Part I:

A Theory of Governance, Constitutional Reform, and Peaceful Transitions to Parliamentary Democracy

Chapter 2: Incentives, Organization, and Governance

All organizations share the property that they are formed to advance goals that can best be achieved by coordinating the efforts of more than one person. All organizations make decisions that focus the organization's resources on particular activities and induce their members to function as more or less productive teams, rather than as unproductive assemblies of individual shirkers and rent seekers. It is this that makes them organizations. Groups of disparate individuals must be induced to hunt, steal, worship, produce, or govern as a team. A hunting club, pirate ship, church, firm, and government selects projects to undertake and methods for undertaking them.

Organizations may be as small as two-person teams of hunters, gatherers, or bandits, or as large as contemporary national governments, international treaty organizations, and corporations. In the distant past, local and regional governments were often very small organizations. Intermediate-sized organizations included many associations voluntarily formed to advance shared interests, such as clubs, firms, cooperatives, and churches and also many organizations whose memberships are not entirely voluntary, such as local governments organized on the basis of territory and groups organized on the basis of family, clan, caste, or history.

Although governments have unusual features, they are not fundamentally different from other organizations. Other large organizations exist; the United States Government, European Union, Red Cross, World Bank, and Toyota have very large memberships and routinely address complex policy issues that affect persons throughout the world. Other organizations also delegate decisionmaking authority and make rules that affect the behavior of their members. What is unusual about governments is their extensive ability to impose rules on persons outside their organization, although this too is shared by organizations such as airlines and restaurants, insofar as customers must dress and behave "appropriately" or they will be denied desired services.

The analytical history of this book, thus, begins with an analysis of the emergence and evolution of formal organizations. The next few chapters use facts, relationships, and ideas that the reader already knows in order to develop several common properties of organizations that are less widely appreciated. Its purpose is to provide a rational choice–based evolutionary theory of organizations that explains the existence of internal incentive systems, internal procedures for making and revising policies, and for replacing organizational leadership.

There are many ways that an organization's objectives and strategies can be chosen and many ways that groups of individuals can be induced to cooperate; however, in practice it appears that only a few general solutions are widely used, whether because of their efficiency properties or informational limits on the part of those forming new organizations.[3] One solution is especially important for the purposes of this book, namely the "king and council" template for organizational governance. Responsibilities for choosing an organization's policies are often divided between a single person—chief, proprietor, chief executive, king, prime minister, or president—and a committee of more or less equal members—a tribe's wise men, board of directors, royal council, cabinet, parliament, or congress. King and council governance is commonplace within a broad cross-section of organizations and plays an important role in the peaceful transitions to parliamentary democracy analyzed in this volume.

Organizational theory, thus, provides a foundation for the analysis of decisions within the specific organizations of interest for this book, namely, territorial governments, firms, and organized interest groups. This chapter and the next provide an economic and survivorship explanation for the widespread mixture of conditional pecuniary and nonpecuniary rewards faced by those who are members of durable organizations and for the widespread use of the "king and council" template for governance constrained by the "rule of law." Chapter 3 uses that theory and others from economics to explain the emergence of territorial governance.

I. Formal Organizations: Incentive Problems, Formeteurs, and Team Production

To begin with, all formal organizations have a beginning. That is to say, formal organizations are initiated by an individual or group of individuals with particular purposes or goals in mind. A village is to be defended or attacked, a swamp is to be drained or protected, an idea is to be promoted or dismissed, a new product is to be made and sold, trade is to be expanded or contracted, rights and privileges are to be extended or reduced. In this, formal organizations differ from "spontaneous" systems that may be said to simply emerge without conscious thought, as with galaxies, ecological systems, or trading networks—although these too may be said to have a beginning, and the latter may also be said to be piece-wise rational.

Many formal organizations also have an end. Small formal organizations often end when their goals have been achieved, as with informal "pickup" sports games and academic conferences. Some organizations only function well because they include particular constellations of personalities and talents and end when critical members depart. Others end because important incentive or decision problems are not solved and the organization is unable to produce sufficient surplus to sustain itself. Hunting clubs must produce food to be self-sustaining. Churches must attract sufficient donations to maintain their clergy and buildings. Economic enterprises must produce sufficient revenues to pay employees and assure reasonable profits for entrepreneurs. Governments must have sufficient tax resources (and loyalty) to retain control of the territory of interest.

[3] Elinor Ostrom (2005, ch. 8), for example, argues that a very large number of contemporary institutions can be classified using a relatively small number of general characteristics, although great variety may exist in the specific institutions among all organizations. This allows the theory of formal organizational design to be far simpler than the organizations themselves, the specific problems addressed by them, or the environments in which they function. The present chapter may be regarded as an effort to provide a somewhat simpler less fine-grained schema for analyzing institutions (organizations) than the one proposed by Ostrom, although it is very much in the spirit of her work.

The individuals or groups that found an organization will here be called "formeteurs" and the persons recruited by formeteurs will be called "team members." Except in the very unusual cases in which an entire society is the formeteur, organizations will not be initially designed to maximize the membership's or society's welfare, but rather to maximize that of the organization's formeteur(s). The decisionmaking procedures and reward systems of all formal organizations, thus, tend to reflect the aims and constraints of their founders, rather than history or broad collective objectives per se. Successful organizations produce a "surplus" that supports the lives of its formeteurs and their successors at relatively high levels of satisfaction and comfort, or efficiently advances other goals they may have.[4] Nonetheless, if the interests of team members cannot be neglected. If their interests are not also advanced by their continued association, a voluntary organization cannot sustain itself through time. Many organizations manage to do so for hundreds of years at time; others fail in a few hours.

