



Game-Changer

Game Theory and the Art of Transforming Strategic Situations

THE SUMMARY IN BRIEF

Even seemingly certain defeat can be turned into victory — whether in battle, business or life — by those with the strategic vision to recognize how to “change the game” to their own advantage. The aim of David McAdams’ *Game-Changer* is nothing less than to empower you with this wisdom — not just to win in every strategic situation you face but to change those games and the ecosystems in which they reside to transform your life and our lives together for the better. McAdams provides a radically new and easily learned way to outstrategize your rivals.

Game-Changer develops six basic ways to change games — commitment, regulation, cartelization, retaliation, trust and relationships — enlivened by countless colorful characters and unforgettable examples from the worlds of business, finance, sports and more. The book then digs into several real-world strategic challenges, such as how to keep prices low on the Internet. In each case, McAdams uses the game-theory approach to identify the strategic crux of the problem and then leverages that “game-awareness” to brainstorm ways to change the game or at least mitigate the underlying problem.

So get ready for a fascinating journey. With *Game-Changer*, you’ll emerge a deeper strategic thinker, poised to change and win all the games you play.

IN THIS SUMMARY, YOU WILL LEARN:

- How game theory informs everything from business to politics and more.
- The benefits of using game theory to plot business tactics and gain insights.
- The five key strategies for solving the Prisoners’ Dilemma and how to use them in business.



by David McAdams

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THE COMPLETE SUMMARY: GAME CHANGER

by David McAdams

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Introduction

“Games” are strategic situations, and “game theory” is the art and science of strategy, but the game-theory approach to business is much more than just being smart and savvy about strategy. As Raymond Smith explained in a 1996 *Fortune* magazine article, the game-theory approach to business requires “a different kind of corporate manager: flexible, intellectually rigorous, and highly tolerant of ambiguity” and “a special kind of company that nurtures a climate of open, frank and relentlessly objective discussion so that all the variables are scrutinized honestly and without political repercussions.”

At the heart of the game-theory mindset is the recognition that *the game can always be changed*. “The wise win before they fight,” wrote Zhuge Liang, the great statesman, scholar and military commander of China’s Three Kingdoms period. The wise win before they fight by recognizing all the games that *could* be played, steering the strategic environment in their favor, and then fighting with confidence in their ultimate victory. By contrast, the ignorant just play the game that lies before them, their victory or defeat largely out of their control, a matter of luck and fortune.

Game-awareness helps protect you from the many dangers of not knowing what games you are really playing. Once you are truly aware of the games in your life, you can take steps to change them to your strategic advantage. Mastering this art will allow you to recognize and seize strategic opportunities that others do not see, giving you a significant advantage over your peers.

Game theory helps businesses plot tactics. The most obvious games in businesses are those played at the tactical

level — how to set prices, how to launch a new product and so on. Management consultants the world over use game theory when formulating tactical strategic advice on how to win such games.

Game theory provides actionable insights. We are surrounded by games whose outcomes affect us, including many over which we have little control. Game theory provides conceptual insights that allow one to understand and predict, before others, what is likely to happen in such games.

Finally and most importantly, game theory can transform the culture of an organization. Firms are not simply players in games. They are also the milieu in which many games are played: among divisions, between workers and managers, between ownership and management, among stockholders and bondholders and so on. Game theory realizes its greatest business potential when leaders of a firm create the culture and organizational structures needed for everyone to thrive together. A game-aware management team can transform everything from how employees are motivated to how buyer and supplier relationships are nurtured, and much more. When used with wisdom and humility, game theory can be a powerful and positive transformative force. ●

Commit

Committing others to do what you want has an obvious appeal. If you are able to change what strategies others can play and/or change their incentives, then you can gain a strategic advantage by inducing them to take actions that benefit you.



