LAW & ECONOMICS

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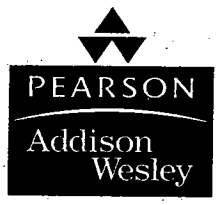

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offers and gift-promises.[2] As a result of such facts, the bargain theory is typically regarded as wrong.[3]

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. Therefore, it should be enforceable; there is no particular reason under the bargain theory to withhold enforcement. But enforcing this promise 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, precisely because it is deceptive. (We discuss these matters of fairness and unfair advantage-taking in the following chapter.)

We have seen that the bargain theory of contract is not a particularly good theory of contracting. 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). Moreover, the theory does not describe what courts actually do. It does not, that is, accurately predict which promises are legally enforceable and which are not. We want a more general theory that describes what courts actually do and can explain which consensual agreements are likely to be enforced (and to what extent) in *any* legal system.

II. AN ECONOMIC THEORY OF CONTRACT

We want to replace the bargain theory with a less dogmatic, more responsive theory of contracts. In the two preceding examples, enforceability of the contract apparently makes two people better off, as measured by their own desires, without making anyone worse off. Whenever a change in the law makes someone better off without making anyone worse off, "Pareto efficiency" requires changing the law. "Pareto-efficient law" is a technical name for responsive law. A theory of law based upon Pareto efficiency is responsive, not dogmatic.

In general, *economic efficiency 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?"

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[2] The *Uniform Commercial Code* § 2–205 allows for certain, but not all, firm offers to be enforceable for a period not exceeding 3 months. (The *UCC* is described in a box at the beginning of Chapter 7.) 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. See also Question 6.15.

[3] 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.

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. Uncertainties and risks present obstacles to exchange and cooperation. To illustrate, consider deferred exchange when promises are *un*enforceable. The seller asks the buyer to pay now for future delivery of goods. This unenforceable promise involves a high risk that the seller will not deliver the goods as promised. A cautious buyer may refuse to pay now for an *un*enforceable promise to deliver goods in the future. The cautious buyer wants something stronger than a moral obligation of the seller to deliver the goods. In addition, the cautious buyer wants a legal obligation of the seller to deliver the goods. The cautious buyer may be willing to pay now for an *enforceable* promise to deliver goods in the future. Thus, the enforceability of promises encourages exchange and cooperation among people.

Notice that both parties in this example want the seller's promise to be enforceable at the time it is made. The cautious buyer wants enforceability to provide an incentive for seller's performance and a remedy for seller's breach. The seller wants enforceability in order to induce the buyer to make the purchase. By enforcing the promise, the court can give both parties what they want. Giving them what they want promotes exchange and encourages cooperation by reducing uncertainty and risk.

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. 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. Appropriation is redistributive. Redistribution benefits the second player at the expense of the first player.

We depict these alternatives in Figure 6.1 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 6.1 decides whether to 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

FIGURE 6.1
Agency game without contract.

		Second player (agent or promisor)	
		Cooperate	Appropriate
First player (principal or promisee)	Invest	.5 .5	1.0 −1.0
	Don't invest	0 0	0 0

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 6.1. 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.[4] 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 6.1 is "don't invest."

The payoffs to the agency game in Figure 6.1 assume that the parties cannot make an enforceable contract. The barrier to an enforceable contract might be dogmatic law or corrupt courts. Now consider how the payoff matrix changes if we assume responsive law and honest courts, so 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 in the event that the player breaks the promise and appropriates.

Figure 6.2 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 player recovers his or her investment and receives an additional payoff equal to .5. If the first player invests 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

[4] Game theorists describe a move that is best against *any* possible move by the other side as a "dominant strategy." In Figure 6.1, 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 6.2
Agency game with contract.

		Second player: Perform	Second player: Breach
First player	Invest (contract)	.5 .5	−.5 .5
	Don't invest (no contract)	0 0	0 0

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 6.1 shows that the first player does not invest when promises are *un*enforceable. Figure 6.2 shows that the first player invests and the second player cooperates when promises are enforceable. Thus, an enforceable contract converts a game with a noncooperative solution into a game with a cooperative solution. *The first purpose of contract law is to enable people to cooperate by converting games with noncooperative solutions into games with cooperative solutions.*

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 sum of the payoffs to both players is found by adding the two numbers in each cell in Figure 6.1 or Figure 6.2. Efficiency requires choosing the cell that maximizes the sum of the payoffs.[5] 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

[5] To be precise, cost-benefit efficiency requires choosing the cell that maximizes the sum of the payoffs, and cost-benefit efficiency in this example corresponds to Pareto efficiency.