On the Evolution of Organizational Governance:

Divided Governance and Survival in the Long Run[1]

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Abstract. This paper analyzes the formation, refinement, and evolution of organizational decisionmaking processes, e.g. organizational governments. In doing so, it develops a framework for analyzing a broad cross section of private and non-private formal organizations. Formal organizations are all founded, e.g. they have a beginning. As a consequence, decisionmaking authority within an organization is often initially distributed in a manner that provides their founders (formeteurs) with substantial control over their organizations. However, that control is rarely, if ever, complete, because formeteurs have interests that can often be advanced by trading and/or delegating authority to others in exchange for services and other resources that increase organizational surplus. The result tends to be divided, rule-based, governance based on the king and council template.

I. Introduction

Formal organizations are an invention like the wheel and wedge that are not found in nature. Just as specific implications of the wheel and wedge have been refined to overcome a broad array of physical problems, specific implementations of organizations have been refined and extended through time as new opportunities to benefit from team producing have emerged. And, as with other technologies, successive generations of organizers learned from previous ones, with the result that organizations tend to become more effective

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through time. Indeed, it can be argued that most of what separates humanity from the animal kingdom can be attributed to the organizations formed to coordinate human activities. These allow groups of humans to create more than possible for the same individuals operating independently or in informal (spontaneous) groups.

Nonetheless, as the constitutional political economy literature makes clear, effective organizational decisionmaking is itself a nontrivial task. How is it that large groups of persons can maximize either profit or votes? How do organizations sustain themselves in a changing world?

The simple answer to the latter is that survival in a dynamic world requires adaptation and this is normally accomplished by a subset of the persons belonging to an organization. A major "output" of all organizations is rules, and these rules are chosen through processes that are themselves substantially rule-bound. An organization's internal rules help align the interests of teammembers with that of their organization--which is often that of their formeteurs--but not all rules are equally effective in all environments. As a consequence, rules and procedures are revised from time to time, both in the day-to-day sense and in the quasi-constitutional sense by an organization's "top decisionmakers," that is to say by it's government.

By neglecting the creation and refinement of organizational rules, theories of economic and political organizations miss much that is important about the nature of existing organizations and dynamics of organizations. Indeed, the "governance" literature in economics is not about policymaking by organizational governments, but about internal systems of conditional reward and punishment.[2]

It is the formation, refinement, and evolution of rules for organizational decisionmaking procedures that is the focus of the present paper.[3]

[2] Economists normally focus on the properties of particular reward and recruitment systems at a given moment in time, or focus on the properties of spontaneous orders such as markets and political culture. Political scientists tend to focus on governmental organizations and neglect applications of their theories to non-governmental organizations. The pool of existing organizations, services, and routines for making policy decisions are "given," rather than subjects of analysis. Organizational decisionmaking procedures are normally taken for granted. "Firms" maximize profits and "political parties" maximize votes or probability of electoral success. See, for example, Williamson's extensive work in this area.. Vanberg (1992, 2002) are rare exceptions to this rule.

[3] The arguments and models developed below extend and generalize those developed in part 1 of

II. The Origins, Governance, and Convergence of Organizational Rules

Organizations are normally founded by a small subset of their members. The person or persons that found organizations are called "formeteurs" in this paper and the other persons in their organizations are called team members. That formal organizations are intentionally founded has a number of implications that are important for the analysis.

For example, that organizations are founded by formeteurs, rather than team members, implies that organizations are designed to advance the purposes of formeteurs, rather than their members. Decisionmaking authority within an organization thus tends to be initially distributed in a manner that maximizes formeteur control over a new organization. This is, of course, a type of governance familiar to economists as rule by an entrepreneur or board of partners and to political scientists as rule by a dictator or junta. However, in the long run, authority does not often remain so narrowly distributed.

In most cases, divided forms of governance tend to replace the initially authoritarian ones as organizations grow and market-like shifts of authority take place. For example, as developed below, it is often in the formeteur's interest to trade and/or delegate some of their initial authority to others in exchange for services and resources that advance their organizational interests. Contemporary private firms often raise capital by selling off voting rights, and medieval kings often traded parliamentary authority for new taxes. Indeed, the advantages of divided governance induces most formeteurs to adopt such institutions from the beginning, in all but the smallest of organizations. These shifts of authority are not marked by physically moving resources, but rather by modifying the rules through major and/or minor policy decisions are made.

In mature organizations (and many new ones) policymaking authority is often shared by creating "external" boards of directors, who are elected or appointed by major stakeholders in the organization. Tribal governments often include a council of elders or of the wise and a head of council or chief. Sharing authority in this manner brings additional resources to the organization, improves the decisions that are reached, and also solves various transition problems associated with organizations that outlive their founders.

Perfecting Parliament (Congleton 2011).

Organizations are not simply "clocks" that are wound up by formeteurs to run themselves, after they are founded, rather organizations require active management to modify an organizations rule-governed practices, as circumstances change. Durable organizations revise their objectives, reward systems, and procedures for making decisions as circumstances change.

A. The Emergence of Conditional Rewards and Punishments

In order to understand the role that rules play in organizations, it is useful to analyze the productivity of rules that might be adopted by a new organization. Two game matrices are presented in table 1. The game on the left is assumed to characterize the equilibrium of a preexisting or natural game and that on the right to be an artificial game contrived by a formeteur. The game on the left may be thought of as production in a "natural cooperative" in which team members participate in a common venture (perhaps a hunt or harvest) and share the output produced. It is sensible for a player to participate in a natural cooperative's activities, if he or she is better off in the cooperative than in alternative activities (the exit payoffs), such as independent production by themselves (or in another cooperative).

Table 1

The Shirking Dilemma Game for Natural Cooperatives

	Team Member B		
	Work	Shirk	Exit (B)
Work (A)	3, 3	1,4	1.5, 1.5
Shirk (A)	4, 1	2,2	1.5, 1.5
Exit (A)	1.5, 1,5	1.5, 1.5	1.5, 1.5

Organizational Solution to the Shirking Dilemma

	Team Member B		
	Work	Shirk	Exit (B)
Work (A)	R, R	R, P	1.5, 1.5
Shirk (A)	P,R	P, P	1.5, 1.5
Exit (A)	1.5, 1.5	1.5, 1.5	1.5, 1.5

The cell entries are utilities, the rank order of subjective payoffs for the team members (A, B).