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Published by Soundview Executive Book Summaries® (ISSN 0747-2196), 511 School House Road., Suite 300, Kennett Square, PA 19348 USA, a division of Concentrated Knowledge Corp. Published monthly. Subscriptions starting at \$99 per year. Copyright © 2014 by Soundview Executive Book Summaries®. **Available formats:** Summaries are available in several digital formats. To subscribe, call us at 1-800-SUMMARY (240-912-7513 outside the United States), or order online at www.summary.com. Multiple-subscription discounts and corporate site licenses are also available.

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Commitments are only effective when made early enough (and visibly enough) to have an impact on what others choose to do. Thus, anyone who commits needs to “move first,” in the sense of committing before others make their decisions. But what people typically mean when they speak of “moving first” is the notion of moving earlier or more quickly. But what does moving first really mean from a strategic point of view?

Influence the Timing of Moves

“The early bird gets the worm.” That may be true for birds, but in business, there isn’t always an advantage to being first into a new market space. Many companies that are widely believed to be pioneers were in fact late arrivals to their categories: Kodak in cameras, Procter & Gamble in diapers, Xerox in photocopiers and Apple in personal computers. These firms dominated their markets for years not because they did things *first* but because they did things *best*. Other times, being first is absolutely essential. Nowhere is this more true than in military battle, where the side that positions itself first (on more advantageous ground) often enjoys a decisive advantage.

In any battle, whether in business or war, the combatants’ desire to win creates an adversarial dynamic that spills even into the question of who moves first. But not all games are like that. Sometimes everyone agrees who ought to move first.

Vacation Rental by Owner

HomeAway Inc. is the giant of the vacation rental by owner (VRBO) market, with many popular websites including HomeAway.com, VRBO.com, VacationRentals.com and BedandBreakfast.com. HomeAway.com alone offers “more than 325,000 vacation rentals to choose from.” With so many properties, it is difficult to ensure the accuracy of every listing. Not surprisingly, some owners slip through the cracks with deceptive descriptions of their rental properties. There is even a term for this phenomenon: “SNAD” (“significantly not as described”).

From a game-theory perspective, the fundamental problem here relates to the timing of moves: renters must pay to reserve a property *before* they can verify whether it has been described accurately. This gives unscrupulous property owners an incentive to post deceptive listings.

Fortunately, a new site called Airbnb.com has burst onto the scene with a radically different business model that solves this problem. Under Airbnb’s approach, renters are not charged until 24 hours *after* their stay begins. This gives renters a chance to inspect the property and ensure that deceptive property owners aren’t paid.

Everyone wins in a system like this, in which renters don’t need to worry about scams or SNADs. The only potential loser is HomeAway, whose system fails to engender the same level of automatic trust and whose market is therefore potentially vulnerable to invasion by the Airbnb model. Perhaps HomeAway’s CEO, Brian Sharples, should learn from what works at Airbnb and find a way to let HomeAway property owners “move first,” so that vacationers can be even more confident in the quality of HomeAway rentals.

There are other situations in which the likely outcome of the game doesn’t depend on the timing of moves. The most famous such game is the Prisoners’ Dilemma.

The Prisoners’ Dilemma

The police have arrested two criminals on charges that carry a prison term of up to five years, but strongly suspect that they also committed a worse crime (say, armed robbery) that carries a term of up to 20 years. The police interrogator puts them in separate cells and says to each, “It’s time for you to confess to the armed robbery. How long you stay in prison will depend on who confesses. If you’re the only one to confess, I will let you walk free today because of your cooperation. Otherwise, you’ll spend five years behind bars if neither of you confesses, 10 years if both of you confess, and 20 years if you’re the only one not to confess.”

Each prisoner has a unilateral incentive to confess, regardless of the other’s move. If the other prisoner confesses, confessing reduces your own sentence from 20 to 10 years. If the other prisoner does not confess, confessing allows you to avoid prison entirely. That is, each prisoner has a “dominant strategy” to confess. However, if both confess, both get a longer sentence (10 years, the third-best outcome) than if neither confessed (five years, the second-best outcome).

