Bargaining

Bargaining is the art of persuading your opponent to take the nice shiny copper penny and give you the wrinkled old paper money.

Turn on the television cameras and the U.S. Congress is a high-minded debating society. Turn off the television cameras and Congress resembles a bazaar. Similarly, the British Parliament debates in public, but private meetings of the cabinet can involve intensive bargaining among the ministers. In general, legislators orate in public and bargain in private. Despite public appearances, bargaining is the staple of legislative activity.

In legislatures as in markets, everyone can benefit from a good bargain. The exchange of commodities in markets and votes in legislatures can benefit society by giving people what they want. Political bargains, however, pass seamlessly from compromise to corruption without crossing a clear boundary. Many citizens who recognize the necessity of political deals still feel uneasy about politicians trading votes. Is the nation better-off when representatives bargain or vote their consciences?

This chapter clarifies the controversy over political bargaining by analyzing it. As developed in this chapter, the bargain theory of democracy covers trading votes, investing in politics, and forming coalitions. This theory gives fresh insights into questions such as these:

Example 1: What makes vote trading easier in the U.S. Senate than in the House of Representatives?

Example 2: Cold Rolled Industries, Inc., which manufactures steel and lobbies for tariff protection against imports, has $50 million to invest. How should it divide its investment between manufacturing and lobbying in order to maximize its profits?

Example 3: Assume that the largest party in Parliament lacks a majority, so it forms a coalition government with smaller parties. If the largest party maximizes its own power, which smaller parties will it invite to join the governing coalition?

The introduction in chapter 1 distinguished between price theory and game theory. The analysis of voting in chapter 2 mostly follows price theory by assuming that voters behave nonstrategically. The analysis of political bargains in this chapter mostly follows game theory by assuming that politicians behave strategically. So this chapter applies game theory to democracy.
CHAPTER THREE

TRADING VOTES

According to the model of perfect competition so beloved by economists, the exchange of private goods in perfectly competitive markets allocates resources efficiently. The exchange of votes in a legislature, however, never approximates perfect competition. Perfect competition cannot be established, even in principle, in a market for votes. To see why, consider how legislators bargain when they trade votes. Each legislator has an equal number of votes on each bill (exactly one vote). If the representative from Michigan cares especially about the automobile industry, whereas the representative from New York cares especially about banking, they can trade votes. The representative from Michigan will get two votes on automobile bills (his own and the New York representative's) and none on banking bills, whereas the representative from New York will get two votes on banking bills (his own and the Michigan representative's) and none on automobile bills.

When alternatives are equipoised, changing one vote tips the balance; each vote is decisive. In contrast, if the winner prevails by many votes, changing one vote does not influence the outcome. Insofar as voters care only about outcomes, the right to cast a decisive vote is valuable and the right to cast an indecisive vote has no value. As explained in chapter 2, the power of a vote equals the probability that it will be decisive. In a market for votes, each participant values a vote according to its power. Everyone, consequently, wants to trade their indecisive votes on one issue in order to obtain decisive votes on another issue. The decisiveness of one person’s vote, however, depends on how other people vote. Interdependent values disrupt the trading of votes.

Here is a concrete example. Assume that persons A and B care intensely that a certain bill passes. Each one cares enough to trade votes on other issues in order to acquire a block of votes that includes the decisive vote on this issue. But A may hold back in the hope that B will shoulder the burden of trading for the needed block of votes, and B may do the same. A decisive block of votes may never be assembled because each player “free-rides.” In general, the voters who are not involved in a trade have an interest in it because it affects the power of their votes. External effects prevent markets for votes from approximating perfect competition.

Questions

1. Legislatures typically have no formal mechanism to enforce the trading of votes. Suppose the chairman of the legislature had the power to “auction” votes, where the “price” would be votes on future legislation that the “buyer” transfers to the “seller.” Explain how the free-rider problem would disrupt the auction.

2. Use the concept of the “power of a vote” to explain why U.S. labor organizations contribute heavily to those Democratic legislators with conservative constituencies (Stratmann 1994).
Coase Theorem

Although external effects prevent markets for votes from approximating perfect competition, bargaining can still achieve efficiency. To see why, I turn from the ideal of perfect competition to the ideal of perfect bargaining. Selling a used car, buying a corporation, making an international treaty, or drafting legislation requires negotiations. Bargaining theory ideally predicts the success and failure of negotiations. The inventiveness of people in developing strategies, however, makes prediction difficult.

In chapter 1 I mentioned a brilliant simplification to postpone analyzing strategy. Bargaining has various costs, such as renting a conference room, spending time in negotiations, and drafting an agreement. By expanding "transaction costs" to encompass all impediments to bargaining, Coase concluded that bargaining tends to succeed as transaction costs approach zero (Coase 1960; Regan 1972). Coase applied this idea to law and commentators formulated his conclusion as the Coase Theorem (Cooter 1982). The Coase Theorem asserts that private parties will bargain to an efficient allocation of legal entitlements provided that transaction costs do not impede the process.

The same proposition applies to legislators who trade votes. As the transaction costs of bargaining fall, the Coase Theorem implies that legislators will cooperate with each other and realize the surplus from political trades. Assuming zero transaction costs of bargaining among politicians, the supply of private law and public goods by the state is efficient relative to the preferences of lawmakers. I call this proposition the political Coase Theorem. In a democracy, lawmakers ideally represent the citizens. When this ideal is achieved, satisfying the preferences of lawmakers also satisfies the preferences of citizens. So we could say, "Assuming zero transaction costs of political bargaining in a democracy, the supply of private law and public goods by the state is efficient relative to the preferences of the citizens." I call this proposition the democratic Coase Theorem.

The Coase Theorem in its various forms resembles Galileo's proposition that objects moving on a frictionless plain will continue in the same direction at the same speed forever. Although friction is never zero, Galileo's proposition helps to design a ship's hull and a plane's wing. Similarly, although transaction costs are never zero, the Coase Theorem helps to design a constitution. By reducing the transaction costs of bargaining, the constitution increases the probability that political factions will cooperate with each other. Constitutions can be judged according to their ability to reduce the transaction costs of political bargaining.

Lacking enforceable contracts, politicians and chimpanzees follow the reciprocity maxim, "You scratch my back and I'll scratch yours." Reciprocity requires long-run relationships. As people form long-run relationships, transaction costs of bargaining decrease. Similarly, transaction costs decrease as fewer people must agree to the bargain. Thus a constitution promotes bargaining by promoting long-run relationships among political factions and keeping their representatives few in number.
In light of the Coase Theorem, political organization looks like a mechanism to lower the transaction costs of political bargaining. To illustrate, most legislatures are too large for all of the members to bargain directly with each other. The formation of parties, the creation of legislative committees, and the control of the legislative agenda reduce the transaction costs of bargaining. A theme in this book is that representative democracy can be justified as the constitutional form that minimizes the transaction costs of political bargaining among factions of citizens. In contrast, dictatorship precludes bargaining among citizens by excluding them from government.

**Questions**

1. Will bargaining succeed better in the U.S. Senate or House of Representatives?
2. Will close votes tend to occur more often in the Senate or the House?
3. Will Congress tend to cooperate better with a president who is newly elected or a president in his final year of office?

**Sphere of Cooperation**

Before the Second World War, the countries of Europe imposed tariffs on the flow of goods among them. Each tariff benefited some industries in the countries that imposed it, but, taken as a whole, tariffs harmed the economies of Europe. After the Second World War, the tariffs were gradually abolished to create a common market. Wider trading benefited all European countries. Underlying this fact is a theorem stating that narrow trading groups are (Pareto) inefficient in a competitive economy relative to wide trading groups.¹

The advantage of wide trading in markets presumably applies to politics. Before the Second World War, the countries of Europe enacted national laws. Many of these laws benefited the enacting country and harmed other countries. In two world wars, the conflict escalated out of control. After the Second World War, Europeans formed a political union that facilitates political deals encompassing Europe, just as the common market facilitates economic deals encompassing Europe. Just as the common market brought many economic benefits, the European Union brought many political benefits to Europe, notably peace.

