

# **Networks of Adjacent Action Situations in Polycentric Governance**

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## **Abstract**

Within the Institutional Analysis and Development (IAD) framework, the concept of an action situation generalizes a game to allow for endogenous changes in its rules. This paper revisits this core concept to explore its potential for serving as the foundation for a systematic approach to the construction of more elaborate models of complex policy networks in which overlapping sets of actors have the ability to influence the rules under which their strategic interactions take place. Networks of adjacent action situations can be built on the basis of the seven distinct types of rules that define an action situation or by representing generic governance tasks identified in related research on local public economies. The potential of this extension of the IAD framework is demonstrated with simplified network representations of three diverse policy areas (Maine lobster fisheries, international development assistance, and the contribution of faith-based organizations to U.S. welfare policy).

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Scholars associated with Ostrom Workshop<sup>1</sup> have used game models, laboratory experiments, field research, and other methods, to study conditions under which communities can use their shared understandings, normative expectations, and strategic opportunities to sustainably manage resources critical to their own survival. This research has demonstrated that individuals in such communities draw upon an extensive repertoire of rules and strategies from which they select different behaviors, given their understanding of the nature of the situation at hand. This research has been guided by a common set of conceptual understandings and analytical tools, the Institutional Analysis and Development (IAD) framework, which forms the topic of this special issue.<sup>2</sup> This article introduces an extension of the IAD framework intended to facilitate systematic investigations of how simultaneously occurring decision processes interact with each other to shape governance and policy implementation.

The IAD framework contextualizes situations of strategic interaction by locating games within social, physical, and institutional constraints and by recognizing that boundedly rational individuals may also be influenced by normative considerations. Furthermore, participants in an action situation are presumed to be capable of making endogenous changes in the rules under which they interact.

One of the best known components of the IAD framework is the distinction between different levels of analysis (or arenas of choice). In the operational choice arena, concrete actions are undertaken by those individuals most directly involved in a particular policy setting. Rules that define and constrain the operational activities of individual citizens and officials were established by collective choice processes, and the rules by which these rules themselves are subject to modification are determined through a process of constitutional choice.

Too often those applying the IAD framework to a particular policy setting stop after identifying one example of each of these arenas of choice. Doing so results in an incomplete realization of this analytical perspective, for important distinctions can be drawn among different tasks carried out at the same level of analysis. For example, fishers drawing fish from the water are engaged in the task of appropriation, but at other times their activities may be focused on revising the rules under which they fish or monitoring the actions of other fishers and imposing sanctions on those who violate the rules. All of these activities take place at the operational level. More generally, key functions of polycentric governance implemented at the operational level include production, provision, financing, coordination, and dispute resolution (Ostrom, Tiebout, and Warren 1961). Each of these key activities constitutes an action situation in its own right.

This paper introduces the concept of a **network of adjacent action situations (NAAS)** as a means of facilitating application of IAD to complex policy settings. Two action situations are adjacent to each other when outcomes generated in one action situation help determine the rules under which interactions occur within the other action situation. Thus, a fuller representation of interactions among adjacent action situations further contextualizes the behavior being represented in any application of the IAD framework.

Networks of adjacent action situations are especially important for representing the complexity of a polycentric system of governance, in which citizens routinely interact with each other in a variety of inter-related decisional contexts. Using the terminology developed here, citizens in a polycentric political order not only inhabit networks of adjacent action situations, but they may also be actively engaged in changing the structure of that network.

This paper illustrates how this method can be applied to three diverse policy settings: management of lobster fisheries in Maine, international development assistance, and the contributions of faith-based organizations to the delivery of welfare services in the U.S. These policy areas differ in the extent to which the key action situations are dominated by the same set of actors or by distinct sets of actors of various types.

## **Games, Action Situations, and Adjacency Networks**

Both game theory and institutional analysis are familiar to analysts of public policy, but it is worth reviewing a few key points of connection between these related approaches to policy research (McGinnis 2000). To define a game, modelers must specify the actors involved, the actions available to them and how these actions jointly generate alternative outcomes that are differentially valued by the actors, who may have access to different sources of information as well as different types or levels of resources they can use to influence the actions of other players. In the IAD framework, each of these components is interpreted as a working component of an action situation (Ostrom 2005). Implicitly, each of these components comes from somewhere else, in the sense that its values have been determined through processes occurring in other situations of strategic interaction, that is, in other action situations. This paper endeavors to explore this implicit notion in more detail.

One critical contrast between an action situation and a game is that the latter is typically simpler and more tightly defined. Indeed, when Elinor Ostrom first introduced the action situation as a generalization of a game, some of her colleagues in the Public Choice Society felt it was a mistake to abandon the parsimony of game models (Ostrom 2010, 13-14). It is true that games rely on the power of simplification to help us see deeply into the foundational structure of a complex policy setting (McGinnis 1991), but an action situation adds just enough complexity to locate core strategic interactions within critical contextual influences.

Whereas game players are required to be relentless in their optimization, participants in action situations are boundedly rational. Not only do they face constraints on their ability to process information, but they may also be influenced by norms or other cultural values. Also, different participants are assigned to distinct positions, each of which is defined by a different configuration of feasible choices and evaluative criteria. Technically speaking, game theorists also have to define each of the components in Ostrom's list, but there remains an important difference in emphasis.

The IAD framework serves to remind us that each actor's preferences, as well as the choice options available to them, are determined by the institutional arrangements that define their position. Games over collective deliberations are in turn shaped by the positions and interests defined or manifested in the constitutional choice arena. Also, participants in action situations are allowed to change the parameters of the strategic interactions in which they find themselves, which means that the rules governing an action situation are determined endogenously.

Typically, the rules in place in a situation of operational choice are presumed to be determined by processes occurring at the collective choice level. In turn, these collective choice (or policy) actions are governed by rules set by constitutional level interactions that may lie in the distant past. However, this tri-level interpretation is a narrow representation of a potentially

much broader formulation. Typically, several operational level action situations operate simultaneously, and may directly affect each other, and any one operational level action situation may be affected by multiple processes of collective or constitutional choice.

In this article I argue that the working components of an action situation can be usefully interpreted as the outcomes of processes occurring in adjacent action situations.<sup>3</sup> Technically, an action situation  $X_i$  is **adjacent** to  $Y$  if the outcome of  $X_i$  directly influences the value of one or more of the working components of  $Y$ .

Figure 1 illustrates this concept. The rectangle at the core of this figure includes the core working components of an action situation, as initially described in Ostrom (1986). The seven italicized rules arrayed next to the boundary of that rectangle denote the rules which correspond to each of these working components, in a relationship examined in some detail in Ostrom (2005). The six boxes arrayed around the outside of Figure 1 are examples of the types of action situations that could generate outcomes that define the seven types of rules, which in turn determine the working components of the focal action situation. Arrows from adjacent action situations denote which of the seven rules that particular process is most likely to influence.

In the focal action situation some resource may be extracted from a common pool or some good or service produced for potential customers. In many action situations some participants act as agents of collective entities (firms, government agencies, community-based organizations, etc.). Those entities must have been constructed in some manner, and responsibilities assigned to agents, along with various mechanisms by which other members of that organization can monitor the behavior of their agents. The action situation in the upper left corner of Figure 1 denotes the action situation through which these entities have been constructed. Arrows connect this box to three sets of rules. An organization's own rules and procedures enable the selection of agents to act on its behalf in different decision contexts, thus affecting the actors and the positions that they hold within the focal action situation. Organizational procedures typically specify how information flows through that organization, thus affecting the information that actors within the focal situation will have at their disposal.

The box in the lower right corner of Figure 1 denotes a separate arena<sup>4</sup> in which policies are set that affect the choices available to actors playing specified roles in the focal action situation, as well as setting the costs and benefits associated with different actions. An actor's incentives are also affected by socialization processes, as shown in a separate box.