In its most general form, the Prisoners’ Dilemma is defined as any game having the following two features:

- *Each player has a dominant strategy*, a move that maximizes that player’s own payoff regardless of others’ moves.
- *All players are worse off* when they all play their dominant strategies, compared to when each plays some other strategy.

The Prisoners’ Dilemma encompasses any situation in which individual incentives conflict with the greater good, so much so that everyone is worse off when everyone pursues their own self-interest.

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In this way, the Prisoners' Dilemma embodies the fundamental distinction between license and liberty and highlights the need, in some situations, to restrict our ability to make certain choices and/or to increase our personal responsibility for the consequences of our actions.

Fortunately, the Prisoners' Dilemma is an eminently *solvable* strategic problem. Indeed, game theory provides five distinct "escape routes" from the Prisoners Dilemma, each of which is broadly relevant in many other games as well:

1. Regulation
2. Cartelization
3. Retaliation
4. Trust
5. Relationships ●

Invite Regulation

In 1968, ecologist Garret Hardin coined the term "tragedy of the commons" to refer to any game in which individuals can freely choose how much to exploit an exhaustible resource. Each player has a dominant strategy to use as much of the resource as possible, but when everyone does so, the resource is overexploited and everyone suffers. So, the tragedy of the commons is an example of the Prisoners' Dilemma.

The idea of the tragedy of the commons, that resource exploitation is a game, has since been widely applied to understand many so-called common resource problems, such as pollution, overfishing and habitat destruction, highway traffic and spam email. Hardin famously argued that the only way to solve the tragedy of the commons is to restrict individuals' rights to use common resources. This perspective has had a profound impact, justifying major government interventions that restrict free usage rights.

Moves toward direct government control are often referred to as "greater regulation," while moves toward privatization are called "deregulation." From a game-theory perspective, however, government control and privatization are similar, as they consolidate the decentralized and often informal control that communities exercise over their common resources into the hands of a single third party, chosen by the government.

Much of the political debate between liberals and conservatives is really about which third party is likely to be a better (or less bad) steward of the commons and its fair use: a government agency or a for-profit business. In fact, there is a third option: rather than stripping communities

of their right to control their own common resources, empower them to work together to use the commons in their own collective interest.

What Is "Regulation"?

The idea of regulation is to change players' payoffs, to give them the incentive to make different decisions than they otherwise would make. Every law passed by Congress, every action taken by the executive branch, and every ruling by the judiciary "regulates" the governed. Moreover, government isn't the only regulator. Administrators in schools, parents in families and trendsetters in society all "regulate" others by influencing their options and incentives. Perhaps above all, firms are at heart regulatory bodies, in the game-theory sense of incentivizing others to change their behavior, as they seek to motivate employees to work harder, entice customers to buy more and so on.

Regulation allows players to escape the Prisoners' Dilemma by changing their payoffs and thereby changing their incentives.

The Eliminating Neglected Diseases (END) Amendment

In 2007, Congress passed the END Amendment to incentivize pharmaceutical companies to develop new drugs to combat neglected diseases. Any company that develops such a drug receives a "priority review voucher" that gives its owner the right to skip to the front of the line for Food and Drug Administration review of any blockbuster drug in its portfolio. As Bill Gates noted, "If you develop a new drug for malaria, your profitable cholesterol-lowering drug could go on the market a year earlier. This priority review could be worth hundreds of millions of dollars."

The END Amendment could have a transformative effect on human welfare, if it encourages for-profit pharmaceutical firms to pursue game-changing new treatments and vaccines for neglected diseases. Several new drugs are already in the pipeline and may qualify for priority review vouchers in the near future. ●

Merge or "Collude"

Barbed wire reshaped the American West after its invention in the 1870s, as farmers finally had an effective way to enclose their land. The only problem for this new industry was the simplicity of the product and the ease with which firms could enter the market. Indeed, from 1873 to 1899, as many as 150 companies manufactured barbed wire. As the market matured, however, just a handful of the most

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successful companies remained. These firms, whose founders were known as the Big Four, were aggressive competitors, each with an incentive to offer more attractive pricing to secure a larger share of the market.

