6

Credible Commitments

In most situations, mere verbal promises should not be trusted. As Sam Goldwyn put it, "A verbal contract isn't worth the paper it's written on." An incident in *The Maltese Falcon* by Dashiell Hammett (filmed by Goldwyn's competitor Warner Brothers, with Humphrey Bogart as Sam Spade and Sydney Greenstreet as Gutman) illustrates this point. Gutman gives Sam Spade an envelope containing ten thousand dollars.

Spade looked up smiling. He said mildly: "We were talking about more money than this." "Yes sir, we were," Gutman agreed, "but, we were talking then. This is actual money, genuine coin of the realm. With a dollar of this, you can buy more than with ten dollars of talk."²

This lesson can be traced all the way back to Thomas Hobbes: "The bonds of words are too weak to bridle men's avarice." Women's too, as King Lear discovered.

Credibility is a problem with all strategic moves. If your unconditional move, or threat or promise, is purely oral, why should you carry it out if it turns out not to be in your interest to do so? But then others will look forward and reason backward to predict that you have no incentive to follow through, and your strategic move will not have the desired effect.

The whole point behind the strategies of Chapter 5 is to change an opponent's expectations about your responses to his actions. This will fail if he believes that you will not carry out the threats or promises you make. Without any effect on his expectations, there will be no effect on his actions.

An action that can be changed loses strategic effect against a rival who thinks strategically. He knows that your utterances may not match your actions and so is on the lookout for tactical bluffing.

A famous example of the reversal was made by the Rothschilds following the Battle of Waterloo. The Rothschilds supposedly used carrier pigeons and hence were the first to know the battle's outcome. When they discovered that the English had won, they sold British bonds publicly and thus led others to believe that England had lost. The price of British government bonds plummeted. Before the truth was discovered, the Rothschilds secretly bought an even greater number of bonds at the rock-bottom price.*

Had the others in the London stock exchange recognized that the Rothschilds might reverse their move in this way, they would have anticipated the tactical bluffing and it would not have worked. A strategically aware opponent will expect you to mislead him and therefore will not be influenced by actions that he perceives as being put on display for his benefit.

Establishing credibility in the strategic sense means that you are expected to carry out your unconditional moves, keep your promises, and make good on your threats. Unlike the Rothschilds, you cannot count on an ability to fool people. Commitments are unlikely to be taken at face value. Your commitment may be tested. Credibility must be earned.

Credibility requires finding a way to prevent going back. If there is no tomorrow, today's commitment cannot be reversed.

^{*} There is some question as to whether carrier pigeons is a modern-day embellishment of the story. Frederic Morton in his book *The Rothschilds*, claims "On June 19, 1815, late in the afternoon a Rothschild agent named Rothworth jumped into a boat at Oostend. In his hand he held a Dutch gazette still damp from the printer. By the dawn light of June 20 Nathan Rothschild stood at Folkstone harbor and let his eye fly over the lead paragraphs. A moment later he was on his way to London (beating Wellington's envoy by several hours) to tell the government that Napoleon had been crushed. Then he proceeded to the stock market."

The fact that deathbed testimony can never be altered leads the courts to give it tremendous weight. More commonly, there is a tomorrow (and a day after) so that we must explore the problem of how to maintain commitment over the long haul. "Feast today, for tomorrow we fast" is the excuse for putting on today what can be taken off tomorrow.

1. THE EIGHTFOLD PATH TO CREDIBILITY

Making your strategic moves credible is not easy. But it is not impossible, either. When we first raised this issue in Chapter 5, we said that to make a strategic move credible, you must take a supporting or collateral action. We called such an action commitment.

We now offer eight devices for achieving credible commitments. Like the Buddhist prescription for Nirvana, we call this the "eightfold path" to credibility. Depending on the circumstances, one or more of these tactics may prove effective for you. Behind this system are three underlying principles.

The first principle is to change the payoffs of the game. The idea is to make it in your interest to follow through on your commitment: turn a threat into a warning, a promise into an assurance. This can be done through a variety of ways.

- 1. Establish and use a reputation.
- 2. Write contracts.

Both these tactics make it more costly to break the commitment than to keep it.

A second avenue is to change the game to limit your ability to back out of a commitment. In this category, we consider three possibilities. The most radical is simply to deny yourself any opportunity to back down, either by cutting yourself off from the situation or by destroying any avenues of retreat. There is even the possibility of removing yourself from the decision-making position and leaving the outcome to chance.

- 3. Cut off communication.
- 4. Burn bridges behind you.
- 5. Leave the outcome to chance.

These two principles can be combined: both the possible actions and their outcomes can be changed. If a large commitment is broken down into many smaller ones, then the gain from breaking a little one may be more than offset by the loss of the remaining contract. Thus we have

6. Move in small steps.

A third route is to use others to help you maintain commitment. A team may achieve credibility more easily than an individual. Or you may simply hire others to act in your behalf.

