Chapter 11

Making Decisions

LEARNING OBJECTIVES

After reading this chapter, you should be able to do the following:

1. Understand what is involved in decision making.
2. Compare and contrast different decision-making models.
3. Compare and contrast individual and group decision making.
4. Understand potential decision-making traps and how to avoid them.
5. Understand the pros and cons of different decision-making aids.
6. Engage in ethical decision making.
7. Understand cross-cultural differences in decision making.

11.1 Decision-Making Culture: The Case of Google

Figure 11.1

Source: http://en.wikipedia.org/ wiki/ File:Googleplex_Welcome_Sign.jp g by Ardo191.

Google (NASDAQ: GOOG) is one of the best-known and most admired companies around the world, so much so that "googling" is the term many use to refer to searching information on the Web. What started out as a student project by two Stanford University graduates—Larry Page and Sergey Brin—in 1996, Google became the most frequently used Web search engine on the Internet with 1 billion searches per day in 2009, as well as other innovative applications such as Gmail, Google Earth, Google Maps, and Picasa. Google grew from 10 employees working in a garage in Palo Alto to 10,000 employees operating around the world by 2009. What is the formula behind this success?

Google strives to operate based on solid principles that may be traced back to its founders. In a world crowded with search engines, they were probably the first company that put users first. Their mission statement summarizes their commitment to end-user needs: "To organize the world's information and to make it universally accessible and useful." While other companies were focused on marketing their sites and increasing advertising revenues, Google stripped the search page of all distractions and presented users with a blank page consisting only of a company logo and a search box. Google resisted pop-up advertising, because the company felt that it was annoying to end-users. They insisted that all their advertisements would be clearly marked as "sponsored links." This emphasis on improving user experience and always putting it before making more money in the short term seems to have been critical to their success.

Keeping their employees happy is also a value they take to heart. Google created a unique work environment that attracts, motivates, and retains the best players in the field. Google was ranked as the number 1 "Best Place to Work For" by *Fortune* magazine in 2007 and number 4 in 2010. This is not surprising if one looks closer to how Google treats employees. On their Mountain View, California, campus called the "Googleplex," employees are treated to free gourmet food options including sushi bars and espresso stations. In fact, many employees complain that once they started working for Google, they tend to gain 10 to 15 pounds! Employees have access to gyms, shower facilities, video games, on-site child care, and doctors. Google provides 4 months of paternal leave

with 75% of full pay and offers $500 for take-out meals for families with a newborn. These perks create a place where employees feel that they are treated well and their needs are taken care of. Moreover, they contribute to the feeling that they are working at a unique and cool place that is different from everywhere else they may have worked.

In addition, Google encourages employee risk taking and innovation. How is this done? When a vice president in charge of the company's advertising system made a mistake costing the company millions of dollars and apologized for the mistake, she was commended by Larry Page, who congratulated her for making the mistake and noting that he would rather run a company where they are moving quickly and doing too much, as opposed to being too cautious and doing too little. This attitude toward acting fast and accepting the cost of resulting mistakes as a natural consequence of working on the cutting edge may explain why the company is performing much ahead of competitors such as Microsoft and Yahoo! One of the current challenges for Google is to expand to new fields outside of their Web search engine business. To promote new ideas, Google encourages all engineers to spend 20% of their time working on their own ideas.

Google's culture is reflected in their decision making as well. Decisions at Google are made in teams. Even the company management is in the hands of a triad: Larry Page and Sergey Brin hired Eric Schmidt to act as the CEO of the company, and they are reportedly leading the company by consensus. In other words, this is not a company where decisions are made by the senior person in charge and then implemented top down. It is common for several small teams to attack each problem and for employees to try to influence each other using rational persuasion and data. Gut feeling has little impact on how decisions are made. In some meetings, people reportedly are not allowed to say "I think..." but instead must say "the data suggest...." To facilitate teamwork, employees work in open office environments where private offices are assigned only to a select few. Even Kai-Fu Lee, the famous employee whose defection from Microsoft was the target of a lawsuit, did not get his own office and shared a cubicle with two other employees.