Consider two of the leading firms, Barb Fence Co. and Southern Wire Co., as representative players. Each firm's best outcome is to be the only one offering a low price, since it can then capture the lion's share of the market, and the worst outcome is to be the only one offering a high price. Of course, if both charge the same price, both prefer a high price over a low price.

Note that each firm has a dominant strategy to price low. Why? If Southern Wire prices high, Barb Fence prefers to price low to capture the lion's share of the market (best outcome) rather than to split the market at a high price (second-best outcome). If Southern Wire instead prices low, Barb Fence again prefers to price low, though now to avoid its worst outcome in which Southern Wire gets the lion's share of the market.

Since both firms prefer to price low, regardless of the other's move, both have a dominant strategy. However, when both play that dominant strategy and price low, both are worse off than if both had set prices high. So, the Competitive Pricing Game is a Prisoners' Dilemma.

The Big Four were trapped in this state of intense competition, but not for long. In 1899, under the leadership of John Warne Gates, they merged to form the American Steel and Wire Company, instantly transforming barbed wire from one of the most competitive industries to one of the most profitable.

Cartelization allows players to escape the Prisoners' Dilemma of competition by merging into a single entity to look after their collective interest. Nowadays, all large mergers are reviewed by federal regulators and routinely blocked if these regulators fear they could hurt consumers by decreasing competition.

Collusion Isn't Always Bad

The term "collusion" brings to mind smoky backroom deals that stifle competition and harm consumers. Yet collusion can be viewed more broadly as cooperation among one set of players that just happens to harm another set of players. Indeed, collusion may even be desirable from a social welfare point of view.

Consider an industry in which firms primarily compete on research (say, to develop pharmaceutical drugs) but in which the greatest research success comes when *pairs* of firms work together. Once the first pair of firms teams up in this way, they will produce new drugs more quickly and thereby harm the other firms in the market. If left un-

checked, these "colluders" could wind up driving everyone else out of business and, ultimately, harm consumers through higher prices.

Anticipating this, however, other firms are likely also to team up. In the end, the market could be transformed from one in which individual firms compete to one in which pairs of firms compete. Such an industry-wide transformation would increase the pace of discovery, making consumers better off as well. ●

Enable Retaliation

Jesse James and Billy the Kid, the two most infamous outlaws of all time, have each just moseyed into Dodge City, Kansas, during the heyday of the American Wild West. The town is holding its breath over what will happen next. Everyone knows that there's not enough room in one town for two such larger-than-life characters, and it's just a matter of time before there's a confrontation.

Finally it happens, in the Long Branch Saloon, when Billy and Jesse suddenly come face-to-face, only a few feet apart. In the blink of an eye, both gunslingers whip out their six-shooters and aim true. Both are so good — and so close — that any shot is sure to kill. But neither pulls the trigger. They just stand there, like statues.

Welcome, ladies and gentlemen, to the Mexican Standoff. Each outlaw in this imaginary game is driven primarily by a desire to burnish his own legend as a gunslinger and only secondarily to survive the day. In particular, each outlaw wants most to assume the mantle of "the greatest gunslinger who ever lived" and to avoid being forever relegated to second-best status. If only one outlaw survives the present contest, he will be remembered as the greatest. If both die or both survive, both will continue to be judged as coequal in their dastardly exploits.

Each outlaw has a dominant strategy to shoot. Consider Jesse James. If Billy shoots, Jesse prefers to shoot as well, to ensure that he doesn't fall to second place in the Gunslinger Hall of Fame. On the other hand, if Billy does not shoot, Jesse still prefers to shoot, though now to take first place. Of course, both are worse off when both shoot (tied and dead) than when neither shoots (tied and alive). So, the Mexican Standoff is a Prisoners' Dilemma.

