. Without such challenges, the group remains trapped in the ideas, institutions and practices that led to the problems in the first place. Without such challenges, the policy will not be adaptive or help 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 Fig. 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 assures that assumptions will be challenged. Such a group can get beyond the assumptions and acceptance of a status quo which, he contends, preserves the power relations of society and blinds us to the underlying realities 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 later destroy agreements (Susskind et al., 1999). Even if those included have the power to act alone, if they fail to include some stakeholders, even those with relatively little independent power, the group may lack the information to design feasible strategies and be unable to assert legitimacy for their proposals. A dialogue that is not inclusive is a dialogue that is not communicatively rational.

We argue that there is even more to the story than this. Stakeholders must be *diverse* to take full advantage of the creativity that can come from trying to find solutions and actions that can respond to a wide set of competing interests. They must also be *interdependent* to achieve the kinds of results that will allow them collectively to create an adaptive learning system that can be more robust and effective than a system lacking this recognized interdependence. That is, the stakeholders must know that they cannot meet their interests working alone and that they share with others a common problem. Most voluntary collaborative processes are indeed instigated and driven by such a perception — although at the outset the shared problem and interdependencies may be only vaguely recognized or articulated. For example, the Water Forum stakeholders came together because they understood they all depended on a limited and interconnected set of water sources, and they understood that improvements to benefit the environment or the water users could not be accomplished politically without the support of the

Figure 1.



major interests (Connick, forthcoming). Each had many ways to stop action. 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, forthcoming). They all depended on the same pots of funds and the same transportation system. Similarly, another group of statewide stakeholders ranging across labor, business, agriculture, education and most of the major sectors of California came together in the California Governance Consensus Project to try to develop a program of fiscal and governance reform (http://www.csus.edu/calst/cgcp). They applied the principle that no one could join their consensus building effort unless the stakeholder both had something they wanted to get out of it and something they could offer other stakeholders. Without this condition, stakeholders could waste others' time and potentially sabotage the process.

At first, some stakeholders may not be aware of their interdependence. In particular, they may not know what others can provide that they need or what they can offer that others want. They may not understand the problem well enough to know how their actions may be interdependent. For example, business may not understand how their profits are affected by traffic congestion, and players from the suburbs and central cities may not understand how the welfare of their citizens and businesses are linked together. Typically, however, if stakeholders

are at the table together, they begin to learn about their interdependencies when participants explain their own situations and needs. The most important part of learning about interdependence comes in the next stage as the group goes through the difficult tasks of agreeing on how to define and measure the problem and on what their shared mission should be.

A case in point is the San Francisco Estuary Project, where the group spent two years examining all the science to reach agreement on the State of the Estuary. In the Water Forum, the group spent over a year developing agreement that their mission was to address two coequal objectives of meeting environmental and human needs for the water of the Lower American River. In both cases the participants began to learn 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 extract the funding to restore habitat and protect fisheries. They came to recognize they were locked together for two reasons: because the water supply was interconnected and because a complex system of state, federal and local agencies and many thousands of businesses, residents and others influenced the quality, quantity and flows of water through formal regulation, investments or failures to invest in treatment, or simply through their actions. As the group members came to understand these linkages, they were increasingly willing and indeed eager to find cooperative solutions.

In a contrasting example, the regional transportation planning process in San Francisco did not permit the players to discover their interdependence because the agency distributed funds according to a geographic, population-based formula. As a result, the group had neither occasion nor incentive to analyze their interrelationships, nor to understand the contribution of their proposed projects to the region. They were entitled to the funds and the funds were not designated to solve transportation problems. The expenditures, because of the formulas, did not have to be justified in terms of their contribution to solving the regional problem. Indeed, the group had no definition of the regional transportation 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. If they had done so, it would almost certainly have had an impact on how the group wanted funding distributed because they would have understood which investments would have most regional payoff. 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.

Of course, not all those who have a stake in public problems are necessarily interdependent in practice. Some of them may be able to pursue and achieve their objectives effectively alone. Some of them may not care about the workings of the system as a whole and may be able to extract what they want without collaboration, especially if they have short time horizons. We argue that for the most part in complex and controversial cases of regional resource management, infrastructure planning, growth management and the like in the U.S., few players are sufficiently autonomous and powerful to ignore other players. Most would benefit from recognizing and working with their interdependence *if* there were a process where the various interests could be developed, explored and responded to.

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 Fig. 1). We have found these results in most of the dozen or so cases of comparatively successful collaborative dialogues which we have studied in depth or participated in over time.[1]

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. They learn that it is in their self interest, not only to work together, but also to offer something to others because others have something to offer them. 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 then jointly buy the shipment, the price will be lower and both will be able to meet their needs. This example is simple, but it is far from uncommon that this sort of reciprocity can be 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).

In the San Francisco Estuary Project, the group spent two years learning about the nature of the pollution and biodiversity issues in the Estuary and about the development pressures, needs of business and real estate, interests of local government and of fishermen. They learned how complex the regional water system was and how each stakeholder fit into it — what each had at stake and what each could do to improve the system or what sacrifice each might have to make to have the benefits of a healthy ecosystem. They learned they would have to do their individual parts if others were to do theirs.

Contrary to popular belief, what stakeholders do in these dialogues is *not* make tradeoffs in the sense that one member gets a concession from another in return for something else. That is not what we mean by reciprocity. That kind of tit for tat is not collaborative dialogue. 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 options for alternative stories until they find the narrative that is plausible and appealing to all of them. Typically in such a process players discover they can make modifications in their behavior which may be of little cost or importance to them, but of great benefit to another player. They learn that they can get other players to similarly modify their actions or positions. Perhaps not surprisingly, many players outside these processes — such as the leadership of the groups who have representatives at the table — are still thinking in terms of the tradeoff concept. For example, in the Water Forum after participants had collaboratively developed new water management criteria and programs, they had to develop a list of "Quid pro Quos" to give to 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 accomplished something. Ironically, however, the group actually had discussed few of the

decisions in terms of quid pro quo at the time they were making them. Instead they had a cooperative discussion about options and scenarios in which each group indicated whether they could accept a particular strategy. To make the quid pro quo list, staff had to do a retroactive look at the results and categorize them in a way they had not been categorized during discussion.

