8 An Economic Theory of Contract Law

[T]he movement of the progressive societies has hitherto been a movement from Status to Contract.

HENRY MAINE,
ANCIENT LAW 170 (1861)

Whoever offers to another a bargain of any kind, proposes to do this: Give me that which I want, and you shall have this which you want, is the meaning of every such offer; and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of. It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest.

ADAM SMITH,
THE WEALTH OF NATIONS 22 (5TH ED. 1789)

A promise invokes trust in my future actions, not merely in my present sincerity.

CHARLES FRIED,
CONTRACT AS PROMISE 11 (1981)

PEOPLE CONTINUALLY MAKE promises: sales people promise happiness; lovers promise marriage; generals promise victory; and children promise to behave better. The law becomes involved when someone seeks to have a promise enforced by the state. Here are some examples:

Example 1: The Rich Uncle. The rich uncle of a struggling college student learns at the graduation party that his nephew graduated with honors. Swept away by good feeling, the uncle promises the nephew a trip around the world. Later the uncle reneges on his promise. The student sues his uncle, asking the court to compel the uncle to pay for a trip around the world.

Example 2: The Rusty Chevy. One neighbor offers to sell a used car to another for $1000. The buyer gives the money to the seller, and the seller gives the car keys to the buyer. To her great surprise, the buyer discovers that the keys fit the rusting Chevrolet in the backyard, not the shiny Cadillac in the driveway. The seller is equally surprised to learn that the buyer expected the Cadillac. The buyer asks the court to order the seller to turn over the Cadillac.

Example 3: The Grasshopper Killer. A farmer, in response to a magazine advertisement for "a sure means to kill grasshoppers," mails $25 and receives two wooden blocks by return post with the instructions, "Place grasshopper on Block A and smash with Block B." The buyer asks the court to require the seller to return the $25 and to pay $500 in punitive damages.

Should the courts enforce the promises in these examples? A promise is enforceable if the courts offer a remedy to the victim of the broken promise. Traditionally, courts have been cautious about enforcing promises that are not given in exchange for something. In Example 1, the promise of a trip around the world is a gift to the nephew. The rich uncle does not receive anything in exchange; so, according to the traditional analysis, the courts should not enforce the uncle's promise. In Example 2, money exchanges for a promise, but the seller thought that he gave a different promise than the buyer thought she received. Courts often refuse to enforce confused promises. In Example 2, the courts would probably require the seller to return the money and the buyer to return the car keys. Example 3 involves deception, not confusion. A "sure method to kill grasshoppers" means something more than what the seller delivered. The courts ordinarily offer a remedy to the victims of deceptive promises.

If an enforceable promise was broken, what should the remedy be? One remedy requires the promise breaker to keep the promise. For example, if the court decided that the seller in Example 2 broke his promise, then the court might order the seller to deliver the Cadillac to the buyer. This kind of remedy is unavailable in Example 3 because the seller cannot exterminate grasshoppers as promised. Instead, the remedy in Example 3 must involve the payment of money damages as compensation for the failure to provide an effective grasshopper killer.

Our examples illustrate the two fundamental questions in contract law: "What promises should be enforced?" and "What should be the remedy for breaking enforceable promises?" Courts face these questions when deciding contract disputes and legislatures face these questions when making statutes to regulate contracts. A theory of contract law must guide courts, legislatures, and private parties (and their lawyers) who make contracts.

I. Bargain Theory: An Introduction to Contracts

In the late nineteenth and early twentieth centuries, Anglo-American courts and legal commentators developed the *bargain theory of contracts* to answer the two fundamental questions of contract law. The bargain theory held that the law should enforce promises given in a bargain. To implement this answer, theorists isolated and abstracted the minimal elements of a typical bargain, and these distinctions remain fundamental to the way lawyers think about contracts. We will explain the bargain theory and use its elements in an economic theory of contracts.

A. What Promises Should Be Enforceable at Law?

"What promises should be enforceable at law?" The bargain theory has a clear answer to this question, which, following Professor Mel Eisenberg, we call *the bargain*

principle: A promise is legally enforceable if it is given as part of a bargain; otherwise, a promise is unenforceable. The bargain theory makes enforcement hinge upon classifying promises as "bargains" or "nonbargains." Consequently, the theory requires an exact specification of the necessary and sufficient conditions for the court to conclude that a bargain occurred.

Bargaining is a dialogue on value to agree on a price. The bargain theorists distinguished three elements in the dialogue: offer, acceptance, and consideration. "Offer" and "acceptance" have the same meaning in this theory as they do in ordinary speech: One party must make an offer ("I'll take that rusty Chevy over there for $1000"), and the other must accept it ("Done"). Sometimes business practices and social conventions prescribe the signals for making and accepting offers. For example, a buyer at an auction may signal an offer to buy by raising his or her hand, and the auctioneer may signal acceptance by shouting "Sold!" Sometimes contract law and statutes specify procedures for offer and acceptance. For example, most states require written contracts and registration for sales of land.

The "promisor" refers to the person who gives a promise, and the "promisee" refers to the person who receives a promise. In a bargain, the promisee induces the promisor to give the promise. The inducement may be money, as when the farmer pays $25 for the promise of a device that kills grasshoppers. The inducement may be goods, as when an automobile dealer delivers a car in exchange for the promise of future payment. The inducement may be a service, as when a painter paints a house in exchange for the promise of future payment. Or the inducement may be another promise, as when a farmer promises to deliver wheat to a wholesaler in the fall, and the wholesaler promises to pay a certain price upon delivery. The forms of a bargain thus include money-for-a-promise, goods-for-a-promise, service-for-a-promise, and promise-for-a-promise.

Regardless of form, each bargain involves *reciprocal inducement*: The promisee gives something to induce the promisor to give the promise, and the promisor gives the promise as inducement to the promisee. Common law uses the technical term *consideration* to describe what the promisee gives the promisor to induce the promise. Thus, the farmer's payment of $25 is consideration for the promise to supply a device that kills grasshoppers. The delivery of a car, the painting of a house, or a promise to deliver crops may be consideration for a promise of future payment.

According to the bargain theory, the contract remains incomplete until the promisee gives something to the promisor to induce the promise. When completed, the contract becomes enforceable. In other words, *consideration makes the promise enforceable.* The bargain theory holds that promises secured by consideration are enforceable and promises lacking consideration are unenforceable.

Let us illustrate the bargain theory by applying it to the three examples at the beginning of this chapter. In Example 1, the nephew apparently did not give anything as inducement for his rich uncle's promise of a trip around the world. Apparently there was no consideration, so the promise is unenforceable. In general, the promise to give a pure gift, which is not induced by the promise of something in return, is not enforceable under the bargain theory.

In contrast, consideration was given in Example 2 in exchange for the promise to supply the used car. The question raised in Example 2 is whether there was offer and

acceptance. The seller thought they were discussing the rusty Chevy and the buyer thought they were discussing the immaculate Cadillac. The seller offered to sell one good and the buyer agreed to buy another good. There was no "meeting of the minds." Without a meeting of the minds, there is no offer and no acceptance, just a failure to communicate.

In Example 3, the seller offered a sure method for killing grasshoppers in exchange for $25, the buyer accepted the offer, and consideration took the form of the payment of $25. Therefore, the promise is enforceable according to the bargain theory. The remaining question is whether the seller did what he promised.

We conclude this section by relating bargains to fairness. Most people have beliefs about fair bargains. In a fair bargain, each party gives equivalent value. In the language of law, a contract is fair when the value of the promise is proportional to the value of the consideration. Conversely, in an unfair bargain, the value of the promise is disproportional to the value of the consideration. To illustrate an unfair bargain, the elder brother (Esau) in a famous Bible story promised to give his inheritance rights to a younger brother (Jacob) in exchange for a bowl of soup.

According to bargain theory, a court should enforce promises induced by consideration, regardless of whether the consideration was equivalent in value to the promise. It is enough for enforceability under the bargain theory that the promisor found the consideration adequate to induce the promise. Bargain theory holds that courts should determine whether a bargain occurred, not inquire into whether the bargain was fair. Consequently, the doctrine of consideration requires courts to enforce some unfair promises, such as exchanging one's inheritance for a bowl of soup.[1]

An alternative theory would limit courts to enforcing fair bargains. To apply such a theory, a court would have to ask whether the value of the promise was equivalent to the value of the consideration. People often disagree about the value of goods, and litigants often disguise values from courts. Supervising all bargains for fairness would burden the courts and inhibit commerce. Consequently, most people want the courts to enforce bargains, not to supervise them. Perhaps this fact explains why courts do not routinely examine bargains for fairness. However, some bargains are so one-sided that most people require little information to condemn them as unfair. Modern U.S. courts sometimes refuse to enforce extremely one-sided bargains. (See the discussion of "unconscionability" in the next chapter.)

In most English-speaking countries, traditional common-law doctrine requires "consideration" for a promise to be enforceable. (See accompanying box entitled "Humpty-Dumpty Jurisprudence.") Instead of relying upon "consideration" to identify the essential element of an enforceable promise, however, the civil law tradition that prevails in continental Europe sometimes invokes the equally mysterious idea of "cause." Just as the bargain theory attempts to explain "consideration," so various theories have been advanced to explain "cause," such as the will theory. According to the will theory, a binding contract requires an intention by the parties to be bound. When each party intends the promise to bind, their wills meet, which creates the contract. The meeting of minds resembles Pareto efficiency, as we will explain.