Each outlaw has a dominant strategy to shoot, but neither pulls the trigger right away. Why not? Each knows that his own shot will not instantly kill and that, in fact, the other gunslinger will reflexively pull his own trigger in the moment of impact. Since shooting the other guy

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is tantamount to pulling the trigger on yourself, each side refrains from starting a fight. Both sides are safe ... at least for a while.

Mutually Assured Destruction

The Mexican Standoff is an example of what's known as the Mutually Assured Destruction (MAD) Game. The crucial feature of MAD Games is that both sides can inflict devastating harm, even after suffering a devastating attack. The most famous MAD Game was played by the United States and the Soviet Union during the Cold War.

Mutually Assured Destruction Games are so-called "dynamic games." The defining feature of dynamic games is that they take place in real time, with each player capable of quickly observing and reacting to changes in the other's behavior. In the Cold War context, both the United States and the Soviet Union could observe and respond to any nuclear strike since (i) once launched, missiles are visible to radar and (ii) no preemptive attack could eliminate all missiles, especially those carried by each side's fleet of nuclear-attack submarines.

Another key feature of MAD Games is that they are "waiting games," continuing in a fixed status quo until someone finally "pulls the trigger." Not all dynamic games are like that. For instance, in the Dynamic Pricing Game considered next, each airline is capable of reversing its pricing move. This means that "mistakes" in dynamic pricing can be undone at little or no cost, whereas mistakes in MAD lead to assured mutual destruction.

Dynamic Pricing

Imagine that only two airlines (say, Delta and American) operate direct flights on some route (say, Chicago-Atlanta). Imagine further that customers interested in flying this route first check what prices the airlines are charging and then book with whichever airline is cheaper. Assume that customers only check prices once and that customers don't have any loyalty or preference between the airlines. Moreover, suppose that every traveler is willing to pay \$200 for a ticket but that it only costs \$100 to provide this service.

If Delta and American could form a cartel to maximize their collective profit, they would each set a price of \$200 to capture every traveler's full willingness to pay for the flight. As competitors, however, Delta and American have an incentive to undercut one another on price. Yet, whether they will actually offer lower prices depends on the details of the game they play. Consider two alternative options:

- *Auction*: Each traveler requests secret price quotes from

the airlines, who are not allowed to communicate with one another, and selects whichever airline has the lower price.

- *Posted Prices*: The airlines maintain public prices that travelers and the airlines can see. Each traveler views these prices and selects whichever airline has the lower price.

Consider first the auction. Assume, for simplicity of the exposition, that only prices \$200 and \$180 are possible. If one airline charges \$200 while the other charges \$180, the traveler is sure to go to the lower-priced airline, giving that airline a profit of $\$180 - \$100 = \$80$. If both airlines charge \$180, whether each airline makes a sale depends on the traveler's coin flip. So, each airline makes \$80 half of the time and nothing the other half of the time. Each airline has a dominant strategy to price low, but when both price low, both are worse off than when both price high. So, this is a Prisoners' Dilemma.

Since the airlines offer secret price quotes in the auction, there is no way for them to use the threat of retaliation to escape this Prisoners' Dilemma. Not so with posted prices. Since travelers can check prices at any time, no airline ever wants to have the highest posted price. Should either airline lower its posted price, then, we can expect the other airline to match and to do so immediately.

Consequently, any move to lower one's own price is tantamount to lowering both airlines' prices in lockstep. With nothing to gain from undercutting the competition, both airlines will naturally sit content with a posted price set at \$200, exactly *as if* they were a collusive cartel. ●

Build Trust

Issues of trust focus primarily on two questions:

- What can a trustworthy player achieve that an untrustworthy player cannot?
- How can trust be earned?

We live in a mostly lawful and ethical society, where people treat others honorably and well, just for the sake of doing so. But trust is never automatic. We must always decide whether to trust, knowing that there is a possibility that we might be betrayed. Fortunately, the deeper message of game theory is that trust is possible even in a completely selfish world. Furthermore, trust can powerfully transform our lives as it opens up strategic possibilities for all sorts of win-win outcomes that otherwise would be closed to us.