- 7. Develop credibility through teamwork.
- 8. Employ mandated negotiating agents.

Reputation

If you try a strategic move in a game and then back off, you may lose your reputation for credibility. In a once-in-a-lifetime situation, reputation may be unimportant and therefore of little commitment value. But, you typically play several games with different rivals at the same time, or the same rivals at different times. Then you have an incentive to establish a reputation, and this serves as a commitment that makes your strategic moves credible.

During the Berlin crisis in 1961, John F. Kennedy explained the importance of the U.S. reputation:

If we do not meet our commitments to Berlin, where will we later stand? If we are not true to our word there, all that we have achieved in collective security, which relies on these words, will mean nothing.⁴

Another example is Israel's standing policy not to negotiate with terrorists. This is a threat intended to deter terrorists from taking hostages to barter for ransom or release of prisoners. If the no-negotiation threat is credible, terrorists will come to recognize the futility of their actions. In the meantime, Israel's resolve will be tested. Each time the threat must be carried out, Israel suffers; a refusal to compromise may sacrifice Israeli hostages' lives. Each confrontation with terrorists puts Israel's reputation and credibilty on the line. Giving in means more than just meeting the current demands; it makes future terrorism more attractive.*

Reputation effect is a two-edged sword for commitment. Sometimes destroying your reputation can create the possibility for a commitment. Destroying your reputation commits you *not* to take actions in the future that you can predict will not be in your best interests.

The question of whether to negotiate with hijackers helps illustrate the point. Before any particular hijacking has occurred, the government might decide to deter hijackings by threatening never to negotiate. However, the hijackers predict that after they commandeer the jet, the government will find it impossible to enforce a no-negotiation posture. How can a government deny itself the ability to negotiate with hijackers?

One answer is to destroy the credibility of its promises. Imagine that after reaching a negotiated settlement, the government breaks its commitment and attacks the hijackers. This destroys any reputation the government has for trustworthy treatment of hijackers. It loses the ability to make a credible promise, and irreversibly denies itself the temptation to respond to a hijacker's threat. This destruction of the credibility of a promise makes credible the threat never to negotiate.

^{*} Even the Israelis have lost some of their reputation for toughness. Their willingness to swap 3,000 Arab prisoners for 3 of their air force pilots suggests that exceptions will sometimes be made.

Congress has a similar problem of maintaining consistency over time when it comes to tax amnesty programs. Such programs allow those who owe back taxes to pay up without penalty. This appears to be a costless way of raising more revenue. All those who have second thoughts about having cheated on their taxes give the government money owed. In fact, if it could be credibly established that there would never be another amnesty, then Congress could raise additional tax revenues at no cost. But if amnesty was such a good idea once, why not try it again in a few years? Nothing prevents Congress from offering an amnesty on a regular basis. Then a problem arises. Cheating becomes more attractive, since there is the possibility of getting amnesty in the future.

Congress must find a way to prevent itself from ever repeating the amnesty program. In a Wall Street Journal article, Robert Barro and Alan Stockman propose that the government offer a tax amnesty, then renege on its promise and prosecute those who turn themselves in.⁵ This would raise even more revenue than a simple amnesty. And once the government cheats on its amnesty, who would believe the government were it to try again? By destroying its credibility, the government can make a credible commitment not to offer an amnesty again.

You will probably think this is an absurd idea, and with good reason. First, it will not work against strategically aware taxpayers. They will expect the government to renege on its promise, so they will not participate in the amnesty at all. Secondly, and more importantly, catching tax cheaters is not the only game in town. Any benefits from double-crossing tax cheaters will be more than offset by the harm to the government's reputation in other areas.

One of the most impressive examples of how to build a reputation belongs to the Mayflower Furniture Company. On a large billboard located along the Massachusetts Turnpike, they proudly advertise that they have gone 127 years without a sale. (Are they still waiting for their first customer?) This unconditional commitment to everyday low prices brings in a steady stream of customers. A sale might temporarily raise profits, but it would be another 127 years before they could repeat such a clever advertisement. Next year, we expect the sign will read 128 years. The reputation becomes self-perpetuating as it becomes more valuable.*

In all these instances, the player cultivates a reputation with the direct and conscious aim of creating credibility for his future unconditional commitments, threats, and promises. However, reputation can also arise for nonstrategic reasons, and yet be just as powerful in achieving credibility. The feeling of pride in not breaking one's word is an example. Thomas Hobbes wrote that the weak bonds of words can be strengthened in two ways: a fear of the consequence of breaking one's word; or a glory, or pride, in not breaking it. Such pride is often instilled in people's value system through education or general social conditioning. It may even have the implicit social aim of improving the credibility of our manifold daily relationships. Yet we are not told to take pride in being honorable because it will bring us strategic advantage by making our threats and promises credible; we are told that honor is a good thing in itself.