How do they maintain these unique values? In a company emphasizing hiring the smartest people, it is very likely that they will attract big egos that may be difficult to work with. Google realizes that its strength comes from its "small company" values that emphasize risk taking, agility, and cooperation. Therefore, they take their hiring process very seriously. Hiring is extremely competitive and getting to work at Google is not unlike applying to a college. Candidates may be asked to write essays about how they will perform their future jobs. Recently, they targeted potential new employees using billboards featuring brain teasers directing potential candidates to a Web site where they were subjected to more brain teasers. Each candidate may be interviewed by as many as eight people on several occasions. Through this scrutiny, they are trying to select "Googley" employees who will share the company's values, perform at high levels, and be liked by others within the company.

Will this culture survive in the long run? It may be too early to tell, given that the company was only founded in 1998. The founders emphasized that their initial public offering (IPO) would not change their culture and they

would not introduce more rules or change the way things are done in Google to please Wall Street. But can a public corporation really act like a start-up? Can a global giant facing scrutiny on issues including privacy, copyright, and censorship maintain its culture rooted in its days in a Palo Alto garage? Larry Page is quoted as saying, "We have a mantra: don't be evil, which is to do the best things we know how for our users, for our customers, for everyone. So I think if we were known for that, it would be a wonderful thing."

Case written by [citation redacted per publisher request]. Based on information from Elgin, B., Hof, R. D., & Greene, J. (2005, August 8). Revenge of the nerds—again. *BusinessWeek*. Retrieved April 30, 2010, from http://www.businessweek.com/technology/content/jul2005/tc20050728 _5127_tc024.htm; Hardy, Q. (2005, November 14). Google thinks small. *Forbes, 176*(10); Lashinky, A. (2006, October 2). Chaos by design. *Fortune, 154*(7); Mangalindan, M. (2004, March 29). The grownup at Google: How Eric Schmidt imposed better management tactics but didn't stifle search giant. *Wall Street Journal*, p. B1; Lohr, S. (2005, December 5). At Google, cube culture has new rules. *New York Times*. Retrieved April 30, 2010, from http://www.nytimes.com/2005/12/05/technology/05google.html; Schoeneman, D. (2006, December 31). Can Google come out to play? *New York Times*. Retrieved April 30, 2010, from http://www.nytimes.com/2006/12/31/fashion/31google.html; Warner, M. (2004, June). What your company can learn from Google. *Business 2.0, 5*(5).

DISCUSSION QUESTIONS

1. Do you think Google's decision-making culture will help or hurt Google in the long run?
2. What are the factors responsible for the specific culture that exists in Google?
3. What type of decision-making approach has Google taken? Do you think this will remain the same over time? Why or why not?
4. Do you see any challenges Google may face in the future because of its emphasis on risk taking?

11.2 Understanding Decision Making

LEARNING OBJECTIVES
1. Define decision making.
2. Understand different types of decisions.

Decision making[1] refers to making choices among alternative courses of action—which may also include inaction. While it can be argued that management is decision making, half of the decisions made by managers within organizations ultimately fail.Ireland, R. D., & Miller, C. C. (2004). Decision making and firm success. *Academy of Management Executive*, *18*, 8–12; Nutt, P. C. (2002). *Why decisions fail*. San Francisco: Berrett-Koehler; Nutt, P. C. (1999). Surprising but true: Half the decisions in organizations fail. *Academy of Management Executive*, *13*, 75–90. Therefore, increasing effectiveness in decision making is an important part of maximizing your effectiveness at work. This chapter will help you understand how to make decisions alone or in a group while avoiding common decision-making pitfalls.

Individuals throughout organizations use the information they gather to make a wide range of decisions. These decisions may affect the lives of others and change the course of an organization. For example, the decisions made by executives and consulting firms for Enron ultimately resulted in a $60 billion loss for investors, thousands of employees without jobs, and the loss of all employee retirement funds. But Sherron Watkins, a former Enron employee and now-famous whistleblower, uncovered the accounting problems and tried to enact change. Similarly, the decision made by firms to trade in mortgage-backed securities is having negative consequences for the entire economy in the United States. All parties involved in such outcomes made a decision, and everyone is now living with the consequences of those decisions.

1. Making choices among alternative courses of action, including inaction.

"The dip in sales seems to coincide with the decision to eliminate the sales staff."

It is important to remember that decisions have consequences.

Types of Decisions

Most discussions of decision making assume that only senior executives make decisions or that only senior executives' decisions matter. This is a dangerous mistake.