In economics and politics, the widest sphere of cooperation affords the greatest opportunity to satisfy peoples' preferences for private and public goods. This fact argues for world trade and world government. As a coalition grows, however, the transaction costs of government increase. World government, consequently, has higher transaction costs than national government. This book will often compare the gains from wider cooperation against the costs of political transactions with more people. I will show in part 2 that transaction costs explain

¹ The theorem states that the core shrinks to the set of competitive allocations as the economy grows larger. Theorems on the core are in Arrow and Hahn 1971.
the scope for governments in politics just as transaction costs explain the scope for firms in economics.

**Consensus and Adversarial Voting**

Complex legislation combines different issues that different legislators value differently. Legislators or their parties can negotiate with each other and trade votes so that each group gets its way on the issues it cares about the most, while conceding to others the issues that it cares about less. Perfect bargaining among legislators results in a Pareto-efficient bundle of laws relative to the preferences of legislators, which implies it is impossible to change the laws so as to increase the satisfaction of one legislator without reducing the satisfaction of another legislator.

If legislators have sufficient variety in their preferences, and if they exercise their preferences over a sufficiently large set of alternatives, then everyone has votes to trade with others. The most efficient bargain relative to the preferences of the legislators encompasses all of them. A bargain that encompasses everyone results in consensus legislation that passes without opposition. Unlike majority rule, a consensus does not suffer from intransitivity or inefficiency.

Democracy has advantages in creating a political consensus. Psychological studies have shown that individuals cooperate best when a focal point suggests a fair division of the surplus.2 To illustrate, “fifty-fifty” (each gets half) is a focal point for dividing profits between two partners. Giving everyone the right to vote and allowing the majority to rule appeals to fairness. Majority rule thus provides a focal point for a fair division of the surplus from political cooperation.3

Some legislatures attain consensus on many bills. For example, much legislation enacted by the U.S. Congress consists in “private member bills” that affect few constituents, which Congress enacts with little or no dissent. The most important bills, however, typically divide Congress. When bargaining stops short of a consensus, the majority prevails. Instead of confirming a consensus, adversarial voting tests legislative strength.

**Questions**

1. Some organizations such as juries, the Security Council of the United Nations, and the Society of Friends (Quaker Church) require unanimity in order to act. These organizations are small. What would happen if they were large?

2. Pluralist democracy involves bargains struck among the representatives of all political factions (Dahl 1982). Use the Coase Theorem to discuss the conditions under which you expect democracy to be pluralist rather than majoritarian.

2 Hoffman and Spitzer 1985a.

3 The power of democracy to resolve difficult distributive problems is demonstrated in Oberholzer-Gee, Bohnet, and Frey 1997.
3. Interpret the phrase "the public good" or "the will of the people" in light of a political consensus.

4. In Japan, most legal disputes are settled out of court. Since the Second World War, Japan has been governed almost exclusively by one party that strives for consensus. Speculate on how these facts might be connected.

**Bargaining in General: Used Cars**

So far I have discussed the transaction costs of bargaining. Bargaining, however, involves strategy, which does not resemble the cost of toothpaste or soybean futures. To analyze strategy explicitly, I will abandon the simplification of treating strategy as a transaction cost and develop the elements of bargaining theory.

A bargain creates a surplus by agreement on its distribution. Consider this example of bargaining over a used car:

Adam, who lives in a small town, has a 1957 Chevy convertible in good repair. The pleasure of owning and driving the car is worth $3,000 to Adam. Blair, who has been coveting the car for years, inherits $5,000 and decides to try to buy the car from Adam. After inspecting the car, Blair decides that the pleasure of owning and driving it is worth $4,000 to her.

According to these facts, the potential seller values the car less than the potential buyer does, so there is scope for a bargain. Adam will not accept less than $3,000 for the car, and Blair will not pay more than $4,000, so the sale price will have to be somewhere in between. A reasonable sale price would be $3,500, which splits the difference.

The logic of the situation can be clarified by restating the facts in the language of bargaining theory. The noncooperative solution to the game occurs if Adam and Blair cannot agree on a price. If they cannot agree, Adam will keep the car, the use of which he values at $3,000. Thus the noncooperative value of the game for Adam, or his threat value, equals $3,000. So Adam can credibly threaten not to cooperate unless the price equals at least $3,000. Similarly, owning the car is worth $4,000 to Blair, so
Blair can credibly threaten not to cooperate unless she pays no more than $4,000 for the car.4

The parties to a bargaining game can both benefit from cooperating with each other. To be specific, they can move a resource (the car) from someone who values it less (Adam) to someone who values it more (Blair). Moving the resource from Adam, who values it at $3,000, to Blair, who values it at $4,000, will create $1,000 in value. The noncooperative value of the game is $3,000 in Adam’s use-value and $5,000 in cash, thus totaling $8,000. The cooperative value of the game is $4,000 in Blair’s use-value and $5,000 in cash, thus totaling $9,000. The cooperative surplus equals the amount by which the game’s cooperative value exceeds its noncooperative value, specifically $1,000 in this case.

The distribution of the surplus from cooperation depends on the price at which the car is sold. For example, if Adam and Blair agree to a price of $3,500, then Adam gets $500 of the surplus and Blair also gets $500 of the surplus. Alternatively, if the price is set at $3,800, Adam gets $800 of the surplus and Blair gets $200. In general, the price affects the distribution of the surplus, but not the total amount of it.

Bargaining theory predicts that the price must fall in the interval between $3,000 and $4,000, but bargaining theory does not predict the exact price. Economists have long struggled with the fact that self-interested rationality alone does not determine the distribution of the cooperative surplus. Social norms help close the gap. A reasonable solution to the bargaining problem often gives each player his threat value plus an equal share of the cooperative surplus. Applied to this case, Blair should pay Adam $3,500 for the car. J. Nash was the first theorist to formalize the properties of the reasonable solution, so game theorists call it the Nash bargaining solution (Nash 1950). A long history of experimental economics concludes that people often reach a reasonable solution and split the surplus from cooperation.5

I have explained that economic theory divides the process of bargaining into three steps: establishing the threat values, determining the cooperative surplus, and agreeing on terms for distributing the surplus from cooperation. These steps will be used to analyze political bargaining.

Questions

1. In the example of Adam and Blair, how is the surplus distributed if the price equals $3,700?

2. In the example of Adam and Blair, explain why the price will not fall as low as $2,500.

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4 Without Adam's cooperation, Blair can use her $5,000 as she wishes. The noncooperative value of the game to Blair, or her threat value, equals the $5,000 that she keeps if she does not buy the car. If she buys it for $4,000, she gets $4,000 in use-value and she retains $1,000 in cash from her initial $5,000. Thus her total value equals her threat value of $5,000. Adam must sell the car to Blair for less the $4,000 in order for Blair to gain from the purchase.

5 For example, see Bohnet 1998.
3. Suppose Adam receives a bid of $3,200 from a third party named Claire. How does Claire's bid change the threat values, the surplus from cooperation, and the reasonable solution in bargaining between Adam and Blair?

Democracy's Empty Core

When political bargaining succeeds, lawmakers cooperate rather than act on their threats. Their ability to threaten, however, determines the distribution of the surplus from cooperation. Thus a bargain in the legislature should reflect the relative strength of the parties. Sometimes, however, political bargaining fails. Failed political bargaining wastes resources in a contest for redistribution. Some additional concepts from game theory help explain contests for redistribution in democracies.