Someone who has a reputation for being crazy can make successful threats that would be incredible coming from a saner and cooler person. In this way, apparent *irrationality* can become good strategic rationality. One can even cultivate such a reputation. A seeming madman, therefore, may be a superior strategist, because his threats are more readily believed. Could Colonel Ghadafi and Ayatollah Khomeini have understood this principle better than the cool, rational leaders of Western nations trying to deal with them? We do not know,

^{*} Sadly, we must report that the Mayflower Furniture Company recently had its first sale, a going out of business sale.

but we are willing to bet that your child who is too irrational to be deterred by your threats of punishment is a better instinctive game-player than you are.

Contracts

A straightforward way to make your commitment credible is to agree to a punishment if you fail to follow through. If your kitchen remodeler gets a large payment up front, he is tempted to slow down the work. But a contract that specifies payment linked to the progress of the work and penalty clauses for delay can make it in his interest to stick to the schedule. The contract is the commitment device.

Actually, it's not quite that simple. Imagine that a dieting man offers to pay \$500 to anyone who catches him eating fattening food. Every time the man thinks of a dessert he knows that it just isn't worth \$500. Don't dismiss this example as incredible; just such a contract was offered by a Mr. Nick Russo — except the amount was \$25,000. According to the Wall Street Journal:

So, fed up with various weight-loss programs, Mr. Russo decided to take his problem to the public. In addition to going on a 1,000-calorie-a-day diet, he is offering a bounty —\$25,000 to the charity of one's choosing — to anyone who spots him eating in a restaurant. He has peppered local eateries ... with "wanted" pictures of himself.⁶

But this contract has a fatal flaw: there is no mechanism to prevent renegotiation. With visions of eclairs dancing in his head, Mr. Russo should argue that under the present contractual agreement, no one will ever get the \$25,000 penalty since he will never violate the contract. Hence, the contract is worthless. Renegotiation would be in their mutual interest. For example, Mr. Russo might offer to buy a round of drinks in exchange for being released from the contract. The restaurant diners prefer a drink to nothing and let him out of the contract.

For the contracting approach to be successful, the party that

enforces the action or collects the penalty must have some independent incentive to do so. In the dieting problem, Mr. Russo's family might also want him to be skinnier and thus not be tempted by a mere free drink.

The contracting approach is better suited to business dealings. A broken contract typically produces damages, so that the injured party is not willing to give up on the contract for naught. For example, a producer might demand a penalty from a supplier who fails to deliver. The producer is not indifferent about whether the supplier delivers or not. He would rather get his supply than receive the penalty sum. Renegotiating the contract is no longer a mutually attractive option.

What happens if the supplier tries the dieter's argument? Suppose he attempts to renegotiate on the grounds that the penalty is so large that the contract will always be honored and the producer will never receive the penalty. This is just what the producer wants, and hence he is not interested in renegotiation. The contract works because the producer is not solely interested in the penalty; he cares about the actions promised in the contract.

It is possible to write contracts with neutral parties as enforcers. A neutral party is someone who does not have any personal interest in whether the contract is upheld. To make enforcement credible, the neutral party must be made to care about whether or not the commitment is kept by creating a reputation effect. In some instances, the contract holder might lose his job if he allows the contract to be rewritten. Thomas Schelling provides a remarkable example of how these ideas have been implemented. In Denver, one rehabilitation center treats wealthy cocaine addicts by having them write a self-incriminating letter which will be made public if they fail random urine analysis. After placing themselves voluntarily in this position, many people will try to buy their way back out of the contract. But the person who holds the contract will lose his job if the contract is rewritten; the center will lose its

reputation if it fails to fire employees who allow contracts to be rewritten.

The moral is that contracts alone cannot overcome the credibility problem. Success requires some additional credibility tool, such as employing parties with independent interests in enforcement or a reputation at stake. In fact, if the reputation effect is strong enough, it may be unnecessary to formalize a contract. This is the sense of a person's word being his bond.*

Cutting Off Communication

Cutting off communication succeeds as a credible commitment device because it can make an action truly irreversible. An extreme form of this tactic arises in the terms of a last will and testament. Once the party has died, renegotiation is virtually impossible. (For example, it took an act of the British parliament to change Cecil Rhodes's will in order to allow female Rhodes Scholars.) In general, where there is a will, there is a way to make your strategy credible.

For example, most universities set a price for endowing a chair. The going rate is about \$1.5 million. These prices are not carved in stone (nor covered with ivy). Universities have been known to bend their rules in order to accept the terms and the money of deceased donors who fail to meet the current prices.