  - Peter Drucker

Despite the far-reaching nature of the decisions in the previous example, not all decisions have major consequences or even require a lot of thought. For example, before you come to class, you make simple and habitual decisions such as what to wear, what to eat, and which route to take as you go to and from home and school. You probably do not spend much time on these mundane decisions. These types of straightforward decisions are termed **programmed decisions**[2], or decisions that

2. Decisions that occur frequently enough that we develop an automated response to them.

occur frequently enough that we develop an automated response to them. The automated response we use to make these decisions is called the **decision rule**[3]. For example, many restaurants face customer complaints as a routine part of doing business. Because complaints are a recurring problem, responding to them may become a programmed decision. The restaurant might enact a policy stating that every time they receive a valid customer complaint, the customer should receive a free dessert, which represents a decision rule.

On the other hand, unique and important decisions require conscious thinking, information gathering, and careful consideration of alternatives. These are called **nonprogrammed decisions**[4]. For example, in 2005 McDonald's Corporation became aware of the need to respond to growing customer concerns regarding the unhealthy aspects (high in fat and calories) of the food they sell. This is a nonprogrammed decision, because for several decades, customers of fast-food restaurants were more concerned with the taste and price of the food, rather than its healthiness. In response to this problem, McDonald's decided to offer healthier alternatives such as the choice to substitute French fries in Happy Meals with apple slices and in 2007 they banned the use of trans fat at their restaurants.

Figure 11.3

In order to ensure consistency around the globe such as at this St. Petersburg, Russia, location, McDonald's Corporation trains all restaurant managers at Hamburger University where they take the equivalent to 2 years of college courses and learn how to make decisions on the job. The curriculum is taught in 28 languages.

Source: http://upload.wikimedia.org/ wikipedia/commons/a/a2/ McDonalds_in_St_Petersburg_20 04.JPG.

A crisis situation also constitutes a nonprogrammed decision for companies. For example, the leadership of Nutrorim was facing a tough decision. They had recently introduced a new product, ChargeUp with Lipitrene, an improved version of their popular sports drink powder, ChargeUp. At some point, a phone call came from a state health department to inform them of 11 cases of gastrointestinal distress that might be related to their product, which led to a decision to recall ChargeUp. The decision was made without an investigation of the information. While this decision was conservative, it was made without a process that weighed the information. Two weeks later it became clear that the reported health problems were unrelated to Nutrorim's product. In fact, all the cases were traced back to a contaminated health club juice bar. However, the damage to the brand and to the balance sheets was already done. This unfortunate decision caused Nutrorim to rethink the way decisions were made when under pressure. The company now gathers information to make informed choices even when time is of the essence.Garvin, D. A. (2006, January). All the wrong moves. *Harvard Business Review*, *84*, 18–23.

3. Automated response to problems that occur routinely.

4. Unique, nonroutine, and important. These decisions require conscious thinking, information gathering, and careful consideration of alternatives.

Decisions can be classified into three categories based on the level at which they occur. **Strategic decisions**[5] set the course of an organization. **Tactical decisions**[6] are decisions about how things will get done. Finally, **operational decisions**[7] refer to decisions that employees make each day to make the organization run. For example, think about the restaurant that routinely offers a free dessert when a customer complaint is received. The owner of the restaurant made a strategic decision to have great customer service. The manager of the restaurant implemented the free dessert policy as a way to handle customer complaints, which is a tactical decision. Finally, the servers at the restaurant are making individual decisions each day by evaluating whether each customer complaint received is legitimate and warrants a free dessert.

Figure 11.4 *Examples of Decisions Commonly Made Within Organizations*

Level of Decision	Examples of Decision	Who Typically Makes Decisions
Strategic Decisions	Should we merge with another company? Should we pursue a new product line? Should we downsize our organization?	Top Management Teams, CEOs, and Boards of Directors
Tactical Decisions	What should we do to help facilitate employees from the two companies working together? How should we market the new product line? Who should be let go when we downsize?	Managers
Operational Decisions	How often should I communicate with my new coworkers? What should I say to customers about our new product? How will I balance my new work demands?	Employees throughout the organization