Relationships

One of the most important outcomes of this dialogue is that new relationships and social capital are built among players who would not ordinarily talk with one another, much less do so constructively. When we interviewed participants in even the least successful collaborative processes, almost all of them cited that they valued the new contacts they had made. They had people they could call later about issues or just for getting up to date on what was going on. For example, in the Estuary Project the representative from the U.S. 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 well beyond mere professional contacts. Over time — and many of the processes lasted for years — the participants developed mutual understanding and sometimes personal friendships. They were at least 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 then more 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 view 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 they would be very unhappy. These group members discover they are each individuals with families and hobbies, unique personalities and sincere commitments to their causes and beliefs. At the Water Forum after the first year or so, during which interest group members stuck together, you would often see an environmentalist sitting over a meal with, for example, a representative of a water utility serving agriculture, despite their differences about water use and pesticides and despite their history of bringing legal challenges against the utilities. Kraft and Johnson found, in a comparable case of collaboration around clean water, that stakeholders developed mutual understanding and trust that were important to long term community sustainability (Kraft and Johnson, 1999).

Such relationships did not change a stakeholder's 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 other to better hear what others said. These relationships helped people to build trust among themselves in that each knew what the other was like and what mattered to the others. This meant there were fewer surprises and more tolerance, even 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 recognized that each had to pursue her stakeholder's interests and that they hoped they could do this collaboratively. For the time being, however, they

were "living in two worlds" — the world of collaborative dialogue and the world of competition and conflict. The relationships they built helped get them through these times of conflict. Finally, these relationships sometimes lasted well beyond the processes themselves and after the immediate task was done because they no longer were purely instrumental. They became the basis for long term personal and professional networks that had not existed before.

Learning

A third crucial outcome of collaborative dialogues is learning. Again in our interviews with participants in many collaborative processes, almost all said they had learned a great deal in the processes. Indeed this learning was what kept many of them at the table (Innes et al., 1994). Even when a stakeholder has an instrumental interest in being at the table, the individual representing the stakeholder must *want* to actually attend the meetings. Meetings where there was learning and interaction and discussion about other stakeholders' interests, about the problem, about possible strategies, were meetings which were well attended and kept the players coming back. On the other hand, stakeholders attended the meetings where long agendas required formal presentations and allowed little discourse only if they needed to protect their interests.

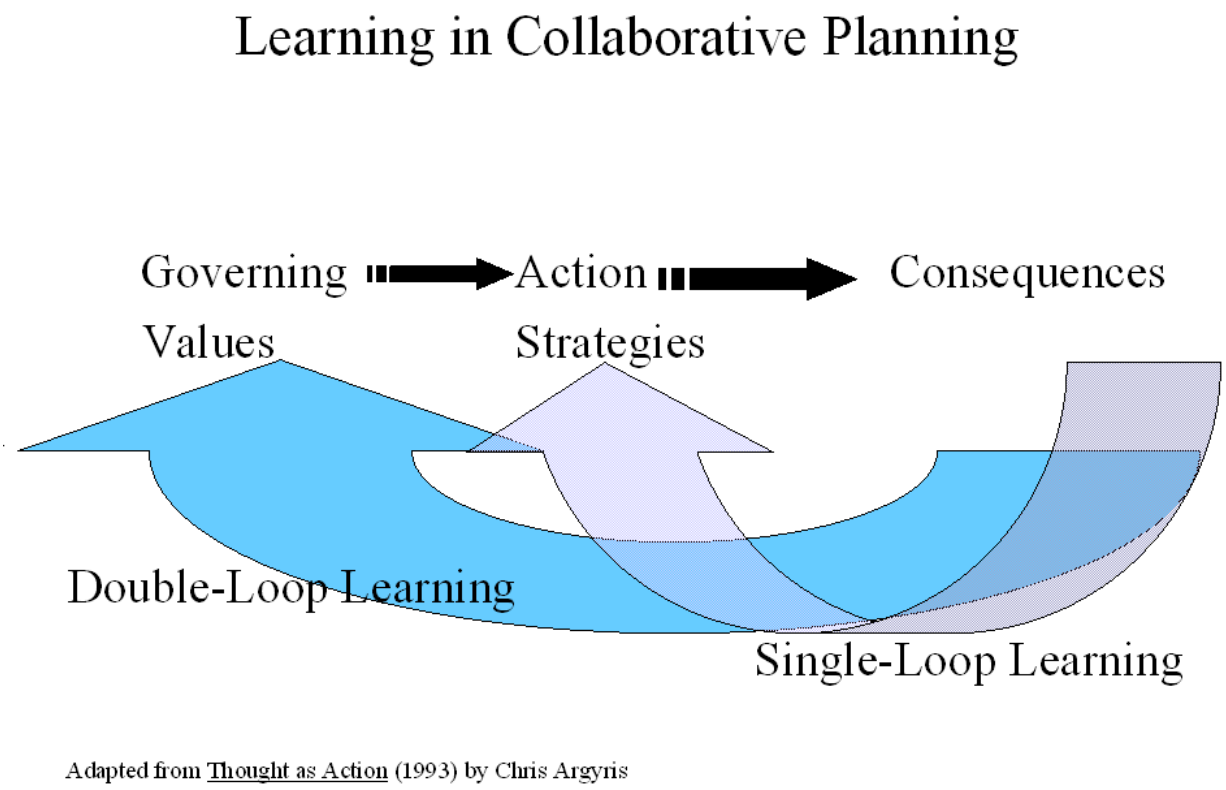
Participants needed to be engaged in a task, as suggested earlier, which they were capable of and interested in doing. For example, in the transportation planning case, the meetings where players developed criteria and scoring principles for allocating funding to projects were well attended and interesting as the members, all of whom had projects to be funded, cooperatively developed the ideas and the transportation agency implemented them. On the other hand, the meetings where the task was to design a regional transportation management plan were poorly attended because the participants did not know anything about regional systems management, had no direct responsibility for it and because they were simply given the ideas by a consultant. The Water Forum meetings were always engaging because they focused on tasks and were well supported by the information to do those tasks, whether it was to develop a groundwater management strategy or to decide how to create funding and decision making around habitat conservation.