New organizations are created every day, because new (potential) advantages from joint enterprises are constantly being imagined. They may be created by a single entrepreneurial individual with very narrow purposes in mind, as often assumed by economists about the origins of organizations with pecuniary profit as their goal. Or, new organizations may be formed by groups of individuals or organizations who wish to pursue common purposes, as often assumed in rational choice–based analyses of private clubs and treaty organizations and in contract-based theories of the state. Intermediate cases also exist in which a small group organizes a larger one, as when tribal leaders organize a "work gang" or a group of investors create a new production team, or a group of political activists organize a mass demonstration of support or opposition to existing policies. And, cases exist in which a large group organizes a small one to advance common interests, as when members of a club or cooperative organize small groups to produce services for the cooperative or create an "oversight committee" to manage such activities.

Formeteurs and Organizational Experimentation

If formeteurs knew the properties of every constellation of decisionmaking procedures and internal incentives, they would pick the one that most advanced their goals, that is, the most efficient institutional design. If, however, the menu of alternatives is not entirely known or if the alternatives cannot be fully analyzed at reasonable cost, formeteurs can only adopt the most efficient systems of governance and rewards known to them. Either setting tends to generate considerable convergence among organizational designs, because the knowledge and fundamental interests of formeteurs are similar.

Knowledge constraints also imply that less than complete organizational convergence occurs, because they imply that formeteurs may disagree about the existing circumstances in a manner that affects their choice of optimal institutional design.[5] A formeteur of a soccer team may expect larger or smaller groups of spectators than rival formeteurs and so construct a larger or smaller organization. Formeteurs also realize that the existing known menu of organizational designs is incomplete and imperfect, which provides a rationale for experimentation. Experiments may also occur by accident, as when responsibilities are redistributed or inputs varied because of illness or poor weather.

These processes of experimentation, trial, and error imply that the menu of existing decisionmaking procedures and reward systems available to formeteurs at a given moment is the product of a long series of more or less deliberate experiments and decisions in the past. The data produced by both deliberate and accidental experiments allow formeteurs to learn from the successes and failures of previous generations of formeteurs. Only those organizational designs that have succeeded well enough to be

[4] This representation of formeteur interests is a generalization of the residual claiment–based theory of economic organizations (Alchian and Demsetz 1972). The term formeteur is derived from a word used by Merlo, Erasalan, and Diermeier (2006) to describe persons who form governments in parliamentary systems based on proportional representation.

[5] Here it bears noting that skilled statisticians often disagree about cause and effect, even when they analyze identical data sets, because they use different models or somewhat different methods of calibration and different statistical tests. Differences in risk aversion, experience, and talent also tend to generate different conclusions among individuals who use the same analytical techniques. The pages of most economic journals are filled with such disagreements.

copied by other formeteurs will be widely known. Those that fail to do so tend to disappear from the menu, although they may continue in “managerial lore” and in historical case studies as instances of designs and policies to be avoided. As a consequence, the menu of institutional templates that survives tends to solve the most common organizational incentive problems at a relatively low cost and correctly identify opportunities for advancing formeteur goals, such as status, wealth, political support, and territory.

Formal Organizations Create Artificial Incentive Systems

It bears noting that team production is rarely a completely natural activity, because so many incentive problems must be overcome for a team to be effective. The left-hand side of table 2.1 illustrates a common problem faced by “informal organizations” that simply share the output produced. This “natural cooperative” is assumed to be viable, in that its members produce more jointly than they would have by working alone (2>1). However, the group produces less output than would have been the case had all members “worked,” rather than “shirked,” in equilibrium. “Shirking” may involve a number of behaviors, including low effort at productive activities, high effort at unproductive activities, or various combinations of each.

One feature that distinguishes a formal organization from natural groups is the use of “artificial” incentive systems. In some cases, formal organizations may replace informal ones, if sufficient unrealized gains exist within natural cooperatives that both formeteurs and team members may profit from more actively managed team production. In the case illustrated, a formal organization that induces production of six, rather than four, units of “output” has two additional units of output that can be shared between the formeteur(s) and the team members.

To realize untapped gains from team production normally requires changes in the individual rewards associated with the productive activity. Note that the team production problem characterized in the left-hand side table 2.1 can be “solved” by replacing the natural system of rewards on the left with the “artificial” system of rewards on the right. Under the artificial reward system, the formeteur promises to pay *R* dollars to people who join his organization and work and also threatens to impose a penalty of amount P on those who join and shirk. For example, the formeteur(s) can promise to pay 2.2 units of output to team members, but threaten to impose a punishment of 1.1 unit of output for shirkers. This makes team members better off than they would have been in the natural cooperative and generates an organizational surplus of 1.6 units of output for the formeteur(s). Note that the new formal organization will attract team members, because the anticipated net reward from being a member is larger than that available in the informal organization (2).

In equilibrium, no punishments will be imposed by the formal organization, because no one shirks. Nonetheless, the threat of punishment remains an important part of the incentive system, because it eliminates the private advantage of shirking that was present in the natural cooperative. In such cases, natural cooperatives will tend to disappear as individuals exit to join formal organizations offering higher rewards.

Table 2.1

The Shirking Dilemma for Team Production in Natural Cooperatives

	Team Member B	
	Work	Shirk
Work (A)	3, 3	1, 4
Shirk (A)	4, 1	2, 2
Exit (A)	1, 1	1.1

Artificial Incentive Systems as Solutions to the Shirking Dilemma

	Team Member B	
	Work	Shirk
Work (A)	R, R	R, R-P
Shirk (A)	R-P,R	R-P, R-P
Esit (A)	2, R	2, R-P

The cell entries are utilities, the rank order of subjective payoffs for the team members (A, B). The dilemma in the “natural” case” is that both team members shirk, rather than work.