The upper four cells of the left-hand game characterize the prisoner's dilemma (PD) game that emerges when rewards are uniform and unconditional. These payoffs imply that team members choose to participate in the cooperative activities, rather than exit, but also that they do not work as hard as required to maximize the cooperative's output. In this sense, they "shirk," rather than "work." Nonetheless, the natural cooperative is viable, because in equilibrium each participant receives more than he or she would obtain working alone ($2 > 1.5$).

The fact that output is not maximized provides an opportunity for "formeteurs" to create a formal organization with more sophisticated rules for dividing up the fruits of team production. Such formeteurs may be members of the natural cooperative or outsiders who imagine both the possibility of greater production and a reward system to encourage greater effort by team members. Team members in the "Organizational Game" on the right have the same strategy sets as in the natural cooperative (work, shirk, exit), but they confront a conditional reward system that is designed to encourage "work" and to discourage "shirking." The rules of the formal reward system illustrated set the conditional payoff from work at R and the conditional payoff associated with shirking at P. The members of the formal organization will work to advance the organizational goals (work) if $R > P$.

The surplus requirements of formeteurs and the exit options of team members constrain the values of R and P that are compatible with organizational viability. Individuals will, for example, join the new team only if R is greater than 2, so that they are better off than at the natural cooperative.[4] The punishment system also affects decisions to join a formal organization or not. If punishments are imposed in an arbitrary or inaccurate manner, potential team members may fear that they may occasionally receive $P<2$ even if they are working hard.

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[4] An interesting and somewhat counter intuitive property of this reward system is that it disconnects rewards from joint output. The reward in the organizational game is conditioned only on an individual team member's effort. Paying team members according to the marginal products indirectly links payment to the effort levels of fellow team members in a way that often encourages free riding rather than productive effort. An illustration of this effect for the Cobb-Douglas production function is developed in Congleton (1991).

Prospective team members are more likely to join and less likely to exit from an organization if they believe that only "shirkers" will be punished. Thus, effective enforcement of company rules are thus also important for the viability of organizations. $R > 2$ is sufficient to discourage exit of productive team members only if the average level of rewards, including mistaken punishments, is greater at the new organization than at the natural cooperative (adjusted for risk).

B. Composite Reward and Punishment Systems

The organizational design sketched out above and used below rests on two foundational assumptions. The first is that an organization's formeteurs are able to create game-like settings in which they determine the (subjective) payoffs for team members. In the illustration above, they did so by creating rule-based rewards for working and shirking. The second is that formeteurs design their organizations with their own organizational objectives in mind.

These two assumptions can be further subdivided into others. For example, the assumption that a formeteur can create a game in which team members feel constrained to play by the rules also implicitly assumes that formeteurs can solve a variety of other problems, including ones associated with informational asymmetries. The specific methods required to do so will vary somewhat with the external setting, the project, and the leadership skills and charisma of the formeteur(s), the pool of potential team members, and cultural setting, as developed below.[5]

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[5] The assumption that formeteurs can affect subjective payoffs, $R=u(R^o)$ and $P=u(P^o)$, is equivalent to assuming that formeteurs can raise or lower R^o and P^o for their team members.

In some settings, the formeteur may do so by directly producing resources that can be used to affect R^o and P^o, as when praise and criticism can affect team members welfare. In other cases, the formeteur may simply use the team's output as a source of rewards and punishments. In such cases, the formeteur's control over the team's output may be itself a product of organization. Formeteur control of team output in such cases may also be supported by widely accepted norms of deference to leaders or by other external sanctions. For example, the organization may take place in a setting where civil law exists.

It bears noting that I do not make the Hobbesian assumption about anarchy, as many do in this literature, which essentially rules out the formation of small teams in which organizational surplus can exist. Rather, I assume that there are places where at least a few persons can escape from "the war of every man against every other." Here it bears noting that many animals have genetic predispositions to respect each other's territory at least in the short run.

In many cases, several combinations of pecuniary and nonpecuniary rewards may elicit the behavior of interest, and formeteurs will naturally adopt the combinations that they believe to be most cost effective. Insofar as formeteurs attempt to maximize organizational surplus, broadly defined, they will be inclined to adopt the least expensive oversight and reward systems that solves their team production problems.

Reward systems are thus often complex. For example, rewards in most organizations include praise, status, and prizes in addition to pecuniary rewards. The former are often less costly for formeteurs than the latter. Here one may note the use of special badges, medals, and uniforms in military organizations to encourage extreme effort, sacrifice, and bravery. Similar nonpecuniary "perks" are also used to motivate team members of modern corporations and governments, where the relative size of offices, company cars, parking places, and titles are used to indicate position in the organizational status and authority hierarchy. It is clear that punishments for shirking also tend to be multidimensional and may include disapproval, shame, fines, and banishment from the organization.

Perhaps surprisingly, minimizing the cost of effective reward systems implies that formeteurs often rely upon and reinforce social norms, and that they will not create or enforce rules arbitrarily. Both formeteur and team member interests favor organizations with stable, predictable systems of reward and punishment.[6]

The latter implies that, insofar as evolution favors organizations with relatively larger organizational surpluses, evolution can also be said to favor organizations with their own *internal rule of law*.

C. Assembling the Best Team

Composite reward systems increase survivorship whenever they reduce incentive problems of team production at a lower cost than an entirely pecuniary system of rewards and punishments.[7] Instances of composite systems of such reward are most obvious and

[6] If $N^e = f^*u(R^o + (1-f)\, u(P^o)$ is the expected net reward, where f is the probability of being wrongfully punished, and R^o and P^o are objective rewards with subjective values $R=u(R^o)$ and $P=u(P^o)$ respectively, then $f = 0$ allows total rewards to be smaller than $f>0$, whenever function u is strictly concave and monotone increasing in R' and P'.