---

[1] If Esau were starving to death when he promised his inheritance for a bowl of soup, the contract might not be enforceable under the bargain doctrine because of an exception, discussed in the next chapter, called the "necessity defense."
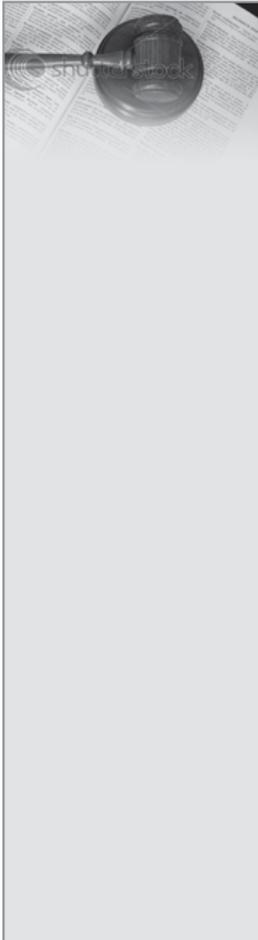
Humpty-Dumpty Jurisprudence: The Life History of the Word "Consideration"

"When I use a word, it means just what I choose it to mean—neither more nor less."
— Humpty-Dumpty in LEWIS CARROLL, Through the Looking-Glass

In the bargain theory of contracts, "consideration" means something the promisee gives the promisor to induce the promise. According to the bargain theory, consideration makes the promise enforceable. Anglo-American courts accepted the bargain theory in the early years of the twentieth century and adopted the legal principle that consideration makes a promise enforceable. Then, as the years passed, exceptions to the principle accumulated. Courts, however, are slow to discard the abstract principles that they adopt. Instead of renouncing the principle of consideration, the courts did something characteristic of them: They changed the meaning of "consideration." Instead of meaning "something the promisee gives the promisor to induce the promise," the word "consideration" as used by the courts came to mean "the thing that makes a promise enforceable."

A tautology is a proposition that is true by definition of the words, such as "All husbands are married." When the courts changed the meaning of "consideration," they reduced the legal principle of consideration to a tautology. If "consideration" means "the thing that makes a promise enforceable," then the principle "consideration makes a promise enforceable" has no bite. When reduced to a tautology, a legal principle merely draws our attention to the meaning of a word, rather than telling us something about the legal consequences of our actions. Having made the principle of consideration into a tautology, the courts could assert its truth without fear of being wrong. Hence, we have an example of Humpty-Dumpty jurisprudence.

QUESTION 8.1: People often change the form of a promise in an attempt to increase their certainty that courts will enforce it according to its terms. For example, suppose the rich uncle in Example 1 wanted to assure his nephew of the enforceability of the promise of a trip around the world. He might do this by changing the form of the promise from a gift to a bargain. According to tradition, the uncle would solemnly offer to give his nephew a trip around the world in exchange for a peppercorn from the dinner table, and the nephew would solemnly give the uncle a peppercorn. Will this charade make the uncle's promise enforceable under the bargain theory? Answer this question by using the doctrine that courts inquire into the presence of consideration but not its adequacy. Also answer this question using the doctrine that courts should refuse to enforce extremely unfair bargains.

B. What Should Be the Remedy for the Breach of Enforceable Promises?

The bargain theory also had an answer to the second fundamental question of contract theory: "What should be the remedy for the breach of enforceable promises?" According to

the bargain theory, the promisee is entitled to the "benefit of the bargain"—that is, to the benefit he or she would have obtained from performance of the promise. Computing compensation under this formula involves answering the counterfactual question "How well off would the promisee have been if the promise had been kept?" The counterfactual question concerns the benefit that the promisee could reasonably expect from performance. Consequently, the damage measure under the bargain theory is called *expectation damages.*

Note the connection between the answers to the questions "What promises should be enforced?" and "What should be the remedy for breach of enforceable promises?" Promises should be enforced, according to the bargain theory, if they are part of a bargain, and the remedy for the breach of an enforceable promise is an award of the value expected of the bargain. The fact of a bargain establishes enforceability, and the expected value of a bargain measures damages.

Assume that the promises are enforceable in the three examples at the beginning of the chapter. What measures expectation damages? The student's expectation damage in Example 1 equals the value to him of a trip around the world. The buyer's expectation damage in Example 2 equals the difference in the value that she places on the rusty Chevy and the value that she places on the immaculate Cadillac. In Example 3, the farmer's expectation damage equals the value of the crops destroyed by grasshoppers.

Counterfactual values are difficult to compute. The cost of a trip around the world, as in Example 1, depends on the route taken and, among other things, whether the traveler goes first class or economy class. The value of a unique, old Cadillac, as in Example 2, depends upon, among other things, the buyer's subjective preferences. The value of killing the grasshoppers in Example 3 depends upon the value of the crops that would have been harvested if they had not been destroyed by insects.

C. A Criticism of the Bargain Theory

The answer that the bargain theory gives to the first question of contract law is clear. Unfortunately, as a description of what courts actually do (and what they ought to do), the answer is also wrong. Sometimes the person who makes a promise wants it enforced and so does the person who receives it. Contract law should enforce such a promise in order to help the people get what they want. However, the bargain theory denies enforcement when the promise did not arise from a bargain.

For example, assume that a buyer begins her search for a car by taking a new Chevrolet for a test drive. After the test drive, the buyer plans to continue her search by visiting other car dealers. The seller wants to induce the buyer to consider carefully the purchase of the new Chevrolet. Consequently, the seller promises to sell the new Chevrolet to the buyer for a stated price, provided that the buyer accepts within 1 week. In other words, the seller makes a "firm offer" and promises to "keep it open" for 1 week. The buyer does not want to waste her time by considering the offer carefully and then finding that the seller has reneged. Consequently, the buyer wants the promise to be enforceable. The seller knows that the buyer is more likely to consider the offer carefully if the promise is enforceable, so the seller wants the promise to be enforceable. Thus, both the promisor and the promisee want the promise to be enforceable. Despite the wishes of both parties, the bargain theory withholds enforcement of the promise

because the buyer gave nothing to the seller in exchange for the seller's promise to keep the offer open ("no consideration").

As another example, assume that a prominent alumna promises to give Old Siwash University the funds to construct a new building. The university wants to begin construction immediately. The alumna also wants the university to begin construction immediately. To obtain cash for the donation, the alumna must liquidate assets, which will take some time. The university dare not begin construction without an enforceable promise. In this example, both parties want the promise to be enforceable, but the bargain theory withholds enforcement of this promise.[2] Gift-promises are not induced by the prospect of gain, so they always lack consideration.

In the two preceding examples, both parties to the promise want it to be enforceable, yet the bargain theory withholds enforcement. A legal theory that frustrates the desires of the people affected by the law can be called *dogmatic*. In contrast, a legal theory that satisfies the desires of the people affected by the law can be called *responsive*. In general, a responsive theory maximizes the well-being of people, whereas a dogmatic theory sacrifices the well-being of people in favor of other ends. Contemporary courts in America prefer to be responsive rather than dogmatic. Consequently, contemporary courts in America often enforce firm offers and gift-promises.[3] As a result of such facts, the bargain theory is typically regarded as wrong.[4]

There is a second problem with the bargain theory—it calls for the routine enforceability of *any* bargain, just so long as it is a bargain and regardless of how outrageous the terms may be. As we saw earlier in this chapter, the farmer and the seller of a "sure means to kill grasshoppers" have, according to the bargain theory, a bargain. Enforcing this promise against the farmer leaves a bad taste in one's mouth. There is deception and trickery by the seller. And although one could argue that "buyers should beware," the seller's behavior here violates widespread community norms of fair dealing. Indeed, most modern courts would *not* enforce this contract against the farmer, precisely because it is deceptive. (We discuss fairness in the following chapter.)

The bargain theory sharpened the distinctions among offer, acceptance, and consideration, which theorists still use in analyzing the formation of contracts. However, the bargain theory of contract is not a good theory of contracting because it is both overinclusive (in arguing for the enforceability of contracts that, on most other grounds, ought not to be enforced) and underinclusive (in not arguing for the enforceability of promises that both parties truly want enforced). Consequently, the theory fails to describe what courts actually do.

---

[2] The original *Restatement of Contracts,* when issued in 1932, generally embraced the bargain theory in Section 75. Section 90 of the *Restatement* rejected the bargain theory and established enforceability of gift promises upon which a reasonable person had detrimentally relied without consideration.

[3] The *Uniform Commercial Code* Section 2-205 allows for some firm offers to be enforceable for a period not exceeding three months, but not all. (The *UCC* is described in a box at the beginning of Chapter 9.) American courts generally enforce gift-promises to the extent of reasonable reliance. Where the promisee is a nonprofit organization like a university, American courts sometimes enforce gift-promises to the full extent of the promise. We discuss the economics of gift promises on our website.

[4] One famous commentator on the history of contract theory—GRANT GILMORE, THE DEATH OF CONTRACT (1974)—believed that the classical or bargain theory was dead almost as soon as it was born.

II.   An Economic Theory of Contract Enforcement

We want to replace the bargain theory with a better answer to the two fundamental questions in contract law. The enforceability of a contract usually makes the parties better off, as measured by their own desires, without making anyone worse off. Making someone better off without making anyone worse off is a "Pareto-efficient" change. *Economic efficiency usually requires enforcing a promise if the promisor and promisee both wanted enforceability when it was made.* We will develop this central idea in the economic theory of contracts to answer the first question of contract law, "What promises should be enforced?"

A. Cooperation and Commitment

Many exchanges occur instantly and simultaneously, as when a shopper pays cash for goods in the grocery store. In a simultaneous, instantaneous exchange, there is little reason to promise anything. The making of promises, however, typically concerns *deferred exchanges*—that is, transactions that involve the passage of time for their completion. For example, one party pays now and the other promises to deliver goods later ("payment for a promise"); one party delivers goods now and the other promises to pay later ("goods for a promise"); or one party promises to deliver goods later, and the other promises to pay when the goods are delivered ("promise for a promise").

The passage of time between the exchange of promises and their performance creates uncertainties and risks. Thus, the seller asks the buyer to pay now for future delivery of goods. The cautious buyer wants a legal obligation of the seller to deliver the goods, not just a moral obligation. The buyer may be willing to pay now for an *enforceable* promise, but not for an unenforceable promise. Recognizing these facts, both parties want the seller's promise to be enforceable at the time it is made. The seller wants enforceability in order to induce the buyer to make the purchase, and the buyer wants enforceability to provide an incentive for seller's performance and a remedy for seller's breach. By enforcing such promises, the court gives both parties what they want and facilitates cooperation between them.