5. Decisions that are made to set the course of an organization.

6. Decisions about how things will get done.

7. Decisions employees make each day to make the organization function.

In this chapter we are going to discuss different decision-making models designed to understand and evaluate the effectiveness of nonprogrammed decisions. We will cover four decision-making approaches, starting with the rational decision-making model, moving to the bounded rationality decision-making model, the intuitive decision-making model, and ending with the creative decision-making model.
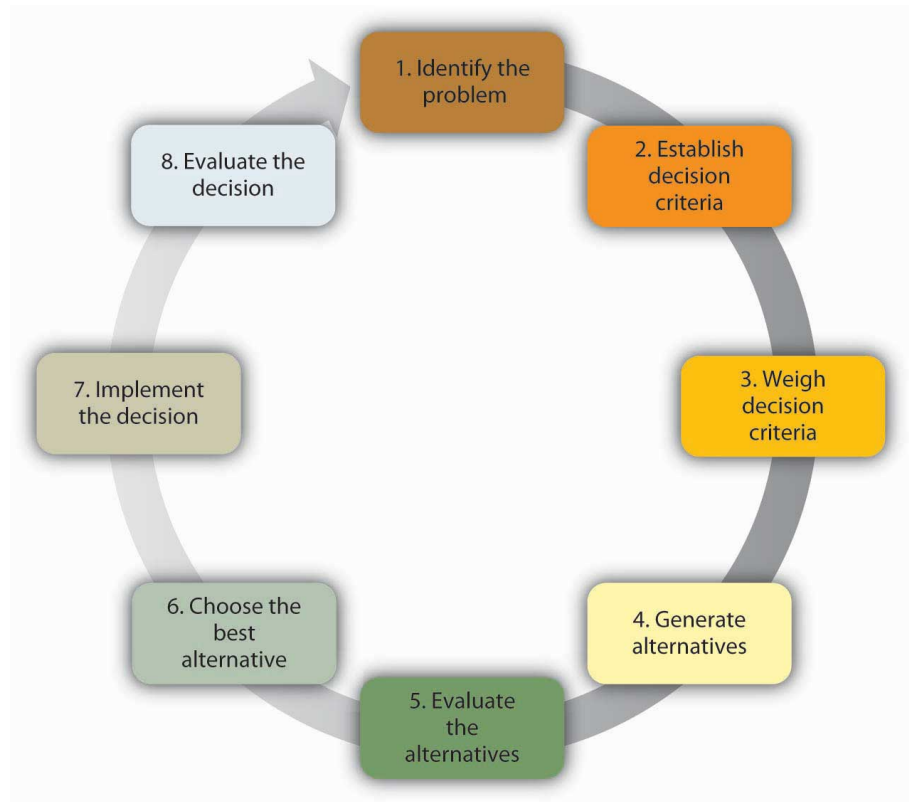
Making Rational Decisions

The **rational decision-making model**[8] describes a series of steps that decision makers should consider if their goal is to maximize the quality of their outcomes. In other words, if you want to make sure that you make the best choice, going through the formal steps of the rational decision-making model may make sense.

Let's imagine that your old, clunky car has broken down, and you have enough money saved for a substantial down payment on a new car. It will be the first major purchase of your life, and you want to make the right choice. The first step, therefore, has already been completed—we know that you want to buy a new car. Next, in step 2, you'll need to decide which factors are important to you. How many passengers do you want to accommodate? How important is fuel economy to you? Is safety a major concern? You only have a certain amount of money saved, and you don't want to take on too much debt, so price range is an important factor as well. If you know you want to have room for at least five adults, get at least 20 miles per gallon, drive a car with a strong safety rating, not spend more than $22,000 on the purchase, and like how it looks, you have identified the **decision criteria**[9]. All the potential options for purchasing your car will be evaluated against these criteria. Before we can move too much further, you need to decide how important each factor is to your decision in step 3. If each is equally important, then there is no need to weigh them, but if you know that price and mpg are key factors, you might weigh them heavily and keep the other criteria with medium importance. Step 4 requires you to generate all **alternatives**[10] about your options. Then, in step 5, you need to use this information to evaluate each alternative against the criteria you have established. You choose the best alternative (step 6), and then you would go out and buy your new car (step 7).

Of course, the outcome of this decision will influence the next decision made. That is where step 8 comes in. For example, if you purchase a car and have nothing but problems with it, you will be less likely to consider the same make and model when purchasing a car the next time.

8. A series of steps that decision makers should consider if their goal is to maximize their outcome and make the best choice.