Learning was not just an individual experience, it also was a joint learning exercise in the successful cases. That is, people learned not just by listening or asking questions of the experts, but also by interacting 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 many of the most focused sessions. This is not surprising as group process and interaction can be an important way of learning that truly engages people. They learn not just from what others say, but from their own participation in the task and because their minds begin to work more actively in the collective effort. Those of us who are teachers can attest to the importance in learning of engaging the students in a task, often with one another and certainly with the material.

This learning can just be learning about "facts," what the conditions are, what others think, or how scientists see a problem, but an effective group can also engage in what has been called single loop learning (Argyris, 1993) as well as even more importantly, double loop learning (see

Fig. 2). In single loop learning, a group can develop a more effective way of solving their problem than they had before, perhaps by working together. For example, in the CALFED case the group discovered that they could address the shared problem of improving the environment and water supply by jointly backing a bond issue to support a series of projects. Over time, they began to discover that they should think about water management very differently because there was not enough water for all purposes. If they cooperated, planned ahead for crises, and shared water, they could in effect increase the quantity and quality of water as well as the reliability of the supply.

Figure 2.



Adapted from Thought as Action (1993) by Chris Argyris

But in some cases with particularly intractable problems, there may be no solution which is satisfactory to all these diverse players, even with new options they can discover through dialogue and identifying their interdependence. In this sort of case, double loop learning may occur and may in fact be the only way to get out of stalemate. In double loop learning, the players rethink what it is they want to do in the first place. They may reframe the problem or decide that they need to apply different values or that their interests might be met by something quite different from what they originally anticipated (Schon and Rein, 1994). The group can discover that the original way they looked at the problem and the values they brought to it should be changed and new objectives outlined. This can happen without the stakeholders changing their interests, which

are deeper and more basic. Rather they find different ways to express and fulfill their interests.

The California Governance Consensus Project (CGCP) came about because of double loop learning. This was an outgrowth of several earlier collaborative projects, each of which ended with a reframing of the problem and an identification of a different set of interests to be involved. The first project involved a collaborative set of stakeholders trying to develop statewide growth management legislation. They came to agreement on many features of the legislation, but learned during their discussion and exploration of options that, without infrastructure funding, growth management could not be successful. This first process evolved into a second collaborative project focused on development and marketing of a bond issue to support infrastructure because limitations on state revenue and expenditures would not allow for funding to come from existing sources. When this bond issue failed to pass the popular vote, the collaborative 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 made progress in developing agreement on a number of reforms to fiscal structure and learned through focus groups about voter attitudes to possible actions. It then disbanded when it decided 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 toward making more incremental changes, which would nonetheless reflect the shared understandings the larger group had developed. In this example of continuous double loop learning, the group changed its objectives, evolved its strategy, and continuously became more sophisticated about the problem, about each others needs, and about what the public would accept and under what conditions. They were and continue to be highly adaptive.

Creativity

In the effort to solve a problem or find a workable solution, tremendous creativity can be generated within a group. This happens through brainstorming, collaborative scenario building and just ideas that are generated because each member is getting a different and evolving picture of the world as the dialogue continues. It is curious, however, how difficult it is to get participants not just to "think out of the box," but to be willing to put forward the often half-baked ideas that can start something. They hesitate and they apologize for making things more complicated. They worry that their idea is foolish. It is even more difficult to get people to challenge assumptions or the status quo which is often a prerequisite to collective creativity. Participants typically take the world around them as given and do not see what might be different. Those who manage or set up the processes, especially if they are public agencies, try to set clear boundaries on what can be discussed and what can be changed. All too often the groups accept these boundaries and fail to find a way out of their impasses. On the other hand, once they give themselves and each other permission to let their imaginations work, then new ideas can and do emerge. With practice, effective process management, appropriate tasks, and diverse, interdependent participants, creativity can become the norm.

The Sacramento Water Forum as a Model

The Sacramento Water Forum was the example in our research which came closest to meeting these conditions of diversity, interdependence and authentic dialogue. This happened for

a variety of reasons, but importantly because of a talented facilitator who made sure everyone was heard and that issues were deeply addressed and conflicts resolved. The project had funding of over a million dollars per year not only for support staff but also modeling and projections and other research to support the dialogue. It was a forum where creativity was common (Innes and Booher, 1999b) and where challenges to the status quo were frequent. It was not controlled by any agency, though it was funded by the City and County of Sacramento. The funding agencies were committed to doing what participants agreed on. This 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 grounds that they were damaging endangered species. The overall supply of ground and surface water was all interlinked and very much limited in drought years. Many knew they would get no water or very little in drought years. Farmers might have to go out of business and the building industry might have all development halted. This group of stakeholders agreed on a variety of projects, conservation measures, and habitat restoration and altered their values to acknowledge it was legitimate and appropriate for urban, environmental and agricultural interests all to share in the water resources. They altered them also to say that, instead of constant conflict and the uncertainty that brought, they would use a cooperative program they laid out. They modified their views but continued 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 policy making.

How Collaborative Planning Results in System Adaptations

During this dialogue and building of reciprocity, relationships and learning, the participants begin to change, and the way they act begins to change. Indeed this is the most important power of collaborative planning, beyond formal agreements and new networks of players. We identify four kinds of changes in the participants that result over time in second order change of the social/political system. These changes are ones that help a complex system turn into a complex *adaptive* system that has the capacity to learn and evolve through feedback and distributed intelligence (see Fig. 1). In other words, these changes are not top-down, controlled by powerful players, but rather produced by individuals acting independently though de facto in concert as a result of collaborative dialogue.

The first change is that the discourse helps each participant to articulate his or her identity as a stakeholder and individual. Each stakeholder's identity becomes in part contingent on each others' identities, rather as they do in a community where responsibilities and roles are differentiated and simultaneously linked together. In a sense they develop, through the discourse, both clearer individual identities and clearer identities as stakeholders in a common problem or resource. This identity development is a critical part of the process because in the contemporary globalized information society, individual and group identity are under challenge. In public policy, many identities challenge one another, often preventing communication, much less cooperation (Castells, 1997). For example, the environmentalist whose identity is as fighter against the ravages of the capitalist system on the environment interferes with communication with the developer whose identity is wrapped up in providing quality housing. Developing and articulating linked and shared identities helps to make possible longer term cooperation that otherwise only can happen in a tightly knit community.