In a game of pure conflict, one player's win is another's loss. To illustrate, some poker players must lose whatever other players win, so wins and losses sum to zero (zero-sum game). Playing poker distributes wealth but does not produce it. Pure games of conflict are games of distribution, not production. The divergence of interests in a game of conflict makes the players adversaries, not allies or rivals.

Consider redistribution under majority rule. By assumption, any majority has the power to redistribute from the minority to itself. If players are symmetrical, the contest for distribution destabilizes every possible coalition. To see why, assume that three voters, denoted A, B, and C, must distribute $100 among them by majority rule. Initially, someone proposes to divide the money equally: \((A, B, C) = (\$33, \$33, \$33)\). A's counter-proposal is to share the surplus equally with B and give nothing to C: \((A, B, C) = (\$50, \$50, \$0)\). A and B can implement A's counter-proposal under majority rule, and A's counter-proposal makes A and B better-off than they would have been in the initial proposal. A coalition is blocked if another coalition can implement a distribution that is Pareto superior for its members.\(^6\) So A's counter-proposal blocks the initial proposal.

It is not hard to see that any proposal is blocked by another proposal. Thus A's proposal is blocked by B's counter-proposal to distribute the surplus \((A, B, C) = (\$0, \$75, \$25)\), and B's proposal is blocked by C's counter-proposal to distribute the surplus \((A, B, C) = (\$50, \$0, \$50)\). By definition, the core of a game is the set of unblocked distributions. Since every proposal is blocked by an alternative, the game has an empty core. In general, majority-rule games of distribution with symmetrical players have an empty core. In this game, a majority coalition receives $100, but the payoff to the coalition falls to $0 if either member quits. Thus each member of the coalition can assert that his marginal contribution to the coalition is its full value. This demand is credible. However, not everyone in

\(^6\) See the explanation of the core of a game in chapter 2.
the coalition can be paid the value of his marginal contribution. Even though satisfying all the demands is infeasible, each of the demands may be credible.

In chapter 2 I explained that games with an empty core are usually unstable. Redistribution by majority rule can cause intransitive voting cycles. Both Aristotle and Madison shared the opinion that poor people, if sufficiently numerous in a democracy, would use majority rule to redistribute wealth and destabilize the state. Besides the obvious disadvantages, instability has an advantage: no group or faction can form a stable majority to exploit others. Any coalition that would like to enrich itself by using state power to exploit others knows that another coalition dominates it. Knowing this, the governing coalition may refrain from exploiting others for fear that its victims will be the next rulers.

To illustrate, in two-party competition, today’s opposition is tomorrow’s government. Knowing this, the party in power has reason to leave the courts independent. Conversely, when one party dominates politics, it has an incentive to exploit its power by politicizing courts. To illustrate, so long as elections regularly changed governments in Japan, historical data suggest that the government respected the independence of its courts. When governments no longer feared loss in elections, they exerted political influence over the courts (Ramseyer 1994). In contrast, persistent two-party competition in the United States preserved independent courts.

India provides another illustration. Western commentators often stress that stable democracies require educated and prosperous citizens. However, the world’s largest democracy, India, is relatively stable despite much illiteracy and poverty. Theorists have proposed that Indian democracy endures because the country

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7 A member’s marginal contribution to the coalition may be computed as the fall in the coalition’s total value caused by the member’s quitting. (I apply the Shapely value of a coalition member. See Luce and Raiffa 1967, p. 249.) With increasing returns to scale (super-additivity), however, cooperation does not create enough value for each member to receive the marginal product of membership, so paying the marginal product of membership to everyone is infeasible. To illustrate concretely, consider a coalition formed by A and B that distributes the surplus equally between them: \((A, B, C) = (50, 50, 0)\). If either member of the coalition were to leave it, the payoff to the coalition would fall from \(100\) to \(0\). By this logic, the marginal product of each of the two members of the coalition equals \(100\), but the total product of the coalition also equals \(100\). Consequently, paying \(100\) to each member of the coalition is infeasible.

8 A threat by a member of a majority coalition is credible, according to one definition, if another coalition could satisfy the demand without worsening its own position. To illustrate by the preceding example, consider the coalition formed by A and B that distributes the surplus equally between them: \((A, B, C) = (50, 50, 0)\). If B were to withdraw from the coalition, the coalition’s payoff would fall from \(100\) to \(0\). Noting this fact, assume that B demands a payoff of \(75\) to remain in the coalition. The threat is credible because B could leave the coalition and form a new coalition with C, distributing the surplus \((A, B, C) = (0, 75, 25)\), which makes B and C better-off. A, however, can also make the same demand as B; A and B can each make a credible demand for \(75\). Both demands cannot be satisfied, because there is only \(100\) to distribute. Thus, each demand is credible and both demands are infeasible.

9 Aristotle wrote: “[W]here democracies have no middle class, and the poor are greatly superior in number, trouble ensues, and they are speedily ruined.” See Aristotle 1962, book IV, chapter 9, section 14. Madison’s concerns are discussed in Federalist 10 (Madison 1981a).
contains so many different kinds of people as distinguished by ethnicity, language, and religion, no one group can dominate the others. Whenever a cartel forms to control the state, a new coalition forms to oppose it. (James Madison made a similar argument for the stability of American representative democracy in *Federalist* No. 10.)

I explained that inefficiency and intransitivity are the price people must pay in a democracy when they cannot bargain together and cooperate. The empty core makes democracy look bad until it is compared to other political systems. Instead of eliminating threats, democracy limits them. Hostile parties in a democracy threaten to vote against each other. Better a hostile vote than a general strike, a car bomb, a shoot-out, or a coup d’etat. Winston Churchill allegedly said, "The United Nations was not set up to get us to Heaven but to save us from Hell." Better world democracy than world war. I call democracy the *minimax constitution* because it minimizes the loss from political noncooperation when the worst possibilities materialize.

*Pure Coordination*

At the opposite pole from pure conflict stand pure coordination games in which the interests of different players converge perfectly (Lewis 1969; Schelling 1980). The best plan for anyone is best for everyone. Pure games of coordination are games of production, not distribution. A coordination game produces wealth without creating any conflict over distribution. Since interests converge, everyone who is fully informed agrees on the best plan of action.

In pure coordination games, imperfect information obstructs coordination. Allies must exchange information and search for the best plan. Discovering the best plan is easy for a coordination game with a uniquely stable equilibrium and harder for coordination games with multiple equilibria.

To illustrate, person A calls person B on the telephone and, in the middle of the conversation, the connection is broken unexpectedly. Both parties want to reestablish communications. If both call back immediately, however, each of them will get a busy signal. So there are two equilibria: A calls B, and B calls A. The problem is a lack of information about which solution to choose.

Coordination games with multiple equilibria are especially difficult to solve when local progress causes global regress. To illustrate by an analogy, mountain climbers in a fog might follow the rule, "Always go up." If the mountain slopes up to a single peak, following this rule will get the climbers to the summit. If, however, the mountain has two peaks, climbers following this rule may ascend a false summit, which takes them away from the true summit. Climbing the false summit is local progress and global regress.

10 An able sleuth, Debby Kearney, found this quotation attributed to Churchill many times without a decisive reference. She also found it attributed to Henry Cabot Lodge and Dag Hammarskjöld.