9. A set of parameters against which all of the potential options in decision making will be evaluated.

10. Other possible solutions to a problem in a decision-making process.

Figure 11.5 *Steps in the Rational Decision-Making Model*

While decision makers can get off track during any of these steps, research shows that searching for alternatives in the fourth step can be the most challenging and often leads to failure. In fact, one researcher found that no alternative generation occurred in 85% of the decisions he studied.Nutt, P. C. (1994). Types of organizational decision processes. *Administrative Science Quarterly*, *29*, 414–550. Conversely, successful managers know what they want at the outset of the decision-making process, set objectives for others to respond to, carry out an unrestricted search for solutions, get key people to participate, and avoid using their power to push their perspective.Nutt, P. C. (1998). Surprising but true: Half the decisions in organizations fail. *Academy of Management Executive*, *13*, 75–90.

The rational decision-making model has important lessons for decision makers. First, when making a decision, you may want to make sure that you establish your decision criteria before you search for alternatives. This would prevent you from liking one option too much and setting your criteria accordingly. For example, let's say you started browsing cars online before you generated your decision criteria. You may come across a car that you feel reflects your sense of style and you develop an emotional bond with the car. Then, because of your love for the particular car, you may say to yourself that the fuel economy of the car and the innovative braking

system are the most important criteria. After purchasing it, you may realize that the car is too small for your friends to ride in the back seat, which was something you should have thought about. Setting criteria before you search for alternatives may prevent you from making such mistakes. Another advantage of the rational model is that it urges decision makers to generate all alternatives instead of only a few. By generating a large number of alternatives that cover a wide range of possibilities, you are unlikely to make a more effective decision that does not require sacrificing one criterion for the sake of another.

Despite all its benefits, you may have noticed that this decision-making model involves a number of unrealistic assumptions as well. It assumes that people completely understand the decision to be made, that they know all their available choices, that they have no perceptual biases, and that they want to make optimal decisions. Nobel Prize winning economist Herbert Simon observed that while the rational decision-making model may be a helpful device in aiding decision makers when working through problems, it doesn't represent how decisions are frequently made within organizations. In fact, Simon argued that it didn't even come close.

Think about how you make important decisions in your life. It is likely that you rarely sit down and complete all 8 of the steps in the rational decision-making model. For example, this model proposed that we should search for all possible alternatives before making a decision, but that process is time consuming, and individuals are often under time pressure to make decisions. Moreover, even if we had access to all the information that was available, it could be challenging to compare the pros and cons of each alternative and rank them according to our preferences. Anyone who has recently purchased a new laptop computer or cell phone can attest to the challenge of sorting through the different strengths and limitations of each brand and model and arriving at the solution that best meets particular needs. In fact, the availability of too much information can lead to **analysis paralysis**[11], in which more and more time is spent on gathering information and thinking about it, but no decisions actually get made. A senior executive at Hewlett-Packard Development Company LP admits that his company suffered from this spiral of analyzing things for too long to the point where data gathering led to "not making decisions, instead of us making decisions."Zell, D. M., Glassman, A. M., & Duron, S. A. (2007). Strategic management in turbulent times: The short and glorious history of accelerated decision making at Hewlett-Packard. *Organizational Dynamics*, *36*, 93–104. Moreover, you may not always be interested in reaching an optimal decision. For example, if you are looking to purchase a house, you may be willing and able to invest a great deal of time and energy to find your dream house, but if you are only looking for an apartment to rent for the academic year, you may be willing to take the first one that meets your criteria of being clean, close to campus, and within your price range.

11. A decision-making process in which more and more time is spent on gathering information and thinking about it, but no decisions actually get made.

Making "Good Enough" Decisions

The **bounded rationality model**[12] of decision making recognizes the limitations of our decision-making processes. According to this model, individuals knowingly limit their options to a manageable set and choose the first acceptable alternative without conducting an exhaustive search for alternatives. An important part of the bounded rationality approach is the tendency to **satisfice**[13] (a term coined by Herbert Simon from *satisfy* and *suffice*), which refers to accepting the first alternative that meets your minimum criteria. For example, many college graduates do not conduct a national or international search for potential job openings. Instead, they focus their search on a limited geographic area, and they tend to accept the first offer in their chosen area, even if it may not be the ideal job situation. Satisficing is similar to rational decision making. The main difference is that rather than choosing the best option and maximizing the potential outcome, the decision maker saves cognitive time and effort by accepting the first alternative that meets the minimum threshold.

