

if the “American Experiment” were to succeed.⁷ For us, too, this logic is essential for understanding the behavior of America’s political institutions, the politicians who occupy them, and the citizens who monitor and respond to political actions. To that end, the concepts presented in the remainder of this chapter are the keys to “open up” America’s political institutions and to reveal their underlying logic. We begin with the problems (or one can think of them as puzzles) that confront all attempts at collective action. Many institutional arrangements have been devised over time to solve these problems. Those we examine here are especially important to America’s political system and will appear throughout the book.

COLLECTIVE ACTION PROBLEMS

By virtue of their size and complexity, nations encounter special difficulties in conducting political business. In those nations where citizens participate in decisions through voting and other civic activities, still more complex issues arise. Successful **collective action** (that is, the efforts of a group to reach and implement agreements) challenges participants to figure out what to do and how to do it. The former involves comparing preferences and finding some course of action that sufficient numbers of participants agree is preferable to proposed alternatives or doing nothing. The latter concerns implementation—not just the nuts and bolts of performing some task, but reassuring participants that everyone will share the costs (e.g., taxes) and otherwise live up to agreements.

Even when differences are in principle reconcilable, there is no guarantee that a solution will be discovered and implemented. Two fundamental barriers—coordination problems and prisoner’s dilemmas—may block effective collective action. **Coordination** is perhaps the simplest to overcome: members of the group must decide individually what they want, what they are prepared to contribute to the collective enterprise, and how to coordinate their efforts with those of others. A **prisoner’s dilemma** arises whenever individuals decide that even though they support some collective undertaking, they are personally better off pursuing an activity that rewards them individually despite undermining the collective effort. Prisoner’s dilemmas pervade all of politics, from neighbors petitioning City Hall for a stop sign to legislators collaborating to strike budget deals in Congress. These dilemmas especially interest us because the “solution”—that is, having everyone contribute to the collective undertaking—depends heavily on providing the kinds of incentives to individuals that governments are well suited to provide.

Coordination

A classical music performance offers an education in the costs of coordinating collective action. During a concert the members of a string quartet coordinate their individual performances by spending nearly as much time looking at each other as they do following

⁷ They were, after all, contemporaries of Isaac Newton and found in his theory of mechanics inspiration to search for similar natural laws to create a well-functioning polity. With Britain the only real-world model to guide them, which they tended to judge more as a model of what to avoid than to emulate, the Framers depended heavily on carefully reasoned ideas, which took them to Newtonian physics. Consequently, the terms *force*, *counterweight*, and *balance* were familiarly employed during debates at the Constitutional Convention and by both sides in the Constitution’s subsequent ratification campaign.

their music.¹ Volume, tempo, and ornamentation must all be executed precisely and in tandem. By the end of a successful concert, the effort required is evident on the triumphant musicians' perspiring faces. A symphony orchestra, by contrast, achieves comparable coordination, despite its greater numbers, by retaining one of its members to put aside the musical instrument and take up the conductor's baton. By focusing on the conductor, orchestra members are able to coordinate their playing and produce beautiful music. And at the end of the concert the conductor is the first one to mop a perspiring brow.

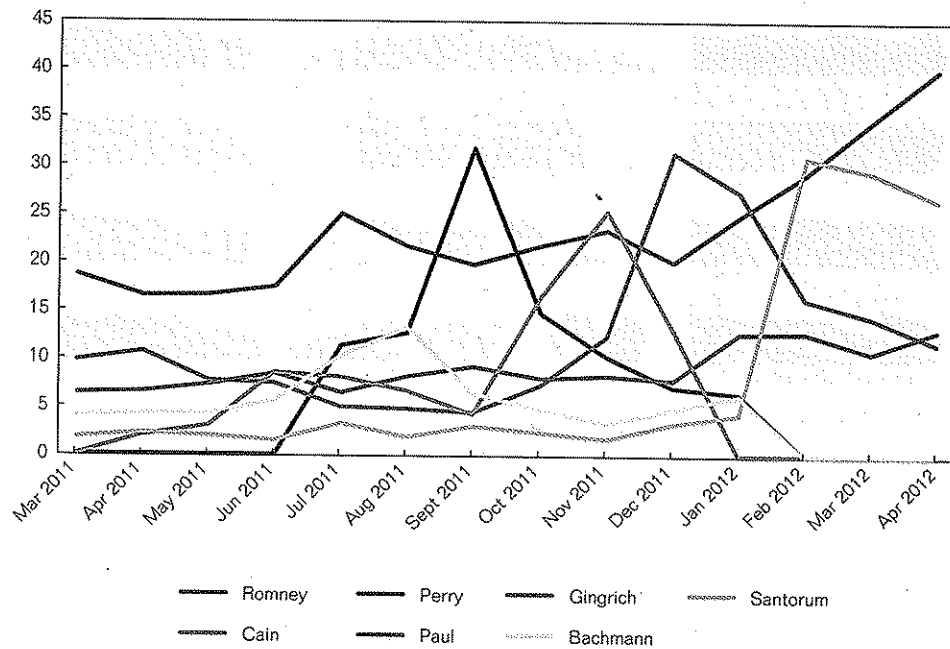
Coordination problems increase with the size of a group. Large groups trying to reach a shared goal might emulate the symphony in designating and following a leader. Members of the House of Representatives and the Senate configure procedures to enable Congress to decide policy for the hundreds of issues presented each session. But to achieve the same objective the 435-member House and the 100-member Senate proceed quite differently, following a logic reflecting the size of their organizations. The House delegates to a Rules Committee responsibility for scheduling the flow of legislation onto the floor and setting limits on deliberations and amendments. This important committee becomes the "leader" in setting the body's agenda. The entire House cedes this authority to a committee because coordination is vital if the chamber is to identify and pass the most preferred legislation. By contrast, the smaller Senate has found that it can achieve comparable levels of coordination without having to surrender authority to a specialized committee. Rather, informal discussions among members and party leaders suffice.