One need not die trying to make commitments credible. Irreversibility stands watch at every mailbox. Who has not mailed a letter and then wished to retrieve it? And it works the other way. Who has not received a letter he wishes he hadn't? But you can't send it back and pretend you've never read it once you've opened the letter.

Before the practice became widespread, a successful commitment device was to mail one's bill payments in unstamped

^{*} On the other hand, among college professors, there is a saying, "A hand-shake is good enough between businessmen. But when your university's dean promises you something, get it in writing."

letters with no return address. Mailing a letter with no return address is an irreversible commitment. The post office used to deliver such letters, and the receiver could accept delivery by paying the postage due. A utility or phone company knew that such a letter was likely to contain a check. It would rather pay the postage due than wait another billing cycle before receiving payment (or another unstamped letter with no return address).

The solution to the companies' problem came when the post office changed its policy. Letters without postage are no longer delivered to the addressee; they are returned to the sender if there is a return address and not delivered if there is no return address. Now the company can commit itself not to receive a letter with postage due.

But what if you put the company's address as both the mailing address and the return address? Now the post office has someone to return the letter to. Remember, you didn't hear this idea here first. And if it begins to spread, rest assured that the post office rules will be changed so that letters without a stamp are not even returned to the sender.

There is a serious difficulty with the use of cutting off communication as a device to maintain commitment. If you are incommunicado, it may be difficult if not impossible to make sure that the rival has accorded with your wishes. You must hire others to ensure that the contract is being honored. For example, wills are carried out by trustees, not the deceased. A parental rule against smoking may be exempt from debate while the parents are away, but unenforceable too.

Burning Bridges behind You

Armies often achieve commitment by denying themselves an opportunity to retreat. This strategy goes back at least to 1066, when William the Conqueror's invading army burned its own ships, thus making an unconditional commitment to fight rather than retreat. Cortés followed the same strategy in his

conquest of Mexico. Upon his arrival in Cempoalla, Mexico, he gave orders that led to all but one of his ships being burnt or disabled. Although his soldiers were vastly outnumbered, they had no other choice but to fight and win. "Had [Cortés] failed, it might well seem an act of madness.... Yet it was the fruit of deliberate calculation.... There was no alternative in his mind but to succeed or perish."

Destroying the ships gave Cortés two advantages. First, his own soldiers were united, each knowing that they would all fight until the end since desertion (or even retreat) was an impossibility. Second, and more important, is the effect this commitment had on the opposition. They knew that Cortés must either succeed or perish, while they had the option to retreat into the hinterland. They chose to retreat rather than fight such a determined opponent. For this type of commitment to have the proposed effects, it must be understood by the soldiers (yours and the enemy's), not just by the armchair strategists. Thus it is especially interesting that "the destruction of the fleet [was] accomplished not only with the knowledge, but the approbation of the army, though at the suggestion of Cortés." 10

This idea of burning one's own ships demonstrates the evolution of strategic thinking over time. The Trojans seemed to get it all backward when the Greeks sailed to Troy to rescue Helen.* The Greeks tried to conquer the city, while the Trojans tried to burn the Greek ships. But if the Trojans had succeeded in burning the Greek fleet, they would simply have made the Greeks all the more determined opponents. In fact, the Trojans failed to burn the Greek fleet and saw the Greeks

^{*} Although the Trojans may have gotten it backward, the Greeks were ahead of the game. Schelling cites the Greek general Xenophon as an early example of this type of strategic thinking. Although Xenophon did not literally burn his bridges behind him, he did write about the advantages of fighting with one's back against a gully. See Schelling's "Strategic Analysis and Social Problems," published in his collected essays, *Choice and Consequence* (Cambridge, Mass.: Harvard University Press, 1984).

sail home in retreat. Of course the Greeks left behind a gift horse, which in retrospect the Trojans were a bit too quick to accept.¹¹

In modern times, this strategy applies to attacks on land as well as by sea. For many years, Edwin Land's Polaroid corporation purposefully refused to diversify out of the instant photography business. With all its chips in instant photography, it was committed to fight against any intruder in the market.

On April 20, 1976, after twenty-eight years of a Polaroid monopoly on the instant photography market, Eastman Kodak entered the fray: it announced a new instant film and camera. Polaroid responded aggressively, suing Kodak for patent infringement. Edwin Land, founder and chairman, was prepared to defend his turf:

This is our very soul we are involved with. This is our whole life. For them it's just another field. ::: We will stay in our lot and protect that lot. 12

Mark Twain explained this philosophy in Pudd'nhead Wilson:

Behold, the fool saith, "Put not all thine eggs in one basket" ::: but the wise man saith, "Put all your eggs in one basket and WATCH THAT BASKET." 13

The battle ended on October 12, 1990. The courts awarded Polaroid a \$909.4 million judgment against Kodak.* Kodak was forced to withdraw its instant film and camera from the market. Although Polaroid restored its dominance over the instant photography market, it lost ground to competition from portable videocassette recorders and minilabs that developed and printed conventional film in one hour. Lacking bridges, Polaroid began to feel trapped on a sinking island. With a

^{*} Polaroid's stock actually fell in response to this award, as the market was expecting a judgment closer to \$1.5 billion.

change in philosophy, the company has begun to branch out into video film and even conventional film.