[7] When an organizational culture is successful, it may indirectly affect the local external culture insofar as team members take their organizational norms home with them, apply them in other parts

military and religious organizations, but also occur in governments, private clubs, ideological interest groups, and contemporary corporations. Indeed, the latter often copy ideas from military and religious organizations and often have their own award ceremonies and medals of honor.

The cost of motivating team members can also be reduced by attempting to recruit team with predispositions that tend to make them effective team members. Persons with propensities for rule following behavior, an internal work ethic, promise keeping, and honesty are less likely to shirk than those with the opposite traits. In addition, some people have goals and norms that are "naturally" more aligned with the goals of particular organization, who will make natural team members because fewer rules will be required to align their interests with those of the organization. Churches thus recruit believers, rather than atheists, for their organizational bureaucracies. Military organizations similarly recruit those who accept the necessary of violence in international relations, rather than pacifists. Governments and other organizations normally prefer to recruit persons who signal loyalty to their organizations, rather than dissidents or persons from abroad. Commercial firms are inclined to hire those who have (or pretend to have) an interest in high incomes or are (or pretend to be) natural "team players," rather than stubborn idealists or individualists, unless the latter have interests that are already aligned with the organization's objectives.[8]

Of course, the existence of person's predisposed to cooperate on teams cannot be taken for granted. Vanberg and Congleton (1992, 2001) demonstrate that propensities to cooperate (conditionally) have survivorship value in environments where team production is productive and exit is possible. The evidence surveyed by Frey and Jegen (2001) suggests that increases in explicitly conditional forms of motivation tend to reduce (crowd out) self-motivation and so, surprisingly, may reduce productivity, rather than increase it.

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of life, and teach them to their children.

8 Recruiting is partly a matter of the payoffs from team membership. For example, in table 1 the punishment may be purposely set at P much higher than 2, so that persons who are "natural shirkers" (difficult to motivate) remain at the natural cooperative instead of joining the new organization.

After self disciplined and motivated team members, formeteurs will prefer members who are easy to motivate because they have relatively large responses to punishments or rewards. Easily motivated persons are especially valuable for organizations and these will be recruited over other more skillful persons whose internalized norms or goals are less naturally aligned. Other skills directly associated with productivity also matter, as emphasized by educators and economists, but they are not always the most important type of human capital for determining a person's productivity on a given team.

Formateurs and managers may also attempt to create stronger versions of local norms, an "internal organizational culture," by encouraging loyalty, hard work, courage, and useful innovation. Awards might be given to persons who never miss a day of work, who are especially diligent, or whose service demonstrates exceptional loyalty to the organization.

D. Constraints on the Formation and Continuance of Organizations

Although the reward systems chosen by formeteurs will attempt to minimize the compensation paid to team members, it has to be sufficient to attract and retain team members, to solve the team production problems, and to reward formeteurs for their efforts. In the illustration above, the formeteur might pay team members $R = 2.1$ for work and $P = 1.6$ if they found to be shirking. The team production equilibrium in this case is (work, work) and the organization's total output is 6. The total cost of the reward system will be $2 x 2.1 = 4.4$ and the organizational surplus is $6 - 4.2 = 1.8$ (less a small amount for accurate monitoring of work effort). If team-member exit options improve from 2 to 2.5, a reward such as R= 2.6, becomes necessary and organizational surplus falls to $6 - 5.2 = 0.8$.[9]

[9] Moreover, if one ignores exit options, severe punishments alone can encourage "cooperation." For example, given an R sufficient for survival of the team member, any P<R below that will induce cooperation. If imposing punishments is less costly than providing work-inducing rewards, the formateur will be inclined to use penalties, rather than rewards to encourage productive effort. Evidently, the systems used to motivate slaves, who have very limited exit options, were centered on punishments, rather than rewards.

Fortunately, there are limits on a formeteurs ability to use penalties whenever team members are "volunteers," in the sense that they are free to exit and join other organizations or to work alone. In such cases, as illustrated above, the formeteur faces a PDE (prisoner dilemma with exist) to solve, rather than PD problem. In the example, exit implies that the formeteur cannot have average payoffs below 2, given the existence of alternatives at the natural cooperative or below 1.5 without risking exit by some or all team members.

In general, formeteurs can increase organizational surplus by choosing the least expensive reward system that solves both their team production and recruitment problems.

E. The Evolution, Convergence, and Stability of Internal Reward Systems

The first formeteurs have to imagine their entire reward systems, which consequently are likely to be very simple ones based on physical "carrots," "sticks," family loyalty, and deference to authority figures. Later generations of formeteurs will be able to observe the successes and failures of earlier ones, and copy practices that work and revise (slightly) those that did not. Not all reward systems work equally well at solving team production problems or advancing formeteur interests. It is the successful systems of rules that will attract the attention of subsequent generations of formeteurs.

As time passes, the systems in place will reflect the experience and experiments of more and more formeteurs, whose organizations have advanced a variety of goals in a variety of circumstances. As a consequence, the reward and recruiting systems used tend to become more effective through time in the sense that they increase organizational surplus and better solve team production problems.

The common problems and interests faced by formeteurs imply that they can learn from each other and also that very similar solutions to intra-firm incentive and governance problems will be widely known within to them within culturally and commercially linked regions. Once good solutions are found, they may be applied for long periods of time, because institutional conservatism--stable rules and procedures--produce economic and formeteur benefits.

The use of proven rather than experimental procedures also reduces the risk that their organizations will fail to solve specific team production problems in a cost-effective manner. The use of proven "off the shelf" reward and recruiting systems also allows formeteurs to form new organizations more rapidly and to focus more of their attention on other issues that affect the viability of their organization. By using a preexisting template for their reward and recruiting systems, hiring and training costs are reduced. The tried and true methods usually advance formeteurs interests, net of innovation costs, if not perfectly.

III. Why Every Durable Organization Needs and Has a Government

If circumstances inside and outside organizations were entirely stable, it is possible that a well-adapted reward and recruiting system would simply be left in place to "run" without active monitoring and review by an organizational government. In such cases, as implicitly modeled by most economists, durable organizations would essentially be the rule-governed "perpetual clocks" that run themselves.