When the number of participants desiring to coordinate is really large—say, a state's voters—coordination may generally be unachievable. It explains, after all, why a society's collective decisions are generally delegated to a small group of professionals, namely politicians, who intensively engage one another in structured settings, namely government, in order to discover mutually attractive collective decisions. On some problems simple, self-enforcing rules—such as traffic staying to the right side of the street—might be all that is required. For other kinds of collective choices, institutions severely limit options, allowing like-minded individuals to coordinate easily. Political party nominations offer voters an obvious common choice.

Successful mass coordination occasionally arises even in the absence of institutions channeling individuals' choices. The 2012 presidential primaries saw conservative Republican voters race *en masse* from one candidate to another in search of an alternative—apparently any alternative—to moderate and eventual winner Mitt Romney. As displayed in Figure 1-1, five of Romney's serious challengers for the nomination briefly achieved front-runner status in the public opinion polls. On reaching the top of the pile, each faltered and was quickly discarded by voters in favor of yet another "anyone but Romney" nominee. Eventually, they all stumbled badly, leaving Romney the only viable candidate still in the race. At this point, conservative Republicans switched their mantra to "anyone but Obama" and rallied behind their party's nominee.

Among the several surprising outcomes in this chronology is the alacrity with which Republican voters' preferences switched from one candidate to another. How, for example,

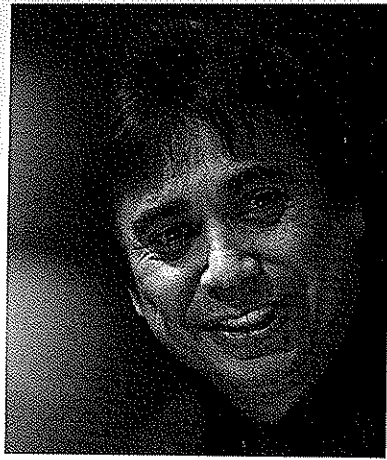
¹ The recent movie *A Late Quartet* (2012) vividly portrays the tremendous coordination costs borne by each member (in the movie, off the stage as well as on).

Figure 1-1 Republicans Pick a Presidential Nominee, 2012

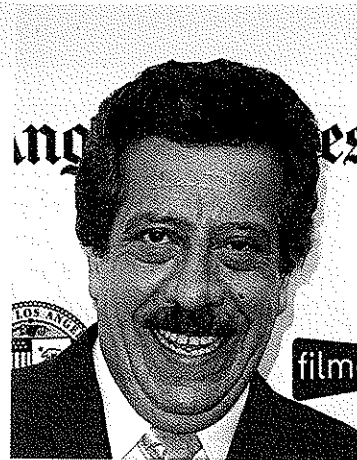
Source: RealClearPolitics.com, 2012 Republican Presidential Nomination, www.realclearpolitics.com/epolls/2012/president/us/republiican_presidential_nomination-1452.html#polls.

did so many survey respondents manage to shift from front-runner Rick Perry (after he forgot the names of several government departments he promised to disband) to Herman Cain, who had until Perry's debate fiasco barely registered a blip in the polls? In such instances a critical ingredient of success lies in identifying a common **focal point** to help individuals target their energies toward a common purpose. A focal point is some prominent cue that helps individuals recognize the preferences of others with whom they want to cooperate. A strong debate performance might win some supporters, but equally important, it might identify to all the candidates who will attract the most support. Similarly, a narrow victory in a state delegate caucus could signal the candidate that all like-minded voters should gather behind. Or endorsement by some accepted authority—like the Tea Party—could concentrate support. And so each of these kinds of focal point cues guided conservative Republicans as they settled on a “not Romney” alternative who, shortly thereafter, displayed some fatal flaw that sent them searching for another candidate.

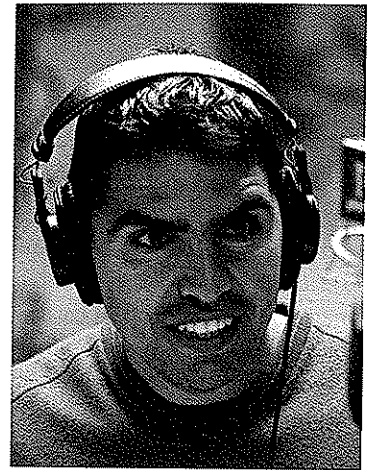
Internet-based social networks offer levels of focal point coordination unimaginable in earlier decades. The rise of the Tea Party through viral videos and blogs and the meteoric growth of the “Occupy” movement in 2012 are among the recent examples of highly coordinated mass behavior arising from focal points. A remarkable example of nearly spontaneously coordinated protest activity occurred in 2006, when a Los Angeles union



Renán Almendárez Coello, "the Latino Howard Stern"



Humberto Luna



Eddie "Tweety Bird" Sotelo



These Los Angeles Spanish-language DJs, among others, are credited with turning out nearly five hundred thousand demonstrators for an immigration reform rally in downtown L.A. in March 2006.

and church organized a protest march against anti-immigrant legislation under consideration by the House of Representatives. The organizers hoped to arouse twenty thousand participants, but after they persuaded several Spanish-radio DJs to publicize the rally, over half a million protesters showed up. The size of the turnout amazed everyone, including the organizers, and the crowd quickly overwhelmed the police force. Clearly, there was a pent-up demand needing only a cue as to when and where everyone would show up.