The second change that helps the system become more adaptive and "intelligent" is that individuals in the group begin to develop shared meanings. As they discuss the issue of biodiversity, for example, they begin to see this phenomenon in a common way; or as they discuss the problem of drought, they develop common definitions and understandings of a drought and its implications. This is a process of socially constructing the concepts around which policy will be built, as stakeholders did, for example, in three states as a part of implementing state growth management programs (Innes, 1996). They are speeding up a process that could otherwise take years, or in contemporary conditions perhaps never happen,[2] but which is essential if the policy is to be genuinely agreed on or implemented. It is critical — especially where new initiatives and different kinds of strategies are being followed — to agree on the meaning of the policies and their implications. It is also essential to the development of indicators and other information that will guide and assess the policy (Innes, 1998). Once stakeholders have developed shared meanings, they do not have to check in with each other all the time to coordinate, but can act in concert because they understand issues and policies in parallel ways. Their networked relationships give them feedback that allows them to act more intelligently and has a beneficial effect on the system.

The third adaptation of the system is that the individuals in the group may develop new heuristics. That is they agree on, sometimes explicitly and sometimes just de facto, new rules of thumb to guide their everyday 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 confrontive technique. The new heuristics include listening to others, treating them respectfully, looking for the common interests, and challenging assumptions, as in "The Water Forum Way." Many other heuristics about how to deal with the problem develop from a long term collaborative process, though these may be not be 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. Instead of assuming, for example, that regulation must be detailed and rigid, they may decide that it makes more sense to help each player develop an individual set of rules of thumb to adapt to drought conditions. They may use performance measurement rather than dictate behavior through detailed rules and defining the steps that should be taken. If the measurement is moving the wrong direction, this information becomes a jumping off place for collaborative discussion about what is going wrong and what to do.

In the older paradigm, where we think of the world as relatively stable and predictable like a machine, heuristics were not nearly as important as they are in complex evolving situations. It made more sense in those conditions to try to control outcomes through detailed rules and specific targeted end states. In the traditional paradigm, we tried to control the system by top-down rule making, by setting standards, by doing detailed analyses and by rewarding and punishing certain behavior or results. We tried to design a policy machine that had all the right bells and whistles so, when we set it in motion, it would produce the outcomes we wanted. Heuristics become more important as it becomes clearer that machine thinking, if it ever worked well in a public policy arena, does not work for the issues that are most challenging today.

In a heuristics-based approach to policy, individual agents act independently using the shared heuristics they have developed. Each individual does what makes sense to him/her, given

the local knowledge he/she has and the feedback each gets from others with whom they are networked through a communication system such as collaborative dialogue. The result is never predictable because this is a self-organizing system. There is ample reason to believe 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. It is only through these multiple actors working on what they each do best that these problems are going to be addressed effectively (Innes and Booher, 1999c; Kelly, 1994); the system cannot be controlled, but it can be made more intelligent and adaptive.

An example of the old and new paradigm for policy guidance can be found in the way we have approached sustainability around the world. Many of the definitions of sustainability or the goals for sustainability efforts involve statements about what the end state should be like. For example, sustainable development "meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987). Even without considering the unexamined issue of the social construction of need at different times in history, this statement is not particularly useful because it has already determined the nature of an end state that may or may not be workable or even desirable. Moreover, it offers no guide of how to get there. On the other hand, Herman Daly offers a set specific heuristics about creating and maintaining sustainability every day. These practical heuristics include, for example, "for renewable resources the rate of harvest should not exceed the rate of regeneration" (Meppem and Gill, 1998, 123). This provides a guide to daily actions and policies without making assumptions about the long term effects or setting unrealistic goals or goals that may not be appropriate in the future. A simpler and more generic heuristic is offered by Hawken: "Leave the world better than you found it, take no more than you need, try not to harm life or the environment, make amends if you do" (Hawken, 1993). We share the view (Meppem and Gill, 1998; Meppem and Bourke, 1999) that sustainability has to be thought of as a process (Innes and Booher, 1999d) and that we cannot know today what a sustainable society is going to look like. What we can do is create collaborative, networked relationships so that we can have an effective system of distributed intelligence where each agent uses the heuristics that seem most likely to result in sustainable systems. What we can do is create situations where learning can occur continuously as feedback is provided through performance measures and other ways to learn about the workings of the larger system (Innes and Booher, 1999c).

Innovation

Finally what emerges from collaborative dialogue can be genuine innovation — not just creative ideas, but ideas that get turned into new practices and even new institutions. These are often innovations that would not even be imaginable without the collaborative involvement of stakeholders and the social capital that emerges. Single loop and double loop learning often allow new ways of thinking to take hold.

For example, in the CALFED process, several entirely new ways of managing water were developed. The group created, for example, a novel cooperative approach among competing stakeholders scattered around the region to 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 same day of the

observation and all were able to agree, on a real time basis, when particular channels or flows should be altered to protect the environment. In the past, these decisions were made very crudely and with much delay. They were based on arbitrary standards set months ahead of time. They involved weeks of data gathering. They involved setting up rigid regulations to slow water use and flows, which usually went into effect either too soon or too late and which were not changed for weeks until the process was repeated. These regulatory measures 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 does not depend on a simplistic formula but a much more complex set of indicators. Because the decision is the result of a collaborative discussion by observers who represent different interests, the complaints and challenges are few, even if some do not like the results. The first time this was done, some stakeholders concluded that it was premature and the results harmful to them. They agreed nonetheless that the process was much better than the past and simply needed refinement. Instead of suing the agency that was responsible, those harmed supported the process and rolled up their sleeves to improve it.