The box in the lower right corner shows that markets set the value of the resources being extracted or produced in the focal action situation, and that these external processes may also affect the scope of the effects of the processes occurring within the focal situation. Also related to the scope rules are those authorities to whom participants in the focal situation may appeal if they are dissatisfied with the outcome of their interactions. The box in the upper right corner denotes the actions of external authorities, some of whom may directly affect the outcome of the focal action situation even if none of the participants have sought their intervention. Arrows show the potential effects of external intervention on outcomes which are not entirely under the control of actors in the focal action situation. External actors may also shape the information available to the focal actors. The final adjacent action situation shown in Figure 1 denotes the potential influence of policy evaluations provided by analysts.

This exercise could be continued indefinitely, but these six adjacent action situations suffice to demonstrate two important points. First, a full application of the IAD framework requires analysts to do much more than identify a single action situation at each of the

operational, collective, and constitutional choices levels of analysis. Clearly, the focal action situation, as described above, is located at the operational level. The policies box on the lower left illustrates processes occurring at the collective choice level, and the construction of collective entities box is surely occurring at the constitutional choice level.<sup>5</sup>

However, these distinctions are not always so easy to apply to specific aspects of a policy situation. Potential ambiguity is most noticeable in the socialization process shown in Figure 1. This action situation encompasses the means through which individual actors are encouraged to internalize norms prevalent in that society, along the lines of the delta parameters specified in the grammar of institutions (Crawford and Ostrom 1995, Siddiki et al. 2011). These processes reflect operational level decisions taken by parents, teachers, and religious leaders. But since these decision contexts are so far removed in time from the focal action situation, it may make more sense to treat them as more constitutional in nature.

Finally, the other three adjacent action situations shown in Figure 1 are examples of operational level processes occurring simultaneously with the focal action situation, or later in time to allow for the completion of a policy evaluation or legal challenge.

A second point illustrated by Figure 1 is that it may prove difficult to specify the precise nature of a network of inter-related action situations. The links denoted by arrows in Figure 1 include quite different types of interactions. In some cases the link denotes the specification of rules that affect the choices available to participants in the focal action situation, in other cases the link comes through the formation of collective actors or the internalization of norms within individual personalities. Markets, legal decisions, and policy analysts may transfer units of economic value, precedents, or other relevant pieces of information. In short, links may denote factors determining any of the seven working components of an action situation.

Typically, applications of network analyses in the social sciences are based on identifying connections between the actors themselves. In recent research on “games on networks” (Goyal 2007, Jackson 2000), players are given the opportunity to establish new links or sever an existing one. Analysis of these network games focuses on the implications of these choices for the final structure of connections among the participants.<sup>6</sup> Related work, less explicitly network-based, highlights the pivotal position of certain players engaged in more than one game at a time. For Putnam (1988) the pivotal actor is a negotiator representing one national government who must consider whether or not any agreement satisfactory to the other side could also be ratified by domestic processes within his or her own country. Using a similar logic, Tsebelis (1990) demonstrates that actions that seem irrational in one context may be perfectly understandable once analysts incorporate that actor’s strategic interactions with other actors.

Several decades ago Norton (1958) introduced the “ecology of games” in which participants in different substantive areas of public policy manipulated each other in subtle ways to attain their own goals. Later extensions of this concept focus on empirically identifying the specific connections among policy actors, as in the policy networks examined by Cornwell et al. (1963), Dutton (1992), Berarado and Scholz (2010) and Lubell et al. (2010).

In a **network of adjacent action situations (NAAS)**, connections link distinct action situations, and the term adjacency must be defined broadly to encompass a diverse array of functional connections. Participants in these action situations, or players in the associated games, may themselves be connected to each other through various sorts of interpersonal ties, but the social network connections remain analytically separate from the adjacency relations between action situations.

It is not immediately apparent how one might develop empirical measures of the network of adjacent action situations prevalent in some particular area of public policy. In the remainder of this paper I use examples of three diverse policy areas to help illustrate the nature of this NAAS concept. These cases differ in the extent to which the same set of policy actors are involved in most of the critical action situations being considered.

In some circumstances, basically the same individuals may participate in many of the adjacent games that determine the value of these working components. This would be the case for a self-organized community of resource users who live in a remote area and only rarely experience interference from outside actors, whether governmental officials, multi-national corporations, or international aid organizations. In such an isolated context, adjacent action situations effectively collapse into a single action situation defined by the interactions among members of a self-defined and self-organized user group.

In most circumstances, however, it will not be possible to identify any one group responsible for all aspects of governance. It may, however, be possible to assess the relative importance of adjacent action situations, to prioritize which of them most clearly need to be included in the analysis of a particular case.

The first case, Maine lobster fisheries, nicely fits the template of a common-pool resource that has been successfully managed by a community of resource users who act essentially independently of external interference. In the second case, international development assistance, the extent to which particular actors (recipient communities) are involved in the full range of relevant action situations turns out to be a major focus of analysis. Specifically, Gibson et al. (2005) examine programs implemented by the Swedish International Development Agency (SIDA) and identify a “octangle” of 8 key actor types. After examining the agent-principal problems that arise in each dyadic relationship, they conclude that donors should endeavor to make sure that recipients of their aid projects are fully involved in all aspects of the process, from initial design to financing to implementation to long-term maintenance. If realized, this recommendation that recipients take ownership of these projects would effectively transform the situation into one resembling the standard template of community-based management, since the local community members would be pivotal participants in all of the critical action situations. (This argument will be explained more fully below.)

In the final case we move to a policy area, welfare policy, in which self-governance may be inherently infeasible, at least in the short term. The beneficiaries of welfare programs are, by definition, incapable of coping with some problem. In the long run, welfare assistance may help recipients improve their own capacity to cope with later challenges, but in the short term they need help from others. This policy area is also one in which a wide array of policy actors are involved, thus making it an example of the type of complex policy network to which the IAD framework has, as yet, been only rarely applied. My discussion of this case highlights the role of religious organizations in the implementation of welfare policy, specifically an evaluation of the faith-based initiative of President George W. Bush.

## Identifying the Generic Tasks of Polycentric Governance

Before moving to these case studies, this section suggests a systematic procedure through which the set of action situations most critical for any analysis can be identified. This procedure draws from earlier research on the organization of governance in metropolitan areas in the United States to identify a set of generic tasks that must be completed in any viable system of governance. Each of these tasks is then taken to define an action situation, which may be combined in various ways to construct adjacency networks.

Ostrom, Tiebout and Warren (1961) distinguish between the act of producing goods or services and the provision decision regarding which goods will be available for consumption by the members of the relevant collective consumption unit. A key component of a polycentric governance system is that providers face an array of options after deciding to procure some public good for their constituents (or for themselves, if the provision and consumption units are identical). Specifically, they might produce the good themselves or hire some other unit to produce it.

Other critical tasks include writing laws and regulations, arranging the financing for the production of goods, coordinating the actions of all relevant actors, and setting up some means by which the inevitable disputes that arise among consumers, producers, providers, financiers, and coordinators can be resolved. Those Workshoppers who have investigated the operation of local public economies have devoted considerable attention to these tasks, and especially to untangling the complex connections among consuming, providing, and producing units (McGinnis 1999b, Oakerson 1999, Parks and Oakerson, 2011).

The local public economy research program was well under way before the initial articulation of the IAD framework, but both traditions emerged from common inspirations. This connection can best be seen by realizing that each of these generic tasks of governance (production, provision, consumption, financing, coordination, dispute resolution, rule-making) constitute separate action situations. There will often be overlapping sets of actors involved in different action situations, but each task can be distinguished for analytical purposes. Each of these processes constitutes an action situation in its own right, and polycentricity emerges as a property of the network constructed by dynamic interactions among these processes.