Note that both the rules and payoffs of “the intra-organization game” can be manipulated by formeteurs to achieve the desired team behavior. In modern organizations, the most obvious conditional reward structures are those associated with wages, salaries, and promotion. Self-interested formeteurs will favor reward systems that minimize the overall cost of solving the incentive problems at hand, because this maximizes the organizational surplus available for solving other problems and for advancing other formeteur goals. Insofar as formeteur costs increase with both rewards and penalties, formeteurs will use the smallest reward that is sufficient to attract and motivate a productive team and use the smallest penalty *P* sufficient to discourage shirking. The ideal reward system aligns the interests of team members with those of the formeteur(s) at least cost in the circumstances at hand.

Note that the exit option also plays an important role in determining both rewards and penalties. Team members must receive compensation that is at least as great as that available from other formal organizations and natural cooperatives. As exit options become less attractive or more costly to realize, smaller rewards can be used to retain team members. In the extreme case of teams composed of persons without exit options (slaves), rewards will be set at subsistence levels and punishments used to encourage work in every case in which penalties are more cost-effective than rewards for the formeteur.[6]

Whether an organization uses punishment (coercion) as part of its reward system depends on the cost-effectiveness of penalties relative to positive rewards at solving team production problems, which is partially determined by the alternatives available to current and potential team members. This follows both in cases in which the present organization can make better use of its members' combination of talents and norms than other organizations and in which the present organization is not particularly efficient, but moving between organizations is difficult and/or risky.

Culture and Organizational Opportunities and Rewards

Culture plays a role in the design of reward systems, because culture affects the cost of incentive systems sufficient to address the "prisoner's dilemma with exit" (PDE) and coordination problems associated by joint enterprises. For example, a society that includes a work ethic among its norms will require fewer formal organizations and less expensive artificial incentive systems, because the work ethic's own informal reward and punishment systems will solve many team production, coordination, and rent-seeking problems. Team members in such cultures are encouraged to "show up" and "do good work" by their peers within the organization and also by their friends and families (Congleton 1991). Other internal norms that predispose team members to work, rather than shirk, on organized teams also reduce organizational costs. Simulation studies by Axelrod (1986), Boyd and Richerson (1992), and Vanberg and Congleton (1992, 2001) demonstrate that strategies conditional cooperation are often privately advantageous for participating in team production in settings where exit is possible and organizations last more than a few periods.

In some cases, however, norms of conditional cooperation may create new internal incentive problems for formeteurs, because team members cooperate to reduce the effectiveness of artificial reward systems. For example, team members may cooperate to "escape" from prisoner's dilemma games designed by formeteurs, such as competitive piece-rate schedules, with coordinated work "slowdowns" and "sick-outs."

Such norms also tend to make informal cooperatives more viable in the settings of interest here, which reduces opportunities for creating formal organizations with artificial reward systems.[7]

A niche for formal organizations, nonetheless, remains in cases in which norms of conditional cooperation fail to solve all coordination and team production problems (Ostrom, Walker, and Gardner 1992). This niche tends to be expanded by still other culturally transmitted values that allow the formeteur(s) to economize on rewards by providing his or her team members with praise, status, and informal perks for "outstanding work," rather than (or in addition) to output or money rewards. Here one

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6 In cases in which team members are volunteers in the sense that they are able to leave any organization at essentially any time, formeteur(s) face a variety of organizational PDE problems, rather than simple prisoner's dilemma problems to solve. Coordination problems also exist, as stressed by Hardin (1999), but these are easier to solve than PDE problems, because solutions to coordination games are stable once established.

7 See Congleton (1982) for a relatively simple rational choice model of organizational inertia and bias.

might note the number of plaques, ribbons, medals, and certificates handed out for team member achievement by nonprofit organizations such as: college sports teams, schools, military organizations, and governments, as well as profit-maximizing firms.

Formeteurs may also attempt to develop their own internal organizational culture of "work and responsibility" that encourages members to "internalize" the goals of the organization. If team members can be induced to feel loyal to the organization in this sense, subjective exit costs also tend to rise, which allows smaller rewards and larger penalties to be used to solve internal incentive problems. If successful, an organization's internal culture will cause individual members to feel worse off when they act in a manner that conflicts with organizational goals, even when his or her performance cannot be observed by anyone else.

Formeteurs who can easily produce a supportive internal culture are more likely to succeed in a given enterprise than ones who cannot, because such great motivators, communicators, or "charismatic leaders" can solve incentive problems at lower cost and with greater team effectiveness.[8] Religious groups, ideological interest groups, private firms, and roving bandits all attempt to build team loyalty within their organizations and promote other internal norms that reduce shirking and increase "team spirit."

Efforts to promote an internal organizational culture may also indirectly help to support or produce complementary community-wide norms, particularly if several organizations attempt to promote similar internal cultures. If team members prosper and take their organizational norms home at the end of the day, other persons may adopt, imitate, or generalize their organizational norms. Such norms may be taught to children and friends and applied to other coordination, public goods, and prisoner's dilemma problems in the community at large. Moreover, if some potential members or employees are easier to motivate with nonpecuniary rewards than others or are intrinsically motivated to advance organizational goals, costs can be reduced by attracting such "hardworking team players" to their organization, which further encourages the spread of such "corporate" norms within communities from which team members are recruited.

The evolution of internal incentive systems reflects past experiments with conditional and unconditional pecuniary and nonpecuniary rewards, as well as experiments with other internal contest and monitoring systems that can induce productive forms of intra-organizational competition and cooperation. As a consequence, the cost of organizational reward systems tends to diminish gradually through time and become more effective at solving team production problems. In the long run, organizations that recruit or produce relatively cooperative, tractable, loyal, and productive team members tend to be more durable, because they retain team members at lower costs and so are better able weather shocks that temporarily reduce other organizational resources and opportunities. Whether organizational surplus increases as a consequence depends on the extent to which organizations compete with each other to attract team members and customers.[9]

Nonetheless, limits to intrinsic and culture-based reward systems clearly exist. A person who receives a social or moral reward of amount R^M will nonetheless shirk, rather than work, if the payoff from shirking exceeds R^M. In cases in which shirking incentives are strong, additional conditional rewards are required to solve team production and coordination problems.