Making Intuitive Decisions

The **intuitive decision-making model**[14] has emerged as an alternative to other decision making processes. This model refers to arriving at decisions without conscious reasoning. A total of 89% of managers surveyed admitted to using intuition to make decisions at least sometimes and 59% said they used intuition often.Burke, L. A., & Miller, M. K. (1999). Taking the mystery out of intuitive decision making. *Academy of Management Executive*, *13*, 91–98. Managers make decisions under challenging circumstances, including time pressures, constraints, a great deal of uncertainty, changing conditions, and highly visible and high-stakes outcomes. Thus, it makes sense that they would not have the time to use the rational decision-making model. Yet when CEOs, financial analysts, and health care workers are asked about the critical decisions they make, seldom do they attribute success to luck. To an outside observer, it may seem like they are making guesses as to the course of action to take, but it turns out that experts systematically make decisions using a different model than was earlier suspected. Research on life-or-death decisions made by fire chiefs, pilots, and nurses finds that experts do not choose among a list of well thought out alternatives. They don't decide between two or three options and choose the best one. Instead, they consider only one option at a time. The intuitive decision-making model argues that in a given situation, experts making decisions scan the environment for cues to recognize patterns.Breen, B. (2000, August). What's your intuition? *Fast Company*, 290; Klein, G. (2003). *Intuition at work.* New York: Doubleday; Salas, E., & Klein, G. (2001). *Linking expertise and naturalistic decision making.* Mahwah, NJ: Lawrence Erlbaum Associates. Once a pattern is recognized, they can play a potential course of action through to its outcome based on their prior experience. Thanks to training, experience, and knowledge, these decision makers have an idea of how well a given solution may

12. According to this model, individuals knowingly limit their options to a manageable set and choose the first acceptable alternative without conducting an exhaustive search for alternatives.

13. To accept the first alternative that meets minimum criteria.

14. Arriving at decisions without conscious reasoning. The model argues that in a given situation, experts making decisions scan the environment for cues to recognize patterns.

work. If they run through the mental model and find that the solution will not work, they alter the solution before setting it into action. If it still is not deemed a workable solution, it is discarded as an option, and a new idea is tested until a workable solution is found. Once a viable course of action is identified, the decision maker puts the solution into motion. The key point is that only one choice is considered at a time. Novices are not able to make effective decisions this way, because they do not have enough prior experience to draw upon.
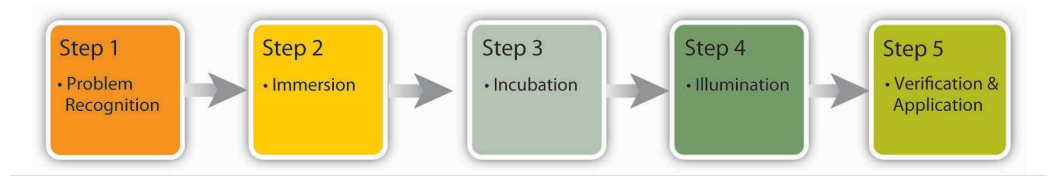
Making Creative Decisions

In addition to the rational decision making, bounded rationality, and intuitive decision-making models, creative decision making is a vital part of being an effective decision maker. **Creativity**[15] is the generation of new, imaginative ideas. With the flattening of organizations and intense competition among companies, individuals and organizations are driven to be creative in decisions ranging from cutting costs to generating new ways of doing business. Please note that, while creativity is the first step in the innovation process, creativity and innovation are not the same thing. Innovation begins with creative ideas, but it also involves realistic planning and follow-through. Innovations such as 3M's Clearview Window Tinting grow out of a creative decision-making process about what may or may not work to solve real-world problems.

The five steps to creative decision making are similar to the previous decision-making models in some keys ways. All the models include problem identification, which is the step in which the need for problem solving becomes apparent. If you do not recognize that you have a problem, it is impossible to solve it. Immersion is the step in which the decision maker consciously thinks about the problem and gathers information. A key to success in creative decision making is having or acquiring expertise in the area being studied. Then, incubation occurs. During incubation, the individual sets the problem aside and does not think about it for a while. At this time, the brain is actually working on the problem unconsciously. Then comes illumination, or the insight moment when the solution to the problem becomes apparent to the person, sometimes when it is least expected. This sudden insight is the "eureka" moment, similar to what happened to the ancient Greek inventor Archimedes, who found a solution to the problem he was working on while taking a bath. Finally, the verification and application stage happens when the decision maker consciously verifies the feasibility of the solution and implements the decision.