To develop these insights, we describe a situation called the "agency game" that often arises in business. In this game, the first player decides whether to put a valuable asset under the control of the second player. The first player might be an investor in a corporation, a consumer advancing funds to purchase goods, a depositor at a bank, the buyer of an insurance policy, or a shipper of goods, to list some possibilities. If the first player puts the asset under the second player's control, the second player decides whether to cooperate or appropriate. Cooperation is productive, whereas appropriation is redistributive. Productivity could take the form of the profit from investment, the surplus from trade, or the interest from a loan. The parties divide the product of cooperation between them, so both of them benefit. In contrast, appropriation redistributes from the first player to the second player.

We depict these alternatives in Figure 8.1 and attach numbers to them. The numbers indicate the difference in the wealth of the two players before playing the agency game and after playing it. The first player to move in Figure 8.1 decides whether to

FIGURE 8.1

Agency game without contract.
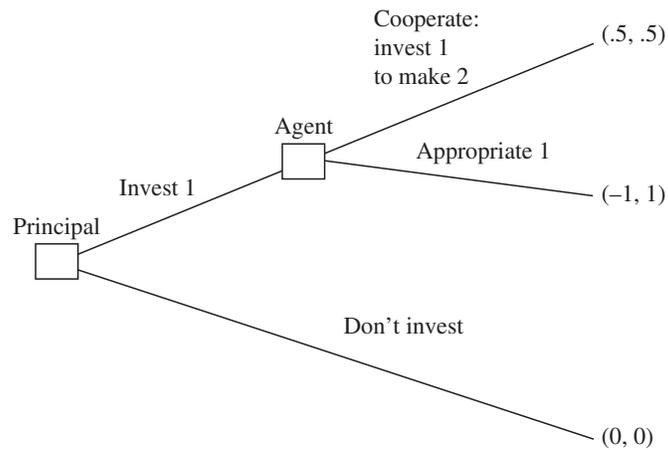
make an investment of 1. If no investment is made, the game ends, and the players receive nothing. If an investment is made, the second player decides whether to cooperate or appropriate. Cooperation produces a total payoff of 1. The players divide the total payoff equally: The first player recovers the investment of 1 and also receives a payoff of .5, and the second player receives a payoff of .5. Thus, the two players benefit equally from playing the agency game. Alternatively, the second player can appropriate. Appropriation enables the second player to acquire the first player's investment, while producing nothing: The first player loses 1, and the second player gains 1.

Consider the best moves for each player to make in Figure 8.1. If the first player invests, then the second player receives more from appropriating than cooperating. Consequently, the second player's best move is to appropriate.[5] The first player may anticipate that the second player will appropriate. Consequently, the first player's best move is "don't invest." We have shown that the solution to the agency game in Figure 8.1 is "don't invest."

The payoffs to the agency game in Figure 8.1 assume that the parties cannot make an enforceable contract. The barrier to an enforceable contract might be unprovable behavior, costly litigation, or bad judges.

Now consider how the payoffs change if we assume that the parties can make an enforceable contract. We assume that the second player offers to cooperate in exchange for an investment by the first player, and the first player accepts the offer by investing. The first player's investment is consideration for the second player's promise. We assume that the law will hold the second player liable for compensatory damages if he breaks the promise and appropriates.

Figure 8.2 depicts the revised payoffs in the agency game when the first player offers to invest in exchange for an *enforceable* promise by the second player to cooperate. Consider the payoffs to the first player. If the first player invests and the second player performs, the first receives a net payoff equal to .5. If the first player invests

---

[5] Game theorists describe a move that is best against *any* possible move by the other side as a "dominant strategy." In Figure 8.1, the second player has a dominant strategy. The first player does not have a dominant strategy, but the first player has a best reply to the second player's dominant strategy.

FIGURE 8.2

Agency game with contract.
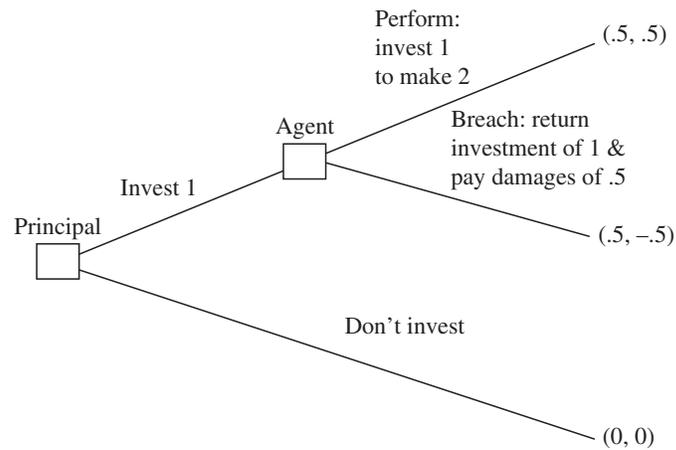
and the second player breaches, the first player receives compensatory damages. We assume that compensatory damages restore the first player's payoff to the level that he or she would have enjoyed if the second player had performed. If the second player had performed, the first player would have recovered the investment of 1 and received a payoff of .5. Thus, the first player receives a net payoff of .5 from investing, regardless of what the second player does. Alternatively, the first player can receive a payoff of 0 from not investing. Faced with these two alternatives, investing is the first player's best move.

Assume that the first player invests and consider the payoffs to the second player. The second player receives a payoff of .5 from performing as promised (cooperating). In contrast, breaching the contract (appropriating) yields a payoff of 1 to the second player, from which the second player must pay compensation to the first player. As compensation, the first player must receive 1 that he or she invested and .5 that was expected in profits. Consequently, liability of 1.5 must be subtracted from the second player's payoff of 1, yielding a net payoff of −.5 for breaching the contract. So, the best move for the second player is to cooperate.

Figure 8.1 shows that the first player does not invest when promises are *un*enforceable. Figure 8.2 shows that the first player invests and the second player cooperates when promises are enforceable. Thus, an enforceable contract converts a game with a non-cooperative solution into a game with a cooperative solution. *The first purpose of contract law is to enable people to cooperate by converting games with non-cooperative solutions into games with cooperative solutions.*

Modern business activity provides countless examples of the agency game. Thus, an innovator in Silicon Valley asks a venture capitalist to invest $1 million in a start-up company to develop a new computer chip. By developing the chip, the innovator can turn $1 million into $2 million. The innovator promises to develop the chip and share the profits of $1 million equally with the investor. Instead of developing the chip, however, the innovator might try to appropriate the investor's $1 million. An enforceable promise to develop the chip will prevent the innovator from appropriating the money; so, the investor will trust the innovator and invest the money.

We have shown that the unique solution of the agency game with a contract is "invest" and "perform" (cooperate). So far, we have discussed the best move for each player from that player's viewpoint. Now consider the sum of the payoffs to both players. The numbers sum to 1 when the first player invests and the second player cooperates. Otherwise, the numbers sum to zero. Investing and cooperating are productive, whereas "don't invest" changes nothing and "appropriate" merely redistributes money from the first player to the second player. Given these facts, we could restate the preceding conclusion: *The first purpose of contract law is to enable people to convert games with inefficient solutions into games with efficient solutions.*

The language of game theory clarifies how enforceable contracts promote cooperation. In game theory, a *commitment* forecloses an opportunity. To illustrate from a classical book on the art of war, the Chinese philosopher Sun Tzu writes, "When your army has crossed the border [into hostile territory], you should burn your boats and bridges, in order to make it clear to everybody that you have no hankering after home."[6] Burning the boats and bridges commits the army to attack by foreclosing the opportunity to retreat. Similarly, making a contract commits the second player in Figure 8.2 to cooperate. Commitment is achieved by foreclosing the opportunity to appropriate. The opportunity to appropriate is foreclosed by the high cost of liability for breach. A commitment is *credible* when the other party observes the foreclosing of an opportunity.

The chef at the resort asks whether you would prefer a menu of chicken or beef for dinner, or a menu of chicken or beef or fish. Perhaps you think to yourself, "A wider choice cannot make me worse off, and it might make me better off." This is true for many restaurant choices, but it is false for coordinating with others in situations like the agency game. You may need to commit *not* to make certain choices in order to induce the other party to cooperate with you.

Here's how we answered the first question of contract law: *A promise usually should be enforced if both parties wanted it to be enforceable when it was made.* The agency game shows why both parties usually want enforceability: So the agent can credibly commit to performing and the principal has sufficient trust to put an asset under the agent's control.

QUESTION 8.2: Explain why the economic theory of contracts would enforce a firm offer to sell a Chevrolet and the promise of a gift to Old Siwash University.

QUESTION 8.3: Explain why the numbers in Figure 8.2 indicate that the second player is liable for *expectation* damages in the event of breach.

QUESTION 8.4: In Figure 8.2, both parties desire enforceability of the second player's promise when the promise is made, but when the time comes to perform, the promisor may not want enforceability. What do these facts say about the Pareto efficiency of enforcing the second player's promise? (Hint: Distinguish between the Pareto efficiency of enforceability when the

---

[6] SUN TZU, THE ART OF WAR, section IX, part 3. This is the oldest written treatise on war, dating back to the sixth century B.C.E.

promise is made, which can be called *ex ante* Pareto efficiency, and the Pareto efficiency of actually enforcing the promise when the time comes to perform, which can be called *ex post* Pareto efficiency.)

QUESTION 8.5:   As an exercise in legal vocabulary, let us modify the facts about the contract in Figure 8.2 and describe it differently. Assume that the first player offers to invest in exchange for the second player's promise to cooperate, and the second player accepts by promising to cooperate. What is the "consideration" in this contract?

QUESTION 8.6:   Figure 8.2 describes a game based upon a bargain. Construct a similar figure to describe a game based upon a firm offer.

Web Note 8.1

Our website describes some recent literature on liability for precontractual bargaining costs and the economics of gift promises.

III. An Economic Theory of Contract Remedies

We have outlined the answer to the question, "What promises should be enforced?" Now we turn to the second question of contract law: What should be the remedy for breaking enforceable promises?