However, circumstances are never completely stable, and no reward or recruiting system works equally well in all circumstances. As a consequence, organizations benefit from being able to adapt to changes in circumstances, and this is often necessary if they are to survive in the long run. Clearly, a fishing club that continues fishing at the same pond after all the fish are gone would disappear as its members starve or leave for clubs that actually catch fish. Similarly, a firm that focused entirely on products that became obsolete because of technological change (buggy whips, ice boxes, record players, rotary phones), would disintegrate as members leave to find more fruitful firms with higher wages, whether in kind or cash. And a national government that continued to use the last century's best defense measures and macro-economic policies, might well be annexed by its neighbors while its economy suffered wider fluctuations and military less rapid or effective responses than necessary.

To adapt to changes in circumstances, an organization must have routines for recognizing new circumstances, and for revising its objectives, conditional rewards, and recruiting system. Specialization can increase the reliability of this process. For example, a standing group of persons with set of procedures for gathering information, evaluating alternatives, and making policy decisions may be established. Organizations that survive in the long run tend to have governing institutions.

A. Choosing the Form of Organizational Government

Formeteurs (and their successors) normally draw their institutions for governance from a menu of preexisting templates believed to work well, in the sense that the architecture and procedures are believed to increase the organization's survival prospects by increasing the risk-adjusted organizational surplus available to organizational leaders and other team members. Organizational governments do so by revising rules and objectives to take account of new internal and external circumstances. Only governmental templates that do so reasonably well tend to survive in the long run.

A very broad range of contemporary organizational governments are drawn from the "king and council" template, because that architecture solves a variety of common governance problems. The king and council template divides policymaking authority between a king (a chief executive officer, chief, king, president, etc.) with a council (board of directors, council of wise men, cabinet, parliament, etc.). It is used by armies (commanding general and council of war), by religious organizations (pope and council of cardinals), by modern corporations (chief executive officer and board of directors), by primitive governments (chief and council of wise men) and by contemporary democratic governments (president or prime minister and congress or parliament).

B. A Digression on Institutional Conservatism

When formeteurs adopt templates from other organizations, they are implicitly acknowledging their limits as organizational designers and also the partly unknown or "spontaneous" nature of their productive internal organizational cultures. The unanalyzed and unknown aspects of reward and recruiting systems imply that there are risks to experimenting with the templates adopted. The various components of reward systems may not be entirely independent of one another; consequently, adjusting even one parameter in a plausible manner may produce unexpected results. This "rational institutional conservatism" tends to increase both the convergence of reward and recruiting systems and their stability.

The similarity and stability of reward systems in a given time and place do not imply that every formeteur regards his or her organizational form to be the best that can be imagined or that formeteurs are extremely risk averse. Nor does convergence imply that the results are necessarily socially optimal in some sense. For example, excessive conservatism may be induced by a PD–like social dilemma that increases the stability of prevailing practices beyond optimal levels. Individual formeteurs may not be able to independently adopt more "efficient" practices without losing team members or customers to their more conventional rivals, even though all formeteurs and team members would be better off with revised practices.

With or without such social dilemmas, however, it remains the case that the formeteurs adopt the most cost-effective governance and reward systems that are known and feasible for them, and that considerable convergence among governance, reward, and production methods tends to take place. Pear-harvesting coops will use similar ladders and baskets and use similar combinations of status, fruit, and wages to encourage pears to be picked. Fishing clubs will use similar nets to catch similar fish in similar places, and reward their fishermen in a similar manner. Steel companies will have governing institutions that are similar to those of farm cooperatives or large charitable organizations.

As in other aspects of organizational design, the procedures of governance may have to be adjusted from time to time as circumstances change. That is to say, organizations with constitutions normally have standing amendment procedures. It is this which gives organizational governance an evolutionary character at both the level of a single organization and as a social phenomenon. It also remains true that organizational knowledge limits the extent to which useful reforms can be imagined and implemented. Together, the advantages of flexibility and stability and limits of organizational knowledge imply that reforms will tend to be relatively "small," but discrete amendments to existing procedures, in which most procedures and rewards are little affected.

Experimentation is continually taking place, but the experiments tend to be "small," other things being equal, rather than whole cloth experiments with entirely new--previously unimagined--forms of organization. Here one may note that the basic technologies and organizational strategies for produce sellers and churches often appear to be stable for hundreds of years at a time. A similar stability is evident in the most common general templates for governance, although the division and extent of authority withing those templates are adjusted through time., especially at points of succession.

The problems of organizational governance in this decisionmaking sense tend to be more similar than the specific problems of team production that their production teams confront, and so governing institutions tend to be more similar than their specific team production methods. All organizations need to collect information, and to accurately assess internal and external opportunities and risks. All organizations need to determine which possible responses will advance organizational and/or formeteur goals at an acceptable risk.

In some cases, the best response will be to slightly alter the decision making proceedures of the organization, which requires that the institutional structure for collecting information, analyzing it, and making decisions, can be adjusted as internal and external circumstances change. The decisionmaking procedures should also be robust in the sense that the departure of a small group of decisionmakers does not undermine the effectiveness of the organization's government. In proprietorships this is not always the case, and small and medium sized businesses often fail or are sold off when their founders retire.

The "king and council" template is an example of such a flexible and robust system of government. The king and council template divides decisionmaking responsibility between a council (a committee of more or less equals that makes decisions by consensus or casting votes), and a chief executive officer of some kind. The next four subsections of this paper argue that the king and council template for governance solves a number of organizational governance problems. The template allows a variety of adjustments in decisionmaking procedures and domains of responsibility. It also provides a natural method for reform insofar as authority inside and outside the organization can be bought and sold. The analysis begins by pointing out the informational advantages of this template, and then discusses how it can be used to solve other medium and long-term problems.