One need not literally burn bridges, nor ships that bridge oceans. One can burn bridges figuratively by taking a political position that will antagonize certain voters. When Walter Mondale said in accepting the 1984 Democratic presidential nomination that he *would* raise taxes if elected, he was making such a commitment. Voters who believed in supply-side economics were irretrievably lost, and this made Mondale's position more credible to those who favored a tax increase in order to reduce the deficit. Unfortunately (for Mondale) the group of voters antagonized by this move turned out to be far too large.

Finally, building rather than burning bridges can also serve as a credible source of commitment. In the December 1989 reforms in Eastern Europe, building bridges meant knocking down walls. Responding to massive protests and emigration, East Germany's Prime Minister Egon Krenz wanted to promise reform but didn't have a specific package. The population was skeptical. Why should they believe that the vague promise of reform would be genuine and far-reaching? Even if Krenz was truly in favor of reform, he might fall out of power. Dismantling parts of the Berlin Wall helped the East German government make a credible commitment to reform without having to detail all the specifics. By (re)opening a bridge to the West, the government forced itself to reform or risk an exodus. Since it would be possible to leave in the future, the promise of reform was both credible and worth waiting for. Reunification was to be less than a year away.

Leaving the Outcome beyond Your Control

The doomsday device in the movie *Dr. Strangelove* consisted of large buried nuclear bombs whose explosion would emit enough radioactivity to exterminate all life on earth. The device would be detonated automatically in the event of an at-

tack on the Soviet Union. When President Milton Muffley of the United States asked if such an automatic trigger was possible, Dr. Strangelove answered: "It is not merely possible; it is *essential*."

The device is such a good deterrent because it makes aggression tantamount to suicide.* Faced with an American attack, Soviet premier Dimitri Kissov might refrain from retaliating and risking mutually assured destruction. As long as the Soviet premier has the freedom not to respond, the Americans might risk an attack. But with the doomsday device in place, the Soviet response is automatic and the deterrent threat is credible.

However, this strategic advantage does not come without a cost. There might be a small accident or unauthorized attack, after which the Soviets would not want to carry out their dire threat, but have no choice as execution is out of their control. This is exactly what happened in *Dr. Strangelove*.

To reduce the consequences of errors, you want a threat that is no stronger than is necessary to deter the rival. What do you do if the action is indivisible, as a nuclear explosion surely is? You can make the threat milder by creating a risk, but not a certainty, that the dreadful event will occur. This is Thomas Schelling's idea of *brinkmanship*. He explained it in his book *The Strategy of Conflict*:

Brinkmanship is ... the deliberate creation of a recognizable risk, a risk that one does not completely control. It is the tactic of deliberately letting the situation get somewhat out of hand, just because its being out of hand may be intolerable to the other party and force his accommodation. It means harassing and intimidating an adversary by exposing him to a shared risk, or deterring him by showing that if he makes a contrary move he may disturb us so that we slip over the brink whether we want to or not, carrying him with us.¹⁴

^{*} Apparently, Khrushchev attempted to use this strategy, threatening that Soviet rockets would fly *automatically* in the event of armed conflict in Berlin; see Tom Schelling's *Arms and Influence* p. 39.

The use of brinkmanship formed the basis of the U.S. nuclear deterrent policy. During the cold war, the United States did not need to guarantee a nuclear retaliation if the Soviets invaded Europe. Even a small chance of nuclear war, say 10 percent, was enough to deter the Soviets. A 10 percent chance is one-tenth the threat and consequently required much less commitment in order to establish credibility. While the Soviets might not have believed that the United States would surely retaliate, they couldn't be *sure* that Americans wouldn't either. There was always the possibility that a Soviet attack would start an escalatory cycle that got out of control.

This brief description does not do brinkmanship justice. To better understand the probabilistic threats behind brinkmanship, Chapter 7 develops the role of mixed strategies. Then in Chapter 8 we give brinkmanship the full attention it deserves.

Moving in Steps

Although two parties may not trust each other when the stakes are large, if the problem of commitment can be reduced to a small-enough scale, then the issue of credibility will resolve itself. The threat or promise is broken up into many pieces, and each one is solved separately.