11 Minimizing the loss from noncooperation, or, equivalently, maximizing the noncooperative value of the game, has been called the "normative Hobbes Theorem." The Hobbes Theorem takes a far more pessimistic view about human cooperation than does the Coase Theorem. See chapter 4 of Coeter and Ulen 1999.
The surface of a single-peaked mountain is a convex set, whereas the surface of a twin-peaked mountain is a nonconvex set. A single-peaked mountain corresponds to a game with a uniquely stable equilibrium, and a twin-peaked mountain corresponds to a game with multiple equilibria. In general, **convex games of pure coordination are easier to solve than nonconvex games.**

To illustrate, drivers in Britain benefit from everyone’s driving on the same side of the road, but drivers in Britain would benefit more from abandoning the practice of driving on the left side of the road and adopting the European practice of driving on the right side of the road. Driving on the left is a local maximum, and driving on the right is a global maximum. So far Britain has been unwilling to bear the conversion cost of changing from the local to the global maximum.

**Producing by Distributing**

I have discussed pure games of distribution and pure games of coordination. Most bargaining games are impure, involving cooperation and distribution. When bargaining, each party tries to secure the cooperation of others, which is productive. The productive aspect of bargaining causes the convergence of interests and promotes cooperation. When bargaining, each party also tries to secure the best terms, which is distributive. The distributive aspect of bargaining causes the divergence of interests and promotes conflict. In general, **cooperation produces and terms distribute.** In a bargaining game, the parties must agree on the terms for distributing the cooperative surplus in order to produce it. Agreement among the players in a bargaining game is easy to reach when production dominates distribution. Conversely, agreement is hard to reach when distribution dominates production.

In a zero-sum game, everyone is an enemy because one person’s gains can only come through another’s losses. In reality, however, politics is a bargaining game with a productive, creative dimension. By agreeing on distribution, people cooperate to mutual advantage. Focusing only on distribution misleads the observer into thinking that politics is a zero-sum game. The belief that political opponents are enemies, which Carl Schmitt developed into a political philosophy, distorts the nature of politics.

The character of political bargaining identifies a trade-off in choosing between majority rule and unanimity rule. Unanimity rule requires the consent of everyone. The necessity of universal consent increases the costs of coordination and blocks involuntary redistribution. In contrast, majority rule overrides a dissenting minority. The power to override minorities decreases the costs of coordination and allows involuntary redistribution. The possibility of redistribution causes cycling and strategic behavior. The choice between unanimity rule and majority rule presents a trade-off between coordination costs and strategic costs.

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12 See Dyzenhaus 1998.

13 To illustrate, contrast a game with unanimity rule and majority rule. Under unanimity rule, the game has N players who can obtain a prize of $100 by agreeing on its division, and they get
CHAPTER THREE

In reality, unanimity rule often succeeds for small organizations and paralysis large organizations. Recognizing this fact, a growing organization may begin with unanimity rule and later switch to majority rule. For example, as more countries join the European Union, the Council of Ministers increasingly replaces unanimity rule with majority rule for its decisions (see chapter 5). In general, unanimity rule paralyzes large organizations and majority rule animates them. Animation, however, comes at a cost. In general, majority rule provokes contests for redistribution and unanimity rule eliminates contests for redistribution. Majority rule creates the need for constitutional devices to dampen redistributive contests, such as a constitutional right to property. As discussed in chapter 12, a constitutional right to property diverts redistributive contests away from their most destructive forms, such as expropriating the property of political enemies, and channels them into milder forms, such the quest for tax breaks.

Enforceability and Incumbency

The ability of people to agree increases when they can bind their future actions. In markets, contracts bind future actions. In politics, however, limits on the ability of present officials to bind future officials restrict the deals they can strike. To illustrate, when Congress enacts a bill, a future Congress remains free to repeal it. The sitting Congress cannot legally entrench legislation, say, by inserting a clause in a bill stipulating that its repeal requires a super-majority in a future Congress. This fact can obstruct bargaining with Congress. To illustrate concretely, President Reagan’s plan for a “new federalism” called for reshuffling expenditures between the states and the federal government. The sitting Congress feared that after costs were shifted to the states, the president and a future Congress would not keep the federal government’s side of the deal. The inability of the president and Congress to bind their future decisions apparently caused the deal to fail. 15

—nothing if they cannot agree. Under unanimity rule, the coalition of N people is in the core. As N becomes large, however, the costs of coordinating N people increases. Consider changing the rules of the game to majority rule. Under majority rule, any coalition of 1 + N/2 players can obtain the prize of $100 by agreeing on its distribution, provided that no one defects to another coalition. The reduction in coalition size from N to 1 + N/2 reduces coordination costs among the players. Under majority rule, however, the core is empty. To diminish this problem, additional rules of the game could limit the scope of redistribution by a majority. For example, the rules of the game could prescribe that every coalition divide its payoff equally among its members.

14 Levmore 1996 explores how candidates could precommit and why they usually do not.
15 President Reagan wanted the states to assume responsibility for the cost of certain welfare programs (food stamps, Aid for Dependent Children) and sixty-one specific grant-in-aid programs. In exchange, the federal government would pick up all costs of certain medical programs (medicaid). In addition, the states could draw on federal funds from excise taxes and taxes on windfall profits in the oil industry. See Rochelle L. Stanfield, “A Neatly Wrapped Package with Explosives,” National Journal 27 January 1982, pp. 356-62.
Constitutional amendment binds politicians by entrenching a law against legislative repeal. By amending the constitution, a political coalition makes a credible commitment whose strength depends on the difficulty of amendment. If amendment is too easy, the commitment is not credible. If amendment is too hard, the commitment is too difficult to make. The optimal process of constitutional appeal balances the strength and frequency of commitment. To illustrate this way of reasoning, Donald Boudreaux and A. C. Prichard (1993) argue that the burdensome process prescribed by Article 5 of the U.S. Constitution prevents political coalitions in the United States from making beneficial commitments. An easier amendment process would, in their view, provide better protection against political factions.

Without credible commitments, trust is critical to cooperation. Trust arises from past cooperation and future advantage from a continuing relationship. Thus, politicians who stay in office for a long time (repeat players) can make deals that brief officeholders (one-shot players) cannot make. To illustrate, the term of office is six years in the U.S. Senate and two years in the House of Representatives, so senators have an advantage over representatives in making deals.

**Question:** Compare the deal-making ability of a recently elected president and a president nearing the end of his final term ("lame-duck").

**Problem of Representation**

In indirect democracy, the citizens elect the legislators and the legislators make the laws. The constitution should try to align the self-interest of legislators and the interests of citizens. Insofar as the constitution succeeds, the citizens are well represented by their legislators. If citizens are well represented, then bargains among the legislators satisfy the preferences of the citizens. If citizens are poorly represented, then bargains among the legislators satisfy the legislators and frustrate the citizens.

The theory called "pluralism" holds that different segments of society organize successfully to bargain with each other and influence politics (Dahl 1982). Pluralism presupposes that each group of citizens elects representatives to bargain for them. Representatives ideally enjoy political influence roughly in proportion to the number of people whom they represent. In reality, some citizens enjoy better representation than others, and some representatives enjoy disproportionate power. The bargain theory of democracy must explain these differences in the quality of representation and the power of representatives.

Unequal information can cause unequal representation. To illustrate how scarce political information is, assume that a committee of the U.S. Congress considers four proposals on educational expenditures. The National Organization of Women (NOW) makes the first proposal, the National Association for the Advancement of Colored People (NAACP) makes the second proposal, the National Union of Teachers (NUT) makes the third proposal, and the National Association of Manufacturers (NAM) makes the final proposal. Assume the
committee follows the *king-of-the-hill* procedure, according to which the members vote “yes” or “no” on a series of alternatives, and the last alternative on the agenda to receive a majority of “yes” votes prevails. Following this procedure, the members can vote “yes” on all four proposals and the proposal by NAM wins. After the votes, a committee member who made speeches before each of these four organizations could report that he voted for each of their proposals. The report is true and utterly misleading.