15. The generation of new ideas that are original, fluent, and flexible.

Figure 11.6 *The Creative Decision-Making Process*

Step 1	Step 2	Step 3	Step 4	Step 5
• Problem Recognition	• Immersion	• Incubation	• Illumination	• Verification & Application

A NASA scientist describes his decision-making process leading to a creative outcome as follows: He had been trying to figure out a better way to de-ice planes to make the process faster and safer. After recognizing the problem, he immersed himself in the literature to understand all the options, and he worked on the problem for months trying to figure out a solution. It was not until he was sitting outside a McDonald's restaurant with his grandchildren that it dawned on him. The golden arches of the M of the McDonald's logo inspired his solution—he would design the de-icer as a series of Ms.In person interview conducted by author Talya Bauer at Ames Research Center, Mountain View, CA, 1990. This represented the illumination stage. After he tested and verified his creative solution, he was done with that problem, except to reflect on the outcome and process.

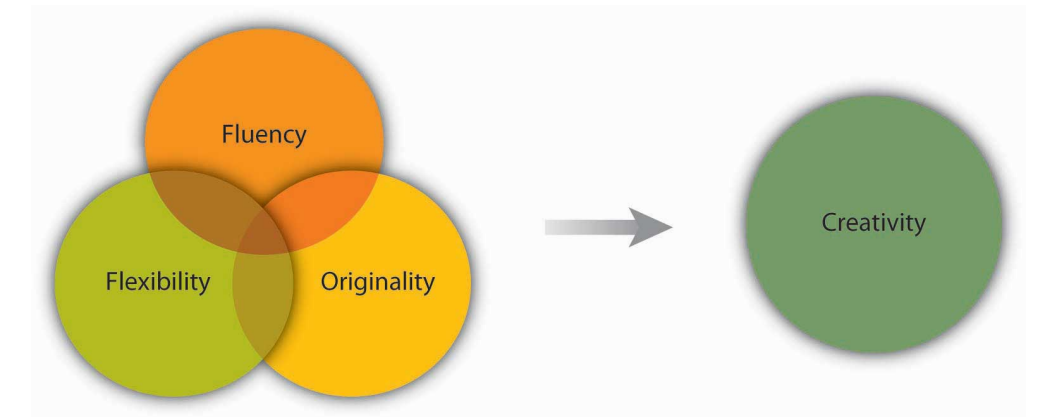**How Do You Know If Your Decision-Making Process Is Creative?**

Researchers focus on three factors to evaluate the level of creativity in the decision-making process. **Fluency**[16] refers to the number of ideas a person is able to generate. **Flexibility**[17] refers to how different the ideas are from one another. If you are able to generate several distinct solutions to a problem, your decision-making process is high on flexibility. **Originality**[18] refers to how unique a person's ideas are. You might say that Reed Hastings, founder and CEO of Netflix Inc. is a pretty creative person. His decision-making process shows at least two elements of creativity. We do not know exactly how many ideas he had over the course of his career, but his ideas are fairly different from each other. After teaching math in Africa with the Peace Corps, Hastings was accepted at Stanford, where he earned a master's degree in computer science. Soon after starting work at a software company, he invented a successful debugging tool, which led to his founding of the computer troubleshooting company Pure Software LLC in 1991. After a merger and the subsequent sale of the resulting company in 1997, Hastings founded Netflix, which revolutionized the DVD rental business with online rentals delivered through the mail with no late fees. In 2007, Hastings was elected to Microsoft's board of directors. As you can see, his ideas are high in originality and flexibility.Conlin, M. (2007, September 14). Netflix: Recruiting and retaining the best talent. *Business Week Online*. Retrieved March 1, 2008, from http://www.businessweek.com/managing/content/sep2007/ca20070913_564868.htm?campaign_id=rss_null.

16. The number of ideas a person is able to generate.

17. How different the ideas are from each other. If individuals are able to generate several unique solutions to a problem, they are high on flexibility.