To this list I would add three additional tasks, each of which strikes me as being fundamental to any form of effective governance.<sup>7</sup> The first is the gathering and dissemination of information regarding the conditions prevalent in a policy setting. Monitoring has been identified as a critical component of any sustainable system of resource management (Ostrom 1990), and monitoring is basically a process of generating information and transmitting that information to those who may choose to act upon it.

The remaining two generic tasks have already been introduced in the discussion of Figure 1, which includes action situations in which (1) collective entities are constructed and responsibilities are assigned to agents of those organizations and (2) individuals internalize norms common to their society. As noted in that discussion, these two activities tend to be completed at some remove from the focal action situation, and so these two functions will not be examined in any of the following cases. However, in general, actors responsible for generating and disseminating information, constructing corporate entities, and shaping the motivation structure of actors and agents need to be included as potential subjects for analysis.

## Managing Lobster Fisheries off the Coast of Maine

Acheson and Gardner (2004, 2005) use game models to explain the rise of territoriality in the governance of Maine lobster fisheries. They begin by summarizing relevant characteristics of this particular resource. The movement of lobsters is quite predictable, as they spend most of the year near shorelines but move into the ocean in the winter months. Lobsters are typically harvested through the use of fixed traps placed on the ocean floor. Fishing is most productive in late summer, at which time trap congestion can become problematic. Maine lobster fishers often live in tightly knit communities, and they have developed an effective set of informal rules and procedures. Specifically, only members of a local “harbor gang” may set traps in certain areas near shore, and the traps set by non-members are subject to being cut or destroyed.

They use game models to suggest how a complex governance structure emerged. In a model with two bays, players are given the option of fishing only in their home area or going into the other more productive area. Those in the second area may choose either to ignore these invaders or they may defend their territory by cutting traps set by invaders. Their model predicts different patterns of behavior in different sets of circumstances. In those bays where fishers live close together and defense is relatively low-cost, no one invades. However, other bays evolve into mixed systems in which locals and invaders both fish, with no conflict resulting. Under some conditions the locals find it worth their while to fight by cutting traps, and losses arise for all parties. As the size of the bay increases it is eventually no longer cost-effective to protect territories, and the pattern resembles one of open access.

Other important aspects of this resource management regime are not so easily represented in the form of explicit game models. As presented in Acheson (2003), some long-forgotten individual came up with the brilliant idea of cutting a V-notch in the tail of egg-bearing female lobsters and returning that lobster to the sea. Since this notch lasts until that lobster molts, other fishers could realize that here was a fertile female who should be returned to the sea in hopes that she could produce more lobsters to be caught in later years.

Diffusion of this policy innovation throughout the community was helped by social coercion, as local fishers and merchants who violated this rule were subject to boycotts or other forms of social pressure. Soon, no notched female could be sold in local markets.

State and federal governments have, for the most part, left these communities to govern themselves by these rules. Limitations on catch sizes and the V-notch have been enshrined in state law, as a consequence of vigorous lobbying by the industry. However, state authorities have never recognized the exclusive rights claimed by harbor gangs, and the practice of cutting traps remains illegal. Acheson and Gardner conclude their analysis by expressing concern about the potential undermining of this system, now that more fishers are treating the cutting of their traps as a reason for litigation.

For present purposes, this can be seen as a successful example of a level-shifting strategy, in the sense that lobster fishers went to the legislature to enshrine informal practices into law. In effect, their ability to do this assures that local fishers are key participants in virtually all critical governance action situations.

Table 1 summarizes my reading of this policy setting in terms of the generic tasks of governance. Rows correspond to the key types of actors involved in that policy setting; columns designate the set of generic governance tasks that are most relevant to that setting. Entries in the cells of a matrix summarize the roles that key actors play in different action situations.<sup>8</sup> Entries



in parentheses denote the operation of dynamic processes in the bio-physical world that cannot be attributed to strategic actors.<sup>9</sup> Vertical lines have been added to indicate which governance tasks are so closely inter-related that they can, for purposes of analysis, be considered as occurring within a single action situation.

Production is undertaken by lobster fishers, and they devise, monitor, and implement rules through their interactions within harbor gangs. These rule-making efforts are reinforced by the support of laws or rules enacted by the state legislature or by the recently established co-management zones.

Figure 2 represents this same information in the form of a network of adjacent action situations. Since fishers and harbor gangs are the critical actors in production, provision, and monitoring/sanctioning, these three tasks are integrated into a single action situation, located as the focal action situation in that figure. A circular arrow is included in that box to remind readers that action situations are dynamic settings. Within this one action situation, fishers communicate with other members of their local harbor gang, decide upon their extraction levels, monitor each other's behavior, and impose sanctions when they observe violations of the rules, and deal with some conflicts that arise. Resources and information flow regularly throughout this action situation, and since these actors are capable of setting and revising their own rules, these rules also circulate within this action situation.

Other actors are involved in broader aspects of rule-making, with state legislators and regulators also playing important roles in coordination. Fishers sell their catch to merchants and consumers, and financing processes are implemented via market processes. Finally, some disputes cannot be resolved within the confines of a local harbor gang, and these and related political processes are denoted by the top box in Figure 2.

Information flows between all of these action situations, and most interactions also involve the flow of physical or economic resources. Rule changes can occur in only some of these action situations, as shown in Figure 2.

One important point to note about Table 1 is that every column has an entry corresponding to the participation of individual fishers or harbor gangs. Even the tasks of coordination and dispute resolution, which are primarily handled by state regulators or co-management boards, are influenced by community action. In this sense, this case comes very close to the template of a community of resource users with sufficient autonomy to successfully manage resources critical to their own survival.

However, this autonomy may not be sustainable through the foreseeable future. Recent changes in technology and society have led to increased occurrences of external intrusion onto formerly exclusive areas, thereby putting the current system under new pressure. Meanwhile, the rise of environmental consciousness has brought local practices into question, including those of the Maine lobster industry, even though these fishers were themselves originally inspired by strong self-interest in conservation.

## Community Ownership of International Development Assistance

Now we move to policy areas in which it is harder to imagine a comparable level of self-governance by any single group of actors. We consider two contexts, one international and the other domestic. In the case of foreign economic assistance, recipient nations or local communities need external aid to develop the infrastructure needed to improve their own conditions of life. Domestically, public welfare assistance is given to individuals or families who need help in the short-term, at least. In both settings, the most desirable long-term solution would be to help build the capacity of local communities or individuals to more effectively cope with future challenges.

Gibson et al. (2005) use the Samaritan's Dilemma game model to motivate their analysis of the distribution of development assistance by SIDA, Sweden's International Development Agency. Although they acknowledge the good intentions behind this assistance, and the relatively positive record of SIDA projects compared to other donors, the researchers identify an inter-locked series of dilemmas that undermine the ability of SIDA to effectively implement programs that make a meaningful difference for the recipient communities over the long haul. They recommend that donors endeavor to insure that local community members are full participants in all aspects of governance.

The bottom row of Table 2 specifies the ways in which local communities might assert ownership of a development project by participating in each of the generic governance tasks of provision, production, financing, and maintenance of that project. Instead, they find that the typical pattern is one in which the concerns of recipient communities are far less determinative of the projects chosen for funding. Other factors, including the priorities of government officials in the recipient country, typically prove more influential. In addition, projects are often proposed by contractors (typically based not in the recipient country but instead in Sweden) and implemented in a way that makes it easier to spend the proportion of the national government budget that the Swedish constitution requires be devoted to international assistance.

Although the authors were not the first to identify this incentive to "move the money" as a problem bedeviling development aid policy, they show how this dilemma (as well as several related ones) emerge as a natural consequence of the way in which the set of key participants interact. Note how sparse this table is, especially when compared to the previous table on lobster fishery management in Maine. In Table 2 the pair of actors who jointly fill entries in the most columns are the government agencies in the donor country (SIDA) and the relevant sectoral agency in the recipient country. If one adds the contractors' role in production and indirect consumption of the benefits of many projects, then the picture is pretty nearly complete. Note that this means that the functions of coordination and dispute resolution would not be taken care of under this configuration, but that certainly reflects patterns commonly found in development policy.