In general, bargaining jeopardizes the accountability of legislators. To see why, assume that two bills, A and B, are pending in the legislature. Also assume the constituents of a certain district favor both bills, but passing A is more important to them than passing B. If the district’s representative votes for both bills, her constituents will approve of her voting record. Assume, however, that both bills will be defeated unless she trades her vote on B to obtain a vote on A. Now the representative faces a dilemma. Her constituents care more about A than B, so they would presumably want her to trade votes in order to secure the passage of A. If, however, she does trade votes, she will go on record as voting against B. Since her constituents favor B, her opponent in the next election will tell the voters that she voted against B. Should she give her constituents their preferred legislation or their preferred symbols?

In general, sincere voting on each bill makes the legislator’s voting record relatively easy to interpret and precludes the efficiency gains from vote trading. Conversely, vote trading obscures the information provided by a legislator’s voting record and increases satisfaction with legislation.

What is the quality of the pickles inside a jar on the grocery shelf? Most people guess based on the brand. Similarly, when voters know little about candidates, party labels become important signals. So long as candidates adhere to the party’s platform, party labels provide useful information. Thus the major political parties preserve the value of their “brand name” by disciplining their members and inducing ideological similarity.

Detailed political information comes from people in silk suits waiting in the lobby to talk to politicians when they emerge from their chambers. Professional “lobbyists” scrutinize the performance of politicians on details that go unnoticed by most voters, thus performing the valuable role of informing citizens about technical laws and regulations. However, the citizens who get informed by lobbyists are mostly those who pay for it, and different groups of people pay lobbyists different amounts of money. Thus lobbyists increase the mean and the variance in political information known to citizens. The next section explains differential investment in lobbying.

**Questions**

1. A legislator who favors bills A and B may yet vote against B to secure passage of A. How could you measure the extent of strategic voting in a legislature?

16 For a pure signaling model, in which contributions by interest groups signal information about the actual traits of political candidates, see Dharmapala 1998.
2. A well-known economist argued that fragmented power prevents Americans from holding officials accountable for failed policies thus paralyzing politics. He proposed abandoning the presidential system and adopting a British-style parliamentary system (Thurow 1980). Explain how fragmented power erodes accountability.

Investing in Politics

A rational investor channels money into the investments that yield the highest rate of return. When one investment has a higher expected rate of return than another investment with the same risk, funds will flow from the lower-yielding investment to the higher-yielding investment. This principle applies to investments in microprocessors, oil wells, and lobbying. For example, a computer company that earns 12 percent on keyboard production and 16 percent on lobbying for military contracts will shift funds from the former to the latter. (I assume that both investments are equally risky.)

After reallocating funds to reach equilibrium, every investment with the same risk earns the same rate of return. For example, in equilibrium the computer company that earns 10 percent on keyboard production also earns 10 percent on lobbying for military contracts. This proposition applies to investments in acquiring tax loopholes, import protection, monopoly restrictions, regulations limiting competition, and grants for research and development.

Since one form of investment easily substitutes for another, the supply of funds for lobbying is highly elastic in the long run. To appreciate the consequences of this fact, think of lobbyists as supplying legislation, and think of investors as demanding legislation. An increase in the price lobbyists charge for legislation should cause a large decrease in demand for legislation by investors. Furthermore, an increase in the price charged by lobbyists for legislation should cause a decrease in total expenditures on lobbying.

These predictions can be tested. The price charged by lobbyists for legislation should change with political organization. The division of powers in a democracy requires more officials to cooperate in making legislation. To illustrate, a bicameral legislature requires the cooperation of two houses to enact legislation, whereas a unicameral legislature only requires one house to enact legislation. Similarly, the fragmentation of offices among political parties makes cooperation among officials more difficult. More burdensome procedural rules in the legislature also increase the cost of “purchasing” legislation. Finally, public financing of campaigns or changes in information technology that decrease legislators’ need for campaign funds should increase the cost of purchasing legislation. I conclude that the division of powers, the fragmentation of parties, more burdensome legislative procedures, and public financing of campaigns should increase the price charged by lobbyists for new legislation, thus substantially decreasing total expenditures by firms on lobbying in the long run.

Unlike firms, citizens seldom think of their donations to political causes as investments that must yield a competitive rate of return. Consequently, citizens
are less likely to reduce their investments in lobbying when the price of legislation increases. The contribution of citizens to groups such as Greenpeace and the American Association of Retired Persons is presumably less elastic than the contributions of firms to lobbyists. If demand by citizens is inelastic, the division of powers, the fragmentation of parties, more burdensome legislative procedures, and public financing of campaigns, which increase the price charged by lobbyists for new legislation, should only moderately decrease total expenditures on lobbying by citizens’ groups.

Profitability can explain the form of the legislation purchased by firms. To illustrate, assume that an industry must decide between lobbying for subsidies or lobbying to restrict competition by quotas and price controls. Subsidies will attract new firms to enter the industry and dissipate profits. Furthermore, the public can easily discover expenditures on subsidies. In contrast, quotas and price controls create monopoly profits while excluding entry, and the public has difficulty discovering their cost. So quotas and price controls are usually the first choice of the regulated industry. To illustrate, airline regulations impose quotas and price controls on routes in many countries.

Questions

1. Assume that party label acts as a signal rather like a brand name on a commodity. Explain why this assumption might imply that parties will be more important in national elections than in local elections.

2. Explain why public financing of political campaigns might increase the cost of purchasing legislation through lobbying. Also explain why the American Association of Retired Persons might respond by spending more money on lobbying.

Free Rides and Costly Lobbying

The effects of new laws are spread among many people, but the costs of lobbying are concentrated. To illustrate, there are approximately 70,000 lawyers in California, so a regulation that benefits each of them by $100 creates $7 million in benefits for the profession. Assume that lobbyists could supply such a regulation at a cost of $140,000. If $2 could be collected from every lawyer in the state to pay for lobbying, each of them would receive a payoff of $100. This rate of return on investment exceeds Microsoft in its best years. But the self-interest of individual lawyers prompts each of them to free-ride on the contributions of others. Lobbying expenditures by a group depends on its ability to overcome the free-rider problem.

The free-rider problem is easier to overcome in a group with few members than in one with many. Monopoly and oligopoly concentrate production, whereas competition diffuses it. In many markets, a small number of producers

17 For a detailed account of industry preferences for regulation, including historical data from the United States, see Stigler 1971.
sell to a large, diffuse group of consumers. The free-rider principle predicts that lobbying will be strong by corporations in concentrated industries, whereas lobbying will be weak by corporations in competitive industries and by consumers in all markets. Given asymmetrical lobbying, producers are more likely than consumers to "capture" an industry's regulator. 18

A group can overcome the free-rider problem by finding a way to tax its members. 19 To illustrate, in order to practice medicine in most American hospitals, a doctor must belong to the American Medical Association (AMA). The dues that doctors pay to the AMA resemble a compulsory tax more than a voluntary contribution. The AMA uses the dues to finance lobbying on behalf of all doctors. In contrast, an ecology organization like the Sierra Club has no coercive hold on its members. Its dues resemble a voluntary contribution more than a compulsory tax. The Sierra Club must rely on idealism, not self-interest, to obtain lobbying funds. The free-rider principle predicts relatively strong lobbying by professional organizations and industrial unions and relatively weak lobbying by "public interest" groups.

A shortcoming of the free-rider principle is its exclusive focus on the supply of funds for lobbying and not their use. Politicians in a democracy are concerned with the number of votes that lobbyists can deliver. The lobbyists for a concentrated industry may have to spend a lot of money to deliver a modest number of votes, whereas the lobbyists for a popular organization may be able to deliver many votes at modest cost. Popular organizations are more efficient than industrial organizations at transforming money into votes. This observation predicts that the Sierra Club and the American Association of Retired Persons will obtain more political influence per dollar spent on lobbying than the National Association of Manufacturers.