Coordination problems essentially arise from uncertainty and insufficient information and may prevent collective undertakings even when a great majority agrees on a course of action, such as Republicans' desire to win back the presidency in 2012. We now turn to potentially more problematic challenges to collective action—the problems of the prisoner's dilemma. Unlike a lack of coordination, where mutual ignorance prevents participants from identifying and working together for a common goal, prisoner's dilemma problems find participants privately calculating that they would be better off by not contributing to the collective action even when they wholeheartedly agree with its purpose. Where coordination problems frequently require no more than direction and information, prisoner's dilemmas generally necessitate monitoring and the threat of coercion.

The Prisoner's Dilemma

Since it was first formally introduced in the late 1950s, the prisoner's dilemma has become one of the most widely employed concepts in the social sciences. A casual Google search generated over half a million hits on this phrase, bringing up websites on subjects far afield from political science and economics (where systematic consideration of the concept originated), including psychiatry, evolutionary biology, and drama theory. The prisoner's dilemma depicts a specific tension in social relations, one long intuitively understood by political thinkers. Solving this dilemma fundamentally distinguishes political success and failure and is a cornerstone of our inquiry. What precisely is the prisoner's dilemma, and why is it so important for the study of American politics?

The prisoner's dilemma arises whenever individuals, who ultimately would benefit from cooperating with each other, also have a powerful and irresistible incentive to break the agreement and exploit the other side. Only when each party is confident that the other will live up to an agreement can they successfully break out of the dilemma and work to their mutual advantage.

A simple example of how this works is the original exercise that gives the prisoner's dilemma its name. In the movie stills from the 1941 drama *I Wake Up Screaming* (see photos), homicide detectives are subjecting screen legends Victor Mature and Betty Grable to the prisoner's dilemma. Specifically, each murder suspect is being advised to confess and testify against the other, in return for a lighter prison sentence. The diagram on the next page maps out the likely prison term each faces. Deep down Mature and Grable know the police do not have enough evidence to convict them of murder. All they have to do is stick to their story (i.e., cooperate) and, at worst, they may have to spend six months in jail on a gun possession charge. If both were to confess, each would get a five-year sentence. Each is offered a deal: in exchange for a full confession, the "squealer" will get off scot-free, while the "fall guy" or "sucker" will be convicted and likely receive a ten-year prison term. In the movie both suspects are isolated in their cells for a few days, with the detectives hinting that their partner is



Subjected to the classic prisoner's dilemma interrogation, Victor Mature and Betty Grable turn out to have nothing to confess in this 1941 whodunit *I Wake Up Screaming*. Since its introduction in the 1950s, thousands of articles have enlisted this metaphor to explore the fundamental conflict between what is rational behavior for each member of a group and what is in the best interest of the group as a whole.

"singing like a canary." As the days pass, each begins to recognize the other's character flaws and panics. If Mature squeals, Grable realizes, she must also in order to avoid a ten-year stretch. If, however, she has underestimated his virtues and he holds out, well, that would be unfortunate, but she gains some solace in knowing that her lone confession will be her "get-out-of-jail" card. Of course, Mature, stewing in his cell, reaches the same conclusion. Why this movie presents a genuine dilemma is that *in this setting* confessing offers the best outcome for each suspect, regardless of what the other individual does. So, in the end they both confess and spend the next five years in the slammer.*

		Victor Mature			
		Stays Silent		Confesses	
Betty Grable	Stays Silent	6 months	6 months	10 years	No jail
	Confesses	No jail	10 years	5 years	5 years

(Grable's sentence is listed first.)

So what does this dilemma have to do with American politics? Everything. Every successful political exchange must tacitly solve the prisoner's dilemma. Exchanges occur because each side recognizes that it will be better off with a collective outcome rather than trying to

* For this reason police have traditionally objected to giving suspects early access to lawyers, who might help the otherwise isolated prisoners coordinate their plan. But this is a different story we will return to in Chapter 5. By the way, the movie offers a happy ending.

act alone. Had Mature and Grable somehow managed to stay silent, their cooperation would have shaved all but six months from their five-year terms. And both knew this. Yet neither could be sure the other confederate would stay silent. To get something worthwhile, both sides must typically give up something of value in return. The moral: unless participants in a collective decision can trust each other to abide by their commitments, they will not achieve a mutually profitable exchange.

How do the Matures and Grables shift the outcome from that quadrant, where neither cooperates, to the one where they both do? One solution involves making reneging and defection very expensive. In some settings this can be achieved informally. For example, politicians who repeatedly make campaign promises that they subsequently fail to act on lose credibility with voters, making them vulnerable to defeat in the next election. Once in office, reneging on an agreement will quickly damage a politician's reputation, and others will refuse to deal with her in the future. Where failure to live up to one's agreements imposes costs down the road, politicians will think twice before doing so.

Another common solution is to create institutions that help parties discover opportunities to profit through cooperation and, most importantly, guarantee that agreements are honored. Here the government's coercive authority is useful. An anthropologist once reported that two tribes in a remote region of New Guinea lived in a state of continual warfare, to the point that many more men from both tribes had died in battle than from natural causes. The anthropologist summed up their dilemma: "In the absence of any central authority, they are condemned to fight forever . . . since for any group to cease defending itself would be suicidal." He added that these tribes might "welcome pacification." One day the distant government in Papua sent a ranger armed with a handgun to establish territorial boundaries between the tribes and rules governing their chance encounters. Suddenly, the decades-long warfare ended. Each side believed the ranger with his single sidearm presented sufficient force to punish any breaches of the peace agreements, and the now-peaceful neighbors began to use politics—not war—to solve their conflicts.² Members of a society must be able to engage one another politically. Without confidence that agreements will be enforced, the political process quickly unravels. Participants will balk at undertaking mutual obligations they suspect their bargaining partners will not honor.