They conclude that development projects can be truly sustainable only if the beneficiaries are allowed to participate in all aspects of governance. Given the sheer number of the problems they identify, this is not an easy goal to accomplish. Nor is it easy to see what should be the next step in the analysis of their octangle of development aid actor types. Although they show how interactions between several pairs of actors can be represented in the form of simple models of agent-principal relations and similar games, they do not provide any clues about how the entire octangle might be represented in a more formal network model. It is my contention that a

network of adjacent action situations built on the configurations shown in Table 2 might provide a potentially useful direction for future analysis.

## **Welfare, Faith, and Polycentricity**

For my final example I turn to an area of public policy which has not yet been a subject of extended analysis from the perspective of the IAD framework, namely, social welfare policy in the United States. A few applications have addressed related issues of education policy (Bushouse, 2011; Crawford 2004; Ostrom 1996), but welfare policy is an area which may seem ill-suited to the strengths of the IAD approach. After all, the recipients of assistance are, by definition, unable to cope with some aspect of their current situation, making any prospects of comprehensive self-governance at best a distant hope.

In addition, I demonstrate how a network of adjacent action situations can be used to evaluate ongoing controversies concerning the faith-based and community initiative first developed during the Bush Administration and continued as “Faith-Based and Neighborhood Partnerships” by the current Obama Administration.

The faith-based initiative dates back to debates over welfare reform during the administration of President Clinton. Influential analysts argued that public welfare policies had the unfortunate effect of creating a culture of dependency which discouraged welfare recipients from actively seeking employment. It became an article of faith that effective reform would require ramping up programs that helped instill a sense of personal responsibility among beneficiaries of those programs. The 1996 welfare reform law included an amendment on charitable choice which encouraged more applications for public funding from religious-based organizations.

From the very beginning of the Republic, churches and other religious bodies have provided some measure of support to individuals in dire need of assistance, and non-profit faith-based organizations have partnered with local and state officials in the delivery of public services. Some service programs, especially small-scale programs like food pantries, are directly implemented by a congregation or other basic unit of a religious community (Ammerman 2005, Chaves 2004, Unruh and Sider 2005). In many instances, service programs are set up in the form of a separate faith-based organization (or FBO), which can greatly clarify things in terms of tax liability and other legal concerns. It is the larger and more established FBOs, such as Catholic Charities or the Salvation Army, that are especially closely tied to public agencies (Monsma 1996, 2004, Wuthnow 2004, Ebaugh et al. 2005) and whose contributions are critical in such areas of social policy as emergency shelter, food aid, or disaster relief.

Technically, the term FBO is best reserved for organizations specializing in the delivery of some particular form of service (food, shelter, education, health care, personal rehabilitation, etc.) but which also base at least some aspect of their programs on religious inspirations. The religious component may come in many forms, ranging from explicit formal connections to a particular denomination or religious organization (which may provide the facilities in which the program is housed and/or the individuals who oversee the management of that program), to donations from members of a religious community (who may also serve as volunteers in the implementation of these programs), or to the incorporation of particular details of the program itself (perhaps including overtly religious activities such as scripture reading groups or prayer

sessions). Clearly, the extent to which such programs are directly influenced by religion can vary widely, making this term a difficult one to pin down (Ebaugh et al. 2003, Jeavons 1994, 1998, Unruh and Sider 2005). Indeed, some FBOs may be indistinguishable from secular programs, except perhaps for the use of a religious term in their name.

Although it may not be widely appreciated, faith-based organizations do indeed make a substantial contribution to several areas of public policy.<sup>10</sup> Stritt (2008) offers a detailed accounting, based on the best figures available. His analysis explicitly excludes health, education, or international policy areas and is focused solely on public welfare. Using figures based on 2006 dollars, he estimated that a total of \$175 billion is spent annually. After a long series of estimations, he concludes that approximately 30% of expenditures on welfare policy go through faith-based organizations, either as direct contributions or in the form of government contracts.

This is definitely an instance of polycentricity in action. People needing temporary assistance may turn to a variety of programs, including those run directly by religious communities or by FBOs with or without public funding or by purely secular programs (or even in some instances private for-profit companies).

The basic contours of debates on the faith-based initiative can be summarized quickly.<sup>11</sup> For some advocates of a larger role for faith-based organizations in the delivery of welfare services it was a question of cost, since reliance on volunteer labor makes faith-based programs potentially cheaper to operate than programs dependent on hiring service professionals. Others argued that in minority communities, especially among immigrants or urban African-Americans, religious leaders had a special connection to segments of the population with sound reasons for keeping their distance from public authorities. Thus, some faith-based organizations might be uniquely positioned to connect to especially needy groups.

However, for most advocates the critical factor was their presumption that religious programs are more effective in helping realize the personal transformation seen as the critical step in helping individuals wean themselves away from welfare dependency. Several potential reasons were proffered, with minimal supporting evidence, for this increased effectiveness. First, volunteers inspired by religious faith might tend to be more caring and less bureaucratic in the ways they related to the recipients of relief programs. Second, faith-based programs may tend to be more holistic, in the sense that workers inspired by certain kinds of religious beliefs will encourage participants to seek a through-going transformation of their personality, rather than seeing their problem in the purely instrumental terms common in programs designed by secular professionals. Allowing the service organization to retain symbols of religious faith in the physical setting or requiring participation in communal prayer or other religious rituals may make faith-based programs uniquely effective in achieving personal transformation.

Personal transformation constitutes a unique form of co-production, in the sense that the active involvement of the person receiving the assistance is required if that person is to take full advantage of the opportunities offered by that program. In some cases this transformation takes the form of a conversion experience, but this need not be the case. In addition, the relevant transformation need not be restricted to the level of an individual. Community development is often a key goal of religious outreach, especially for the case of African-American churches in urban areas of the U.S. A process of co-production can certainly take place at the community level, and indeed this is exactly the way this term was initially used by Workshop scholars investigating interactions between police officers and community members.

For critics, however, incorporation of explicitly religious components into service programs threatened inappropriate entanglement of church and state (Lupu and Tuttle 2008). Over many decades, courts insisted that whereas programs with a primary secular purpose could be supported by public funding, such funds should not be available for the use of “pervasively sectarian institutions” such as congregations of particular faith traditions. Others saw this very distinction as part of the problem, in that public officials, when deciding which programs to fund, would shy away from any program with any hint of religious content. As a consequence of this supposed discrimination, the organizers of many faith-based organizations might not even bother applying for funding.

President Bush’s faith-based initiative was intended as a multi-pronged attack on this situation. Since he was unable to convince Congress to pass significant legislation in this area, he operated instead via executive order, establishing offices of “Faith-Based and Community Initiatives” in the White House and in several executive agencies. Many states and local governments followed suit (Sager 2010). These agencies were tasked with several missions, especially (1) eliminating bias against applications by service organizations with strong religious connections, (2) providing assistance in helping smaller FBOs develop the capacity to apply for public funding and to cope with the paperwork required in their implementation, and (3) clarifying that FBOs should be exempted from laws prohibiting labor discrimination in their hiring practices. This last stipulation has proven especially controversial. Advocates see it as essential, because otherwise FBOs might be required to hire workers whose beliefs or behaviors were incompatible with the tenets of the religious community that inspired that program, and their participation might undermine the unique capabilities of such programs. They also see it as a natural extension of existing exemptions given religious organizations for filling positions that are exclusively religious in nature (such as priests or preachers). For opponents it was discrimination, pure and simple, and thus not acceptable. It remains to be seen if exemptions from anti-discrimination laws will survive legal challenges now working their way through the system.