The most powerful lobbyists solve the free-rider problem and efficiently transform money into votes. To illustrate, a small number of gun manufacturers donate substantial sums to the National Rifle Association (NRA), and many gun owners who belong to the NRA faithfully respond to its appeals with their votes. This fact explains why public opinion polls in some U.S. states consistently show the majority of voters favoring stricter controls on guns than legislators produce.

Theories of self-interest cannot explain the attachment of voters to idealistic causes. To illustrate, many people expect no direct return when they donate to lobbyists for the environment, poor people, or disadvantaged minorities. Political organizations with the skill to tap the altruism of people can enjoy financial support in contradiction of the free-rider principle. Economic theory so far has said little about altruistic impulses for lobbying.

Questions
1. A familiar list of U.S. organizations follows. First, rank them according to your guess about their ability to overcome the free-rider problem. Second,
rank them according to your guess about their ability to attract idealistic donations.

Teamsters Union
Sierra Club
American Bankers Association
American Medical Association
American Association of Retired Persons
National Rifle Association

2. Give an example of a regulator that appears to be “captured” (controlled by the industry it regulates) and describe the political forces making capture possible.

Rent-Seeking

Investing in manufacturing facilities is wholly productive, whereas investing in lobbying is partly productive and partly redistributive. Investing in lobbying is productive insofar as it leads to more efficient laws. Rather than increasing efficiency, however, many laws redistribute government money or restrict competition. To illustrate, many of the deductions and exclusions in the federal tax code reduce its efficiency and redistribute the tax burden. Similarly, many regulations restrict competition in order to increase profits of the regulated firms.

Economists have developed useful language for describing wasteful political activities. In its technical meaning, “rent” refers to profits from passive ownership, as opposed to profits from productive activity. Scarce legal entitlements yield rent to their owners. To illustrate, a restaurateur who receives the exclusive right to operate a restaurant in a public park will enjoy monopoly profits. The concessionaire enjoys the “ordinary profits” that any competitive enterprise would enjoy, plus “excess profit” from being a monopoly. The excess profit is the “rent” from owning the concession.

Investing in lobbying to acquire scarce legal entitlements is called “rent-seeking.” Although the phrase sounds invidious, economists apply it indiscriminately to behavior that ordinary people loath and admire. To illustrate, domestic steel manufacturers seek to exclude imports, airlines seek to prohibit discount fares, lawyers seek to exclude paralegals from supplying cheap legal advice, labor unions seek protection from nonunion workers, one ethnic group seeks protection from competition by workers belonging to another ethnic group, and media companies seek the exclusive right to supply cable television to small towns. Similarly, artists seek subsidies to paint pictures, universities seek subsidies for research, and sports teams seek subsidies to build stadiums.

Figure 3-1 elucidates the logic of rent-seeking. Assume that the government considers imposing a tax on one group of people and using the revenues to
provide benefits to another group. To be specific, assume that a small town has many restaurants whose customers come from outside the area. The residents want to shift the burden of taxation from themselves to the customers of the restaurants. The local government proposes to reduce a poll tax on residents and replace lost revenues with a new tax on consumption of beverages sold in restaurants.

The horizontal axis in figure 3-1 indicates the number of beverages purchased from restaurants in the town, and the vertical axis indicates the average price of a beverage. Without a tax, the quantity is $x_c$ and the price is $P_c$.

Consider the effect of imposing a tax $t$, which is assessed for each beverage sold in restaurants, rather like a tax per package of cigarettes or a tax per liter of gasoline. The supply curve indicates the cost to producers of supplying the good to consumers. Consumers pay a price that equals the cost of supplying the good plus the tax. Thus the tax is a wedge between the supply curve of producers and the demand curve of consumers. The height of this wedge is the value of the tax $t$. To incorporate the wedge into figure 3-1, find the point where the vertical distance between the demand and supply curves equals the tax $t$, which is labeled $x_0$ in figure 3-1. This is the new equilibrium, which occurs at the level of supply where the cost of supply plus the tax equals the amount consumers are willing to pay for the good.

If a tax $t$ is imposed, the price paid by consumers will rise to $P_o + t$, of which $P_o$ goes to the restaurants and $t$ goes to the state. As a result of the beverage tax, the number of beverages purchased will fall to $x_0$. The total revenues raised by the tax equal $t \times x_0$, or the area $B + C$ in figure 3-1. Since all the tax revenues go toward reducing the residential poll tax, residents would benefit from investing up to $B + C$ in lobbying activities to ensure the enactment of the tax.

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20 A poll tax, which is a tax on each person, simplifies the example because poll taxes have little or no incentive effects.
The tax imposes a loss on restaurants and their customers. I will explain each loss in turn. The demand curve indicates the quantity that consumers will demand as the price varies. Equivalently, the demand curve indicates the price that consumers are willing to pay for the good as the quantity varies.\textsuperscript{21} The consumers' surplus equals the difference between the prices consumers are willing to pay and the price that they actually pay. The loss imposed by the tax on the restaurant customers equals the decrease in consumers' surplus.

To compute this loss, notice that the consumer's surplus in the initial situation, before the tax is imposed, equals the area in between the demand curve and the horizontal price line through $p_c$. So the initial consumer's surplus equals $A + B + F$ in figure 3-1. After imposing the tax, the consumer's surplus equals the area in between the demand curve and the horizontal price line through $p_c + t$, which corresponds to area $A$. Thus the decrease in consumers' surplus equals $A + B + F - A = B + F$.

Now I turn from the customers to the restaurants. The supply curve indicates the quantity that sellers in a competitive market will supply as the price varies. Equivalently, the supply curve indicates the cost to sellers of supplying the good as the quantity varies. The difference between the price received by sellers and the cost of supplying it equals their profits. (Profits are also called "producer's surplus."\textsuperscript{22}) Thus the loss imposed by the tax on restaurants equals the decrease in their profits. To compute this loss, notice that profits in the initial situation, before the tax is imposed, equal the area in between the horizontal price line through $p_c$ and the supply curve. So the initial profits equal $C + D + G$ in figure 3-1. After imposing the tax, profits equal the area in between the horizontal price line through $p_c$ and the supply curve, which corresponds to area $D$. Thus the decrease in consumers' surplus equals $C + D + G - D = C + G$.

I have explained that the tax imposes losses on consumers and restaurants equal to $B + F + C + G$ in figure 3-1. The tax, however, benefits residents by raising revenues that the state uses to offset reductions in the residential poll tax. A tax at rate $t$ on $x_o$ beverages raises total revenues equal to $t \times x_o$, which corresponds to $B + C$. The phrase "excess burden" refers to the difference between the burden imposed on the people who pay the tax, $B + F + C + G$, and the revenues raised by it, $B + C$. Thus the excess burden in figure 3-1 equals the small triangle $F + G$. (The excess burden is also called the "deadweight loss" from the tax, because it is the portion of the loss from the tax that is not offset by a gain.)

Since the loss to restaurants and their customers exceeds the gain to the beneficiaries of the tax in the form of tax revenues, the losers lose more than the winners gain. To be precise, the losers lose $F + G$ more than the winners

\textsuperscript{21} These equivalencies are obtained mathematically by inverting the demand function. If the demand curve is written $x = f(p)$, then its inverse is written $p = f^{-1}(x)$. A one-to-one function can be inverted.

\textsuperscript{22} Here I ignore a subtle difference of profits in the long and short run. The area between the price line and the short-run supply curve indicates the seller's profits excluding the cost of fixed factors of production. The area between the price line and the long-run supply curve indicates the owner's profits of factors inelastically supplied in the long run, such as the rent on owning land.
gain. In general, a tax or regulation imposed on a perfectly competitive market causes the losers to lose more than the winners gain. The justification for such a policy, if it has a justification, must rest on some grounds other than economic efficiency, such as distribution. In this example, the justification would have to rest on the desirability of redistributing wealth from restaurant owners and customers to the town’s residents.