In his 1651 treatise on the origin and purposes of government, *Leviathan*, political philosopher Thomas Hobbes examined the straits to which society is reduced when its government is unable to enforce collective obligations and agreements. (See box "Hobbes on Monarchs.") In a famous passage he warned that life would return to "a state of nature . . . solitary, poor, nasty, brutish and short."³ The mortality rate of New Guinea tribesmen confirmed Hobbes's insight. They were not naturally bellicose; rather, these tribes simply could not trust each other. Thus enforcement succeeded in inducing cooperation, but not by flaunting overwhelming force or imposing a solution on the contending parties. The ranger's presence simply rendered any party's defection more costly than its compliance.

Hopefully, the relevance of the prisoner's dilemma to American politics is becoming clearer. Virtually every policy the government adopts represents a successful resolution of this dilemma. Constituencies and their representatives cooperate to achieve their separate goals—recall our definition of politics on page 3—because institutions have developed to help diverse constituencies discover opportunities for mutual gain through cooperation and, just as importantly, deter them from reneging on their agreements. Like the ranger with a

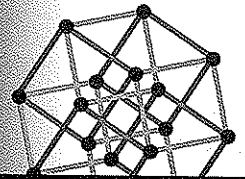
■ WATCH A VIDEO



logic.cqpress.com

See how the British game show "Golden Balls" uses the prisoner's dilemma.

HOBBS ON MONARCHS



logic of politics

In 1651 Thomas Hobbes argued in *Leviathan*, one of the most important books in political theory, that the English monarch was a necessary guarantor of collective agreements.¹ He proposed that since the king and his offspring derived their wealth directly from the population in taxes and labor, they would pursue the nation's welfare because it would enrich them as well. Even if the monarch were wicked and expropriated too much of the nation's wealth for himself, the citizenry was still better off with him wielding power arbitrarily than if no one had enforcement authority. Restated in the vocabulary of this text, Hobbes argued that monarchs offered a cost-effective means to collective action.



1. Thomas Hobbes, *Leviathan, or The matter, forme, & power of a commonwealth ecclesiasticall and civill* (1651; reprint, Oxford: Clarendon Press, 1958).

handgun from Papua, America's political institutions foster collective action by solving the prisoner's dilemma.

There are failures, to be sure. Some issues simply do not offer mutual gains through cooperation. One party's gain is the other's loss, and politics may break down and give way to force. National policy on rights to abortion frequently becomes just such an issue where irreconcilable preferences seek to control policy. Chapter 4 recounts the most intractable issue of all in American political history—the failure, despite repeated compromise attempts, to come up with a policy on slavery's extension into the territories during the 1850s. This issue was only resolved by the deadliest war of its time.

Even where each side can envision opportunities for mutual gains, American politics is not fail proof. Everyone agrees that in several decades the Social Security program will be unable to provide its current level of benefits for the next generation of retirees. Both Republican and Democratic politicians in Washington want to fix it, and from time to time one side will make an overture to the other. But all of the solutions are costly or unpopular, either requiring hefty new taxes or curtailing benefits. Both political parties worry that as soon as they offer a tough solution, the other side will seek to exploit it and score points in the next election. Until politicians figure out a way to cooperate and share the blame, Social Security reform will remain the proverbial “third rail” of politics: “Touch it and you are dead.”

¹The third rail metaphor refers to the third rail of subway tracks, the one that carries the electricity.

FREE-RIDER PROBLEM. A form of the prisoner's dilemma that afflicts large groups is the **free-rider problem**. With each individual's contribution to the success of the collective activity quite small and inconsequential, each member will be tempted to free ride—that is, to defect from the agreement by withholding a contribution to the group's undertaking while enjoying the benefits of the collective effort. Of course, such a course of action is available to everyone, with the result that no one actually contributes to a collective enterprise all deem meritorious.

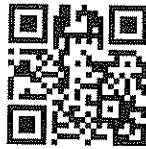
To better understand the critical role of group size to this particular form of prisoner's dilemma, let us return to the collective efforts of our quartet and-symphony. Suppose a violinist is tempted to skip practice and party with friends the evening before a performance. As a member of a quartet, the violinist faces powerful incentives to fulfill her obligations. If she performs poorly, her three colleagues will quickly notice, as will music critics and many in the audience. Since each musician's contribution is manifestly vital to the quartet's collective product, all are likely to stay home and practice. Now consider the decision of the would-be partygoer who is a member of the symphony. As one of twenty violinists in the orchestra, each performer's contribution adds only marginally to the collective product, certainly much less than do the contributions of members of the string quartet. This introduces an opportunity to free ride. The symphony musician might be tempted to spend the night on the town knowing that he could still bask in the orchestra's beautiful music.

The free-rider problem arises whenever citizens recognize that their small contribution to the collective enterprise will not affect its success or failure. And because contributing is somewhat costly, they decide not to make the effort. Even those citizens who enthusiastically support an enterprise realize that they (and others) can escape fulfilling their obligations. If many people react this way—and many do—and suspect their neighbors of doing so as well, too few people will contribute to collective endeavors and, thus, some may fail.