Overall, the record of this initiative is meager at best. Monsma (2004) provides an especially careful and damning comparative analysis of programs in a few selected communities. Among his conclusions are the findings that there remains little empirical evidence of significant differences between secular and religious programs, there have been no clearly documented cases of anti-religious bias in funding decisions, and those FBOs which were capable of benefiting from increased public funding were already well-integrated into this policy network. He highlights the irony that effective faith-based programs may be able to expand only with increased public funding, but that such funding directly threatens to undermine the autonomy which was critical to their initial success.

There is some indication that the proportion of public funding awarded to FBOs may have increased slightly, but that the overall level decreased even more substantially (GAO 2006). This has led critics to see it all as a smokescreen for off-loading responsibilities for public services to the private or voluntary sectors, or even as a misguided effort to attract African-American voters to the Republican party or to reward conservative evangelical Christians for their support (Kuo 2006). If designed as an effort to curry favor with African-American community leaders more inclined to consider religion as a key component of community development, and thus draw some of the African-American vote away from Democratic candidates, this program must be evaluated a dismal failure. Even some evangelical groups have

expressed concerns that extremist groups from non-Christian religions received public funding under this program.

There are some indications that some religious components do help certain types of clients or participants (i.e., those who undergo some kind of personal transformation as they participate in that program) to achieve more effective results than other programs, but there is no systematic evidence that these components would have the same effect for other clients, especially those actively resistant to that particular belief system. Nor is there evidence concerning the long-term sustainability of the few positive results that have been demonstrated.

This leaves us with the tentative conclusion that faith-based programs might best be seen as one alternative in a broader system of service delivery, with different programs tailored to fit different client types. Results mentioned reinforce the power of co-production, in the sense that those recipients who actively participate in the production of a locally relevant public good may achieve better results than those who remain passive consumers of a welfare program.

## **Exploring Adjacent Action Situations in Faith-Based Public Services**

Table 3 lists the most important actor types and the roles each plays in the major functional components of this policy process. Figure 3 represents these functional categories in a smaller number of action situations, and specifies the key types of actors involved in generating the outcomes of each action situation. As a whole, this figure denotes the network of adjacent action situations that could be used as the basis for a more detailed model of this policy process.

One action situation shown in Table 3 and Figure 3 combines the production and consumption of welfare services. It seems best to combine these two together because recipients of welfare assistance may participate as active co-producers of their own personal transformation. In the absence of co-production, this action situation might be better represented as a production function, with program and beneficiary characteristics treated as inputs and effectiveness and financial costs as outputs.

Dashed arrows are used in Figure 3 to denote a degree of separation between the action situation for private provision or religious mobilization and the rest of this political process. As noted earlier, many religious communities establish, for their own reasons, service programs as a natural extension of their religious beliefs. Some individual believers may prove especially adept at leading and organizing such programs, and the term religious entrepreneur seems appropriate for these position-holders.

Religious entrepreneurs search for innovative ways to enhance the religious experience, in order to attract more members and/or deepen the participation of existing members. These entrepreneurs face incentives to organize new programs for service delivery to target groups, especially those receptive to conversion efforts. Even in the absence of attracting new members, current members may find that donating to or participating in service programs enhance the quality of their own religious experience. In this way religious entrepreneurs can prosper, in what is basically a competitive religious marketplace.<sup>12</sup>

Entrepreneurs responsible for establishing and operating FBOs may be inspired by a range of potential incentives, and they realize that their donors, volunteers, and other potential supporters may be inspired by a similar array of incentives. Yet to obtain access to the level of tangible resources needed to achieve substantial results, the leaders of some FBOs may choose to

cater to the wishes of government officials controlling much larger pots of money. This sets the stage for potentially mutually beneficial relationships between the agents of religious and political organizations, in which each side may end up manipulating the other.

In the Public Provision, Financing and Monitoring of Service Programs action situation, public officials select which programs to fund, and decide the extent to which faith-based programs are or are not supported. Agency heads make most critical decisions regarding the level of provision of these programs, but private donors may also contribute to both types of programs. From this action situation emerges some distribution of effort among secular and religious programs.

The rules under which these provision and financing decisions are made are in turn determined by processes in the Rule-Making and Coordination action situation. Laws and regulations determined in this collective choice arena determine the overall level of funding available for service programs in this policy area, as well as the extent to which the special concerns of faith-based programs should (or should not) be taken into consideration when making allocation decisions. One of the motivating arguments behind the faith-based initiative was the perception by some analysts that public officials actively discriminated against programs with any significant degree of religious content in their proposed program. In addition, efforts were instituted to help reduce the costs of filling out the paperwork required to obtain and to sustain government funding.

Actors deciding upon the rules that guide operational level allocation decisions will have to take into account the implications of relevant court cases, as shown in the action situation located at the top of Figure 3. Beneficiaries who feel that their rights to religious freedom were violated by participation in some publicly-funded faith-based programs may file suit for damages, or, more likely, some interest group will begin that process for them. Indeed, some such cases are currently working their way through the U.S. court system, and the outcomes of these cases may determine the context under which later outcomes from the rule-making, allocation, and program operations action situations will emerge.

Interest groups and other citizens are also key participants in dispute resolution via the political process. To some extent public concern is shaped by overall program effectiveness, but symbolic values also play critical roles in these policy debates. Some elected officials and political organizers may try to mobilize the support of religious groups, but their primary attention is likely to be directed towards exerting pressures for changes in the laws and regulations which govern the awarding of public funding to service organizations.

This completes the array of six action situations depicted in Table 3 and Figure 3. More detailed assumptions would need to be imposed before analysis of any specific model could begin in earnest, but this is an appropriate place to end this analysis, given the illustrative purpose of this paper.

This simplified network of adjacent action situations demonstrates that a large number of actor types can be decomposed into overlapping subsets containing those actors most directly involved in each of the major action situations. Most of the eight different types of actors are directly involved in two or three of the six relevant action situations. But no one actor (nor any pair of actors) is involved in all six action situations, which makes this situation very different from the Maine lobster fishery case.

This generic network representation suggests how difficult it may be to effect a major change in the outcomes of the network as a whole. Key elements of the faith-based initiative

were directed at the Rule-Making and Public Provision action situations, specifically efforts to encourage bureaucrats to change the rules by which they evaluate proposals by faith-based organizations and lower the costs applicants face should they receive funding, thereby enticing more religious entrepreneurs to apply for public funding. Other components were more indirect, including implicit appeals to increased support from religious groups within the voting population. Outcomes from each of these action situations would need to change to effectuate improvements in service outcomes or the overall costs of public funding. Finally, all this is subject to the caveat that some innovations might be deemed unconstitutional, if courts determine that the rights of beneficiaries (or of citizens unwilling to have their tax dollars diverted to support religious programs) have been violated.

All this may connote a Rube Goldberg level of complexity, but an appreciation for the relevance of his sense of humor to the implementation of policy changes dates back at least as far as Pressman and Wildavsky (1973). For present purposes, it suffices to note how difficult it would be to set up a single game model that could simultaneously address all the inter-related goals of the faith-based initiative. This method, based on building a network of adjacent action situations, holds out some hope that such a detailed analysis could be implemented.

Before concluding, it is worth noting a few other implications of this formulation. Although beneficiaries are included as one of the actor types in the Political Dispute Resolution action situation, in many circumstances beneficiaries in most need of assistance are unlikely to have much influence on the political system as a whole. Interest groups may mobilize on their behalf, but surely some disadvantaged groups will remain marginalized from the public support system. However, these may be exactly the sorts of people to whom religious entrepreneurs are most attentive. In this way, the continued operation of faith-based programs which do not receive any public support may prove to be an essential component of the overall system as a whole.

This realization of the special role of non-political actors suggests that any effort to consolidate the welfare system into one publicly funded system may be fundamentally misguided. Instead, it may be desirable for religious organizations to continue to operate independently of the official channels of political power.