We found many other innovations in our research that emerged from genuinely collaborative dialogues. One involved new ways of designating habitat and protecting species without having to limit construction across a vast area. This was important because habitat preservation becomes more politically feasible, and needed economic or housing development is not halted. Disputes over such designations of habitat had dragged out over years in the past, moreover, while species died off. The new approach allowed a mutual gain solution. In other processes, we found outcomes that included innovative ways of evaluating projects, sharing resources and responsibility, new legislation linking together issues that had not been linked before like housing and sales tax revenues (in an effort to produce more affordable housing and overcome the Not In My Backyard problem), or new ways of measuring crucial phenomena like 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 work by applying a priori rules. Legislative bodies deliberate with limited time and knowledge of a real problem and produce one-size-fits all legislation. Moreover, there is strict separation between public and private actors, at least in public settings, although some interests may influence decision makers behind the scenes. 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. In many states in the U.S., policy making efforts are subject to open meetings laws which determine who can sit at the table, typically excluding interest groups. They also limit spontaneity of discussion through strict laws on formal public noticing days in advance about every topic that will be addressed.

This traditional policy making system is far from adaptive or responsive. Recently, for example, a group of wealthy citizens who live in a spectacular area overlooking steep cliffs in San

Francisco posted a series of signs asking traffic to slow and watch for children playing. They did this after a series of accidents where gawking tourists hit pedestrians. The city traffic control agency promptly removed the residents' signs and said only the city was permitted to put up signs. They made clear it would be months before any city signs were approved and installed. This was a case where individuals were ready to make their own system work in a self-organizing way, and where regulatory bodies stood in the way in order to maintain control. In another example, a huge privately owned combination medical practice/health insurance company threatened to go bankrupt in California. This would strand half a million people without health care and put dozens of linked companies out of business. The state's response was that they could do nothing until they set up the new State Department of Managed Care, and once they did that, it would be two years before the regulatory procedures could be designed, much less implemented. The idea of pulling together the stakeholders to solve the problem before the company collapsed appears not to have been considered.

There is an uphill battle for collaboration to occur in such a conventional policy making context. Collaboration is not a method to which most who have been involved in policy arenas are accustomed. Federal and state law and practice in the U.S. embody expectations for both the making of policy and the implementing of it that are often entirely in conflict with collaboration. 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 often 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 accurate information and what issues are legitimate topics for discussion. For example, the Environmental Impact Assessment process, as defined in California's Environmental Quality Act (CEQA), provides information on the projected impacts of a project on specified environmental values, but does not require analysis of impacts on the community or economy. Public hearings are held where speakers are only allowed to discuss the accuracy of the information in the report, but not the desirability of the project, much less other unmentioned impacts. Agencies and private persons are allowed to provide commentary on the quality of the data, but typically the information from public agencies or well respected and powerful interest groups is the only information that might be used to alter the report.

Collaborative dialogue, on the other hand, engages scientists with lay people, who challenge analyses and assumptions, using their local knowledge which, in these 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 such evidence. When they were forced to confront this assertion, they did new studies and found out that 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 of the agencies. 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, de facto, preempt legislative decision making or put legislators in the position where they have to go along with the group's decision. Or they may come up with ideas that threaten the authority of agencies. As a result, many legislative bodies object to collaboration as they see it as undermining their prerogatives, and

public agencies may oppose or sabotage it or try to control the processes. When they do this, they lose the benefits of collaboration.

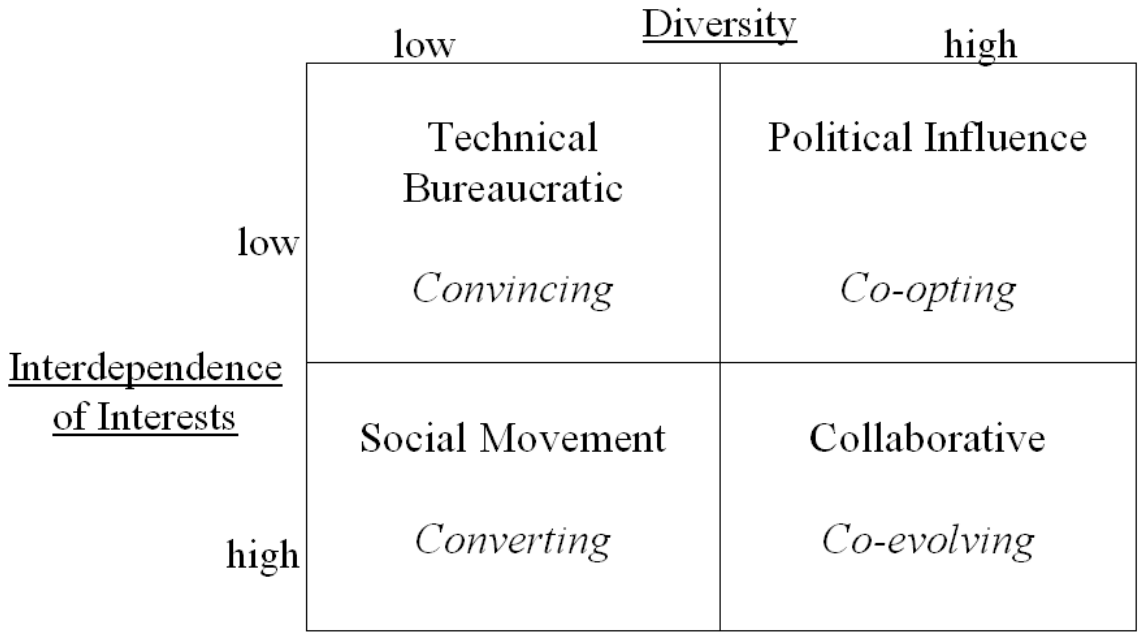
There are typically few, if any, forums and arenas set up in most local and regional contexts in the U.S. where collaboration could happen easily (Dodge, 1996). For example, in the U.S., local governments mostly have neither incentive nor opportunity to discuss development proposals with neighboring jurisdictions. Nor do they have the chance to come up with mutually beneficial growth plans that would assure both 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. A federal law prevents non-governmental advocates from being regularly involved in policy making processes with agency staff on ongoing committees. Conflict of interest laws prevent the most knowledgeable and motivated stakeholders from coming to the table to help make policy if the policy might at some stage benefit them. So-called pork barrel practices of allocating funding to projects by geographic area or to powerful players make collaboration not only unnecessary, but threatening to the whole project allocation arrangement. Institutions, practices and expectations all go against collaboration in most U.S. policy making settings.