During Barack Obama's 2008 presidential campaign "get out the vote" operatives discovered that organizing volunteers into groups of more than ten volunteers reduced the group's success in contacting prospective voters. Instead of crusaders making a difference, they felt like "numbers on a spreadsheet." A lot of them dropped out of the campaign. Having learned this lesson, in 2012 they organized into smaller teams where they could more easily see that their contribution made a difference. As a result, the campaign's voter contact efforts proved more successful.⁴

For many voluntary associations, this strategy is unavailable. With about 10 percent of its regular viewers ever donating to their local PBS affiliate, the public television system requires an annual government subsidy to stay in business. Given the logic of nonparticipation, why does anyone ever contribute to a collective enterprise? Clearly some people find some activities intrinsically rewarding, however minor their contribution. That said, most of the people, most of the time, are inclined to free ride. If a collective effort is to succeed, it must provide potential participants with a private inducement. A few PBS viewers donate to their local station because they want to express their support for public television (or perhaps their disgust with commercial television). But many others are lured into donating by the monthly program guide subscription, license-plate holders, coffee mugs, discount coupon books, and other direct benefits of membership.

■ WATCH A VIDEO


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Governor
Romney explains
Massachusetts'
health care
mandate.

Governments face many of the same free-riding issues as voluntary associations, but generally they solve them not by rewards and plying individuals with selective benefits but rather by sanctions and, if necessary, force. Immediately after the United States declared war on Japan after the attack on Pearl Harbor, thousands of patriotic young men rushed to the army and navy recruiters. In case they did not, however, Congress passed a draft law. Imagine how few people would pay income taxes if there were no Internal Revenue Service waiting in the wings. Governments also have a variety of other resources at their disposal to induce participation in collective undertakings. One of the most controversial features of the national health care law enacted in 2009 was the requirement that everyone sign up for health care insurance. Failing to do so would result in an extra tax added to the individual's income tax to cover these premiums. Clearly the intuition behind the mandate was that in a setting where no one could be denied insurance coverage, many people would wait until they got sick to sign up. In a sense they would free ride—that is, not contribute to the overall financing of the program—but avail themselves of the collective good whenever they liked.

THE TRAGEDY OF THE COMMONS. Another distinctive and important form of the prisoner's dilemma is the **tragedy of the commons**. It resembles free riding in that the provision of a public good is divorced from its consumption. Where free riding emphasizes efforts of individuals to avoid contributing to the creation or preservation of a public good, tragedy of the commons concentrates on individuals' costless consumption of a public good (the "commons") that results in its ruination. A large number of participants encourages each to renege on contributions to the public good. The difference is that the good already exists and will be destroyed if its exploitation is not brought under control. This dilemma takes its name from another instructive allegory. A number of herdsmen graze their cattle in a common pasture. Gradually they increase the size of their herds, destroying the pasture and with it their livelihood. With each herdsman reasoning that adding one more cow to the herd will increase his income while having negligible impact on the pasture, they all add cattle, and do so repeatedly. The end result is a disaster—eventually, overgrazing strips the pasture of fodder, the cows starve, and the herdsmen go broke.

A real-world analogy is the collapse of the cod fishing industry off New England. Entire communities based their economies on fishing cod in nearby waters, but so many fishermen exploited this resource, without allowing nature to replenish it adequately, that they managed to wipe out the fishery on which their jobs depended.⁵ Kansas wheat growers confront the same dilemma when they over-irrigate their fields even while recognizing that they are rapidly depleting the underground aquifer and, consequently, their long-term livelihood. In these and many other examples of overpopulation and pollution, participants find themselves racing toward ruin as they deplete natural resources.

The commons metaphor has broader and timely applications. When patients fail to take their full prescription of antibiotics, they contribute to the emergence of a more resistant strain of bacteria to which everyone could be exposed. The Internet can be thought of as a commons in a variety of respects (see Politics/Policy box on Google's attempt to create a new digital library). Anyone can post information on the Internet, attract Net surfers' attention, and net

some revenue as viewers click on accompanying advertising banners. Since high-quality information is costly to produce, many will seek to exploit this commons by creating cheaply produced, low-grade information, making it difficult for quality information to distinguish itself and ask for compensation for its more-costly-to-produce information.*

The trick to avoiding the tragedy of the commons lies in proper institutional design. As with free riding, the solution links the individual's personal interest to provision (in this instance, preservation) of the collective good. A decision to squander or conserve resources must somehow be made to affect each participant's personal welfare. One solution is **regulation**—setting up rules limiting access to the common resource and monitoring and penalizing those who violate them. The House of Representatives strictly rationed access to the floor with rules prescribing time limits to debates and germaneness of motions. But enforcement can be costly, since individuals will be tempted to exploit the collective good if they see their neighbors and colleagues flaunting the rules.

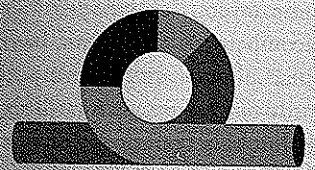
In many settings, a less costly and more effective alternative solution to conserving the commons involves **privatizing** it—that is, converting it from a collective good to a private good. After a second straight disastrous harvest in 1622, the residents of Plymouth Plantation found themselves as close to starvation as at any time since their arrival on the Mayflower. In desperation, the community's leader, William Bradford, announced an end to communal farming. He divided the acreage into family plots and left each family to provide for itself. This ended the famine. As one historian noted, "[T]he change in attitude was stunning. Families were now willing to work much harder than they had ever worked before."⁶ After instituting the reform Bradford observed, "The women now went willingly into the field and took their little ones with them to set corn." Confronted with decreasing stock, modern fishery management has increasingly switched from regulations (i.e., catch quotas) to privatization by granting fishermen exclusive access to parts of the



Classic tragedy of the commons scene: too many boats chasing too few fish, not because the skippers are greedy, but in the absence of an agreement, none can afford to stop fishing and surrender the harvest to the others. Here, in the mouth of the Egegik River in Bristol Bay, Alaska, the fleet competes for a limited and concentrated salmon fishery and manages to tangle its nets.

* Blog monitoring site Technorati presently tracks traffic to over 6,700 political blogs posted from U.S. sites.