In lobbying against the tax, the maximum amount the losers would pay to defeat the tax is the full value of the loss the tax will impose upon them, which equals $B + C + F + G$. Similarly, in lobbying for the bill, the maximum amount the winners would pay equals the full value of the gain the tax creates for them, which equals $B + C$. An inefficient policy, by definition, imposes larger losses on losers than the gains it creates for winners. So the maximum amount the losers would pay to defeat the tax bill exceeds the maximum amount the winners would pay to enact it.

Legislators sometimes want to catch the attention of competing interests and test the strength of their sentiments. To illustrate, a legislator might propose new rules for dairy farms in order to “fetch” the farm lobbyists into his office for a private discussion. In Illinois such a proposal is called a “fetcher bill.” Assume a politician “fetched” the parties affected by the proposed beverage tax and offered to “sell” the legislation to the highest bidder. In other words, imagine that a politician tells the residents, the restaurant owners and customers that he will either impose the tax or not impose it depending on which group is willing to pay more.

As explained, the potential losers are willing to spend more to block the tax than the potential winners are willing to pay to impose the tax. If the potential winners know this fact, then they might believe that they will lose a “lobbying war.” Rather than losing the lobbying war, the potential winners from the tax may refuse to pay the politician anything. But if the potential winners refuse to pay the politician, the potential losers need not actually pay anything either. So nothing is spent on influencing the political process and the efficient outcome is achieved. This fortuitous outcome is rather like the two bull moose in mating season who take the measure of each other by displays and threats, and then the one who would lose the fight runs away.

Unfortunately, outcomes are not always so fortuitous in lobbying or mating. Bull moose sometimes kill each other, and political factions in a democracy sometimes waste large sums of money trying to outdo each other. A contest to acquire a legal right can dissipate the rents that a party enjoys from owning it. In our example, the homeowners might spend $B + C$ lobbying for the tax, and the consumers and restaurant owners might spend $B + C + F + G$ lobbying against the tax. The area $2B + 2C + F + G$ in figure 3-1 represents the maximum potential loss from dissipative rent-seeking, whereas the welfare triangle $F + G$ represents the loss from allocative inefficiency. In general, dissipative rent-seeking imposes much greater social losses than does allocative inefficiency.

As explained, $2B + 2C + F + G$ represents the maximum value that the parties would spend in lobbying, but they will not necessarily spend the maximum
amount. The parties affected by this tax are classes of people—restaurateurs, customers, and homeowners. Lobbying may be in the interest of a class of people, but actually undertaking the lobbying may not be in the self-interest of any member of the class. To predict how much an individual will invest, it is necessary to predict his return on the investment. Spreading the benefit among many people dilutes the return, thus prompting free-riding.

Now I summarize the arguments about the complex role of money in politics. Investment in political influence provides voters with a way of expressing the intensity of their preferences, which increases the efficiency of politics. Furthermore, political advertising and lobbying increase the amount of information known to voters and may change their preferences as well. There are, however, several ways that money distorts the political representation of preferences. First, groups that cannot overcome the free-rider problem enjoy little influence. Second, unequal wealth results in unequal political influence. Instead of each person having the same threat value (the ability to withhold one vote), some citizens have far larger threat values than others (the ability to withhold contributions). Third, many investments in political influence aim to transfer wealth from politically favored groups to politically disfavored groups. These transfers are costly and unproductive. So the question of whether money invested in obtaining political influence improves or harms the workings of democracy is complicated. Chapter 13 returns to this question and discusses a novel reform proposal to limit the influence of money on politics.

Questions
1. Would you expect an increase in the elasticity of the demand and supply curves in figure 3-1 to result in more or less rent-seeking? Explain your answer.
2. Shoe manufacturers lobby for restrictions on imported shoes, and the Salvation Army lobbies for funds to support homeless alcoholics. Are both “seeking rents”?
3. To be sure that you understand figure 3-1, answer the following question about a similar graph in figure 3-2, which depicts the effects of a $.20 dollar beverage tax on the demand and supply of beverages by restaurants.
   a. Assume that the owners of restaurants and their customers do not enjoy any of the benefits from spending the tax revenues. How much would blocking the tax be worth to the owners of restaurants and their customers?
   b. Assume that the revenues from the beverage tax are used to reduce a residential poll tax. Also assume that the residents are neither owners nor customers of the restaurants. How much is the enactment of the tax worth to residents?
   c. Compare your answers to “a” and “b.” Use efficiency to explain why one value exceeds the other.
Government by Coalition

Only two major parties exist in Britain and the United States, but other democracies have many political parties. To govern a country with multiple parties, a coalition must command a majority of votes in the legislature. In a highly fragmented political system, many different combinations of parties could form the government. The theory of rent-seeking predicts which coalition will actually form. A governing coalition must distribute the spoils of office among its members. Assume the party with the most seats in the legislature invites other parties to join in creating a government. The members of the governing coalition must share the spoils of power (offices, contracts, grants, etc.). The largest party that forms the coalition government wants to concentrate the spoils of power on its own members. To share the spoils of power as narrowly as possible, the largest party should form the smallest coalition that is large enough to govern.\(^\text{23}\) The smallest coalition that is large enough to govern is called the \textit{minimum winning coalition}.

To illustrate, assume that five parties, labeled A, B, C, D, and E, divide the seats in Parliament as depicted in figure 3-3. To form the minimum winning coalition, A will invite C to join in forming a government. The coalition of A and C will control 52 percent of the votes.

Notice that the theory of the minimum winning coalition predicts the relationship between the number of parties in the legislature and the size of the governing coalition. As the number of parties increases, wider choice among smaller parties permits the governing coalition to come closer to the minimum of 51 percent of the seats. So more parties implies fewer total seats on average in the governing coalition.

\(^{23}\) This concept was first developed by Riker. See Riker 1962.
In practice, a small majority has difficulty governing. To illustrate, a coalition with 52 percent of the seats could fall if a few legislators fail to turn up for a crucial vote. Given this fact, party A may choose to form a coalition with D and E, which gives the government 58 percent of the seats. The extra margin of safety may be worth the price of sharing the spoils of office with more people. Instead of the minimum winning coalition, government may be formed by the minimum working coalition.\footnote{For a discussion contrasting minimum winning coalition and minimum working coalition, see Laver and Schofield 1990b, p. 94.}

The role of ideology in politics is ignored by the prediction that the minimum winning coalition or the minimum working coalition forms the government. To illustrate the problem of ideology for these theories, assume the parties can be ranked on a left-right political scale depicted in figure 3-4. Parties are connected if they occupy adjoining positions on the left-right scale. Thus A is connected to B, and B is connected to C, but A is not connected to C. Ideological connection may increase the ability of parties to cooperate. Conversely, ideological distance may decrease the ability of parties to cooperate. A might have difficulties forming a coalition with C and even more difficulty forming a coalition with D or E. If ideological connection is necessary to form a coalition, then a government may form from the minimum connected coalition. The minimum connected coalition in figure 3-4 is B, C, and D, which together control 54 percent of the seats.

Like the median rule, the theory of the minimum connected coalition involves a single dimension on which parties can be ranked. Alternatively, assume that each party occupies a point in a multiattribute space of political choices. In politics as in markets, complementary tastes provide grounds for trade and cooperation. One party’s preferences complement the preferences of another party when the first party cares the most about issues that the second party cares about the

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**Fig. 3-3** Coalition Formation

- **A** 35%
- **B** 25%
- **D** 12%
- **E** 11%
least. This fact suggests that the largest party should look for coalition partners with complementary preferences. To illustrate, assume the largest Israeli party wants the key cabinet positions like defense, and some small religious parties want the state to enforce religious rules such as prohibiting commerce on the Sabbath. By forming a governing coalition among these parties, the government can give each party what it most wants. This reasoning suggests another principle for coalition formation, which could be called the **most complementary coalition**. The most complementary coalition maximizes the gains from trading votes.