Alternative Models of Planning and Policy Making

One of the principal sets of institutions and practices that run counter to collaboration is the existing models of how to do policy making and planning. We have identified four main planning models that are simultaneously in use in many, if not most, public policy processes in controversial or complex policy problems in the U.S. (Innes and Booher, 2000). These include the technical/bureaucratic approach, the political influence/pork barrel model, the social movement model and the collaborative model (see Fig. 3). Each model responds to a different degree to diversity and interdependence among interests. The technical bureaucratic model 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 at least the typical practice is one where analyses are not focused on interdependencies (though this could change as more sophisticated technology and complexity modeling could permit this). The political influence model 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 is one which recognizes the importance of interdependence among a coalition of interests and individuals, but which does not deal with the full diversity of interests. Collaboration is the model which best deals with both diversity and interdependence, but it is typically the least used and least institutionalized of the four models. Practitioners and policy makers who operate primarily in one of the other modes are more common than collaborative players. Laws and long time practice tends to support these other planning modes, if not actually require that they be used.

Figure 3.

Four Models of Planning and Policy Making



Adapted from "Planning Institutions in the Network Society: Theory for Collaborative Planning" by Judith Innes and David Booher in Revival of Strategic Spatial Planning, eds. Willem Salet and Andreas Faludi, Royal Netherlands Academy of Sciences, Amsterdam.

A useful way to think of the contrasting models is in terms of four Cs. The technical model is about *convincing* policy makers through analysis of what is the right course of action. The political influence model is about *coopting* the players so they will all buy into a common course of action. The social movement model is about *converting* other players to a vision around which the movement is organized. The collaborative model is about stakeholders *coevolving* to a common understanding, direction and set of heuristics. These planning models each have different 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 policy making effort. Moreover, individuals during their careers may move from one approach to another or they may select an approach 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 policy makers, while the latter disdained the analyses the technicians produced. Social movement planners may disdain collaborative ones because they have "sold out," and technical planners may disdain the social movement planner as naive or unresponsive to "neutral" and scientific information.

The technical bureaucratic model works well in conditions of comparative certainty where there is only one interest — in effect, where there is agreement about the objectives and a single decision making entity. Bureaucracy is set up to implement known policy and follow a hierarchical chain of authority. The technical analyst has come to be associated with rationality and bureaucracy. The education that planners and policy analysts in this tradition get typically begs the question of diverse goals and starts instead with a question which is simply about the best way to meet a predetermined goal. The analyst is thought of as either protected from the political arena or working for a particular advocacy perspective. Either way, the analyst does not have a responsibility for diverse interests. Moreover, it follows that they are not in a position to deal with the possible interdependence among these interests.

The political influence model, so called after the classic Banfield book about Chicago and the Mayor Daly of the 1950s (Banfield, 1961), is an approach to planning which is not about outcomes or substantive results in the community. Instead the objective is to make sure that all powerful stakeholders and elected officials have projects that they can claim credit for. This gives the mayor or agency head the political legitimacy to bargain with others for resources, and it means a community or region can present a united front. It also maintains political peace. These projects may be given out on the basis of a personal relationship with the boss, or on the basis of geographic formulas. They are not given out on the basis of what is the best way to solve a shared problem, nor on the basis of a vision or set of substantive priorities. The political influence model is a time-honored approach in the U.S. for transportation, water policy, infrastructure provision and a variety of other policy topics where benefits are both divisible and visible. This method has the strength that it deals well with a diversity of interests, although typically not with the weaker interests. It does not however, permit discovery of interdependence of interests. Indeed, typically deals are made one-on-one between the leader and the interest group or individual. If these players were to discover their interdependence, it could undermine the leader's power, which depends on everyone relying on him. In one case of transportation planning which we observed closely (Innes and Gruber, forthcoming), the lead agency actively discouraged collaborative discussion on shared problems among the transportation providers who were the beneficiaries of the funding the agency was allocating.

The social movement model is an approach that emerges when interests are excluded from the policy process. In the U.S., there is typically a somewhat uneasy, even unholy, alliance between the political influence oriented policy players and those more in the rational technical model (Rein and White, 1977). The former group need the latter for legitimacy and the latter need the former to provide the funding and marching orders. But the combination means that players such as environmental groups, social equity interests, or even business or local government may not be incorporated in the policy process. When matters are highly technical and involve sophisticated analyses, this tends also to leave out interests which are without the resources to do their own analyses or critique the agency's studies. In this context, social movement planning emerges. Social movements are organized around a vision and bring together like-minded interests which discover that if they cannot play a part inside the policy process, they must become a political force on the outside. An example in the Bay Area was a coalition of environmental interests, social equity, environmental justice and transit riders which formed to try to redirect Bay Area transportation policy through media events, advocacy analyses and packing the public hearings. This kind of approach is fixed in their idea of what the outcomes should be

and uses analysis in an advocacy way. The social movement approach to planning depends on an understanding of the importance of interdependence, as it is only the strength of the coalition that gives them political clout. This coalition only stays together because they understand that, for example, transit riders share an interest with environmentalists because more transit probably improves air quality and reduces pressure for sprawl. What the social movement approach does not do well is deal with diversity of interests. By its very nature, it cannot include all interests or it will be unsuccessful in holding the coalition together.

It is only the collaborative model that deals both with diversity and interdependence because it tries to be inclusive and to explore interdependence in the search for solutions. It does not ignore or override interests, but seeks solutions that satisfy multiple interests. It turns out, in our observation, that it is only the collaborative model that allows for genuinely regional or other collectively beneficial solutions to complex and controversial problems (Innes, 1992; Innes and Gruber, 1999). This is consistent with Ostrom's findings in dozens of cases of resource management around the world (Ostrom, 1990). Those which were most collaborative and self-organizing in the sense we describe above were the ones that were most likely to produce a durable and sustainable management effort.