In Figure 4 the NAAS in Figure 3 is reproduced, but with all aspects of faith-based programs removed.<sup>13</sup> It shows what might happen in an unlikely scenario under which all religious programs are fully incorporated within regular channels of political action. It poses a simpler picture of a policy process which moves logically from rule-making processes to public financing of programs to the implementation of those programs, with separate channels for feedback through the political and legal spheres. The network it denotes is clearly less polycentric than the more complete one in Figure 3, and this seems a clear case in which more simplicity is definitely not a move in the right direction.

Using terminology developed by Ostrom (1989), religious communities engage in micro-constitutional choices that may generate service programs for selected segments of the community. In a context of a multi-constitutional setting, some religious programs may receive public funding, others will not, and non-religious programs may also receive public funding (perhaps from different agencies altogether). Since each religious community serves as another center of authority, faith-based organizations contribute to the overall degree of polycentricity in the governance system as a whole (McGinnis 2008).



## Conclusion

Acheson (2003) interprets the successful efforts of Maine lobster fishers to lobby the state legislature as an example of a level-shifting strategy. In effect, they were engaged in forum-shopping, moving to the legislature to solve problems that could not be resolved within the context of any single harbor gang or in a co-management zone. But the international development assistance and faith-based initiative examples demonstrate that participants in policy dilemmas may also engage in strategies of forum-shaping, through which they can act to change the conditions under which policy outcomes are determined.

Of course, it is not reasonable to presume that individuals always have sufficient resources upon which they can draw to solve all their problems. Instead, analysts must point to which options are practically available to them, and which they are most likely to pursue, given the configuration of opportunities and constraints they face. It should be possible for institutional analysts to array options in a rough order of priority, from those most likely to lead to implementable improvements to options least likely to be either feasible or effective.

The IAD framework forces institutional analysts to think creatively, to search through the entire framework to identify potentially relevant factors before they settle on a particular theoretical perspective or build a specific formal model. Once we realize that participants in any social dilemma game are simultaneously participating in adjacent action situations, and that they may draw upon resources and capabilities developed or reinforced in those adjacent games for use in addressing their core problem, then game players (or action situation participants) may be able to find some way out of their dilemma.

Much work remains to be done to transform this concept of a network of adjacent action situations into a practical tool for the diagnosis of particular policy problems. Meanwhile, this idea may inspire institutional analysts to think outside the box of any single action situation, to look around and identify those adjacent action situations that constitute potentially promising points of policy intervention. Oftentimes an indirect approach brings more effective results.

## Notes

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<sup>1</sup> The Workshop in Political Theory and Policy Analysis was established at Indiana University by Elinor and Vincent Ostrom over three decades ago (Jagger, Bauer, and Walker 2009). I prefer to use the term Ostrom Workshop instead of Bloomington School, as used by Mitchell (1988) and Aligica and Boettke (2009, 2011), in order to highlight that the common thread tying these scholars together is the inspiration they have drawn from the work of Vincent and Elinor Ostrom.

<sup>2</sup> Ostrom (this issue) summarizes the current status of this framework and its applications to diverse topics of research and policy analysis; McGinnis (2011) provides a guide to the meaning of its key terms and concepts. For a series of snapshots of the changing development of the IAD framework, see Kiser and Ostrom (1982), Ostrom (1986, 1989, 1990), Ostrom, Gardner, and Walker (1994), Ostrom (1998, 2005, 2007b, 2010b), and Poteete, Janssen and Ostrom (2010).

<sup>3</sup> Using the traditional language of game theory, a comparable sense of adjacency could be defined for situations in which the rules under which one game is played are determined by the outcomes of an adjacent game.

<sup>4</sup> In earlier versions of the IAD framework the set of actors and the action situation were included within an action arena, but Ostrom (2010b) concludes that it makes more sense to include actors as part of the action situation. As a consequence, the word arena can be used in a more generic fashion within the IAD context.

<sup>5</sup> Ostrom (1989) encourages institutional analysts to extend the constitutional level to incorporate situations through which any type of organization is constructed.

<sup>6</sup> Agent-based models provide another means of studying the implications of decisions taken by actors linked in some kind of network, typically defined in terms of geographical proximity. However, these models dispense with the strategic core of games, by imposing specific decision processes on agents. Agent-based models have proven to be a very useful tool of institutional analysis (see Poteete, Janssen, and Ostrom 2010), but they are not covered in this paper.

<sup>7</sup> Vincent Ostrom (1997) develops a more elaborate set of generic tasks common to all social orders, including the formation of teams and the development and maintenance of language.

<sup>8</sup> These tables were inspired by analogy to the tables used in early Workshop research on the configuration of police services in different metropolitan areas, but these two sets of tables do not represent the same types of configuration. For example, in Ostrom et al. (1974) tables are used to show which producing units (the rows) are involved in the delivery of a particular policing service for collective consumption units (listed as columns). A separate table was

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constructed for each of the major components of police services (patrols, criminal investigations, detention, crime labs, etc.). In the tables used here, the analogous service components are arrayed as columns and the primary participants as rows. In both cases entries in the cells specify connections between the row and column headings that could be used to construct a network representation, and these two formats can be seen as alternative partial representations of a complex sector of the public economy.

<sup>9</sup> The last line of Table 1 includes the ecosystem as the equivalent of an actor type. This may not be quite the right representation, but analysis of any closely-coupled social-ecological system requires that the ecological side be given careful consideration as well (see Ostrom, 2007a, 2009, this issue).

<sup>10</sup> The growing list of researchers who have attempted to demarcate the unique contributions, if any, that faith-based organizations provide to the overall mix of welfare services include Cadge and Wuthnow (2006), Chaves (2004), Ebaugh et al. (2003), Kennedy and Bielefeld (2006), Monsma (1996, 2004), Smith and Sosin (2001), Wuthnow (2004).

<sup>11</sup> See Wright (2009) for a very useful overview of the arguments for and against the faith-based initiative as well as a balanced analysis of its consequences.

<sup>12</sup> Religious entrepreneurs also play central roles in the rational choice literature on religious competition (Finke and Starke 2005, Gill 2001, Iannaccone 1994, 1998, Stark and Finke 2000). The central contention of this literature is that competition is the natural form of a religious marketplace, since tastes for religious experience vary among the populace and since there is no direct means of measuring product quality. As a consequence, new religious communities rise and decline in a never-ending array of alternative forms. Under the argument developed here, FBO service programs extend this competitive process into the realm of public policy.

<sup>13</sup> Figure 4 represents the configuration shown in Table 3, but with the top two actor types eliminated from consideration.