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Trust in a Selfish World

Being a criminal isn't easy. Constantly on the lookout for law enforcement, you've also got to worry that your partners in crime may turn on you. Unlike businesspeople in the legal world, most criminals can't sign binding contracts or settle disputes in a court of law. So, cheaters really do prosper. Thus, much more so than in the legal world, trust must be earned in the criminal world.

This raises strategic challenges unique to criminal enterprise. However, the way in which criminals overcome these obstacles is instructive for us all.

Consider the strategic problem faced by criminals who would like to do a deal to trade 50 kilos of cocaine for \$1 million. The buyer knows that, once he pays the money, the seller will have an incentive just to take it, walk away, and sell the drugs to someone else. Indeed, whether the buyer pays or not, the seller has a dominant strategy not to deliver the drugs. Similarly, the seller knows that once he delivers the drugs, the buyer will have an incentive just to take them and pay nothing. Whether the seller delivers the drugs or not, the buyer has a dominant strategy not to pay.

As long as both buyer and seller play their dominant strategies, however, no deal gets done, and both are worse off than if they had made the trade. So, the Coke Deal Game is a Prisoners' Dilemma.

Real-world criminals do plenty of deals, so they must have ways to overcome this incentive to cheat one another. First, criminals have internalized the lessons of cartelization and self-regulation, forming huge umbrella organizations and incentivizing good behavior among their "associates" with the threat of murder (or worse) for anyone who gets out of line. Moreover, even the most sociopathic criminal recognizes the benefits of (i) cultivating a reputation for being a trustworthy business partner and (ii) building relationships for repeat business, just as in the legal business world.

What If Only One Side Can Be Trusted?

What if only one side to a deal is trustworthy? Fortunately for criminals, it's possible to escape the Prisoners' Dilemma of illegal transactions as long as either side can be trusted, since that player can leverage its reputation to make a credible promise. For instance, a trustworthy cocaine seller can promise this to the buyer: "First, give me the money. I promise that I will then give you the drugs."

Put yourself in the shoes of the cocaine buyer, pondering this promise. If you don't give the money, you definitely don't get any drugs. If you do give the money, however, you will get the drugs as long as the seller honors his promise. And, as long as the seller's reputation is

worth more to him than the value of this particular deal, you have reason to trust the seller to follow through. Of course, being a criminal yourself, you'd love to cheat the seller and get the drugs for nothing. However, by design, the seller's promise forces you to move first, so it's not possible for you to cheat.

With this example, we can understand that players can escape the Prisoners' Dilemma as long as either of them can credibly make the following promise: "First, you refuse to confess. I promise that I will then also refuse to confess."

There are two key ingredients in any promise, related to observability and credibility:

- Some player (the "last-mover") can observe and respond to the other's move.
- The last-mover can credibly commit to how it will respond.

It Pays to be Trustworthy

The fact that only one side needs to be trusted has important implications for how commercial transactions (legal and otherwise) are organized. As long as counter-parties to a trade have any doubt about each other's trustworthiness, there is a profitable niche for trusted third parties to coordinate deals. Moreover, trusted intermediaries can provide and charge for information that reduces uncertainty about the quality of a deal. For instance, Carfax reports help assure buyers that a used car for sale has never been totaled, flooded or sent back to the manufacturer as defective under state "lemon laws." Once there is less uncertainty, there is less to lie about and less need for trust to get the deal done. ●

Leverage Relationships

Your car has started to have some trouble, just a few weeks before you are set to drive off to a new home across the country. You take it to a local mechanic and, while explaining the situation, let slip the fact that you are about to leave town for good. Was it a mistake to tell him that you are moving? After all, the mechanic now knows that there's no prospect of repeat business or positive word of mouth from you, regardless of how good a job he does. Will he charge you more or, worse yet, not be as careful when inspecting and repairing your vehicle?