Honor among thieves is restored if they have to trust each other only a little bit at a time. Consider the difference between making a single \$1 million payment to another person for a kilogram of cocaine and engaging in 1,000 sequential transactions with this other party, with each transaction limited to \$1,000 worth of cocaine. While it might be worthwhile to double-cross your "partner" for \$1 million, the gain of \$1,000 is too small, since it brings a premature end to a profitable ongoing relationship.

Whenever a large degree of commitment is infeasible, one should make do with a small amount and reuse it frequently. Homeowners and contractors are mutually suspicious. The homeowner is afraid of paying up front and finding incomplete or shoddy work. The contractors are afraid that after they have completed the job, the homeowner may refuse to pay. So at the end of each day (or each week), contractors are paid on the basis of their progress. At most each side risks losing one day's (or one week's) work.

As with brinkmanship, moving in small steps reduces the size of the threat or promise and correspondingly the scale of commitment. There is just one feature to watch out for. Those who understand strategic thinking will reason forward and look backward, and they will worry about the last step. If you expect to be cheated on the last round, you should break off the relationship one round earlier. But then the penultimate round will become the final round, and so you will not have escaped the problem. To avoid the unraveling of trust, there should be no clear final step. As long as there remains a chance of continued business, it will never be worthwhile to cheat. So when a shady character tells you this will be his last deal before retiring, be especially cautious.

Teamwork

Often others can help us achieve credible commitment. Although people may be weak on their own, they can build resolve by forming a group. The successful use of peer pressure to achieve commitment has been made famous by Alcoholics Anonymous (and diet centers too). The AA approach changes the payoffs from breaking your word. It sets up a social institution in which pride and self-respect are lost when commitments are broken.

Sometimes teamwork goes far beyond social pressure and employs strong-arm tactics to force us to keep true to our promises. Consider the problem for the front line of an advancing army. If everyone else charges forward, one soldier who hangs back ever so slightly will increase his chance of survival without significantly lowering the probability that the attack will be successful. If every soldier thought the same way, however, the attack would become a retreat.

Of course it doesn't happen that way. A soldier is conditioned through honor to his country, loyalty to fellow soldiers, and belief in the million-dollar wound — an injury that is serious enough to send him home, out of action, but not so serious that he won't fully recover. Those soldiers who lack the will and the courage to follow orders can be motivated by penalties for desertion. If the punishment for desertion is certain and ignominious death, the alternative of advancing forward becomes much more attractive. But soldiers are not interested in killing their fellow countrymen, even deserters. How can soldiers who have difficulty committing to attack the enemy make a credible commitment to killing their countrymen for desertion?

The ancient Roman army made falling behind in an attack a capital offense. As the army advanced in a line, any soldier who saw the one next to him falling behind was ordered to kill the deserter immediately. To make this order credible, failing to kill a deserter was also a capital offense. Thus even though a soldier would rather get on with the battle than go back after a deserter, failing to do so could cost him his own life.*

The tactics of the Roman army live on today in the honor code required of students at West Point. Exams are not monitored, and cheating is an offense that leads to expulsion. But, because students are not inclined to "rat" on their classmates, failure to report observed cheating is also a violation of the honor code. This violation also leads to expulsion. When the honor code is violated, students report crimes because they do not want to become guilty accomplices by their silence. Sim-

^{*} The motive for punishing deserters is made even stronger if the deserter is given clemency for killing those in line next to him who fail to punish him. Thus if a soldier fails to kill a deserter, there are now two people who can punish: his neighbor and the deserter, who could save his own life by punishing those who failed to punish him.

ilarly, criminal law provides penalties for those who fail to report a crime as an accessory after the fact.

Mandated Negotiating Agents

If a worker says he cannot accept any wage increase less than 5 percent, why should the employer believe that he will not subsequently back down and accept 4 percent? Money on the table induces people to try negotiating one more time.

The worker's situation can be improved if he has someone else negotiate for him. When the union leader is the negotiator, his position may be less flexible. He may be forced to keep his promise or lose support from his electorate. The union leader may secure a restrictive mandate from his members, or put his prestige on the line by declaring his inflexible position in public. In effect, the labor leader becomes a mandated negotiating agent. His authority to act as a negotiator is based on his position. In some cases he simply does not have the authority to compromise; the workers, not the leader, must ratify the contract. In other cases, compromise by the leader would result in his removal.

In practice we are concerned with the means as well as the ends of achieving commitment. If the labor leader *voluntarily* commits his prestige to a certain position, should you (do you) treat his loss of face as you would if it were externally imposed? Someone who tries to stop a train by tying himself to the railroad tracks may get less sympathy than someone else who has been tied there against his will.