> **Example 4:** Yvonne owns a restaurant for economists that is called the Waffle Shop. Her business prospers, and she needs a larger facility. She contracts with Xavier, a builder, who promises to expand the restaurant and complete the work by September 1. Her restaurant will remain closed while he builds. Xavier knows that events could jeopardize completing the construction on time. He is especially concerned that city officials may delay issuing the permits needed to begin construction. With good luck, he will get the permits early enough to complete construction on time at low cost. With bad luck, he will suffer a delay in getting the permits, and he will have to choose between completing construction on time at high cost, or breaching the contract and delaying completion of the building.

Figure 8.3 depicts the Waffle Shop in numbers. The contract requires Yvonne to pay 1 to Xavier in advance and to pay .5 on timely completion of the construction. If completed on time, the construction will be worth 2 to Yvonne. Thus, Yvonne stands to gain .5 from the construction project. With good luck, officials issue construction permits on time and Xavier does the work for the low cost of 1, so he gains .5. (Remarkably, these numbers for the "good luck" branch in Figure 8.3 are the same as in Figure 8.2!) With bad luck, officials delay issuing the permits. Xavier can complete construction on time at the high cost of 2.5, so he will lose 1 and she will gain .5. Alternatively, Xavier can breach the contract and complete construction late at a cost of 1, in which case Xavier will owe Yvonne .5 in damages; so, he will lose .5 and she will gain .5.
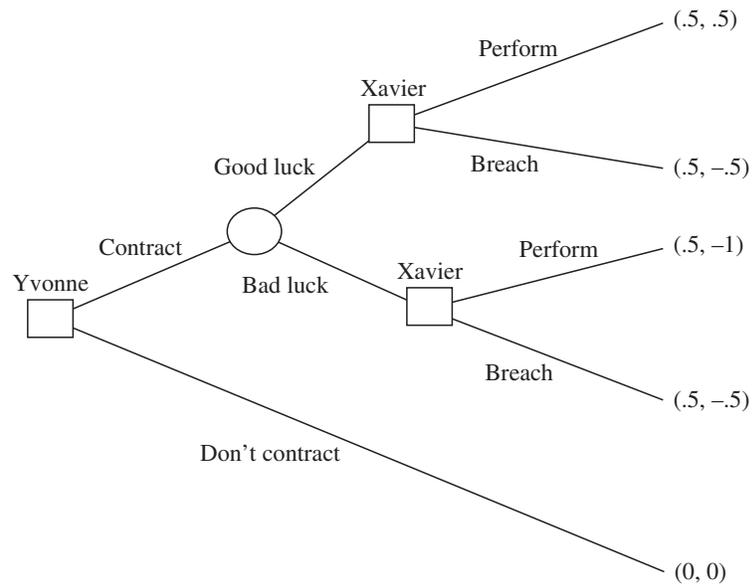
FIGURE 8.3

Contract with luck affecting performance.

Figure 8.3 shows Xavier's perform-or-breach choice. Given good luck, Xavier is better off to perform with payoff .5 than to breach with payoff −.5. Given bad luck, Xavier is better off to breach with payoff −.5 than to perform with payoff −1. Since Yvonne is fully compensated for breach, she is no worse off for breach.

Modern business activity provides countless examples where the promisor prefers to breach and pay damages, rather than to perform at a loss. Thus, a venture capitalist in Silicon Valley pays $1 million for preferred stock in a start-up company that promises to develop a new computer chip. According to the contract, the startup company must develop and market the chip within three years. If the startup fails to do so, it must pay damages of $1.5 million. The innovator subsequently discovers a technical problem that vastly increases the cost of developing the chip. Instead of continuing to develop it, the innovator abandons the project and pays $1.5 million to the venture capitalist.

The parties to a contract sometimes take a short-sighted view of their self-interest, especially in one-time transactions or transactions with large stakes. Traveling carnivals, used-car salespersons, and ordinary people who buy or sell a house often deal sharply with each other. With sharp dealing, the promisor may not care about the harm that breach causes the promisee or his own reputation, but he still cares about legal liability. He will perform if his net benefits from performing exceed his net benefits from breaching minus his liability; otherwise he will breach.

To formalize the sharp-dealing promisor's behavior, let N_{px} and N_{bx} denote Xavier's net benefits from performing and breaching respectively. Let L_{bx} denote Xavier's liability for breaching. Xavier follows this decision rule:

$$N_{px} \geq N_{bx} - L_{bx} \Rightarrow \text{perform}$$
$$N_{px} \leq N_{bx} - L_{bx} \Rightarrow \text{breach.}$$

Thus, when Xavier has good luck in Figure 8.3, $N_{px} = .5$ and $N_{bx} - L_{bx} = -.5$, so Xavier performs. Conversely, when Xavier has bad luck in Figure 8.3, $N_{px} = -1$ and $N_{bx} - L_{bx} = -.5$, so Xavier breaches.

This formula concerns the promisor's *actual* commitment to perform. Consider his *ideally efficient* commitment. Assume that the contract only affects the parties to it; so, efficiency requires maximizing the sum of their payoffs. In notation, $N_{px} + N_{py}$ denotes the sum of the net benefits to Xavier and Yvonne from performance, and $N_{bx} + N_{by}$ denotes the sum of the net benefits to Xavier and Yvonne from breach. Efficiency requires Xavier to follow this decision rule:

$$N_{px} + N_{py} \geq N_{bx} + N_{by} \Rightarrow \text{perform}$$
$$N_{px} + N_{py} \leq N_{bx} + N_{by} \Rightarrow \text{breach.}$$

As mentioned above, contract law frequently awards "expectation damages" as compensation for breach. Awarding perfect expectation damages restores the promisee to the position that he or she would have enjoyed if the promisor had performed. In notation, perfect expectation damages equal the difference in Yvonne's net benefits between performance and breach: $L = N_{py} - N_{by}$. Substitute this value for L in Xavier's decision rule, and it is identical to the decision rule for efficiency. (Prove it for yourself.) We have established the following proposition: *When a contract only affects the parties to it, liability for perfect expectation damages gives the promisor efficient incentives to perform or breach.*

What should be the remedy for breaking enforceable promises? This is the second fundamental question of contract law. The preceding proposition, which eluded contact theorists for decades, suggests an answer: expectation damages. This is the right answer to cause people who make promises to take the efficient level of commitment to keeping them. It is also the right answer to compensate fully the victims of breach.

In fact, expectation damages are the most common remedy for breach of contract in the United States. Perfect expectation damages are apparently the legal ideal, but the actual remedy often differs from the perfect one. Damages below the perfect level cause the promisor to breach too often, and damages above the perfect level cause the promisor to perform too often, as explained in the next chapter.

> **QUESTION 8.7:** Assume that the high costs of performing cause the promisor to breach a contract and pay perfect expectation damages to the promisee. Would the promisee have preferred that the promisor perform?

> **QUESTION 8.8:** Explain the gain in total payoffs from allowing the promisor to breach and pay expectation damages when performing is inefficient.

A. Precaution Against Breach

In the Waffle Shop contract, Xavier has good luck and performs, or else he has bad luck and breaches. Viewed realistically, however, Xavier can affect his luck. To increase the probability of getting a building permit on time, he can hire a lawyer, meet with the restive neighbors, and telephone politicians. We call these acts "promisor's precaution

against breach" because they reduce the probability of breach, rather like the injurer's precaution reduces the probability of an accident as discussed in Chapter 6.

The preceding section proved that when a contract only affects the parties to it, liability for perfect expectation damages gives the promisor efficient incentives to perform or breach. The same proposition is true for the promisor's incentives to take precaution against breach. *When a contract only affects the parties to it*, *liability for perfect expectation damages gives the promisor efficient incentives to take precaution against breach.*

B. Reliance

Now our focus shifts to the choices of the promisee, specifically to her reliance on the contract. In Figure 8.3, Yvonne can decide whether to contract, but after contracting she cannot affect her payoffs. This is a simplifying assumption. Viewed more realistically, Yvonne can increase her gain from performance or reduce her loss from breach. She can increase her gain from performance by ordering more food in advance, accepting more dining reservations, and leasing more parking spaces for her guests. Alternatively, she can reduce her loss from breach by the opposite—order less food in advance, accept fewer dining reservations, and leasing fewer parking spaces for her guests.

In general, reliance is a change in the promisee's position induced by the promise. The change increases the benefit of performance and the cost of breach, which makes the contract riskier. Recall the rich uncle's promise to give his nephew a trip around the world. The trip is more valuable to the nephew if he purchases the necessary items in advance—luggage, snowshoes, a pith helmet, and so on. But he must sell them at a loss if his uncle breaches his promise.

Are Yvonne's actual incentives for reliance efficient? Not if she receives perfect expectation damages for breach. When Yvonne receives perfect expectation damages, reliance increases her benefits from performance, and her reliance also increases Xavier's costs of breach. With perfect expectation damages, Yvonne bears none of the risk of breach, and Xavier bears all of it. *Perfect expectation damages thus cause Yvonne to overrely relative to the efficient reliance.*

In notation, when Xavier has good luck and performs, Yvonne's reliance y *in*creases her net benefit N_{gpy} according to the function $N_{gpy} = N_{gpy}(y)$. When Xavier has bad luck and breaches, Yvonne's reliance y *de*creases her net benefit N_{bby} according to the function $N_{bby} = N_{bby}(y)$. When Xavier breaches, Yvonne receives compensation equal to his liability L_{bx}. Let w_y denote the price of reliance y. The expected value of the contract to Yvonne thus equals

$$(1 - p)N_{gpy}(y) + p(N_{bby}(y) + L_{bx}) - w_yy.$$

Perfect expectation damages equal the difference in Yvonne's net benefits between performance and breach: $L_{bx} = N_{gpy}(y) - N_{bby}(y)$. Substitute this value for L_{bx} in the expected value of the contract to Yvonne and it reduces to

$$N_{gpy}(y) - w_yy.$$

The risk of loss has disappeared from this expression. When Yvonne chooses y to maximize this expression, she only considers her increase in net benefits from performance, not the increase in Xavier's liability from breach.