The collaborative model in the most powerful examples, like the Water Forum, manages to subsume the other models, while in part transforming them. The technical planners and analysts were involved, but, instead of being isolated from interests or advocacy analysts, worked closely with the stakeholder group to develop information in the form the group wanted including assumptions and parameters group members understood and accepted. The political influence approach continued to swirl outside of the collaborative process, but at the same time many players began to like their chances better of getting what they wanted inside the process. The group as a whole then had as much political influence as the most effective power broker. On the other hand, the potential for participants to work outside the process was an incentive for all to work harder inside the process to find mutually satisfactory solutions. Finally the collaborative process brought in the social movement players, like the environmental groups fighting their battles against the dams and the damage to spawning salmon. The power these groups had amassed through their social movement gave them a genuine voice at the table. Everyone knew they could leave and that, if they did, the agreement would not survive.

Collaboration is painful and time consuming for participants. It is expensive if done properly (though it may well be far less expensive to society than years of lawsuits or competing legislation and failures to solve public problems). For complex and controversial issues in rapidly changing and uncertain contexts — issues that there is public pressure to address — collaboration among stakeholders is likely to be the best approach — indeed, the only approach that can produce a satisfactory result. There are diverse interests in these situations and, as a rule, the only way problems will be solved in fluid and conflictual situations is by finding the interdependencies and developing the shared ways of seeing the issues that will allow joint action.

Emerging, New, Flexible, Adaptive Institutions

"There is nothing so hard as to change the existing order of things." —Machiavelli

The remarkable reality is that, despite all the obstacles, collaborative practices are being put to use and even becoming the norm in some policy arenas in some regions (Healey, 1997). They coexist uneasily with other practices, but the concept seems to be spreading. A new sort of institution is emerging. It takes many shapes and forms, but it has common characteristics. It is fluid, evolving, networked, and involves dialogue and distributed intelligence. These are institutions that are defined less by hierarchies, long term patterns of routine behavior, and structured roles, than by practices that maintain constant interaction, learning and adaptation (Healey et al., 2000). To be able to think of such a phenomenon as an institution, involves a different mind-set than the one that equates institutions with organizations and structures that change very little. Instead, these adaptive institutions are more like the standing wave that keeps its shape while millions of molecules flow through it. This notion of institutions is informed by Giddens's concept of a symbiotic relation of structure and agency, where a structure and set of patterned relations supported by norms and values is enacted on a daily basis by agents. Agents' actions are to a substantial degree shaped and constrained by the existing social structure and values but, by the same token, agents have the autonomy to choose actions that strain and even break out of that structure or contradict the prevailing value system. In the process, the structure changes. In contemporary times, the structure changes faster than in the past.

Some examples of these emerging institutions help delineate the features of this postmodern institutional form.

- In dozens of major U.S. cities, community-based organizations have formed into working cooperative networks which have been labeled the "community sector" (Morris, 1998). They compete for funds from agencies and foundations. They also work together, building on each other's strengths to solve community problems and to influence city government. In the cities where they are stronger and better networked, they have influenced policy so the city provides more affordable housing and deals more with the needs and demands of the inner city poor. These organizations and activities keep evolving to address emerging issues and changing conditions. A new organization, PolicyLink, has formed to emulate this networking at the national scale, linking players together, hastening the spread of innovation and influencing national policy.

- All across the U.S., states are setting up environmental dispute resolution agencies. Courts refer disputes to them for mediation. State agencies bring policy conflicts with other agencies to them. Legislatures may even refer complex policy questions to them.

- In Queensland, Australia, a complex marine estuary is managed through collaborative information exchange and joint decision making (Margerum, 1999b).

- In Karachi, poor neighborhoods petitioned for years to the city and to the World Bank for sewers to be constructed. A local sociology professor concluded the community members would have to build their own sewers if they were going to get the sewage out of the streets and stop the disease and conflict it was causing. A small group developed a training program,

went into the neighborhoods and got residents each to provide a little money from their meager incomes. Residents dug the trenches and laid the pipes in their own neighborhoods. The idea quickly spread through the city. The result was new micro-enterprises in the cleaned-up areas and two million new experts in building sewers. Belatedly, the Asian Development Bank agreed to implement a rather grand sewer building scheme, resulting in a parallel system which was not hooked up to anything and, at last notice, was not in use.

- In the foothills of the Sierra Nevada mountain range of California, where second home development and "footloose" businesses are changing the rural landscape, the business community mobilized a collaborative planning process, the Sierra Business Council, which concluded that compact development would be better for both the economy and for protecting the natural beauty and environment on which that economy was based. This process has produced new land use policies with wide public support (Hecht, 1998). Conferences, symposia and smaller dialogues are widening the circles each day to include more and more of the business community in this far reaching region. The leader of the process has just been awarded a MacArthur Award, a "genius grant" for her creativity.

- In Chicago, historically one of the most politically conflictual of American cities, a transformation in spatial planning has begun. Mayor Daley invited all 269 mayors in the region to join in a caucus to search out common approaches to metropolitan spatial issues. They talk over difficult questions such as transit line extensions and how to comply with U.S. Clean Air Act requirements without having to halt industrial expansion. At the same time, the Chicago Metropolitan Planning Council, a private business/civic action group, started the Campaign for Sensible Growth, commissioning the American Planning Association to draw up a Smart Growth legislative package tailored to Illinois law for the Council to support in the Illinois legislature. Though Republicans have typically opposed such efforts, the Republican governor supports it. The new plan is about transforming the rules of the game and, as a result, changing the heuristics that players use in order to "unleash Chicago region's full creative capacity and excel in the global economy." It means change in government structure, taxing authority and land use practices that now hobble the inner cities, older suburbs, minorities and the poor. It proposes to establish a new regional coordinating council, made up of local government appointees, which would equalize funds across communities and create incentives and funding sources to finance compact development and redevelopment across the region. (Peirce, 1998).[3]

- Joint Venture Silicon Valley, which includes the famous valley's leading high technology businesses along with public agencies and interest groups, has prepared Vision 2010, a plan for a sustainable Silicon Valley.[4] This deals with housing, transportation, air quality, open space and has begun already to publish a series of performance indicators to call attention to the conditions and to set benchmarks from which to seek improvement. The organization takes a variety of actions, including lobbying on state and local legislation, encouraging the development of urban limit lines, and seeking funding for infrastructure projects. Their predecessor group jointly funded a congestion-reducing freeway when state money was unavailable. This organization, which links together many networks to seek to improve both the quality of life and the climate for doing business, works in ad hoc ways on issues as they come up. It came naturally to the people of this region to work cooperatively, because

collaboration was the way this region has flourished as the leading high technology region of the world (Saxenian, 1994).