C. Governance by Teams

An organization's initial reward and recruiting systems are be chosen by formeteurs, subject to various informational, time, and legal constraints. A noted above, there is a tendency for formeteurs to use time-proven templates for governance and for those templates to converge through time as best practices are recognized. In all but the smallest organizations, major decisions are made by specialized teams, but the team members tend not to have equal influence or authority over the decisions reached. Teams are used to make organization-wide decisions, whenever teams can do so better than individuals, and team production incentive problems can be solved.

As true of other positions within organizations, formeteurs tend to adopt standing reward systems for persons holding leadership posts that (attempt to) align the interests of organizational leaders with those of the organization. Thus, many of the conclusions reached about reward systems for "ordinary" team production also apply to the "leadership" teams with responsibility for making organization-wide policy decisions. For example, the reward systems will normally combine pecuniary and nonpecuniary rewards. The mechanisms used to recruit persons to such teams will take account of both managerial talent and the ease with which such persons can be motivated to "work," rather than "shirk" at their positions in the organizational government

However, there are a number of differences between organizational governments (leadership teams) and ordinary teams within an organization. One obvious distinction is that the "output" of the leadership team is largely the organization itself, rather than a service or product to be sold or an idea to be disseminated to outsiders. Another is that formeteurs often play a more central role in the governing decisions of their organizations than in day-to-day production.

D. A Point of Departure: Natural Governance, the Need for Advice, and the Dictator's Dilemma

Perhaps the most "natural" form of organizational governance is the one implicitly assumed by most economists and political theorists. Formeteurs may simply retain their initial authority to make and revise all major policy decisions after their organizations are up and running. For example, a single individual may form a new organization and retain complete control over his or her new organization. In cases in which a small group of formeteurs founds an organization, a ruling committee or council of partners may retain control over an organization's policies.

Such "authoritarian" decisionmaking procedures have many advantages for formeteurs and their organizations. Formeteurs often have a superior understanding of organizational possibilities, which justifies their initial investment of time and attention to assemble a team and devise methods for advance particular goals. Formeteurs know their own goals better than others, and are likely to have leadership skills that allow them to form and motivate groups at lower costs than others.

As organizations increase in size, however, informational, resource, and design problems become more complex. An organization's conditional reward structure may require more monitoring of team member performance. New team members and teams may be added and others eliminated or merged into others. The external circumstances may change in unpredictable ways and require the organization's goals and/or conditional reward system to be revised. Exit options for some team members may rise while others fall. To assist in gathering information and evaluating alternatives, a formeteur will often find it useful to assemble a team of "advisors," who specialize in monitoring and other informational tasks.

Unfortunately for formeteurs, a team of advisors does not automatically improve their ability to make organizational decisions. Authoritarian governments often confront what Wintrobe (2000) calls the "dictator's dilemma." It is often in the interest of "advisors" to simply tell the formeteurs what they want and expect to hear, especially when the rulers have complete control over organizational rewards. In such cases, an in-house council of advisors would not add much to an authoritarian organizational government's stock of information or improve its decisions. Indeed, it may worsen those decisions by inducing the formeteur to under appraise risks (be over confident).

E. Reducing the Dictator's Dilemma with a Representative Advisory Council

To address the dictator's informational dilemma requires somewhat more sophisticated institutions for "advice production." To advance informational goals and reduce bias, formeteurs will often form representative committees of advisors, the most important of which will have direct and indirect influence over the policy decisions of the organization. The members of those committees will tend to have somewhat different expertise on matters of organizational interest and have somewhat diverse interests. Both the former and latter increase the effective samples size of the data used to make committee recommendations.

To enhance the value of the recommendations passed on to the formeteur(s), the committee may be advised to use majority rule to make policy recommendations or to produce "consensus" forecasts about the consequences of policies. Under majority rule, median voter outcomes tend to emerge, and in the context of an advisory committee, the median member's advice can be thought of as a median estimator. Median estimators tend to be relatively robust and unbiased estimators. (Condorcet's well-known jury theorem relies, implicitly, on the estimation properties of median estimators [Congleton 2007].) Consensus forecasts tend to be rough averages of group estimates weighted by confidence.

To motivate the committee, it is often useful to delegate some genuine decisionmaking authority to the committee. This makes the committee partly responsible for the result, which makes it easier to punish mistakes and reward insightful decisions. (A mere advisor can simply provide a balanced list of pros and cons in order to shift responsibility to the formeteur.) Authority is also a good that many people value for its own sake. Even limited authority may also increase a person's status, or produce reputational effects that increase the value of their information services for others. The latter may produce other opportunities, as in consulting. The authority itself may produce opportunities to profit from the efforts of intra-organizational rent seekers (Hillman and Katz 1987). In addition, delegating some authority to the advisory committee tends to free formeteur time and attention for other tasks such as long-run planning, leisure, and forming new organizations.

The advantages of specialization and team production are sufficient for divided forms of the king and council template to emerge from initially authoritarian regimes. Similar, but slightly different, informational advantages can induce councils of formeteurs (partnerships) to employ "kings" (chief executive or operating officers) and delegate some authority to them. A formeteur council has a variety of informational advantages over a single formeteur insofar as they can pool information and average their individual estimates to create an accurate consensus forecast. Nonetheless, members of the council may also free ride on monitoring, research and analysis. They receive only part of the benefits from better management and decisions and bear all the cost of their own efforts to improve organizational outcomes.

To encourage useful advice, a team of partners may hire a chief executive officer and delegate to that officeholder authority to make a subset of day-to-day operational decisions and to mete out punishments and rewards to other team members. A properly incentivised CEO or COO can improve day-to-day policy making by reducing other informational and analytical free riding and various decision costs associated with policy decisions. CEOs will be recruited for both their skills as managers and the ease with which their interests can be aligned with those of the formeteurs. Such reforms of organizational governance frees time for the partners to focus on long term strategy and other matters of interest.

Overall, the above suggests that informational advantages provide a sufficient rationale for "kings" to have "councils," and for "councils" to have "kings."