We have shown that liability for perfect expectation damages gives efficient incentives to the promisor to take precautions against breach, but the promisee has no incentive to restrain her reliance. This proposition should look familiar to you, because you encountered its equivalent in Chapter 6 on torts: A rule of strict liability with perfect compensation for accidents gives efficient incentives to the injurer to take precaution, but the victim has no incentive to take precaution. Perfect damages have the same effect in contracts and torts: The injurer internalizes the harm and the victim externalizes it. This is only one of the remarkable symmetries hidden in liability law.

The simple answer to the second question of contract law—What should be the remedy for breaking enforceable promises?—is "perfect expectation damages." This remedy is perfect for the promisor's incentives, but imperfect for the promisee's incentives. Contract law has developed various doctrines to modify expectation damages and reduce overreliance on contracts. The next chapter analyzes some of these doctrines.

QUESTION 8.9: Explain why compensating the victim of breach for expectation damages causes efficient performance and breach, whereas compensating the victim of breach for excessive reliance may cause inefficient performance and breach.

IV. Economic Interpretation of Contracts

Enforcing a contract frequently involves interpreting it, which often poses conundrums. A contract says, "Exceptions are allowed," when the parties meant to say, "Exceptions are not allowed." Should the court interpret the contract according to its plain meaning or the intent behind the words? The contract says "Two exceptions are allowed," but the parties would have allowed a third exception if they had thought of it. Should the court interpret the contract to allow a third exception? When uncle promised to pay for his nephew's trip around the world, did the promise mean business class or economy class airfare? When a child signs an unfavorable contract, should the court replace the actual terms with terms favorable to the child? Instead of immersing ourselves in these conundrums—that's for a law school class on contracts—we will elaborate some economic principles for interpreting contracts.

Perfect Contracts   According to the Coase Theorem, given zero transaction costs, rational parties will allocate legal entitlements efficiently. This proposition applies to contracts. When transaction costs are zero, the contract is a perfect instrument for exchange. Every contingency is anticipated; every risk is internalized; all relevant

information is communicated; no gaps remain for courts to fill; no one needs the court's protection from deceit or abuse; nothing can go wrong. Perfect contracts pose no conundrums of interpretation. The parties need the state to enforce a perfect contract according to its plain meaning, but nothing more is required.

Why contemplate such an absurdity? Because perfect contracts connect law to economics. In microeconomics, students learn the theory of perfect competition and then use departures from it to analyze actual markets, such as oligopolistic markets. By this approach, microeconomics sorts different kinds of market imperfections according to their causes. We will use the theories of market imperfections that students learn in microeconomics to analyze contract imperfections.

Unlike perfect contracts, real contracts allocate risks imperfectly. Suppose that Mr. McGuire signs a contract with the Wabash Construction Company to build a house for his family. Floor plan, construction materials, style of carpets, landscaping, compliance with zoning codes—all of this and more is specified, as well as the price to be paid and the date for completing the house. Now imagine some of the things that can go wrong. Mr. McGuire might die, and his family might no longer want the house. The court may make the estate of Mr. McGuire pay for the house after his death, thus enforcing the contract as written. Or zoning officials in the local government might reject the construction plan. The court may decide that the contract is void because law forbids its construction. Here the court fills a gap in the contract by supplying terms of its own that do not contradict the contract's explicit terms. Or Mr. McGuire might discover that the contract calls for Wabash to install grossly inadequate pipes. The court may decide that Wabash, the builder, must install adequate pipes, in spite of what the contract says. Here the court sets aside explicit terms in the contract and replaces them with its own terms.

We described three possible responses of courts to contract imperfections: (i) enforce the explicit terms as if the contract were perfect; (ii) fill a gap in the contract without contradicting its explicit terms; or (iii) replace the contract's explicit terms. Courts should usually tolerate contract imperfections and enforce the terms as written, just as officials should usually tolerate market imperfection and allow business to proceed without regulation. Tolerance is usually required because the state cannot fix most imperfections in private transactions, just as it cannot fix most imperfections in marriages. When courts attempt to improve on a contract's explicit terms, two instruments are available to them: default rules to fill gaps and mandatory rules to replace explicit terms.

A. Default Rules

Gaps in contracts may be inadvertent. The construction contract may not mention the possibility of zoning officials rejecting the construction plan because neither Mr. McGuire nor Wabash thought about this possibility. Alternatively, gaps may be deliberate. The construction contract may not mention the possibility of zoning officials rejecting the construction plan because Mr. McGuire and Wabash both believed that

this possibility was remote. Remote risks do not justify the cost of negotiating and drafting terms to allocate them. Or a deliberate gap may be left in a contract for psychological reasons, as when a couple promises to marry and remains silent about dividing property in the event of divorce.

Consider the calculations that might lead rational parties to leave gaps deliberately in contracts. "*Ex ante* risks" refer to the risks of future losses faced by the parties when they negotiate a contract. "*Ex post* losses" refer to losses that actually materialize after making the contract. In general, the parties to a contract must choose between allocating *ex ante* risks and allocating *ex post* losses. The parties expect to save transaction costs by leaving gaps in contracts whenever the actual cost of negotiating explicit terms exceeds the expected cost of filling a gap. The *expected* cost of filling a gap in the contract equals the probability that the loss materializes multiplied by the subsequent cost of allocating it. The following rule summarizes these facts:

minimizing transaction costs of contracts

allocating a risk $>$ allocating a loss $\times$ its probability $\Rightarrow$ leave gap,

allocating a risk $\leq$ allocating a loss $\times$ its probability $\Rightarrow$ fill gap.

When a court imputes terms to fill a gap in a contract, the implicit terms apply by *default,* which means "in the absence of explicit terms to the contrary." The parties are free to alter default terms by mutual consent. If the parties allocate the risk explicitly, the court enforces the explicit terms even though they contradict the default terms that the court would have used to fill a gap. Thus, the court might enforce a term in the construction contract that requires the McGuires to pay compensation to Wabash if zoning officials prevent construction, even though the court would have voided the contract if it did not mention zoning disapproval and zoning officials prevented construction.

Courts supply default terms to contracts by following rules. These "default rules" can be efficient or inefficient. How much harm can inefficient default rules do? That depends on the cost of transacting around them. When a default rule is inefficient, the parties can gain by replacing it with explicit terms that are efficient, but they have to bear the transaction costs of negotiating the explicit terms. Conversely, when default rules are efficient, the parties cannot gain by replacing the default rule with explicit terms. When the courts supply efficient default rules, the parties save the cost of negotiating explicit terms. The fewer the terms requiring negotiation, the cheaper is the contracting process. In general, all parties to a contract can benefit when lawmakers replace inefficient default terms with efficient default terms, and the size of the benefits depends on the cost of transacting around the default rule.

Economic analysis offers a simple rule for courts to follow in order to identify efficient rules: *Impute the terms to the contract that the parties would have agreed to if they had bargained over all the relevant risk.*[7] This is the method of filling gaps by a

---

[7] See David Charny, *Hypothetical Bargains: The Normative Structure of Contract Interpretation,* 89 MICH. L. REV. 1815 (1991).

hypothetical bargain. The actual bargain consists in the terms negotiated by the parties. The hypothetical bargain consists in the terms the parties would have reached if they had filled the gaps in the contract by negotiation. For maximum gain, the parties would have reached an efficient bargain. To discover the hypothetical bargain, the court must establish the most efficient form of cooperation. (The court may or may not have to adjust prices in the contract.[8]) When courts fill gaps by imputing terms of the hypothetical bargain, the parties receive their preferred contract from the court. Further negotiations between them cannot improve it.

> **QUESTION 8.10:** "Default rules save transaction costs in direct proportion to their efficiency." Explain this proposition.

> **QUESTION 8.11:** Suppose that Wabash completes the house one month later than promised. Inclement weather, which was no one's fault, caused the tardiness. Explain how the court might compute efficient damages.

> **QUESTION 8.12:** Doctors who form a partnership may say nothing in the partnership agreement concerning its future dissolution. The parties may deliberately avoid discussing dissolution for fear of breeding distrust. Provide some other examples of gaps left in contracts for strategic reasons.

B. Mandatory Rules

Besides gaps, imperfect contracts sometimes contain explicit terms that courts set aside. The court may disregard a consumer's waiver of the right to sue for injuries caused by a defective product, or the court may substitute its own terms for the actual terms in a contract made by a child. Unlike default terms, these terms are mandatory. The parties to a contract cannot waive or remove or replace mandatory terms by mutual agreement.

By imposing mandatory terms, the law *regulates* the contract. The economic theory of contract regulation resembles the economic theory of market regulation. Textbooks in microeconomics usually describe a perfectly competitive economy that requires no regulation and subsequently describe imperfections that may require

---

[8] When the efficient risk-bearer *actually* foresaw a risk, or *ought* to have foreseen a risk, the court should presume that the negotiated price included compensation for bearing the risk. Whether someone actually foresaw a risk is a question of fact, and whether someone ought to have foreseen a risk is a question of good business practices. Sometimes, however, neither party to a contract foresees a risk and neither party ought to have foreseen it. Allocating an unforeseen loss can dramatically change the cost of the contract to one of the parties, so the court may also need to alter the price by applying the Nash bargaining solution (splitting the surplus) as explained in Chapter 4. Allocating risk and adjusting prices put such great demands on courts that they should seldom make the attempt.

regulation, such as an electric company's monopoly in supplying power to households in a town. Similarly, we described a perfect contract that requires no regulation and now we describe imperfect contracts that require mandatory rules. Categories of market failure often found in microeconomics can be used to categorize legal doctrines that impose mandatory rules. A brief sketch of those categories prepares for their detailed discussion in the next chapter.

Individual Rationality   Our review of microeconomics in Chapter 2 identified three assumptions about rational choice by individuals. First, a rational decision-maker can rank outcomes in order from least preferred to most preferred. In order to rank outcomes, decision makers must have stable preferences. If the promisor's preferences are sufficiently unstable or disorderly, then he or she is legally *incompetent* and cannot conclude an enforceable contract. For example, children and the insane are legally incompetent.