Empirical research comparing various countries with coalition governments, especially in Europe, has shown that the minimum winning coalition and the minimum connected coalition have predictive value. These theories do much better than chance in predicting the coalition that will form a government, although these theories are not necessarily right more often than they are wrong. Besides the logic of game theory, history and culture determine the composition of political parties in coalition governments.

**Questions**

1. In the following alignment of parties in figure 3-5 below, what is the minimum winning coalition? What is the minimum connected coalition?

2. Governments in the United States alternate between the Democratic and Republican Parties. What prevents one party from growing larger than the other and dominating most elections?

**Unstable Coalitions**

Coalition governments in some countries are notoriously unstable. For example, Italy had forty-three different coalition governments between 1945 and 1985.

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Fig. 3-4 Connected Coalitions

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25 Laver and Schofield 1990b.
Bargaining theory helps explain the instability. Earlier in this chapter I explained that a game of redistribution under majority rule with symmetrical voters has an empty core. Similarly, a game of coalition government with symmetrical parties has an empty core. An empty core causes instability.

To illustrate the similarity between majority rule redistribution and coalition government with symmetrical players, assume that three parties named A, B, and C have an equal number of seats in the legislature. Any two of the parties can form a coalition government. To keep the example simple, assume that the governing coalition can distribute 100 units of political payoffs (offices, contracts, honors, etc.), and a party excluded from the governing coalition receives a political payoff of 0. To begin bargaining, someone proposes to form a coalition of all three parties and distribute the payoffs equally: \((A, B, C) = (33, 33, 33)\).\(^{26}\) A counters with the proposal to form a coalition with B and give nothing to C, thus yielding the payoffs \((A, B, C) = (50, 50, 0)\). A’s proposal makes A and B better-off, and they can implement it under majority rule, so A’s proposal blocks the initial proposal. Now C counters with a proposal to form a coalition with B and distribute the payoffs \((A, B, C) = (0, 75, 25)\). C’s proposal blocks A’s proposal. As in the majority-rule redistribution game, \(any\) proposal in the coalition game is blocked by another proposal, so the game has an empty core. The same instability afflicts coalitions to form a government and trading of votes in a legislature.

\textbf{Questions}

1. Explain the possible instability in the minimum winning coalition in figure 3-3.

2. In 1994 Italy changed its electoral law in an attempt to increase the stability of coalitions. If the goal is to increase stability, what constitutional rules would you endorse?

\textbf{Coalitions in Two-Party Systems}

Nikita Khrushchev, who was dictator of the Soviet Union in the late 1950s and early 1960s, said to Germany’s foreign minister, “Tell me, what is the ‘opposition’?” The foreign minister answered, “The opposition is the government of tomorrow.”\(^{27}\) The alternation of successive governments creates a kind of dialogue that invigorates politics. Recognizing this fact, some tribal people divide themselves into two halves or moieties for purposes of government. For example, one pueblo in the southwestern United States traditionally divides the tribe into “winter people,” who are associated with hunting and govern during the winter months, and “summer people,” who are associated with agriculture and govern during the summer months.

\(^{26}\) In experiments, people often solve this game by an equal division of the stakes, even though this solution is not in the core.

\(^{27}\) Quoted in Fikentscher 1993, p. 10.
Two-party politics eliminates legislative bargaining or changes its character. Most people in Britain support the Labor Party or the Conservative Party. Since the 1930s elections have vacillated, with one party holding a majority for a while and then the other party obtaining a majority. In Britain, the party that has a majority in Parliament governs. The majority party can enact any legislation that it wishes, and it has no need to form a coalition that encompasses minority parties. Instead of forming a coalition, governing parties exclude others from a share in the spoils of government.

Bargaining in Britain takes place within the governing party, or between its members and citizens who are outside of Parliament, not between political parties. The British prime minister is a member of the legislature and she exercises firm discipline over her party. In fact, the prime minister requires all members of her party who sit in Parliament to vote the same way that she does on every important issue. The most important bargaining occurs within the ruling party before a bill goes to Parliament. Legislation in Britain should not be regarded as a bargain struck by regional representatives. Rather, legislation is the means by which the governing party implements its program. The need to win elections disciplines the party's program. Competition presumably compels the two parties in Britain to search for a program that is a Condorcet winner in general elections.

The United States also has two-party politics, with the Democratic and Republican Parties vying for office. However, one party seldom holds the presidency and also a majority in both houses of Congress. Consequently, one party seldom has the power to enact legislation by relying exclusively on its members. In addition, party discipline is not so strict in the United States as it is in Britain. Consequently, the president's party, which forms the government, cannot enact all the legislation that it wants. Legislating in the United States often requires bargaining between the president and the Congress, or between leaders in the two parties.

The Game of State

So far my analysis has assumed a secure democratic framework of government. In many states, however, the constitution does not command much respect or obedience. Political officials in these countries violate or suspend the constitution to benefit themselves. I will briefly discuss political bargaining without an effective constitution.

The game of state refers to the problem of creating a large state from competition among smaller units of government. Modern weapons and bureaucratic organization enable a large state to supply law and order at lower cost and higher quality than can small competing states. Once people stop fighting with each other, the creation of a unified state yields a large peace dividend, as illustrated by comparing western Europe before and after 1945.

A natural monopoly exists when one large firm can produce at lower cost than can several small firms. A large state has a natural monopoly on force. In
the game of state, the potential gains from peace exert pressure to end factional violence and create a unified state. The coalition of the whole, in which each faction renounces force, dominates any smaller coalition. No smaller coalition can block the coalition of the whole, so the coalition of the whole fills the core in the game of state. The theory of natural monopoly predicts continuing pressure to end factional violence and create large, peaceful states. In this book, I focus on the consequences of stable constitutions, not their pre-conditions, so I do not analyze the causes of persistent factional violence.

The game of creating the state differs from the game of governing it. A unified state must have a particular constitution. In a democracy, popular competition for office determines who will govern the state. The strength of democracy comes from institutionalizing competition to control the state's monopoly powers. However, the choice of one governing coalition over another redistributes the spoils of office. This game of redistribution has an empty core, which destabilizes politics. A democratic constitution cannot guarantee the elimination of this instability.28

CONCLUSION

Chapters 2 and 3 concern two fundamental processes of government, specifically voting and bargaining. When constitutions narrow voting to a single dimension of choice, majority rule tends to yield a result in the middle of the distribution of voters' preferences (median rule). In these circumstances, transaction costs typically block bargaining across issues. Alternatively, constitutions can allow voting to range freely over multiple dimensions of choice. Multiple dimensions of choice lower the transaction costs of political trades, thus increasing the potential surplus from political cooperation. However, multiple dimensions of choice also increase the risk that bargaining will fail. When bargaining fails, majority rule in multiple dimensions can provoke an unstable game of redistribution. In part 2 I will discuss in detail alternative forms of organization by which democracies choose between median rule and bargaining.

28 An analogy between economics and politics clarifies this point. As the number of participants in the market increases, they lose their power to bargain over prices. When carried to its logical extreme, this expansion in the market leads to perfect competition, in which everyone trades at the market price. These facts form the basis of the proof that the core of an economy shrinks to the perfectly competitive allocation as the economy grows by replication (Arrow and Hahn 1971). This result, however, is not obtained in the presence of a natural monopoly. As an economy expands, a natural monopoly does not disappear. Similarly, as the state expands by unifying smaller jurisdictions, natural monopoly persists, which creates the problem of distributing the peace dividend.