GOOGLE PROPOSES A LIBRARY IN A CLOUD



politics to policy

In 2004 Google unveiled a grandiose plan to digitize every book and make each of them universally available on the Web. It launched the project by announcing agreements with more than a dozen major research universities throughout the world, allowing Google to copy their collections. In effect, the Google project envisioned the creation of a new "commons"—the ability to search every book online and, depending on the copyright, read select passages or the entire book. The benefit to users was obvious. Books long out of print, many out of copyright, and many others "orphans" in that their copyright holder was unclear would come out of the recesses of library storage and become instantly accessible via Google's search engine. Although the concept won widespread support, the project ran into opposition on two fronts. First, other companies—such as Amazon—had their own designs on creating downloadable libraries. Google's plan would give it a huge advantage over others in providing print on demand and other services. Moreover, everyone going to this new "commons" would pass through Google's site, which is loaded with advertising banners.

The second group of critics consisted of authors and publishers. Google anticipated complaints from these producers, and it assured everyone their copyrights were safe. The public could "preview" books by reading a selection of pages, but other pages would be omitted. Those who sued held that Google proposed to offer too much and that, since it had a financial stake in drawing users to its site, it was the inappropriate party to decide what contents of a book would be available. Copyright holders' objections were unabashedly self-interested. After all, those who contribute to the expansion of knowledge should be compensated. Without control over copyright, which the Google plan compromised, authors and publishers would be less likely to undertake books and journals.

Ironically, Google's thoroughly twenty-first-century concept of a "cloud" library conjures up the same issues that afflicted publishing at its founding. It is a history that offers a moral that is arguably more relevant today than at any time during the intervening four centuries. Shortly after the invention and manufacture of the printing press in the early seventeenth century, a class of freelance



printers, or publishers, sprang up throughout England. The number of books published exploded. But within a few years authors and publishers experienced a crisis that threatened the future of the industry. Some wily publishers would only "publish" books that already had a market—the same strategy pursued by those who make knockoffs of Coach handbags today. They would reprint a text and, to gain a market edge, attribute authorship to someone famous. Authors and publishers had no legal recourse because the "copyright" had not yet been invented. Their books entered the public domain freely available for anyone to copy. Given the prospect that even a highly successful book would offer publishers little return on their investment, these early printer-publishers petitioned the government for protection. In 1709 the British Parliament decided to privatize this commons in passing the first copyright law, with its title appropriately beginning with "An Act for the Encouragement of Learning." This history raises the following question for the Google project: would reverting to a commons ruin the resource (i.e., knowledge) Google purports to advance?¹

1. In a series of settlements, Google introduced some limitations on access and gave authors a right to remove their books from the proposed digital library. Lawsuits, tentative settlements, and Justice Department antitrust investigations ensued. As of early 2013, Google is continuing its massive undertaking of digitizing books, but what form this commons will take remains unclear.

ocean in the hope that this will motivate them to harvest prudently. Whether regulation or privatization, the solution involves aligning personal gain with promotion of the collective good.

THE COSTS OF COLLECTIVE ACTION

Collective action offers a group benefits its members cannot achieve on their own. But participating in a collective enterprise also entails various costs. The key to successful collective action lies in designing a system that achieves the benefits of a collective effort while minimizing its costs. For example, the Senate, with its 100 members, efficiently accomplishes its business with fewer and less restrictive rules than those required for the much larger, 435-member House of Representatives.

Some of the costs associated with collective enterprises are not hard to spot. An obvious one is each person's monetary contribution to an enterprise—for example, tax payments funding road construction or staffing of a police department. Less obvious are the "overhead" costs of enforcing agreements, such as the ranger's salary in New Guinea or the costs associated with the judicial system and the lawyers needed to ensure that those who enter into business agreements live up to their contracts. Overhead costs also include the government's effort to combat free riding. If people were not inclined to free ride, the federal government could disband the large bureaucracy that goes after tax cheats.

Two kinds of costs that are especially relevant for designing and evaluating institutions are **transaction costs** and **conformity costs**. Though they represent separate aspects of how a community tackles collective enterprises, they often involve a trade-off with one another. In creating institutions to achieve desirable collective goods, a society should collectively weigh the balance between members' private autonomy and the requirements for achieving the collective good.