Second, the rational decision makers' opportunities are moderately constrained so that they can achieve some, but not all, of their objectives. Dire constraints destroy freedom of action. Two major contract doctrines excuse promise breaking on the ground that the promisor faced dire constraints. If the beneficiary of the promise extracted it by threats, then promise breaking is excused by reason of *duress*. For example, in a famous movie the "godfather" of a criminal syndicate makes contract offers that "cannot be refused" because the victim signs the contract with a gun held to his head. No court would enforce such a contract.

Similarly, if a promise is extracted from a desperate promisor, the court may excuse nonperformance on the ground of *necessity*. For example, suppose a surgeon runs out of gas on a lonely desert road where she might perish. A passerby offers to sell her five liters of gas for $50,000. Even if the surgeon accepts the offer, the court will not enforce her promise to pay. The court will not enforce the promise because it was given out of necessity.

Notice that *duress* and *necessity* both apply when the promisor is in dire circumstances, but the cause is different. The cause of necessity is usually the promisor's bad judgment, bad luck, or a third person. For example, the surgeon may have run out of gas in the desert because she did not check the gas gauge, a hidden defect caused the gas gauge to fail, or her enemy secretly punctured the gas tank. In contrast, the cause of duress is usually the promisee. For example, the godfather held the gun to the promisor's head. Thus, duress can be regarded as necessity caused by the promisee.

In these examples, the dire constraint *preceded* the promise. Sometimes a dire constraint *follows* the promise. A dire constraint that follows a promise can prevent the promisor from performing. For example, a surgeon may promise to operate and then break her hand before the scheduled operation. If a promise is made in good faith and fate intervenes to make performance impossible, then promise breaking may be excused by reason of *impossibility*. For example, a manufacturer may be excused from fulfilling his contracts because his factory burned down. In general, the impossibility doctrine applies to unlikely events that prevent performance. In the next chapter we discuss the optimal allocation of the risk of such events.

> ### Web Note 8.2
>
> Much research has been done recently on deviations from individual rationality. See our website for a discussion of some of that literature as it applies to the theory of contracts.

Spillovers   Sometimes transaction costs prevent people from participating in negotiations that affect them. An electric utility generates power by a dirty process such as burning soft coal, and the smoke harms the neighbors. The contracts between the buyers of electricity and the electric utility affect its neighbors. Although contracts often have external effects, the legal remedy seldom involves *contract* law. In most cases, the plaintiff in a suit for breach of contract must be the person to whom the promise was made (the promisee) or the person to whom the promisee's rights were transferred (the transferee). People affected by a contract who are not parties to it—"third parties"—cannot find relief in contract law except under special circumstances. Instead of suing for relief under contract law, third parties must usually seek relief under the law of torts, property, crimes, or regulations. If a private contract to purchase goods from a polluting manufacturer causes more pollution, the public victims must sue under nuisance law or under an environmental regulation, not contract law.

Sometimes contract law protects third parties by refusing to enforce a contract between the first and second party. The courts may refuse to enforce such a contract when it *derogates public policy.* An example is the promise of a victim of a crime to reward a policeman for solving it. A policeman's job is to catch criminals. Allowing victims to pay rewards for this service might distort police efforts. Rewards would make the police focus on crimes whose solution recovers valuable assets that victims will pay to get back, such as stolen cars. The police might neglect crimes where deterrence is urgently needed and the victim has nothing economic to recover, such as rape.

Some important kinds of business contracts are unenforceable for reasons of public policy. Companies often wish to make contracts not to compete with each other. Agreements not to compete enable cartels to exploit buyers by charging monopoly prices. Courts in England and America were reluctant to enforce nineteenth-century contracts to create cartels. Such contracts derogated public policies aiming to foster competition. Subsequent antitrust statutes outlawed cartels in the United States and the nations of Western Europe. For example, contracts to create a cartel are void in Europe by the law of the European Union (European Union Treaty, Section 85, paragraph 2).

These are examples where the law will not enforce a contract whose performance is illegal or derogates public policy. Many examples of the opposite also exist—cases where the law *will* enforce a contract whose performance is illegal or derogates public policy. Thus, a married man may be liable for inducing a woman to rely on his promise of marriage, even though the law prohibits him from marrying without first obtaining a divorce. Similarly, a company that fails to supply a good as promised may be liable even though producing the good is impossible without violating an environmental regulation.

Economic analysis suggests when the law should enforce or not enforce a contract whose performance violates law or public policy. Liability should rest with the party

who knew, or had reason to know, that performance is illegal or derogates public policy. Liability should rest with the informed party because he knew that he should not make the contract.

Asymmetric Information   Sometimes one or more of the parties to a contract lacks essential information about it. Several doctrines in contract law excuse promise breaking on the ground that the promise resulted from bad information. If the beneficiary of the promise extracted it by lies, then breaking the promise is excused by reason of *fraud*. For example, the seller of the "sure method to kill grasshoppers" defrauded the farmer. Fraud violates the duty not to misinform the other party to a contract.

Besides this negative duty, parties sometimes have the positive duty to disclose information. In most sales contracts, a seller must warn the buyer about hidden dangers associated with the use of the product, even though this information may cause the buyer not to buy it. For example, the manufacturer of a drug must warn the user about side effects. In these circumstances, common law finds a duty to disclose. In the civil law tradition, your contract may be void because you did not supply the information that you should have. Civil law calls this doctrine *culpa in contrahendo*.

Sometimes disguised defects lower the value of a good without making it dangerous or unfit for use. Common law apparently contains no general duty to disclose such disguised defects. Common law does not require a used-car dealer to disclose the faults in a car offered for sale (only a duty not to lie about those faults). The law is different for new goods, including new cars.[9]

People often trade because they have different expectations about whether the price of a good will rise of fall, as in stock markets. In such circumstances, at least one of the parties is misinformed. If people make contracts premised upon misinformation that they gathered for themselves, then the fact that the contract is based on misinformation does not excuse them from their contractual duties. For example, a stock trader who promises to supply 100 shares of Exxon in six months at a predetermined price cannot escape his obligation just because the price of the stock rose when he expected it to fall.

Most of the preceding examples concern a misinformed party and a well-informed party. Another possibility is that *both* parties are misinformed. This is the basis of a legal excuse for breaking a promise known as *frustration of purpose*. English law provides some famous examples known as the Coronation Cases. In the early years of the twentieth century, rooms in buildings situated along certain London streets were rented in advance for the day on which the new king's coronation parade would pass by. However, the heir to the throne became ill, and the coronation was postponed. Postponing the parade made the rental agreement worthless to the renter. Some owners of the rented rooms tried to collect the rent anyway. The courts refused to enforce the contracts on the ground that the change in circumstances frustrated the purpose of the contracts.

---

[9] For new goods, the law in most states in the United States imputes a "warranty of fitness," which is a guarantee that the court reads into the contract, even though the actual contract did not explicitly contain such a guarantee. According to the implied warranty of fitness, the seller of a new good promises that it is fit to use for its intended purposes. The seller of a new car breaches this warranty and must return the purchase price if a fault in the car's design prevents its use for transportation." See *UCC* Sections 2-314 and 2-315.

Yet another possibility is that both parties premise the contract upon different misinformation. If promises are exchanged on the basis of contradictory, but reasonable, conceptions of what is promised, then the contract is said to rest upon what is called a *mutual mistake.* To illustrate using our Example 2, the seller genuinely believed that he was negotiating to sell his rusty Chevrolet in the backyard, and the buyer genuinely believed that she was negotiating to purchase the immaculate Cadillac in the driveway. Like frustration of purpose, mutual mistake justifies the court's setting the contract aside. In our example, the court might order the buyer to return the car keys, and the seller to return the money.

Monopoly   Competitive markets contain enough buyers and sellers that each person has many alternative trading partners. In contrast, oligopoly limits the available trading partners to a small number, and monopoly limits the available trading partners to a single seller. When trading partners are limited, bargains can be very one-sided. Under the bargain theory, the courts enforced bargained promises and did not ask if the terms are fair. Consequently, the common law historically contains weak protection against exploitation by monopolies. Instead of common law, statutes supply most protections against monopolies.

In recent years, however, a new common law doctrine has evolved that allows judges to scrutinize the substantive terms of contracts. When a contract seems so unfair that its enforcement would violate the conscience of the judge, it may be set aside according to the doctrine of *unconscionability.* For example, assume a consumer signs a contract allowing a furniture seller to repossess all the furniture in her house if she misses one monthly payment on a single item of furniture. The court may find the repossession term "unconscionable" and refuse to enforce it. We discuss this elusive doctrine in the next chapter. The civil law tradition contains a concept—"lesion"—similar to unconscionability. "Lesion" refers to a contract that is too unequal to have legal force.

Table 8.1 associates the leading doctrines for regulating contracts with the market failure that they attempt to correct. Given low transaction costs, rational people will make contracts that approach perfection. A perfect contract has no gaps for courts to fill or market failures to regulate. If a contract approaches perfection, the court should simply enforce its terms. As transaction costs increase, however, people leave gaps in

TABLE 8.1

Rationality, Transaction Costs, and Regulatory Doctrines of Contract Law

Assumption	If Violated, Contract Doctrine
Individual Rationality	Incompetency; incapacity; coercion; duress; necessity; impossibility
Spillovers	Unenforceability of contracts derogating public policy or statutory duty
Information	Fraud; failure to disclose; frustration of purpose; mutual mistake
Monopoly	Necessity; unconscionability or lesion

contracts. Courts should fill the gaps with efficient default terms. Transaction costs can also cause externalities, misinformation, or monopolies. Serious imperfections can cause markets to fail and create a need to regulate contracts. *The farther the facts depart from the ideal of perfect rationality and zero transaction costs, the stronger the case for judges' regulating the terms of the contract.*

V. Relational Contracts: The Economics of the Long-Run

If you break your promise to come to family dinner on Sunday evening, your mother can punish you in a thousand small ways. The same is true in repeated business transactions, where the preferred remedy for a broken promise is some form of retaliation, but not a lawsuit. To secure cooperation in long-run relations, the parties often rely upon informal devices, rather than enforceable rules. An overbearing partner may be brought back into line by a warning rather than a lawsuit. Or a businessman who oversteps the ethical boundaries of his profession may be chastened by gossip and ostracism. The most common problems of contracting are nonpayment of bills, late delivery, and poor performance. For nonpayment, a typical retaliation is suspension of supply; for late delivery, it is delayed payment; and for poor performance, it is partial payment.