IV. Internal and External Markets for Authority

The term "power," or policymaking authority, is normally used as if authority is single dimensional, in which reallocations of authority that make all (or most) parties better off are impossible. However, if authority is multidimensional, then it can be traded in essentially the same manner as ordinary goods and services. Such quasi-constitutional exchanges are possible, because a stable distribution of policymaking authority creates political property rights that can be bought and sold much like control over ordinary goods and services.[10] For example, as noted above, granting some policymaking authority to an advisory council or CEO can be used to both compensate and motivate officeholders. Authority may substitute for or complement other forms of compensation. Such shifts of policymaking authority may be fairly modest, but they nonetheless transform a unitary organizational government into a divided one.

A. Constitutional Gains to Trade

There are a wide variety of potential bargains in which authority to make or veto rules is traded for other resources or services of interest to those initially holding that authority. Table 2 illustrates a typical pattern of risk and reward that can induce authority-sharing bargains. The initial state is the one characterized by the upper left-hand cell in which a

[10] It bears noting that exchanges in ordinary private markets can be thought of as changes in the distribution of authority. When person A trades person B some X for Y. A gives up his authority over X in exchange for new authority of Y, and B receives new authority over X in exchange for giving up authority over Y.

resource of interest to the formeteur(s) is entirely controlled by a non-team member. The organization's leadership is better off if it obtains complete control over that person's (or group's) resources, than if it obtains shared or no control (14 > 12 > 10). The prospective team member is better off with shared control than with complete or no control. Retaining complete control requires sacrificing advantages from team production, while giving up complete control places his or her resources at greater risk than under shared control (10 > 8 > 6).

In cases like that illustrated, there are gains to trade, but realizing them may require sharing policymaking authority in at least a narrow range of each organization's activities.

Table 2
Mutual Gains from Sharing Authority

		Organizational Leadership		
		No Authority	Shared Authority	Complete Authority
Potential Team Member	Complete Authority	8, 10	--	--
	Shared Authority	--	10, 12	--
	No Authority	--	--	6, 14

Such authority sharing regimes help to mitigate risks associated with even temporary transfers of control over a resource. For example, prospective cherry pickers who are especially adept at climbing trees or own ladders may fear that their talents or ladders will be abused by the organization's leadership. Such temporary members and their ladders may always be assigned to the most dangerous trees. Such persons would be more willing to participate in a coordinated annual harvest, if they have some veto authority over the trees to which they are assigned. Their risks (broken legs and ladders) are reduced by limited veto power over the use of their ladders and/or assignments to particular tree tops.

Similarly, a regional government that confronts an external threat from pirates or neighboring navies may benefit from the use of commercial ships in defense of their territory. The owners of commercial ships may expect to benefit from that defense, but may be unwilling to allow their ships to be under the command of the regional government. They might fear that the government would assign their ships to the most dangerous missions, while holding the government's own ships in reserve. Granting the commercial ship owners some authority to veto or at least influence how their ships will be used may make them more willing to allow their ships to be used for regional defense, benefiting both the kingdom and the ship owners.

Entrepreneurs of commercial organizations engage in similar transactions when they sell shares of stock (as in an IPO, initial public offering) to investors, who provide capital in exchange for claims against future profits and some control (voting rights) over major firm decisions. The capital investment is at risk to poor business decisions, yet properly employed could increase investor profits. To obtain a share of those additional profits, a firm's formeteurs may voluntarily transfer some (but not all) authority to shareholders or to a council elected by the new shareholders (board of directors). How much authority is transferred depends partly on risk assessments of capital owners, which determines their demand for control, and the formeteur assessment of the cost of reduced control. For relatively larger infusions of capital, more control may be given up. Capital owners may be granting seats on the board of directors or special voting rights on policy issues involving dividends or senior appointments..[11]

It bears noting that threats of violence are not necessary for shifts of authority (power) to take place. For economists, this should be obvious since ordinary market exchange also

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[11] In medieval and early modern Europe, kings engaged in similar constitutional bargains when they traded policymaking authority to towns or regional governments in exchange for new tax revenues Authority could also be "repurchased" from the council by trading royal lands for additional authority over particular areas of policy or territories.

Other transactions involved the balance of authority between the king and council. For example, In some cases, a seats in parliament or an elevation to the nobility might be traded for support on public policy decisions of interest. In other cases, kings granted parliament new authority in exchange for support on important issues and new tax authority (Congleton 2011: Part II).

involves shifts of authority. When A trades money to obtain apples from B. A gives up authority over money in exchange for authority over apples. B does the reverse.

B. The King and Council Template Can Be Used to Reduce Unproductive Conflict

A related, but somewhat different form of constitutional exchange may occur in settings in which two or more parties struggle to control a given resource. Table 4 illustrates a contest may be said to waste resources, because the joint payoffs fall as conflict intensifies. The Nash equilibrium produces lower payoffs than would have been the case with less intense conflict. Conflict often reduces the extent to which the contested resources can be used for other more productive purposes. As in the previous cases, there are unrealized potential gains that can be realized through improved institutional design.

Table 3: Asymmetric Conflict

	Stronger party		
Weaker party	Little Aggression	Moderate Aggression	Intense Aggression
Little Resistance	6, 14	3, 16	0, 18
Moderate Resistance	7, 10	4, 12	1, 14
Intense Resistance	8, 8	5, 10	2, 12

One possible solution to external conflict and internal rent-seeking problems is to induce shifts to a less resource-intensive method of collective choice. For example, replacing "uncivil" with "civil" procedures tends to reduce the extent to which resources are consumed by the process of conflict, and so can be an effective way to reduce losses. The king and council template can be used for this purpose, because it provides a broad range of possible divisions of authority.

Within markets, mergers often include provisions for powersharing after joint control is established. Shares and voting rights are defined and distributed among the existing shareholders, senior posts in the new organizational government are also typically shared. Similar gains from sharing authority when communities decide to merge their governments to realize economies of scale, diversify risks, or reduce transactions costs. In such cases, sharing policymaking authority allows the interests of the merging organizations or communities to be protected against rent extraction by the other, while the additional joint output or reduced risks make governmental officeholders and residents better off.