- All over the U.S. in small and large cities and in entire metropolitan areas, sustainable development groups have formed. These are often sponsored by public agencies, but also are developed by self-starting citizen groups. They include local or regional interest groups, as well as public agency staff and other stakeholders. They develop priorities and measure the status of the economy, the environment and the social conditions. They work on policies to help create a sustainable local or metropolitan system. These groups are internationally networked electronically to similar groups around the world to share information about practices, ideas and indicators. The projects have no formal authority, but they have generated wide participation across many interests and from the highest levels of government to the grassroots activists in hundreds of cities. No one directs these and no one has required them to come into being. No one says what the form should take or what they should do, but they meet on their own and talk and connect among themselves looking for ways to alter the directions of development and growth.

- A handbook published by the U.S. National League of Cities (Dodge and Montgomery, 1995) advises that strategic planning is essentially collaborative decision making involving the full range of regional interests. It argues that strategic planning is driven by regional purpose, but that it is incrementally applied and implemented, and that it deals with uncertainty and rapid, uncontrollable change. The process is iterative and may involve parallel processes around a region. It develops and institutionalizes a continuing capacity to monitor change, take advantage of emerging opportunities and blunt incipient threats. It periodically redefines a vision that is ambitious but achievable, and identifies the region's competitive niches. It actively builds partnerships with related, and even competing, regions. This volume represents an extraordinary contrast to the almost militant parochialism of local governments in the last 50 years in the U.S. It is also noteworthy that it does not recommend regional government, but proactive regional collaboration involving public and private players as well as citizens.

- Many of the successful collaborative policy dialogues we have observed, like the Water Forum and CALFED, have established as part of their first stage agreements successor collaborative processes to design and oversee the implementation. Collaborative dialogues will be legitimately able to revisit some of the original concepts in the agreement when things are not moving along as intended.[5]

These forms of planning and public action have become common enough that we believe they are new types of institutions. They have in common that they are collaborative, they involve stakeholders with different interests, they are largely self-organizing, and they are each uniquely tailored to context, opportunities and problems. They each take advantage of the strengths of their participants and their region. These ad hoc processes tend to have highly varied ways of linking back to the existing decision making institutions, if they link to them at all. They usually exist alongside those institutions.

This detachment of the new institutions from the conventional ones means that

implementation is a challenge. In each case, participants nonetheless have found ways to get results. In the Karachi case, it was a self-organizing system and self-funded. The community sector works informally together in cities, but then influences public agencies and city decision makers either through individual relationships, lobbying or through, in some cases, actually developing projects which the city ratifies. Though the Mayor instigated the Chicago effort, the participants were not under his control. This effort would only make a difference if the other decision makers learned, changed and agreed to act in certain ways and/or if they pushed through new legislation to provide more incentives for collaboration. Organizations like the Sierra Business Council and Joint Venture Silicon Valley make changes through their networks of members who learn new ways and start working together and by lobbying appropriate elected officials or working with public agencies as well as changing their own business decisions.[6]

This experimental and ad hoc set of ways of linking collaborative processes to the existing decision procedures may continue, but for collaborative planning to become most effective will require the development of both practice and theory. The solutions may be to mesh collaborative planning with the conventional institutions as, for example, the courts have done in sending many cases to mediation rather than deciding them in the traditional adversarial courtroom procedures. Legislators might, like the city council in Davis, California, set up a collaborative stakeholder process to resolve a contentious budget decision and develop long range development strategy for the city. In this case, the council adopted what the stakeholders produced. Institutionalizing collaborative processes may involve changing bureaucratic norms to encourage government to behave more like successful "nimble" business today, decentralizing tasks to small groups, decreasing hierarchy and creating flexible linkages to other businesses. It may involve more radical transformation of these institutions in which the public does not have much trust. Both practitioners and theorists need to work together to see and understand the new practices and their appropriate uses, when and where they work, and why they do or do not.

The new institutions will involve — instead of predictability, routinized responses and accountability based on inputs — creativity and new ideas, adaptive responses and accountability based on performance. Public agencies and bureaucrats will have to let go of the usually futile hope of controlling outputs and behavior and participate in collaborative processes, letting them go where they will. Agencies will have to be held accountable for improving the welfare of society rather than just operating specified programs. If they cannot serve this larger goal without collaboration, then they will have to get together with others. They will have to develop more horizontal and fewer hierarchical relations. By the same token, the public and elected officials will have to let go of the idea of rewarding and punishing agencies based on standards. They have to think, instead, in terms of performance measures that will and should be used by the agencies to improve *themselves* (Osborne and Gaebler, 1992).

The new institutional forms will require the acceptance of change and evolution as normal. It will reward experimentation, risk taking, and new ideas rather than punish mistakes and stifle creativity. It will require assessing performance by exploring emergent, second order and long term results. It will require giving up on the idea that anyone knows the answers. It will require public understanding that the goal of policy making processes in complex, controversial and uncertain situations must be to create a shared intelligence that can feel its way and ultimately make the complex system an intelligent, adaptive system.

NOTES

[1] These include a study of 13 cases of collaborative policy making in environmental and growth management (Innes et al., 1994); an in-depth study of collaborative policy making in regional transportation (Innes and Gruber, forthcoming; Innes and Gruber, 1999) studies of estuary management and water resource management (Innes and Connick, 1999; Connick, forthcoming); and a study of state growth management programs (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.

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

[3] Peirce's columns can also be found on the Citistates website at http://www.citistates.com/index.htm.

[4] This plan can be found on the web at http://www.jointventure.org/siliconvalley2010.

[5] This problem of implementation has been one of the biggest challenges of collaborative processes, as it has been with conventional regulatory ones (Margerum, 1999a). These collaborative, second stage groups provide one way of handling this.

[6] A general structure for evaluating consensus building processes from the perspective of assisting in creating an "intelligent, adaptive" system emphasizes these second order effects (Innes and Booher, 1999a)

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