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8 The success of selection and nonpecuniary reward systems is evident in the existence of organizations that pay team members little or nothing for their services, as within many small voluntary clubs, academic societies, political interest groups, religious groups, and armies. Of course, successful organizations formed to advance the pecuniary interests of formeteurs themselves include significant financial compensation for the formeteurs.

9 In very competitive circumstances, as stressed by economists, formeteurs must pay potential team members their full marginal (revenue) product and provide their services to customers at marginal cost. It also bears noting that many technological and organizational innovations tend to increase the compensation received by team members by increasing their marginal contribution (marginal product) or ability to move from one organization to another. These factors can at least partly offset the cost-reducing effects of innovation in pecuniary and nonpecuniary compensations schemes.

The Convergence of Reward Systems

If a variety of methods can be used to achieve the same end, formeteurs will use the combination that is least costly to implement, other things being equal. These common economic interests generate considerable convergence of reward systems across organizations, because the reward systems address fundamentally similar incentive problems for formeteurs. Organizations normally use a combination of screening and conditional pecuniary and nonpecuniary incentives to align the interests of their team members. The senior executives of nonprofit organizations, churches, corporations, and governments are normally loyal team members who are praised for their contributions to their organizations, but are also normally well paid. Team members who develop reputations for shirking or poor performance may be shamed and lose status among their peers, but also suffer from diminished prospects for salary increases and career advancement.

Complete convergence in reward systems is not possible, however, because not all motivational devices are equally available to or subject to manipulation by formeteurs. Some organizational goals are better aligned with preexisting local norms than others, which implies that some organizations have larger pools of potential team members that are “naturally” predisposed to promote their goals than others. For example, during the medieval period in Europe, it is clear that religious orders were able to attract a very talented membership from their communities with relatively small pecuniary rewards, because so many persons in their communities were already interested in advancing the same religious goals. Similarly, in later periods, formeteurs that attempted to advance nationalistic, ideological, or ecological goals could often draw from relatively large pools of like-minded potential team members to staff their interest groups and political parties.

Given the usual variation in talent and skill within a given pool of potential team members, such culturally favored organizations can assemble a more effective team at less cost than organizations with other goals. Conversely, the willingness of customers to pay for the private services provided by organizations also tends to vary somewhat, which implies that some organizations are better able to provide pecuniary rewards than others.

The mix of pecuniary and nonpecuniary rewards and the use of selection and rejection, consequently, varies somewhat among organizations, because their ability to recruit team members whose interests are already more or less aligned with those of the organization and to pay them varies among organizations, although relatively more similar solutions will be adopted by organizations that produce similar services. For example, religious organizations and governments both rely extensively on selection, internal values, culture, and financial rewards—roughly in that order—to motivate their team members.

II. Rational Institutional Conservatism, Uncertainty, and Organizational Flexibility

Unfortunately for formeteurs, but perhaps fortunately for the rest of us, neither the external nor their organization’s internal supporting culture can be entirely controlled, because both are partly consequences of complex networks of cause and effect that are beyond the complete understanding of any single person or organization. Recognition of the partly “spontaneous” or unintentional nature of internal culture also has implications for organizational design and evolution.

For example, it implies that new pecuniary reward structures or new procedures for promoting or recruiting team members may have unexpected consequences on an organization’s ability to attract and retain productive team members. The unintended effects on internal culture can be positive or negative, but even if the unintended effects (prediction errors) are symmetrically distributed around zero, rather than biased toward undermining the organization’s supporting culture, risk aversion on the part of formeteurs implies that fewer organizational experiments take place as a consequence of such effects. “Institutional conservatism” in such cases is an entirely rational response by risk-averse formeteurs to experimental risk.

Rational institutional conservatism is also supported by advantages associated with being "conventional." For example, the use of commonplace "off the shelf" methods of reward and assignments of responsibility allows personnel to be easily shifted within the organization and also allows new personnel to be recruited from other organizations and employed with lower training and acculturalization costs than is possible when differences in internal reward systems are large. Large organizations, such as governments, international firms and charities, normally include many levels of nested incentive systems. A stable organization's routines, theories, and norms can be passed on to successive generations of participants and personnel as its current members teach new members the methods for getting along and succeeding within the organization.

Within a stable environment, particular solutions to intra-firm incentive problems may thus be applied for long periods, not because the organizational form is regarded to be the best that can be imagined, nor because formeteurs are extremely risk averse about organizational experiments, but because the cost of significant reforms exceed their benefits, given prevailing norms and practices in the locality in which the organization operates. In some of these cases, a prisoner's dilemma–like social dilemma may further increase the stability of prevailing practices, because individual organizations cannot adopt more "efficient" practices without undermining their labor force and losing out to more conventional organizations, even though all would be better off with revised business practices.

This is not to say that experimentation ceases, only that convergence in internal reward systems and reliance on internal culture tends to reduce experimentation.[10] Nor does continued support for status quo reward systems imply the complete absence of change.

As external circumstances change, some organizations may be able to adjust their internal incentive systems at the margin to take advantage of the new circumstances *without departing significantly from status quo procedures*. Such flexible organizations will tend to prosper relative to those that cannot insofar as their efficiency at team production is greater than that of totally inflexible organizations. As a consequence, their standing practices for making adjustments will tend to be adopted by new organizations and may be copied by other existing organizations.

In this manner, somewhat flexible adaptive institutional arrangements tend to replace completely inflexible ones in the long run. For example, organizations with "flexible" reward systems that can be adjusted at the margin during times of change have advantages over less flexible systems in the long run. Insofar as reward systems that include conditional cash payments and internal status to individual team members can more easily reallocate personnel by reallocating rewards than ones that rely entirely on customary "status" systems, this provides further support for the use of mixed reward systems in long-standing organizations, including organizations that have extensive nonpecuniary reward systems.