In cases in which more than two parties are involved, the king and council template also allows policymaking authority to be reallocated between the king and council and within the council in a manner that potentially replicate the expected payoff ratios of the initial equilibrium, while reducing the extent of the resources consumed by conflict.[12]

C. Succession and the King and Council Template

Because effective governance contributes to an organization's survival, a systematic method for replacing successive generations of leaders tends to increase an organization's long run survival prospects. The king and council template provides a number of possible procedures for successive generations of policy makers to be replaced and also reduces the probability that governance will be totally disrupted by the unexpected departure of a member of government. It is unlikely that both the king and the council will simultaneously disappear in an unexpected manner, although the king or individual members of the council may do so.

Replacements for the king may be selected by the council and other procedures for replacement may be monitored by them. Similarly, council members can be replaced by the king and/or surviving council members. Such choices tend to be fairly good ones, because both CEOs and surviving council members normally have the long-term interests of the organization in mind and are relatively well informed about the qualities for good decisionmaking at the council and executive levels.

12 The various power indices demonstrate how dividing up the authority within an active board of directors or community government can do so. See Leech (2002) for an overview of the properties and assumptions behind these indices of the probability of membership in majority coalitions.

To facilitate this process of selection, productive forms of competition for seats in the organization's government can be encouraged. Council seats may, for example, be reserved for persons that have provided extraordinary service to the organization, community, or kingdom. Challenging examinations on matters relevant for councilor or royal duties can also be contrived. Elections for office among an informed selectorate may be conducted.[13]

In large organizations, competition to rise up a hierarchical structure can also be used to assess loyalty and talent for making policy decisions, and to induce productive forms of competition among persons at similar levels within the organization for promotion to higher ones. Such assessment procedures create contests that serve as indirect "auctions" for future seats in higher levels of organizational governance that allow the current generation of government officials to extract surplus (rents) from the next one.[14]

Such extractive contests indirectly provide the current generation of officials with a good reason to "care" about their organization's long-term success. The next generation of leaders will "pay" more for leadership posts in successful organizations than in ones that appear doomed to failure.

Other institutional solutions can be used in cases in which it is not possible to constrain rivals for high office to "play by the rules" or align the interests of senior staff with those of the organization. To reduce unproductive conflict, some or all of the top positions in government may be assigned through some mechanical mechanism, by lottery or inheritance. To mitigate risks from such procedures, various eligibility requirements or veto possibilities might be introduced. For example, the persons holding positions in the council or as king may be able to pass their positions along to their children (hereditary succession) unless this is vetoed by a supper majority of council members (and/or the king). Such

[13] Unfortunately, it is often difficult to encourage all rivals for high office to play by the rules devised. Such problems can be reduced by imposing severe punishments on those that violate the rules of successional contests.

[14] Note that the king and council templates are scalable and can be used hierarchically. In divided hierarchical organizations, many centers of policy making authority may exist, with some able to countermand the decisions of others and/or to appoint a subset of its members. This creates a hierarchical division of authority, which can itself be adjusted through bargaining.
Intro-organizational polycentrism can improve decisionmaking in large organizations for several reasons including informational ones that improve responses to unanticipated problems.

compound systems reduce conflict by reducing the number of potential successors and protecting against negative genetic shocks or other forms of bad luck.

V. The Long Term Dynamics of Organizational Governance

It has long been known that the "market for control" provides an important mechanism through which corporations may be encouraged to maximize profits or dividends (Manne 1965). Other opportunities arise from internal markets for authority. For example, a new especially talented committee member may take office and bargain for greater authority. A technological innovation may reduce the relative importance of a particular area of production or distribution, and lead to reforms that reduce their influence over policy Internal and external markets for authority allows changes in governance procedures to occur peacefully through amendment procedures. Changes in relative willingness to pay may also arise through changes in the theories or techniques used to forecast the effects of current policies and through changes in the underlying value of an organization's services.

The market for authority implies that external shocks can affect organizational governance and future policies through differential effects on the willingness of those in authority to buy and sell authority. For example, (Congleton 2007b, 2011). Existential crises such as those created by threats of violence or natural disasters are not prerequisites to constitutional bargaining, although such events can also induce constitutional bargaining and exchange.

Such "demand shocks" may occur in a more or less uniformly distributed manner; in which cases, policymaking authority would tend to follow a random walk, with the initial point determined by the formeteur(s) and their objectives. If the distribution of authority does not affect the magnitude or variance of organizational surplus, a wide variety of organizational governments based on the king and council could emerge through time and be implemented in an approximately efficient organizational surplus-maximizing manner. A single organization could experience periods as a sole proprietorship, a partnership, a shareholder-dominated firm, or even a cooperative, as adjustments to the preexisting template are negotiated and agreed to by the parties or centers of authority involved in response to external demand shocks, input price shocks, etc..

If some objectives are more effectively advanced in a given environment with a particular balance of authority, the governance the distribution of organizational governments that survive would tend to converge to that balance or be eliminated through competition with organizations with more effective governors. The menus confronted by subsequent formeteurs would tend to narrow, probably more so than it would in a more dynamic environment. Rather than a random walk, the balance of authority would tend to be stable and clustered around the most efficient ones (from the perspective of formeteur interests), as both formeteur choices and survivorship converge toward best known practices.

It bears noting that many of the adjustments that take place in dynamic settings, onew in which significant uncertainties exit, are often invisible to outsiders. Both shifts in authority and their effects are often small and subtle. The effects of shifts in authority between the king and the council are most evident when the king and the council represent different intra- or extra-organizational interests. In such cases, reforms will cause some polices become more likely to be adopted and others less so.

For example, within a commercial enterprise, greater representation of shareholder interests on boards of directors may lead to higher dividends or lower salaries for organizational leaders. Greater representation of engineers may lead to higher capital investments, greater representation of marketing experts may induce larger investments in add campaigns and product styling, greater representation of labor interests may produce shorter work days or more holidays.

Although a large, durable, firms are unlikely to be governed by single entrepreneurs, as imagined in most economic models, an "organization" may nonetheless be interested in maximizing profit, because organizational templates that produce a systematically larger organizational surplus tend to advance both the organizational interests of formeteurs and their team members by increasing the viability of their organizations.