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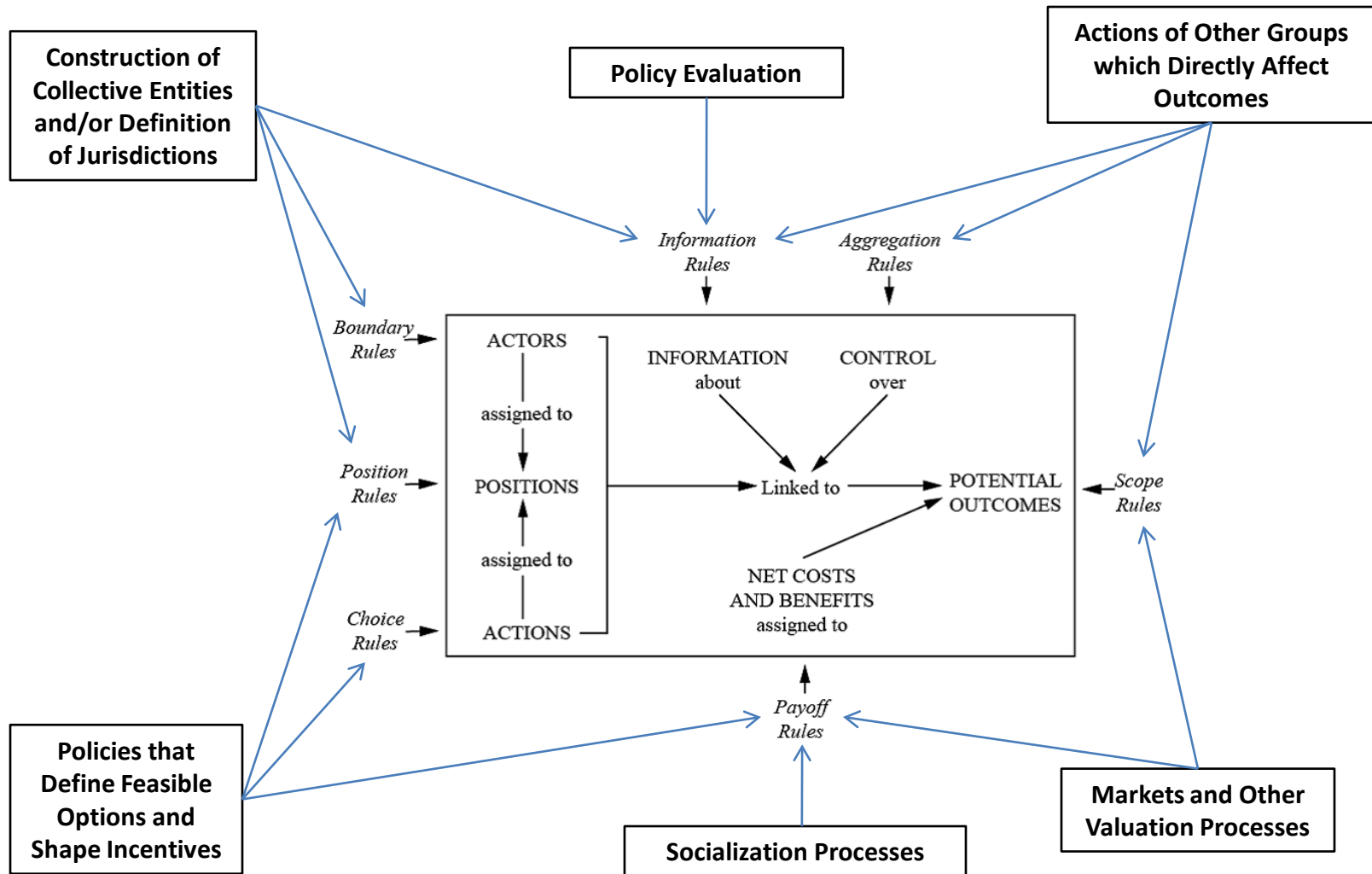
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**Figure 1. Action Situations Adjacent to a Focal Action Situation, with Connections to Working Parts and Associated Rules**



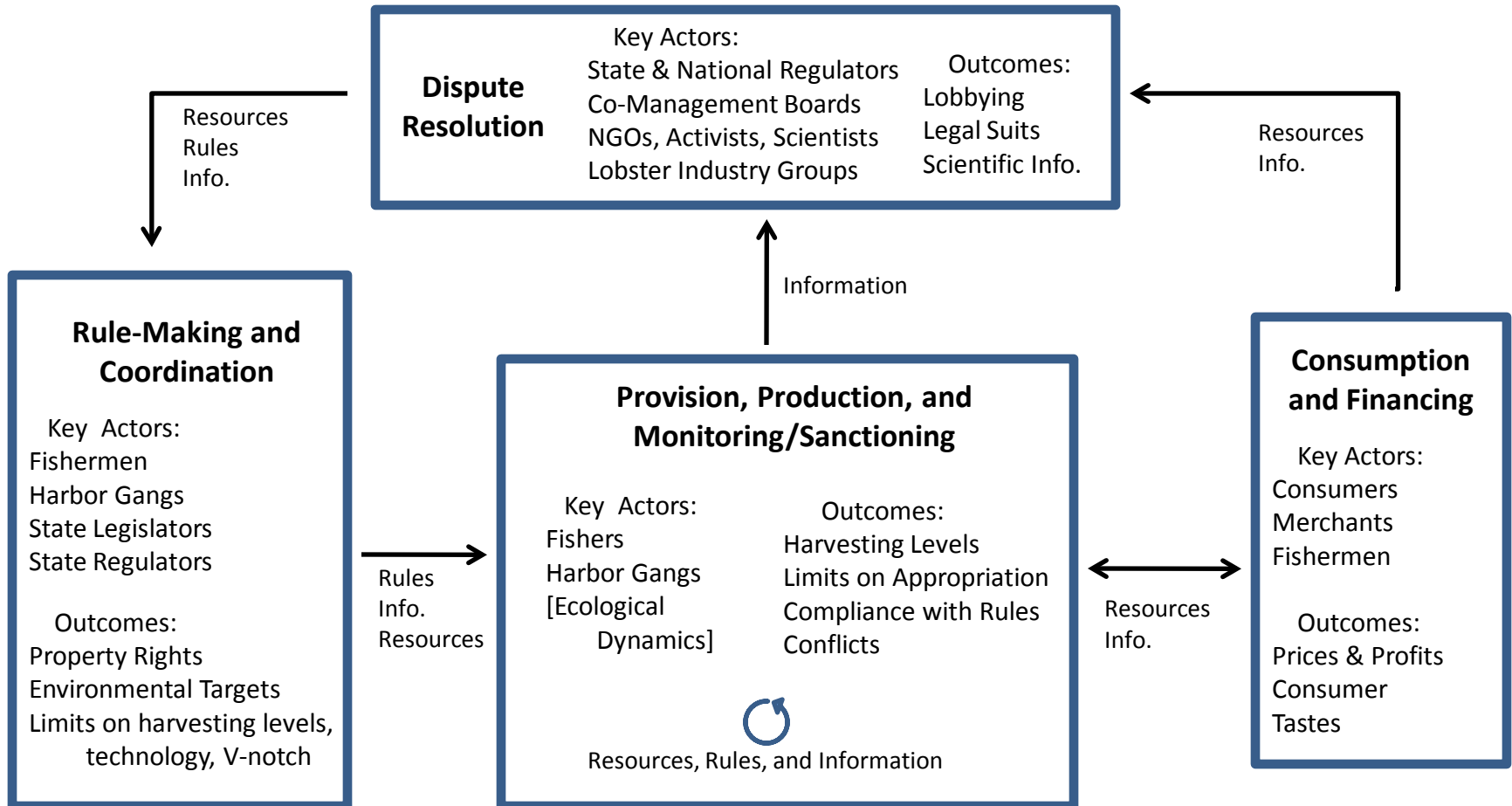
Source: Interior figure taken from Ostrom 2005: 189; additional components added by author.



**Table 1. Actor Types and Key Action Situations (Maine Lobster Fisheries)**

Actor Types	Primary Motivations	Consumption	Financing	Production	Provision	Monitoring, Sanctioning	Rule-Making	Co-ordination	Dispute Resolution
<b>Consumers</b>	Best value, lowest price	Individuals, households	Prices – retail						
<b>Fishermen</b>	Sustainable livelihood	Important part of diet	Prices – wholesale	Harvesting		Routine observation, minor sanctions	Rules-in-use		
<b>Harbor Gangs</b>	Protect territory				Informal goals	Regular interactions, impose direct sanctions	Rules-in-use	Local, informal basis	Informal channels
<b>Merchants</b>	Profit, reputation		Profits			Can be sanctioned for rule violations			
<b>State Regulators</b>	Maintain health of state economy				Context of overall state policies	Sporadic monitoring, can start legal proceedings	Formal regulations	Minimal role	Formal procedures
<b>Co-Management Boards</b>	Coordination				Sustainable rules		Formal regulations	Important role	Formal procedures
<b>National Regulators</b>	Implement environmental policy				Context of national priorities	Dependent on other sources of information	General guidelines		Federal courts as final resort
<b>Environmental Activists, Scientists</b>	Ecological health, sustainability		Donations, Grants		Advocate specific limits	Focus on environmental conditions			
<b>Ecological Dynamics (non-strategic)</b>	(Growth, reproduction)			(Growth, Reproduction)					

**Figure 2. Network of Adjacent Action Situations in Maine Fisheries**



Source: Compiled by author based on material in Acheson 2003.