III. Organizational Governance: Informational Dilemmas and Solutions

Paradoxically, rational institutional conservatism implies that a bit of flexibility in an organization's decisionmaking process is also necessary if it is to survive occasional periods of turmoil. An organization cannot be entirely rigid or rule bound if it is to be able to adapt to changing circumstances. Consequently, flexible organizations have standing decisionmaking procedures through which goals and incentive systems are evaluated and refined to advance changing interests. These procedures for governance can have important effects on an organization's viability, because an organization will not last long if it focuses all of its resources on impossible tasks or organizes team production in a grossly inefficient manner.

[10] It bears noting that exceptions to this source of organizational conservatism exist, as there may be organizations with an internal culture of "innovation and experimentation," rather than one grounded in predictability, intertemporal fairness, and tradition; however, it may be difficult for such constantly innovating organizations to thrive in stable circumstances.

Procedures for organizational governance have received less attention by economists and other rational choice analysts than have effective internal incentive systems. A partial explanation for this neglect is that the decisionmaking procedures of an organization often require active effort by several people to achieve good results. Information must be collected about internal and external circumstances, the information must be analyzed, alternatives evaluated, and decisions made. In only the simplest of organizations and circumstances is this be entirely done by a single individual. Governance can thus be analyzed as a special case of team production; although more can be said about governance than team production in general, because common problems are confronted and common decisionmaking procedures are used to address them.

The founding of organizations and the initial form of governance

Every organization must decide what tasks will be undertaken by the organization, how the organization's resources (time and attention, personnel, capital, and so on) will be applied to those tasks, and how team members can be encouraged to undertake those tasks effectively. This is as true of primitive hunting parties, contemporary international organizations, and those in between. The procedures through which an organization's decisions are made will be called its "government."

The initial policymaking procedures of all organizations are determined by their formeteurs, because they form the organizations. A natural solution for the initial problem of governance is, consequently, for formeteur(s) to make all major policy decisions. Such decisionmaking procedures have many advantages for formeteurs and their organizations. Formeteurs know their own goals better than others are likely to, and formeteurs normatively have "leadership skills" that allow them to form and motivate groups at lower costs than others. Leadership skills normally include an informational base and the ability to persuade others that it is in their interest to defer to the leader's direction, because he or she or a small group of informed men and women understand what is possible better than they do. Moreover, a superior understanding of organizational possibilities is often necessary to justify the investment of time and attention necessary to assemble a team and devising methods to advance particular goals.[11] Single and small groups of formeteurs also have an easier time solving collective action problems associated with collective decisionmaking, as noted by Olson (1965).

In the long run, however, it is often in the interest of formeteurs to relinquish part or all of their initial control over their organization's policies. Such *voluntary transfers of policymaking authority* are partly driven by informational and time allocation problems that emerge as an enterprise increases in scale and complexity and partly by other advantages that can be realized by shifting and trading authority within the organization.

The formeteur's informational problems

Consider the case in which a single formeteur initially chooses to run "his or her" organization as an autocrat. This is not the only possible initial decisionmaking procedure, but it is a natural place to start and it is widely assumed in rational choice analyses of economic and political institutions. The formeteur is clearly in the best position to know his or her own interests, as noted above, and as founder reveals that he or she has a reasonably clear impression about how an organization may be created to advance those interests. As a single actor, he or she avoids the collective choice dilemmas noted by Olson (1965) and the potential intransitivity problems of collective decisionmaking noted by Arrow (1951).

Wintrobe (1997) argues that all autocrats face several kinds of information problems, many of which are consequences of their control over organizational rewards and punishments.

First, an autocrat faces the same information problems as an ordinary person. An autocrat must decide how much information to gather about every dimension of choice and every causal chain that may affect his or her assessments of alternatives. He or she

11 In Schumpeter's (1934) and Kirzner's (1978) terms, a formeteur creates or recognizes opportunities that others cannot or do not see. Formeteurs may also be said to be less risk averse than others (Knight 1921) and so more willing to accept the risks associated with launching new enterprises. Consequently, "innovation," "foresight," and "boldness" are often associated with organizational leadership.

must decide which information sources are reliable and how much of the information gathered to share with others. The problem of getting useful information is compounded by a formeteur's greater need for accurate information. The scope of a formeteur's policymaking authority is initially much wider than that of other members of the organization and, consequently, so are the number of alternatives that must be accurately assessed if he or she is to make policy decisions that effectively advance his or her own interests. In unstable settings, autocrats will require useful information about changes in both the internal operation of the organization and its external environment in order to make effective use of the team assembled and to improve the organization as its relative weaknesses and strengths and new opportunities are revealed through time.

Second, an autocrat confronts a series of information problems that are consequences of his or her authority to allocate organizational resources and to adjust the internal system of rewards. The information provided by others within the organization tends to be intentionally biased whenever there are potential benefits from manipulating the autocrat's assessment of alternatives or people within the organization. Personal careers can often be advanced by exaggerating their own loyalty and performance relative to other rivals within the organization. "Apple polishers" do not simply seek the boss's favor, but hope to profit from favor. Wintrobe (1997: ch. 2) refers to this aspect of a rule maker's informational problem as the "dictator's dilemma."

Together, these information problems imply that in most cases it will be difficult for any single individual to gather enough information to make accurate policy assessments. The larger the organization and more complex the goals and operating environment, the more difficult such problems tend to be and the more costly are mistakes that could have been avoided with better information. One widely used informational technology for collecting and filtering information is the advisory council. This solution requires assembling and motivating a team that specializes in collecting and processing the information and in developing new policies that are likely to advance the formeteur's interests. Two quite different informational settings are analyzed below.