VI. Conclusions: On the Form, Basis, Limits, and Evolution of Organizational Government

This paper proposes a general framework for describing and analyzing the evolution of organizational governments. However, the framework is more than a classification scheme, it is an engine of analysis. It makes several general predictions about the kinds of organizations, governance institutions, and institutional adjustments that we will observe in practice.

(1) The analysis suggests that most organizations are founded by small groups of formeteurs. (2) The common interests and problems of formeteurs imply that the templates for organizational governance share a number of properties, a subset of which have been identified and analyzed in this paper. (3) Every durable organization will have a body of internal procedures for making policy decisions that serve as its charter or constitution for governance. (3) The standing rules normally specify the officeholders who participate in major decisions and the manner in which those officials interact to make decisions, as with voting and appointment rules. (4) The latter may include specific architectures for policy making that group and/or assign tasks to center of authority. (5) The standing procedures of long-lived organizations include rules governing the selection and succession of officeholders, and (6) formal and informal procedures for modifying the organization's charter. (7) The robust governmental templates that attract formeteur interests collect and use information relatively efficiently and (8) produce decisions that increase the viability of their organization, while advancing their organizational interests.

Improvements from the point of formeteurs, tends to concentrate organizational surplus in the hands of governmental leaders, because this is often the goal of formeteurs.

A. Organizational Templates Reflect Formeteur Interests

(9) The founding charters (constitutions) of organizations always favor formeteur interests, because formeteurs draft their organization's founding documents and the organizations are founded to advance formeteur interests. These same facts also imply that evolution favors organizational templates that concentrate organizational surplus in the

hands of formeteurs and their successors, because only templates attract sufficient interest from past formeteurs remains on the organizational menu.

That the evolution of organizational structures tend to favor formeteurs, rather than employees or shareholders, provides an explanation for the reward structures of many large contemporary economic enterprises in which senior executives (its government) realize very high salaries relative to other team members. Similar reward structures have often been associated with governments and religious organizations. Even in contemporary democracies, the expression "lives like a king" has a clear meaning.

The salary predictions of this theory are the same as that associated with marginal productivity theory in cases in which exit costs are trivial. In all other cases, team-member salaries will reflect bargaining ability and exit options, with marginal productivity being the upper bound for team member compensation rather than its expected value. Equally productive persons with different exit costs are predicted to receive different salaries. Moreover, the analysis predicts that salaries normally consist of mixtures of pecuniary and nonpecuniary rewards rather than cash payments alone.

(10) The interests of formeteurs and the requirements of team production also explain why most organizations use mixed forms of conditional incentives to solve team production problems and why both internal incentive systems and organizational policy tend to be somewhat flexible at the margin, although core policies tend to be fundamentally stable and similar among organizations. Developing internal norms and making use of persons who have internalized norms that make them more productive team members can reduce the wage bill for the organization of interest.

The overall marginal product of formeteurs combines organizational efficiencies with the innovation and risk taking of the theories of entrepreneurship of Schumpeter, Knight, Williamson, and Kirzner. Organizations are founded with a purposes, often economics ones, that partially determine their success. However, it is the formeteur's governance skills that contributes the most to long term success. Teams of innovators, speculators, and product designers can be assembled, if their various motivational and informational problems can be solved. Edison, Ford, Jobs, Gates, and Page would be unknown tinkerers and programers were it not for the organizations that they created to develop and sell their products.

B. Formeteurs and Organizational Governance

(11) Nevertheless, most formeteurs will acknowledge their limits as institutional designers and so use preexisting templates for governance that include provisions for revising the standing procedures of governance as problems and opportunities are recognized. (12) In all but the smallest of organizations, the "king and council template" for governance is likely to be used for choosing and refining policies, because it addresses a variety of short-, medium-, and long-term governance problems. King-and-council based governments address short term informational problems, can be "finely tuned" to take advantage of new circumstances, and can be used to realize constitutional gains to trade, without changing the fundamental architecture of the organization's government. It also provides several natural solutions to problems of succession and power sharing.

(12) As in other aspects of organizational design, formeteurs choose their organization's formal governance and amendment procedures with their own interests in mind. (13) Organizational governance tends to be rule based, rather than arbitrary and capricious. An organization's system of governance and its reward system tend to be stable and predictable, because organizations tend to make better decisions and be better able to retain and train their teams when they have "institutionalized" their reward and governance systems.

(14) Insofar as small reforms are easier to assess and implement than large reforms, both institutional refinements and amendment procedures tend to favor "piece-wise" reforms that address particular problems, rather than "reinventing" the entire organization. Such modest reforms preserve advantages associated with stable procedures and help to avoid unforeseen costs generated by experimental failures. They also increase the predictability of reward and recruiting systems, which tends to reduce the cost of those systems and increase organizational surplus.

(15) Gains from experimentation and constitutional-exchange do emerge from time to time, and the amendment procedures that allow such gains to be realized tend to produce more robust organizations in the long run. Shifts in the long term interests of organizational

leaders and technologies of production have to be accounted for, and adjustments to a variety of standing procedures of governance may be required to take advantage of new more or less permanent conditions. Constitutional exchange takes place when particular changes in the distribution of authority advance the interests of officeholders with the authority to amend their organizational charter.

C. The King and Council Template Facilitates the Analysis of Organizational Governance

For the purposes of the theory of organizational governance, the widespread use of a single template for governance is a fortunate consequence, because it allows a broad range of organizations to be analyzed with a single model or conceptual framework. The king and council model allows a large number of government types—from dictatorships to aristocracies to democracies—to be represented within a single conceptual framework.

The king and council framework implies that many short and long-term reforms of governance are consequences of decisions made by organizational leaders. The common interests of leaders and the adjustability of the king and council template allows one to model both minor reforms and gradual transitions between forms of governance, because the king and council framework implies that each can emerge incrementally from the others through a series of reforms. This allows both the effects of interests and stochastic shocks to be analyzed in the short, medium and long run, as sketched out in the last few sections of this paper.

The same flexibility that makes the king and council template a practical, robust institution for organizational governance also allows the king and council model to be used as the basis for general analyses of organizational governance, reform, and evolution.

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