A second type of mandated negotiating agent is a machine. Very few people haggle with vending machines over the price; even fewer do so successfully.*

^{*} According to the U.S. Defense Department, over a five-year period seven servicemen or dependents were killed and 39 injured by soft-drink machines that toppled over while being rocked in an attempt to dislodge beverages or change — The International Herald Tribune, June 15, 1988.

This completes our account of the eightfold way to successful commitment. In practice, any particular situation may require more than one. Here are two examples.

2. But One Life to Lay Down for Your Country

How can an army get the enemy to believe that its soldiers will in fact lay down their lives for their country when called upon to do so? Most armies would be finished if each soldier on the battlefield started to make a rational calculation of the costs and the benefits of risking his life. Other devices have to be found, and they include many of the ones above. We have already mentioned the tactic of burning bridges, and the role of punishments and teamwork in deterring desertion. Now we concentrate on the devices to motivate individual soldiers.

The process begins in the boot camp. Basic training in the armed forces everywhere is a traumatic experience. The new recruit is maltreated, humiliated, and put under such immense physical and mental strain that the few weeks quite alter his personality. An important habit acquired in this process is an automatic, unquestioning obedience. There is no reason why socks should be folded, or beds made, in a particular way, except that the officer has so ordered. The idea is that the same obedience will occur when the order is of greater importance. Trained not to question orders, the army becomes a fighting machine; commitment is automatic.

The seeming irrationality of each soldier thus turns into strategic rationality. Shakespeare knew this perfectly well; in the night before the battle of Agincourt, King Henry V prays:

O God of battles! steel my soldiers' hearts; Possess them not with fear; take from them now The sense of reckoning, if th'opposed numbers Pluck their hearts from them ... (italics added) Next comes the pride that is instilled in each soldier: pride in one's country, pride in being a soldier, and, perhaps above all, pride in the tradition of the fighting unit. The U.S. Marine Corps, famous regiments of the British Army, and the French Foreign Legion exemplify this approach. Great deeds from past battles fought by the unit are constantly remembered, heroic deaths are glorified. Constant repetition of this history is meant to give new recruits a pride in this tradition, and a resolve not to flinch from similar deeds when the time comes.

Commanders of troops also appeal to a far more personal sense of pride of their men. According to Shakespeare, King Henry V inspired his troops at Harfleur thus: "Dishonour not your mothers; now attest that those you call'd fathers did beget you." Pride is often an elitist emotion; it consists in doing or having something that most others lack. Thus, again, we have Henry V speaking to his troops before the battle of Agincourt:

We few, we happy few, we band of brothers;
For he to-day that sheds his blood with me
Shall be my brother; ...
And gentlemen in England now a-bed
Shall think themselves accurs'd they were not here
And hold their manhoods cheap whiles any speaks
That fought with us upon Saint Crispin's day.

There is also the use of commitment through a combination of teamwork, contracting, and burning one's bridges. Once again we turn to Shakespeare's Henry V speaking to his troops before the battle of Agincourt.

That he which hath no stomach to this fight, Let him depart; his passport shall be made, And crowns for convoy put into his purse: We would not die in that man's company That fears his fellowship to die with us.

Of course everyone is too ashamed to take this offer up publicly. But even so, by their act of rejecting the offer, the soldiers

have psychologically burned their ships home. They have established an implicit contract with each other not to flinch from death if the time comes. Henry V's brilliant understanding of how to motivate and commit his army to battle is reflected in success on the battlefield, even when vastly outnumbered.

3. AN OFFER YOU CAN'T REFUSE

It's not only in the film *The Godfather* that one hears an "offer you can't refuse." With minor variations, this situation arises surprisingly often.

At the end of what appeared to be a successful job interview, our friend Larry was asked where the firm ranked in his list of potential employers. Before answering, he was told that the firm hired only those applicants who ranked it first. If the firm was in fact his first choice, then they wanted him to accept in advance a job offer should one be made.* With this prospect of an "offer you can't refuse" (because otherwise you don't get it), what should Larry have done?

With the X-ray vision of game theory, we can see through this ploy. The firm claims that it wants to hire only people who rank it first. However, the effect these pressure tactics have is the opposite of what they claim. If the firm truly wanted to have employees who ranked it first, then it should not make job offers conditional on the applicant's ranking of the firm. If, after completing the interview process, the firm was in fact Larry's first choice, then the firm can expect him to accept its offer. No firm need worry about having its offer turned down by someone who most wants to work there. On the other hand, if the firm was in fact Larry's second choice, but Larry's first-

^{*} For the starting position, there was a standard starting salary which was pretty much identical across competitors. Hence, he could predict what he would be accepting even before it was offered.

choice firm had yet to make an offer, then he might be willing to accept his second-choice job to avoid the risk of getting none. The firm's pressure tactic of saying that it will offer jobs only to those who accept first has the effect of hiring candidates who do not in fact rank the firm first.