Advisory councils for well-informed formeteurs

Consider first a shrewd fairly well-informed formeteur with unbiased expectations about the consequences of alternative policies and thereby of the relative merits of policy alternatives. Such a formeteur will not make systematic policy errors and so on average will choose policies that maximize the effectiveness of his (or her) organization and, thereby, his (or her) expected utility. Yet a formeteur like any other person will economize on information and devote his time and attention to collecting and processing it only up to the point where his expected marginal benefits equal its marginal cost.

Statistical theory implies that the smaller the data set on which estimates are based and the less sophisticated and thorough the analysis, the greater the errors will tend to be, other things being equal. Consequently, there are circumstances in which it pays the proprietor to use part of his data collection budget to delegate information assembly and processing to others.

For example, the members of a panel of nonexperts chosen at random from an organization (or citizenry in the case of a polity's government) will each tend to be less informed than the proprietor, because such persons lack an encompassing interest in the organization. Advice from such a group, however, may still be informative insofar as they have different personal experiences and expertise, in which case the sum of the information within such groups normally includes more information than possessed by even a relatively well-informed formeteur. Insofar as the information (samples) of the formeteur and the advisory council members are independent of one another, their predictions about future events are also independent and may be approximately unbiased.

Elementary statistics implies that a weighted average of several unbiased estimates is generally a better estimator (more accurate) than any single estimate. There are also a broad range of cases in which the unweighted average or median estimate of a group is more accurate than the estimate of the member with the largest data set.[12] Together these imply that a council of advisors that makes recommendations on the basis of majority opinion or consensus can be a cost-effective method of assessing the effects of alternatives.

The value of the additional information and more precise estimates will often be greater than the cost of the advisory team's compensation, because the incentive system for such information gathering and processing teams—or advisory committees—will normally be a combination of status, privileges, and money, roughly in that order. Many advisors will be pleased to provide free information to the formeteur, simply because they value the approval and thanks of ambitious and smart men and women. And, of course, advisory councils can be quite small, which tends to enhance the prestige associated with membership.

In areas in which specialized knowledge is useful, the formeteur can improve the quality of the advice obtained by assembling a panel of especially well-informed individuals, whose more complete understanding of the organization and its environment makes their forecasts less prone to error than the average member of the organization. Such expert councilors have a comparative advantage at gathering and processing information, because their opportunity cost for assembling and processing information is substantially below that of the proprietor. Experts may have relatively greater speed or accuracy as information processors than the average member of the organization, or they may have more experience with the matters of interest to the formeteur (larger data sets).

These comparative advantages at information collection, processing, and advice giving can be increased through various artificial incentive systems. For example, the formeteur can construct contests for council membership that reward analytical skills and policy-relevant information acquisition with relatively high status and/or salaries. In some cases, contests can be extremely effective, inducing greater investments by the players than the sum of the rewards given out, as true of even simple lotteries (Tullock 1980, Hehenkamp and others 2004). Payment in *positional goods* can be quite inexpensive for the proprietor, yet encourage substantial efforts by prospective councilors (Hirsch 1995, Frank 1985, and Congleton 1989). Moreover, being councilor to a successful formeteur may also produce other consulting opportunities as well as status.

Team Production and Agency Problems in Advisory Councils

Incentive problems for council members are fairly limited in an environment in which the proprietor is sufficiently informed about policy consequences to make his or her own unbiased estimates of policy consequences. In such cases, the formeteur can reject as implausible or outliers any obviously manipulative "estimates" by the council or council members. Potential gains from organizing a committee of advisors in such relatively uncomplicated settings can be significant and relatively inexpensive.

The motivation problems change significantly as one shifts from a setting in which both the proprietor and councilors have a small sample of essentially complete information to one in which both the proprietor and potential councilors remain completely ignorant about some policy dimensions or possible consequences. In such complex circumstances, completely *unbiased estimation is not possible* for the proprietor or his councilors (Congleton 2000), which increases the potential advantage of additional information, but also increases the risk of manipulation.

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[12] Nitzan and Paroush (1985), Wit (1998), McLennan (1998), and Congleton (2007) show that recommendations of a council that uses majority rule to select recommendations tend to be less error prone than are the recommendations of individual members of the council in cases in which no member is much better informed than others. Indeed, much of the jury theorem literature implies that large committees would make essentially no mistakes as long as individual voters are even slightly more likely to be right than wrong in their recommendations. That a council of "wise men" can improve decisionmaking is, of course, not a new idea. For example, the idea that a group of ordinary people often possesses more information than a single expert is pointed out by Aristotle in book 3 of the *Politics*, which has been widely read for centuries. Moreover, a good deal of historical evidence exists that advisory councils of commoners and wise men were used well before Aristotle put his pen to paper.

In such cases, a well-motivated council can potentially reduce policy mistakes by both increasing the accuracy of estimated policy consequences (reducing the variance of estimation errors) and reducing the bias in the proprietor's assessments of alternatives and consequences.

Unfortunately, to profit from the advice of such representative councils in areas in which the formeteur is essentially ignorant, the organization of the council must overcome the "dilemma of experts," the difficulty of taking advice from knowledgeable persons whose information cannot be readily appraised ex ante by the person receiving it. Formeteurs are less able to reject poor or biased advice in policy areas in which the they remain essentially uninformed. (In the previous "rational expectations" case, the proprietor had his own independent and unbiased estimates to use as a reference point, here he does not.) Relatively short-term forecasts and advice can often be directly checked as events unfold, but long-term advice remains problematic to assess. And, of course, even bad short-run decisions based on bad advice can be disastrous for an organization.

A common method of addressing the dilemma of the expert in a setting in which formeteur ignorance is significant is to assemble a group of well-known loyal advisors—that is, a group of advisors who have long demonstrated that their interests are well aligned with those of the formeteur. In small- and medium-sized organizations, such advisors might, for example, be assembled from family members and friends of the formeteur whose long-term interests in the success of an organization are often well aligned with those of the formeteur. Such "kitchen cabinets," however, may exhibit considerable ignorance on matters beyond their own organization (or the royal court).