Henry Schneider, an economics Ph.D. student at Yale, came up with a clever way to find out. Schneider drove his 1992 Subaru Legacy L Wagon to 40 different repair shops in the New Haven area during the summer of 2005. He and his car were exactly the same during every

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visit, with one exception: at half of the shops, Schneider claimed to be moving from Connecticut to Chicago, while at the other half, he claimed to be about to drive round-trip to Montreal. (The one-way distance to Chicago is about the same as the round-trip distance to Montreal and back.)

The “good news” is that the mechanics diagnosed about the same number of problems and recommended about the same number of unnecessary repairs, no matter whether Schneider claimed to be leaving town. The bad news is that they charged Schneider much more on average for the inspection when he claimed to be leaving town for good (\$59.75) than when he said he would be returning (\$37.70). Since Schneider randomly decided what to tell each mechanic and made sure to keep everything else exactly the same (even his clothing, always khakis and a polo shirt), this effect must have been caused somehow by the fact that he told them he was moving.

Mechanics, dentists and restaurants are just a few of the many types of businesses that rely on repeat customers. The prospect of repeated interaction is a powerful inducement for players to exert extra effort and cooperate in various ways.

Reputation Without Repeat Business

What if you only interact once with someone but need their trust to get a deal done? Fortunately, all the strategic benefits of repeat business can still be had if there is some way for others to verify how you have handled yourself in previous deals. For instance, online marketplaces such as eBay have introduced “reputation scores” to help address the problems of anonymity and non-repeat business over the Internet. By design, reputation scores transform anonymous eBay transactions into (at least somewhat) observable encounters that others can use when deciding with whom to do a deal. Thus, sellers know that how they treat each customer will affect not only whether that specific customer returns for repeat business but whether others will choose them as well. ●

How to Escape the Prisoners’ Dilemma

Let’s review the various ways to escape the Prisoners’ Dilemma. First, are the players capable of *changing their payoffs*, either directly themselves or indirectly via the intervention of some third party? If so, obviously, they

can change the payoffs so that the game is no longer a Prisoners’ Dilemma.

Second, are the players capable of *merging or forming a “cartel”*? If so, again obviously, they can merge so as to look after their collective interest.

Third, does the game have *dynamic moves*? A game has dynamic moves if it occurs in real time and both players can observe and quickly react to changes in each other’s moves. If so, a mutual threat to retaliate is enough to escape the Prisoners’ Dilemma.

Fourth, does the game have *commitment moves*? A game has commitment moves if the players move in sequence and the last-mover can commit ahead of time to how it will respond to whatever the first-mover does. If so, a promise by the last-mover is enough to escape the Prisoners’ Dilemma.

Fifth and finally, is this a *repeated game*? A game is “repeated” if the same players interact repeatedly in the context of a relationship, or, more broadly, if the outcome of the current game can be strategically linked to the outcomes of other games.

When any of these five conditions holds, there is a way out of the Prisoners’ Dilemma. When none of them holds, however, there is no hope of escape. In the classic version of the Prisoners’ Dilemma, all five escape routes are closed to the prisoners. Fortunately, these hopeless situations are more the exception than the rule.

Open Your Eyes!

Like anything of great value, game-awareness is not easily achieved. It’s a habit that must be constantly cultivated and maintained, and reading alone won’t get you where you need to be. So, when you finish reading, practice. Practice until you see the game in everything and everywhere, from the halls of Congress to the aisles of your local grocery store. Open your eyes! ●

RECOMMENDED READING LIST

If you liked *Game-Changer*, you’ll also like:

1. ***Eat People* by Andy Kessler.** Taking risks is the name of the game — but how can you tell a smart bet from a stupid gamble? Kessler explains how the world’s greatest entrepreneurs overturn entire industries.
2. ***Making Strategy Work* by Lawrence Hrebiniak.** Hrebiniak offers a comprehensive, disciplined process model for making strategy work in the real world.
3. ***12: The Elements of Great Managing* by Rodd Wagner, James K. Harter.** Using recent discoveries in the fields of neuroscience, game theory, psychology, sociology, and economics, 12 explains what every company needs to know about creating and sustaining employee engagement.