These informal devices usually operate within enduring relationships. Contracts often create relationships. In addition, contracts create legal duties that are not part of the contract. For example, when a customer opens a checking account with a U.S. bank, she signs a contract called a "depository agreement," which creates a "fiduciary relationship." This relationship imposes many duties upon the bank that are not stated in the depository agreement. As another illustration, a "franchisee" (local investor) may sign a contract with the "franchisor" (parent corporation) to operate a local fast-food restaurant. The franchise relationship creates many legal duties that the contract does not mention. Economists have studied how enduring relationships affect behavior. We will explain some of their central conclusions by repeating the agency game.

A. Repeated Game

In the agency game, the principal (first player) invests by placing some funds under the control of the agent (second player). To depict cooperation in an enduring relationship, assume that the agency game in Figure 8.1 is repeated indefinitely, thus transforming a "one-shot game" into a "repeated game." In any round of the repeated game in which the principal invests, the agent enjoys an immediate advantage from appropriating. An enforceable promise can solve this problem, as depicted in Figure 8.2. But suppose the promise is unenforceable for some reason—breach is unprovable, trials are too expensive, or courts are corrupt. To solve the problem without law, the principal can retaliate in subsequent rounds of the game.

Figure 8.4 illustrates an effective strategy for the principal to deter appropriation by retaliating against it. Assume that the agent appropriates in round n of the game. The agent receives a payoff of 1 in round n. However, the principal retaliates by not investing in round $n + 1$ and in $n + 2$. The agent receives a payoff of zero in rounds $n + 1$ and $n + 2$. Thus, the strategy of appropriation yields a total payoff to the agent equal to 1 in rounds n through $n + 2$. These facts are summarized in the first row of Figure 8.4.

FIGURE 8.4

Payoffs to second player (agent) when first player (principal) plays tit for tat.

Strategy of second player	round	$n-1$	n	$n+1$	$n+2$	$n+3$	$n+4$	$n+5$	$n+6$
	appropriate	...	1	0	0	1	0	0	...
	cooperate	...	.5	.5	.5	.5	.5	.5	...

Alternatively, assume that the agent could follow the strategy of cooperating in each round of the game. When the agent cooperates, the principal responds by investing. The agent's payoffs in rounds n, $n + 1$, and $n + 2$ thus equal .5, .5, and .5. The strategy of cooperating yields a total payoff to the agent equal to 1.5 in rounds n through $n + 2$.[10] These facts are summarized in the second row of Figure 8.4.

Figure 8.4 shows that the agent's payoff in rounds n through $n + 2$ is higher from co-operating than appropriating. This will be true for any three rounds of the game, provided that the principal continues playing the same strategy. For example, the total payoff to the agent who appropriates in rounds $n + 3$ through $n + 5$ equals 1, whereas the total payoff for cooperating equals 1.5. The agent thus benefits in the long run from cooperating rather than appropriating. The principal's strategy of retaliation can teach this lesson to the agent. If the agent follows the strategy of appropriating in round n, he or she will probably learn a lesson by receiving zero payoff in rounds $n + 1$ and $n + 2$. After learning the lesson, the agent will probably switch to the strategy of cooperating in round $n + 3$.

We have described a strategy in which the principal repays the agent's cooperation by investing, and the principal retaliates against the agent's appropriation by not investing. Rewarding cooperation and punishing appropriation has been called "tit for tat."[11] When the principal plays the strategy of tit for tat, the agent maximizes payoff by co-operating. What about the principal? Does he or she maximize payoff by playing tit for tat? Experimental evidence indicates that tit for tat comes very close to maximizing the principal's payoff in a variety of circumstances, and these empirical findings are generally supported by theory.[12] Thus, the strategy of tit for tat is an efficient equilibrium to a repeated agency game.[13]

---

[10] Figure 8.4 assumes no discounting for time. Strictly speaking, payoffs should be discounted to present value from the date of receipt.

[11] R. AXELROD, THE EVOLUTION OF COOPERATION (1984).

[12] Id.

[13] Maskin and Fudenberg have proved that in any game in which (1) players maximize the discounted sum of single period utilities, (2) the discount rate is not too high, and (3) the players can observe the past history of moves in the game, any pair of payoffs that Pareto-dominate the minimax can arise as average equilibrium payoffs of the repeated game. This theorem, however, still leaves unexplained why the probability of a Pareto-efficient solution is as high as empirical studies suggest it to be. See Drew Fudenberg & Eric Maskin, *The Folk Theorem in Repeated Games with Discounting, or With Incomplete Information,* 54 ECONOMETRICA 533 (1986). If the players are willing to settle for a strategy that is very close to the self-interested maximum, but a little short of it, the endgame problem can be solved and the players will cooperate. In general, see AVINASH SIXIT & BARRY NALEBUFF, THINKING STRATEGICALLY: THE COMPETITIVE EDGE IN BUSINESS, POLITICS, AND EVERYDAY LIFE (1991), and DREW FUDENBERG & JEAN TIROLE, GAME THEORY (1991). Exceptional games without cooperative solutions need not concern us here. See Glenn W. Harrison & Jack Hirshleifer, *An Experimental Evaluation of Weakest Link/Best Shot Models of Public Goods,* 97 J. POL. ECON. 201 (1989) and Jack Hirshleifer & Juan Carlos Martinez Coll, *What Strategies Can Support the Evolutionary Emergence of Cooperation?,* 32 J. CONFLICT RESOLUTION 367 (1988).

Long-run relationships require commitment, which can facilitate economic cooperation without state protection. Traditional forms of commitment include friendship, kinship, ethnicity, and religion. They often dominate economic life in communities with weak state protection of contracts. Business communities with weak state protection include international merchants, businesses in countries with weak or corrupt governments, businesses caught in civil wars, and foraging tribes that remain unsubordinated to states. Our model predicts, correctly, that traditional forms of commitment will flourish in these circumstances and decline if the state imposed effective contract law.

Similarly, traditional forms of commitment often dominate economic life in communities that face the state's hostility. Businesses facing state hostility include organized crime and some private businesses in socialist states. Our model predicts, correctly, that traditional forms of commitment should flourish in these circumstances.

Long-run relations can arise from commitments to institutions. For example, Japanese employees show a high level of commitment to the corporation, as evidenced by low rates of labor mobility. Our theory predicts correctly that long-run relationships will cause Japanese corporations to rely less on enforceable contracts as compared to American or European corporations. Long-run relations in the Japanese economy create more order and less law than in other countries.
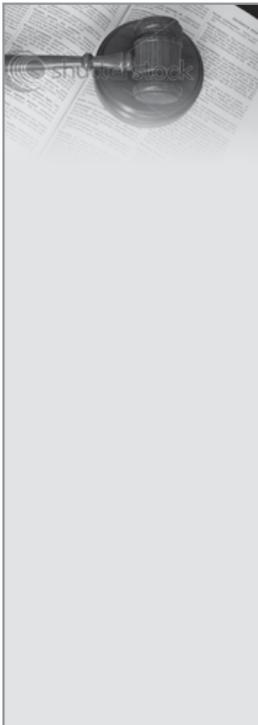
B. Endgame Problem

Even long-run relationships end eventually. Near their end, business relationships often deteriorate. To see why, return to our example of tit for tat as depicted in Figure 8.4. Recall that when the agent appropriates, the principal retaliates by not investing for several rounds. However, the principal has no power to retaliate on the *last* round of the game. Thus, the final round of the agency game has the same logic as a one-shot agency game.

To illustrate, assume that the repeated game in Figure 8.4 has an end and both parties know it. To be concrete, assume that both parties know the game will end after round $n + 3$. The agent does not fear retaliation for appropriating in round $n + 3$, because the agent knows that there will not be any more rounds. In round $n + 3$, the agent will receive a payoff of 1 from appropriating and a payoff of .5 from cooperating. Consequently, the agent maximizes his or her payoff in round $n + 3$ by appropriating. Knowing this, the principal will refuse to invest in round $n + 3$. Thus the players cannot cooperate in round $n + 3$. The last round in a repeated agency game has the same logic as a one-shot game. Consequently, the players in the agency game cannot cooperate in the last round without enforceable contracts.

Worse still, the players could fail to cooperate in *every* round of the game. To see why, consider the strict logic of the situation. The principal follows the strategy of tit for tat, which rewards cooperation by subsequent investing and punishes appropriation by not investing in subsequent rounds. However, the principal will not invest in the last round, which is round $n + 3$. Consequently, the principal cannot use round $n + 3$ to reward cooperation or punish appropriation by the agent in round $n + 2$.

Knowing this fact, the agent can appropriate in round $n + 2$ without fearing retaliation in round $n + 3$. Knowing this, the principal will refuse to invest in round $n + 2$. The same logic now applies to round $n + 1$ and so forth back to the first round. In general, the demonstration that the players cannot cooperate in any given round leads to the conclusion that they cannot cooperate in the preceding round. If strictly rational parties know the round in which the repeated agency game ends, then the whole game unwinds, and the players fail to cooperate in any round. The phrase "the endgame problem" describes the unwinding of cooperation as a repeated game approaches its final round. Eastern Europe provides a dramatic example of the endgame problem after 1989 when communism collapsed and central planning ended, as discussed in the accompanying box.

People in long-run relationships develop social norms to coordinate their behavior without bargaining, which businessmen call "customs in trade." Lisa Bernstein discovered a peculiar fact: Customs in trade often contradict the explicit provisions of written contracts.[14] In the Memphis textile exchange, the seller weighs the cotton to ensure that he ships the amount specified in the contract. The contract stipulates that the buyer must also weigh the cotton when accepting delivery from the seller so that the buyer will not have cause for complaint later. The custom, however, is for the buyer to accept the weight as stated by the seller, thus saving the bother of weighing it a second time.