A council whose membership extends beyond the "court" clearly includes a larger sample of information and also a cross-section of knowledge that includes *more kinds or dimensions* of information than a formeteur could or would be inclined to assemble on his own; however, it is more difficult to the align the interests of "outsiders" or accurately screen them for loyalty than it is for insiders about whom much more is known. Such motivational problems often reduce the effectiveness of outside councils to levels below those of "insider councils" in cases in which additional outside information is not particularly valuable or is easy to acquire in other ways.

In cases in which outside information is especially valuable and difficult to obtain, however, an advisory council that includes members beyond the formeteur's immediate circle can clearly be more effective than his informal "kitchen cabinet," from whom the formeteur already receives much incidental advice through informal contact. Motivational problems, however, must be addressed.

One possible institutional method for reducing the motivational problems associated with "outsiders" is to assemble somewhat *representative advisory councils with predictable biases*. For example, councils may be staffed by leaders of separate units of large organizations or by other special interest groups, whose biases can be accounted for when assessing their advice. A more or less "representative" council implies that policy assessments will be based on a broader information base and that the median or average of the analyses and advice given is fairly well informed and unbiased. Their advice is problematic only to the extent that the council as a whole has a policy interest that differs systematically from that of the proprietor, but to the extent that such cases are fairly obviouis this bias can be taken into account. Such a council can be assembled, for example, by having various economic and ideological interest groups (the clergy, guilds, landowners, banks, labor unions, and so on) propose policy experts for the advisory council.[13]

The size and representativeness of the advisory council can be adjusted to the point at which the marginal cost of a larger more complex council approximately equals the

[13] The more extensive information set of such extended or representative councils partly reflects differences in backgrounds (military, business, church, or agriculture), partly chance events, which bring unsought bits and pieces of knowledge before council members, and partly differences in talents and interests that lead councilors to collect and process information about some matters more efficiently than others. These natural differences are magnified when specialization is encouraged. Although every councilor may be ignorant about some policy consequences known to the king, their areas of ignorance would not entirely overlap.

expected marginal informational advantage of improved public policies (e.g., those that advance the proprietor's interest in the present context). The number of such advisory councils can also be adjusted, and specialized advisory councils of various sizes can be created to analyze particular subjects or policy areas.[14]

Evolution of the architecture of governance

In practice, choosing among more or less effective procedures for assembling advisory councils tends to be easier for formeteurs that address short- and medium-term, rather than long-term, problems, because the quality of long-term advice is often very difficult to assess. In this respect at least, the past experiments and experience of previous generations of formeteurs tend to produce a menu of relatively robust methods for gathering information and making decisions. And through time, further experience produces a gradual improvement and convergence of best practices in organizational governance. To the extent that policy decisions are improved through advisory councils, organizations that adopt the "king and council" form of governance will tend to be more successful in the short run and more durable in the long run than those in which formeteurs fail to delegate part of the information gathering and policymaking process to councils of capable advisors.

As in other instances of team production, when others are included in the decision making process, formeteurs have reasons to attempt to minimize the cost of the incentive schemes used to encourage their participation. Consequently, all but the smallest of organizations use a variety of screening and incentive devices—not all of which are pecuniary—to encourage effective participation in organizational governance. Talented, easily motivated persons tend to make a reward system more effective and, conversely, persons who are loyal to an organization tend to be easier to motivate. The recruiting and reward systems that appear on the menu of organizational templates in the long run will on average efficiently select persons and motivate them to advance formeteur interests.

And, formeteurs have reasons to prefer somewhat flexible to inflexible decisionmaking systems, because decisionmaking procedures occasionally have to be adjusted as circumstances or theories change. The number of policy mistakes (and thereby policy risks) tends to fall as a result of increasingly cost-effective advice obtained from well-motivated advisory committees.

IV. A Well-Informed Group of Formeteurs Can Use a Chief Executive

The analysis of organizational governance to this point may be taken to suggest that organizations founded by a small group of formeteurs will exhibit superior performance relative to ones founded by a single formeteur, because formeteur groups function as a committee of experts and thus tends to more effectively use information. Even a small group of formeteurs, however, may not be able to take full advantage of this informational advantage, because individual members lack a fully encompassing interest in their organization's operation. Each member of a board of directors or ruling council receives only a fraction of the organization's surplus or profits. Consequently, formeteur councils cannot always solve their own internal free-riding problems associated with jointly monitoring day-to-day team production and external circumstances.

A natural solution to this "group government dilemma" is to delegate responsibility for managing the organization on a day-to-day basis to a single person, a chief executive officer (CEO), a king, prime minister, president, general, or pope. Such a "chief executive" will have in the ordinary course of his affairs much greater knowledge of the specific details of policy implementation than any external council member would be inclined or able to assemble. He or she will directly participate in the day-to-day execution of policy and therefore will acquire relatively complete and detailed knowledge of the process of implementing policy within the organization.

[14] The models developed in the next several chapters focus on relationships between a single chief executive and a single council of more or less stable size. This, however, does not limit the relevance of the analysis to cases in which there is only a single council, because the models can be used to analyze the independent relationships between the "king" or CEO and each distinct "council."

The previous analysis of team production suggests that the formeteurs will attempt to use cost-minimizing combinations of pecuniary and nonpecuniary rewards to align the chief executive officer's interests with their interests and that the effectiveness of these reward systems will be improved by selecting CEOs who are easily motivated to advance formeteur interests and have the talent to do so. Again, selection tends to be important, because some person's interests are easier to align with those of the formeteurs than others. The chief executive is chosen partly because of his or her own norms and routines and also for his or her desire for approval, respect, status, fame, and financial resources.[15] Insofar as total compensation is sufficient to produce competition for the post of chief executive, many individuals will have an interest in acquiring the skills of an effective CEO and thus some redundancy in advice and information sources will naturally occur, which further reduces monitoring costs for the council.