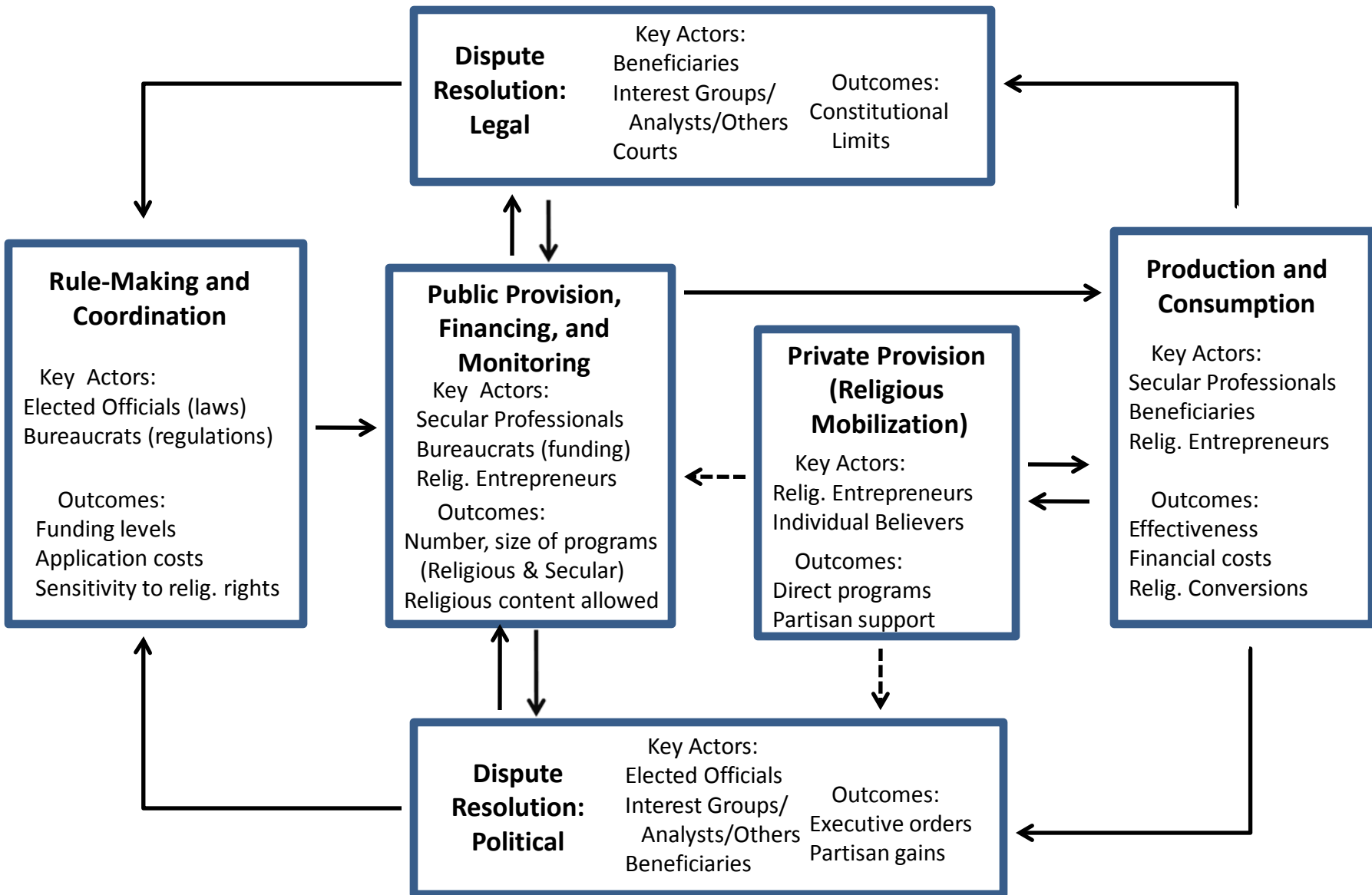
**Table 2. Actor Types and Action Situations (International Development Aid)**

Actor Types	Primary Motivations	Consumption	Production	Provision	Financing	Monitoring, Sanctioning	Rule-Making	Co-ordination	Dispute Resolution
<b>Donor Government (Sweden)</b>	Development, economic gains			General aid policy	Foreign aid budget				
<b>Recipient Government</b>	Economic gains, perhaps corruption			Political priorities, not actual needs			Set general laws, restrictions	National priorities?	Ultimate owner (normal cases)
<b>Other Donors</b>	Competition for clients			Trends in priorities, programs			Minimal influence of "best practices"		
<b>Donor Aid Agency (SIDA)</b>	Altruism, professional norms, move the money?			Dominant influence	Grants, loans for specific projects				
<b>Recipient Sectoral Ministry/ Agency</b>	Continued importance in government; corruption			Political priorities, not need		Typically public officials	Strong negotiating position		
<b>Contractors (Typically from donor country)</b>	Profit, reputation	Receive bulk of financial benefits	Dominant Role	Often suggest solutions					
<b>Civil Society Organizations</b>	Various Special Interests			Some role in agenda-setting	Donations				Publicize abuses
<b>Beneficiaries (normal circumstances)</b>	Passive recipients	Yes (not sustainable)		Minimal involvement					Limited rights
<b>Beneficiaries (with full ownership)</b>	Active Owner-Operators	Yes	Co-production	Participation in planning	Sweat equity and other commitments	Active involvement	Encouraged to participate	Regularly consulted by all parties	Rights of full participation

**Table 3. Actor Types and Action Situations (Welfare Service Delivery)**

Actor Types	Primary Motivations	Consumption and Production of Service Outcomes		Private Provision (Religious Mobilization)	Public Provision, Financing, and Monitoring		Rule-Making and Coordination	Dispute Resolution: Political	Dispute Resolution: Legal
<b>Individual Believers</b>	Manifest religious inspiration			Contribute to or participate in service activities		May give donations or volunteer		(May support political leaders)	
<b>Religious Entrepreneurs: Operate Faith-Based Organizations</b>	Attract and keep members; religious inspiration; salaries		Small religious programs and larger, quasi-secular programs	Set priorities and program criteria	Propose programs; apply for public funding	Receive grants, fees, donations			
<b>Secular Professionals: Operate Service Organizations</b>	Professional training, norms; salaries		Secular programs		Apply for funding	Receive grants, fees, donations			
<b>Public Bureaucrats (Agencies)</b>	Manage policy problems				Determine specific program goals	Award Grants, Contracts	Determine detailed regulations		
<b>Elected Officials</b>	Re-election; public support			(May solicit support of religious groups)	Set general goals, guidelines	(Overall Authorization Levels)	General laws	Compete for votes, public support	(May pass laws to override court decisions)
<b>Courts</b>	Rule of law						(Precedents set limits)		Determine constitutional limits
<b>Interest Groups, Policy Analysts, Other Citizens</b>	Specialized concerns					(Pay taxes, and may give donations)		Lobbying, media, policy evaluation, public opinion	May file or support complaints
<b>Beneficiaries of Welfare Programs</b>	Direct benefits, potential change in status	Consumers	Co-production			(Pay fees if needed)		May lobby for increased support	May be offended by religious content of programs

**Figure 3. Network of Action Situations in Welfare Service Delivery Process (Incorporating Faith-Based Component)**



**Figure 4. Network of Action Situations in Welfare Service Delivery Process  
(With No Faith-Based Component)**