The Endgame Problem of Eastern Europe in 1989

The disintegration of communist governments in Eastern Europe accelerated dramatically in 1989. Central planning failed irreparably, and markets rapidly replaced central planning as the organizing economic principle. Unfortunately, production declined throughout Eastern Europe at this time. Why did the shift to markets immediately produce economic decline rather than economic growth?

The "endgame problem" provides the key. Under communism, much production occurred through long-run relations. For example, a truck driver would haul goods for "free" as a "favor" to his friend who operated a gas station, and the gas-station operator would supply petrol for the trucker when supplies ran short. The demise of communism massively disrupted political life, which caused people to doubt the persistence of their long-run economic relationships. With the end of relationships in sight, cooperation failed. For example, the trucker lost confidence that the gas-station operator could continue to supply petrol (the gas-station operator might lose her job), so the trucker stopped hauling the gas-station operator's goods for free.

The failure of cooperation caused production to decline all over Eastern Europe after 1989. This situation could be corrected by effective legal protection for property and contracts. Some Eastern European states have made the correction. In other states, however, entrepreneurs still enjoy higher profits from stealing property (especially state property) than from producing goods.

---

[14] Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions,* 99 MICH. L. REV. 1724 (2001).

This contradiction between the written contract and the custom is easy to understand. The custom arises from buyers and sellers in long-run relationships who trust each other. As long as the relationship remains firm, the parties have little need for the contract. The contract, however, is written for deteriorating relationships. When the parties cannot rely on their relationship, they turn to the written contract. We have a long-run custom in trade and an endgame contract.

This fact complicates using customs in trade to interpret contracts. Assume that the seller purports to deliver a ton of cotton to the buyer. The buyer accepts delivery without weighing the cotton. Later the buyer discovers that the cotton weighs less than a ton. The buyer stops dealing with the seller and sues the seller for "short-weighting." The seller defends in court by saying that the contract obligated the buyer to weigh the cotton on delivery, which the buyer did not do. Having failed to complain when the cotton was delivered, the buyer is precluded by contract from complaining later. The seller replies that, contrary to what the contract says, the custom in trade is for the buyer not to weight the cotton when it is delivered. Should the court follow the explicit terms of the contract and decide for the seller, or should the court set the the contract aside and decide for the buyer? Presumably the court should recognize that the parties wrote the contract for the dissolution of a relationship, which is what has occurred, so the court should enforce the written contract.

So far we have discussed commitment to enduring relationships. However, most business relationships are tentative: They can persist indefinitely or end unexpectedly as circumstances change. With tentative relationships in the agency game, the players often follow the strategy tit for tat: The principal retaliates against the agent's appropriation by dissolving the relationship. This strategy by principals presents agents with a choice between two alternatives. The first strategy is for the agent to cooperate, in which case the relationship continues, and the agent receives a payoff of .5 in each round. The second strategy is to appropriate, thus provoking the first player to dissolve the relationship. By following the second strategy, the agent receives a payoff of 1.0 in the few rounds when he or she finds a principle to invest, and a payoff of zero in the other rounds when the search for a partner is unsuccessful. In brief, the agent chooses between cooperating and receiving a modest payoff in most rounds of the game or appropriating and receiving a large payoff in a few rounds of the game.

Notice that these two strategies in the agency game correspond to familiar facts about business. Some businesses try to make modest profits on many transactions. These businesses focus on long-run relationships with repeat customers. Other businesses try to make large profits on few transactions. These businesses focus on attracting new customers for one-time sales. In a competitive equilibrium, both strategies must earn the same payoff. In other words, the strategy of cooperating in long-run relationships must yield the same payoff as the strategy of appropriating in one-shot relationships.

This account corresponds to the dynamics of real markets. To illustrate, consider the market for trial lawyers. Most trial lawyers realistically assess their clients' prospects at trial and use this assessment as the basis for a settlement out of court. These lawyers correspond to cooperators in the agency game who attract repeat customers and maintain long-run relationships with their clients. However, some lawyers provide unrealistically

optimistic assessments of their clients' prospects at trial and use these assessments to induce their clients to engage in costly litigation. These lawyers correspond to appropriators in the agency game who attract relatively few repeat customers and maintain short-run relationships with most clients. The proportion of lawyers of each type adjusts in response to the profitability of the two strategies. If the bar finds ways to reduce the profitability of trials relative to settlements, then more lawyers will try to settle cases, and fewer lawyers will provoke trials.

Businesses must expect the unexpected. Accommodating unforeseen changes requires flexible business relationships, not rigid rules. Formal rules do not tightly control very much business behavior. In a business relationship as in a marriage, enforcing the rights of the parties differs from repairing their relationship. When businesses in enduring relationships come to court, the judges sometimes adopt a different style of adjudication by, say, requiring the parties to attempt mediation before proceeding to trial.

Web Note 8.3

For more on relational contracts, see our website.
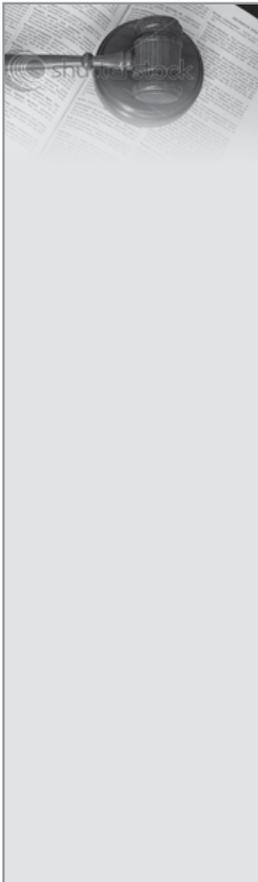
How to Exchange Hostages

Medieval kings used to guarantee the peace among themselves by exchanging hostages. Ask yourself this question: Suppose that a king wants to exchange hostages with another monarch to guarantee the peace. Assume that the king likes diamonds as much as he likes his children. That is, he values a diamond ring just as much as—neither more nor less than—he values his own son. Which would make a better hostage: the king's diamond ring or his son?

The better hostage is the one that deters both the hostage-giver and the hostage-taker from starting a war. By assumption, the king values the diamond ring and his son equally; the fear of losing the ring by starting a war equals the fear of losing his son. They are equally good deterrents against the hostage-giver's starting a war. However, they are not equally good deterrents against the hostage-*taker's* starting a war. The hostage-taker would presumably like to have the diamond ring but presumably places little intrinsic value on having the son of the neighboring king. The hostage-taker, therefore, is more inclined to start a war and keep the hostage if he holds the diamond ring rather than the king's son. That is why the king's son is a better hostage than the diamond ring.

In general, a good hostage is something that the hostage-giver values highly and the hostage-taker values little. Asymmetrical valuation makes a good hostage. (See Oliver Williamson, *Credible Commitments: Using Hostages to Support Exchange,* 83 Am. Econ. Rev. 519 (1983).)

QUESTION 8.13: What sorts of things can corporations give as hostages in long-run contractual relations? Does hostage giving in long-run relationships serve the same or a different function as consideration in a short-run contract?

"Please, It's My Turn to Pay."

Assume that two computer companies consider merging. To discuss the possible merger, the CEOs decide to have dinner together twice a week for two months. Each can pay for his own meal, or they can take turns paying the whole bill. If each pays for his own meal, neither of them has an incentive to overeat. Conversely, if they take turns paying the bill, then each of them has an incentive to order very expensive items when the other one is paying. "Each-pays-for-his-own-meal" is apparently the better practice.

On further consideration, however, this is a mistake. The risk of overeating is trivial compared to the risk of a bad merger. A merger will require trust between them. They might try to establish trust in the small matter of lunch before going to the large matter of merging. "Take-turns-paying-the-whole-check" is a better practice for building trust. If you find out that someone over-orders whenever you pay for lunch, do you really want to merge your company with his?

Conclusion

Let us summarize our theoretical conclusions. Figure 8.1 describes a problem of cooperation: The principal will not invest unless the agent has an incentive to cooperate. Figure 8.2 depicts a legal solution to the problem. The legal solution is to make an enforceable contract. By enforcing promises, contract law enables people to make credible commitments to cooperate with each other. They maximize the gain from cooperation when law creates efficient incentives for performance and reliance. The law can also reduce the cost of negotiating contracts by supplying efficient default terms, and correct some market failures by supplying mandatory terms.

The legal solution to cooperation presupposes an effective state to enforce contracts. The machinery of state law is expensive in the best circumstances and ineffective in the worst circumstances. Figure 8.4 depicts a nonlegal solution to the problem of cooperation: Form an enduring relationship, which enables the principal to retaliate when the agent appropriates. Long-run relationships succeed in repeated transactions of small value and fail in one-shot transactions of large value.

Suggested Readings

Bernstein, Lisa, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry,* 21 J. Legal Stud. 115 (1992).

Eisenberg, Melvin A., *The Limits of Cognition and the Limits of Contract,* 47 Stan. L. Rev. 211 (1995).

———, *The Bargain Principle and Its Limits,* 95 Harv. L. Rev. 741 (1982).

Hermalin, Benjamin E., Avery W. Katz, & Richard Craswell, *The Law and Economics of Contracts*, in A. MITCHELL POLINSKY & STEVEN SHAVELL, EDS., HANDBOOK OF LAW AND ECONOMICS, v. 1 (2007).

Posner, Eric A., *Economic Analysis of Contract Law After Three Decades: Success or Failure?*, 112 YALEL L. J. 829 (2003). See also the responses to Posner's article: Ian Ayres, *Valuing Modern Contract Scholarship,* 112 YALE L. J. 881 (2003), and Richard Craswell, *In That Case What Is the Question?: Economics and the Demands of Contract Theory,* 112 YALE L. J. 903 (2003).

TREBILCOCK, MICHAEL J., THE LIMITS OF FREEDOM OF CONTRACT (1993).