For such reasons, an organization founded by a council of formeteurs may also adopt an organizational government based on the king and council template, but with a somewhat different assignment of policy making authority than in the previous cases. The council may retain broad policymaking authority and delegate day-to-day management responsibilities to a chief executive or a subset of the formeteurs (a ministerial cabinet). The optimal division of authority between the "board of formeteurs" and their CEO varies somewhat by the origin of the organization, because both the interests of the formeteur(s) and circumstances vary somewhat, and these affect both the magnitude of the informational problems faced and the strength of incentives that are required to align the CEO's interests with those of the formeteurs.

Delegation to a "King and Council"

When a large group of individuals (or organizations) forms a new organization, day-to-day management and considerable policymaking authority may be delegated for more or less similar reasons. It is very costly for large "cooperatives," "stock companies," and "polities" to meet and debate alternatives every time a decision must be made, because meetings are both time consuming and inconvenient. Moreover, informational "free riding" tends to be larger in large groups than in small ones. Consequently, one can easily imagine a collective decision by founders of a cooperative or polity to delegate significant policymaking authority to a body similar to those used by other organizations. Organizational efficiency tends to be increased by such divided systems of governance, for the reasons noted above and for others unique to large cooperatives.[16]

For example, the use of the king and council template for day-to-day management tends to reduce losses from delegation errors, that is, the failure to select the best persons to serve as cooperative managers under the existing reward system. Selection mistakes can be made on any single appointment, because no recruitment system is perfect. By dividing policymaking authority between a king and a council, this risk is reduced, because the policies adopted tend to be weighted averages of the institutionally induced interests of the CEO and board of directors. Consultation and compromise is necessary for major decisions within such governments. A single mistake in hiring an organizational autocrat can clearly be very costly.

The use of the "king and council" template also increases the likelihood that more or less honest accounts of the organization's activities are made available to the entire body of formeteurs insofar as both the king and the council benefit from continued support from formeteurs. The cooperative may ask the council to report on the chief executive

15 Brennan and Hamlin (2000) discuss how selection can be used to find the right persons to fill positions in organizations in which monitoring is difficult and contracts are incomplete. Their discussion addresses problems in democratic design, but their logic clearly applies to other organizations as well.

16 Buchanan and Tullock (1982) use rational choice models to explore how particular governmental structures might be selected by such large groups of formeteurs. The focus of their analysis concerns political governments, rather than organizational design more generally, but their logic clearly applies to settings where a group forms a "cooperative" to solve a local public good, commons, or coordination problem or to benefit from economies of scale in production or negotiation. They do not mention the king and council template in their analysis, but clearly demonstrate that some methods of making collective decisions can advance common interests better than others, in given circumstances.

and the chief executive to report on the council on the occasions when the formeteurs meet as a body. The natural inclination of each chamber will be to tout their own achievements and attribute all mistakes to the other. By adding the two reports together, a reasonably complete overview can be achieved, albeit one with a bit higher variance than would be ideal. Persson and Tabellini (1997) demonstrate that divided government can be used to increase information flows to principals through time.

Such informational advantages, reinforced by institutional conservatism and the ability of committees to reduce unproductive internal conflict, explains why the king and council template is also used for internal decisionmaking at many levels within hierarchical organizations. Very few organizational "kings" lack a "council," and very few "councils" lack a "king," although the division of authority between king and council vary somewhat among organizations.

V. Ideas, Interests, and Convergence in Organizational Design

The fact that organizations overall face similar motivational and informational problems implies that many solutions are also fundamentally similar. The analysis of this chapter implies that (i) most organizations use mixed forms of conditional incentives to solve team production problems within the organization, (ii) most organizations use some form of the "king and council" governance to assemble information, develop policy alternatives, and choose among them, and (iii) both incentive systems and organizational policy tend to be somewhat flexible at the margin to take account of changing circumstances, but (iv) also tend to be fundamentally stable. Both large and small ships can be steered with a relatively small rudder, but would flounder without one.

Decisionmaking authority can be distributed in a number of ways, and the resulting procedures tend to affect an organization's policy and allocative decisions, which in turn determine an organization's short- and long-term viability.[17] The more influential such procedures are, the more central a theory of governance is to a general theory of organizations and the more important constitutional design and evolution are for the subset of formal organizations referred to as polities or regional "governments."

Fundamental similarities among the institutions for solving organizational incentive and governance problems are not accidents of history, although they reflect historical experience, nor are they entirely products of design. Formeteurs are only interested in relatively cost-effective systems of incentives and governance, which generates a systematic culling of ineffective institutions. This rational selection process is reinforced by natural selection, but works faster than natural selection alone, because organizations have reasons to adopt standing incentive and governance systems that are flexible at the margin.

Formeteurs are well aware of the historical screening process and of their own informational limits. Consequently, they pay close attention to contemporary best practices and tend to adopt only minor modifications of existing templates, rather than radical reforms. Relatively small modifications of existing practices are more likely to be successful than radical ones, because their effects are more predictable. Moreover, being "conventional" has economic advantages. This is not to say that no experimentation takes place, nor that large experiments can never be successful. Rather it is to say that radical reforms are unlikely to be efficiency enhancing unless the environment in which an organization operates is radically different from those in the past. And even in such cases, a typical formeteur is unlikely to determine the "perfect major reforms" without a bit of trial and error. Institutional convergence and institutional conservatism are for the most part rational responses to the informational and time allocation problems confronting formeteurs, their team members, and their successors.

[17] For example, the research surveyed in Congleton and Swedenborg (2006) suggest that minor variations in the selection of CEOs (appointed or independently elected as in prime ministerial and presidential systems), the distribution of policy making authority (as in more or less centralized federal systems) and the selection process (elections) can have significant effects on public policy decisions.