More truthful and what they really mean is, "We want you to work for us. If you rank us first, then we know we'll get you. However, if you rank us second, we might lose you. To get you even if we are not your first choice, we want you to agree in advance to accept our offer or you will get none at all." Seen in this light, this does not seem to be a credible threat. The firm wants to hire Larry so much that it is willing to take him even if it is not his first choice. At the same time, it claims that if Larry refuses to accept in advance, but instead comes back later to accept, it will no longer offer him a job. It is possible but unlikely.

Our friend Larry explained that he was only beginning his interviews and thus had too little information to make a ranking. The firm reminded him that unless he accepted in advance, he would not be offered a job. He left the Wednesday interview without an offer. That Friday, he received an offer on his answering machine. Monday there was another message reiterating the offer. On Wednesday, a telegram arrived offering a sign-on bonus. It is hard to make a credible commitment not to offer a job to someone you want to hire.

What could the firm have done to make its threat credible? Here, teamwork can help, but not in the usual sense. Once there are several people with hiring power, it is possible that should you not accept immediately, the coalition that supported your candidacy may break down in favor of some later applicant. As we will see in Chapter 10 on voting, the order in which candidates are considered may determine the ultimate decision. In this way a decision made by a committee is sufficiently dependent on chance that it cannot promise that given the same inputs it will reach the same verdict. A committee's

inability to commit itself to "rational" decision-making makes the take-it-or-leave-it threat credible.

An offer valid now but not necessarily later prevents people from comparison shopping. Stereo stores and car dealers use this tactic to great effect. But how do these salesmen make credible their threat to turn down tomorrow an offer that they would accept today? The answer is that business may turn up, cash-flow problems may be lessened. As they are fond of saying, this is a once-in-a-lifetime opportunity.

4. CASE STUDY #6: WOULD YOU RATHER RENT A COMPUTER FROM IBM?

After a battle that lasted longer than twelve years, *United States* v. *IBM* stands as a monumental eyesore of antitrust litigation. One of the many issues revolved around IBM's policy of leasing rather than selling its mainframe computers.

The government argued that IBM's emphasis on short-term leases constituted an entry barrier resulting in monopoly profits. IBM defended the practice as being in consumers' interest. It argued that a short-term lease insulates customers from the risk of obsolescence, provides flexibility when needs change, commits IBM to maintain its leased equipment (since it is responsible for the operation of the leased computers), and provides financing from the company with the deepest pockets. ¹⁶

Many find these arguments a convincing defense. Yet there is a strategic advantage to leasing that seems to have been overlooked by both sides. How would you expect prices to differ if IBM primarily sold its large mainframe machines rather than leased them?

Case Discussion

Even a company without an outside competitor must worry about competing with its future self. When a new computer is introduced, IBM can sell the first models at very high prices to customers impatiently awaiting the technological advance. Once the computers are available in large numbers, there is the temptation to lower the price and attract more customers. The main cost of producing the computer has already been incurred in the development stage. Each additional sale is gravy.

Herein lies the problem. If customers expect that IBM is about to lower its price, they will wait to make their purchase. When the majority of customers are waiting, IBM has an incentive to speed up its price reductions and capture the customers sooner. This idea, first expressed by University of Chicago law professor Ronald Coase, is that for *durable* goods, in effect, a monopolist competes with its future self in a way that makes the market competitive.¹⁷

Leasing serves as a commitment device that enables IBM to keep prices high. The leasing contracts make it much more costly for IBM to lower its price. When its machines are on short-term leases, any price reduction must be passed along to all customers, not just the ones who haven't yet bought. The loss in revenue from the existing customer base may outweigh the increase in new leases. In contrast, when the existing customer base owns its computers, this trade-off does not arise; the customers who already bought the computer at a high price are not eligible for refunds.

Thus leasing is an example of moving in small steps. The steps are the length of the lease. The shorter the lease, the smaller the step. Customers don't expect IBM to keep its price high when the steps are too big; they will wait for a price reduction and get the same machine a little later at a lower price. But if IBM leases its computers only on short, renewable contracts, then it can credibly maintain high prices, customers have no reason to wait, and IBM earns higher profits.

As college professors and authors, we encounter the same problem closer to home in the market for academic textbooks.

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If commitment were possible, publishers could raise profits by bringing out new editions of a textbook on a five-year cycle, rather than the more common three-year cycle. Greater longevity would increase the text's value on the used-book market and consequently the student's initial willingness to pay when a new edition appears. The problem is that once the used books are out there, the publisher has a strong incentive to undercut this competition by bringing out a new edition. Because everyone expects this to happen, students get a lower price for their used books and thus are less willing to pay for the new editions. The solution for the publisher is the same as for IBM: rent books rather than sell them.