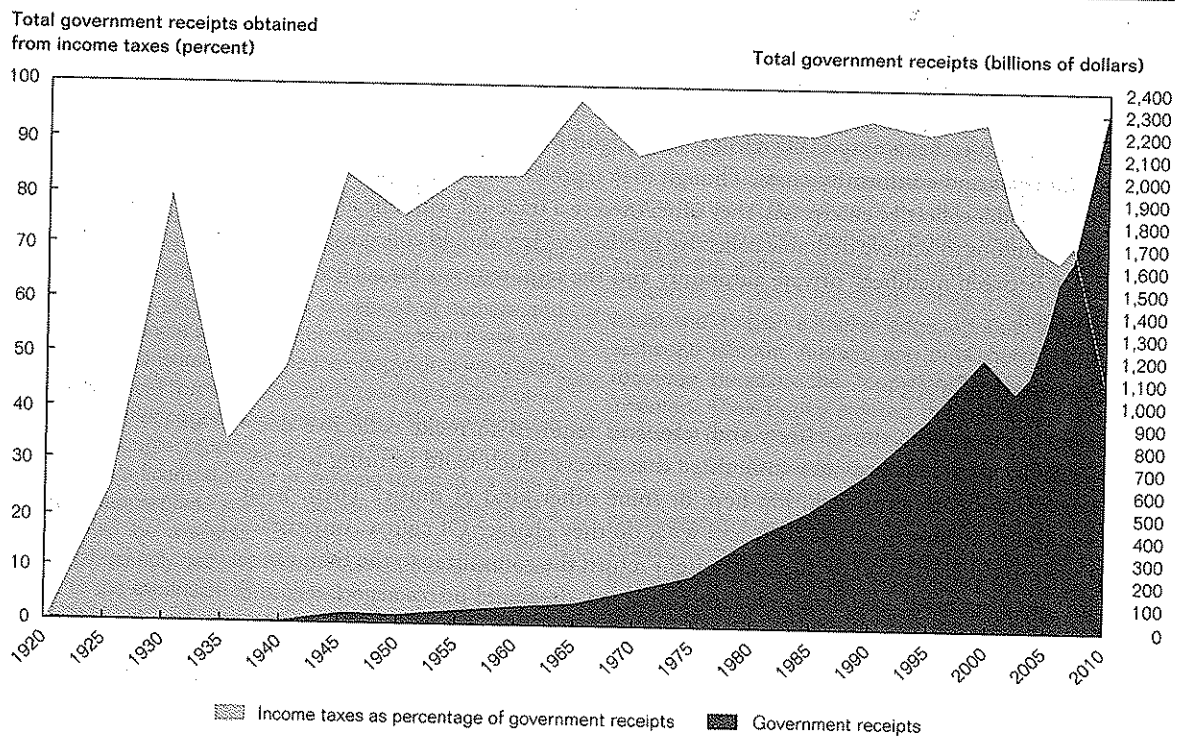
Transaction Costs

Transaction costs are the time, effort, and resources required to make collective decisions. Consider a student activities committee that selects which band to bring to campus. First, do students want rock, hip-hop, or some other kind of music? Then, what bands are available, how good are they, and what do they charge? Of course, unsatisfactory answers to the second set of questions might return the committee to the first. Once a decision has been made, the bands must be contacted, dates and prices negotiated, and a venue found. The time and effort spent researching available bands, debating preferences, and implementing decisions are all transaction costs of the collective good of campus entertainment.

Transaction costs can pose a formidable barrier to political agreements. These costs rise sharply as the number of participants whose preferences must be taken into account increases. In the absence of institutions for negotiating and implementing collective agreements, these costs might overwhelm the ability of participants to identify and to commit themselves to collective enterprises. With well-designed institutions, however, agreements become easier to make. In the above example the student body greatly reduced its transaction costs by authorizing a committee to make a collective choice for it. Other approaches

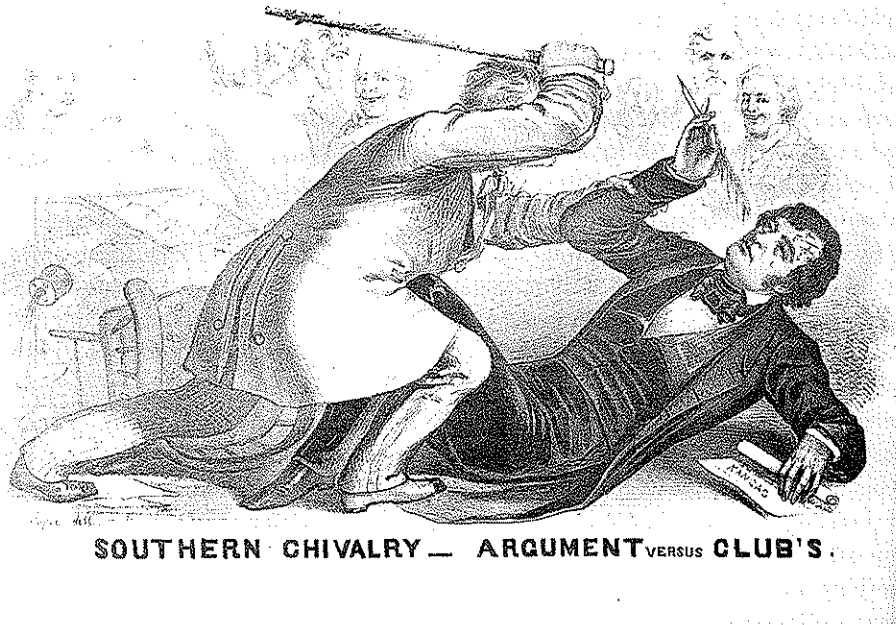
to mitigating transaction costs involve streamlining rules and procedures. Before the Sixteenth Amendment creating a federal income tax was ratified in 1913, the government did not have a systematic method of taxing citizens. Without it, the nation would have inadequate revenue to finance the many federal programs to which Americans have become accustomed in the last half-century. Though enactment of the income tax undoubtedly required massive transaction costs, once legislators had established a dependable flow of revenue, they could finance new programs by doing little more than tinkering with the tax code. Raising taxes is still not easy, but it is far easier to adjust the tax code up or down than it was to raise revenue before there was a Sixteenth Amendment. Evidence of this can be found in Figure 1-2. Over time, the income tax represents an ever-larger share of government receipts. Reducing the transaction cost of raising federal revenue fueled the dramatic growth in federal policy and programs during the twentieth century.

Figure 1-2 A Ready Source of Government Revenue: The Income Tax



Sources: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (White Plains, N.Y.: Kraus International Publications, 1989), Tables Y343-351, Y358-373. Additional data provided by U.S. Department of the Treasury, Bureau of Statistics, *Statistical Abstract of the United States* (Washington, D.C.: Government Printing Office, various years), Tables 358-361.

Note: Total government receipts do not include employment taxes, such as Social Security and Medicare.



In 1856, several days after learning of Senator Charles Sumner's fiery speech against admission of Kansas to the Union as a slave state, South Carolina's Preston Brooks, a member of the House of Representatives, entered the chamber and beat Sumner unconscious. Everyone shocked, no one intervened. Sumner eventually recuperated and returned to the Senate for another eighteen years.

Sometimes, though, high transaction costs are intentionally put in place to make some collective activities more, not less, difficult. Having fashioned a delicately balanced plan of government, the Framers were understandably uninterested in making it easy for some group down the road to rewrite the Constitution. Indeed, the prospect that their labors might soon be undone could have prevented them from reaching agreement in the first place. The Framers ratcheted up the transaction costs of future constitutional change. A proposed amendment to the Constitution must be endorsed by two-thirds of the membership of both houses of Congress and ratified by three-fourths of the states.*

Conformity Costs

In negotiating a common course of action, parties advocating competing interests rarely discover that they want precisely the same thing. Politics invariably means compromise. Most of the time there are losers—parties whose preferences receive little accommodation but who must still contribute to a collective undertaking. To the extent collective decisions

*Alternatively, two-thirds of the state legislatures can ask Congress to call a national convention to propose amendments, but this has never been done.

obligate participants to do something they prefer not to—and all resolutions of the prisoner's dilemma involve this—we refer to this necessity as a *conformity cost*. Conformity costs range from an ordinary task such as paying property taxes to extraordinary sacrifices such as serving in Iraq away from home and family. Rules that require fishermen to stay at the dock during a portion of the fishing season, rules that make a citizen spend part of her income to fund government programs that she opposes, and rules that limit the time allotted a member of Congress for a floor speech all impose conformity costs on individuals in order to achieve a collective goal. Not surprisingly, members of a community prefer minimum conformity costs. But since collective goals never come effortlessly, elected representatives must continually weigh what kinds of and how much costs its citizens are prepared to bear for a particular good. Failure to do so, as Democrats discovered in the 2010 congressional elections shortly after passage of comprehensive health care policy, could find them ushered out of office.

In that transaction and conformity costs generally entail a trade-off, such calculations tend to be complicated: those institutions that minimize transaction costs, making it easy for government to act, may do so by imposing excessive conformity costs. An extreme case would be a dictator, who arbitrarily decides national policies (minimal transaction costs) by insisting that everyone do what he, not they, prefer (maximum conformity costs). At the opposite end of the continuum would be government by consensus. The group does nothing unless everyone agrees to it. Of course, governments based on consensus often have a difficult time undertaking any collective enterprise, although they expend great effort (exorbitant transaction costs) discovering this.



Of the various provisions of the recent health care reform law to which critics have raised objections, the most controversial has been related to imposing conformity costs. Perhaps the most controversial of these provisions is the requirement that everyone purchase health insurance or pay a penalty on their income taxes.

These extreme mixes of transaction and conformity costs might seem far-fetched when referring to national governments, but for many of the Constitution's Framers this was precisely the issue that brought them to Philadelphia. Chapter 2 examines America's unhappy, precarious experience with government by consensus in the decade following independence. The Articles of Confederation, the nation's first constitution, allowed any state to block national action on important policies such as taxes. Moreover, the absence of enforcement authority fostered rampant free riding even when the states could agree on a course of action. Consequently, even in a country with only thirteen participating states—each with one vote in the Confederation Congress—the transaction costs of consensus government proved impossibly difficult and prompted all but one state, Rhode Island, to send delegates to a constitutional convention to create a more viable arrangement.

More commonly, governmental reform occurs within a narrow range of trade-offs between transaction and conformity costs. Rules, procedures, and resources are frequently changed to reduce transaction costs and make government more efficient and decisive. But sometimes the opposite scheme is adopted to prevent abuses. After the civil rights movement and the Vietnam War era, scandals uncovered widespread abuses by the FBI and CIA in spying on civil rights activists (including Martin Luther King) and antiwar leaders. Congress enacted procedures requiring judicial approval before these investigative agencies could undertake wiretaps and other forms of intrusive surveillance of citizens. Such reforms to prevent abuses were adopted with little opposition in Washington and represent a classic instance of increasing transaction costs as a way to hamstring action—in this instance, action taken against those who opposed current government policies. Over the objections of law enforcement officials, the government decided to preserve individuals' freedom of dissent (reduce conformity costs) by jacking up transaction costs on law enforcement officials. After September 11, 2001, the balance shifted back to reducing the transaction costs involved in going after potential terrorists (via the USA PATRIOT Act), and conformity costs increased.

DESIGNING INSTITUTIONS FOR COLLECTIVE ACTION: THE FRAMERS' TOOL KIT

What constitutional arrangements best solve the problems and costs associated with collective action? It depends on what is being decided. If citizens fear that government might intrude too far into their private lives, they might want to add high transaction costs and require consensus to make collective decisions. This perhaps explains why those leaders who feared a shift in power from the states to the new national government clamored for a Bill of Rights to limit the ability of national majorities to demand religious and political conformity. (Their concerns resonated with the broader population and led to the quick adoption of the Bill of Rights as the first amendments to the new Constitution.) If, by contrast, citizens greatly value quick and decisive action, as in defense against an imminent foreign threat, they may favor institutions that minimize transaction costs even at the risk of ceding more authority to leaders than they would normally deem prudent. Clearly, the delegates to the Constitutional Convention—many of them recent veterans with still-fresh memories of the frustrating and nearly failed revolution—harbored both concerns and many variations in between.

In devising the several branches of the national government and its relations with the states, the Framers relied on design principles that instituted varying trade-offs between transaction and conformity costs to fit the purposes of the institutions they were creating. And they sought balance—keeping the branches in “their proper orbits”—so that none would gradually gain a permanent advantage over the others.

By intent, the Constitution provides only a general framework for government. As its institutions have evolved over the past two centuries, the Framers' design principles have shaped their subsequent development. Consequently, the principles, summarized in