18. How unique a person's ideas are.

Figure 11.7 *Dimensions of Creativity*

Some experts have proposed that creativity occurs as an interaction among three factors: people's personality traits (openness to experience, risk taking), their attributes (expertise, imagination, motivation), and the situational context (encouragement from others, time pressure, physical structures).Amabile, T. M. (1988). A model of creativity and innovation in organizations. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior, vol. 10* (pp. 123–167) Greenwich, CT: JAI Press; Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, *39*, 1154–1184; Ford, C. M., & Gioia, D. A. (2000). Factors influencing creativity in the domain of managerial decision making. *Journal of Management*, *26*, 705–732; Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, *52*, 591–620; Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, *18*, 293–321. For example, research shows that individuals who are open to experience, less conscientious, more self-accepting, and more impulsive tend to be more creative.Feist, G. J. (1998). A meta-analysis of personality in scientific and artistic creativity. *Personality and Social Psychology Review*, *2*, 290–309.

OB Toolbox: Ideas for Enhancing Organizational Creativity

- Team Composition

  - *Diversify your team* to give them more inputs to build on and more opportunities to create functional conflict while avoiding personal conflict.
  - *Change group membership* to stimulate new ideas and new interaction patterns.
  - *Leaderless teams* can allow teams freedom to create without trying to please anyone up front.

- Team Process

  - *Engage in brainstorming* to generate ideas. Remember to set a high goal for the number of ideas the group should come up with, encourage wild ideas, and take brainwriting breaks.
  - *Use the nominal group technique (see* Tools and Techniques for Making Better Decisions *below) in person or electronically* to avoid some common group process pitfalls. Consider anonymous feedback as well.
  - *Use analogies* to envision problems and solutions.

- Leadership

  - *Challenge teams* so that they are engaged but not overwhelmed.
  - *Let people decide how to achieve goals*, rather than telling them what goals to achieve.
  - *Support and celebrate creativity* even when it leads to a mistake. Be sure to set up processes to learn from mistakes as well.
  - *Role model* creative behavior.

- Culture

  - *Institute organizational memory* so that individuals do not spend time on routine tasks.
  - *Build a physical space conducive to creativity* that is playful and humorous—this is a place where ideas can thrive.
  - *Incorporate creative behavior* into the performance appraisal process.

Sources: Adapted from ideas in Amabile, T. M. (1998). How to kill creativity. *Harvard Business Review*, *76*, 76–87; Gundry, L. K., Kickul, J. R., & Prather, C. W. (1994). Building the creative organization. *Organizational Dynamics*, *22*, 22–37; Keith, N., & Frese, M. (2008). Effectiveness of error management training: A meta-analysis. *Journal of Applied Psychology*, *93*, 59–69. Pearsall, M. J., Ellis, A. P. J., & Evans, J. M. (2008). Unlocking the effects of gender faultlines on team creativity: Is activation the key? *Journal of Applied Psychology*, *93*, 225–234. Thompson, L. (2003). Improving the creativity of organizational work groups. *Academy of Management Executive*, *17*, 96–109.

There are many techniques available that enhance and improve creativity. Linus Pauling, the Nobel Prize winner who popularized the idea that vitamin C could help strengthen the immune system, said, "The best way to have a good idea is to have a lot of ideas."Quote retrieved May 1, 2008, from http://www.whatquote.com/quotes/linus-pauling/250801-the-best-way-to-have.htm. One popular method of generating ideas is to use brainstorming. **Brainstorming**[19] is a group process of generating ideas that follow a set of guidelines, including no criticism of ideas during the brainstorming process, the idea that no suggestion is too crazy, and building on other ideas (piggybacking). Research shows that the quantity of ideas actually leads to better idea quality in the end, so setting high **idea quotas**[20], in which the group must reach a set number of ideas before they are done, is recommended to avoid process loss and maximize the effectiveness of brainstorming. Another unique aspect of brainstorming is that since the variety of backgrounds and approaches give the group more to draw upon, the more people are included in the process, the better the decision outcome will be. A variation of brainstorming is **wildstorming**[21], in which the group focuses on ideas that are impossible and then imagines what would need to happen to make them possible.Scott, G., Leritz, L. E., & Mumford, M. D. (2004). The effectiveness of creativity training: A quantitative review. *Creativity Research Journal*, *16*, 361–388.

19. A process of generating ideas that follows a set of guidelines, including not criticizing ideas during the process, the idea that no suggestion is too crazy, and building on other ideas (piggybacking).

20. A set number of ideas a group must reach before they are done with brainstorming.

21. A variation of brainstorming in which the group focuses on ideas that are impossible and then imagines what would need to happen to make them possible.

Figure 11.8

Decision Making Model	Use This Model When:
Rational	• Information on alternatives can be gathered and quantified. • The decision is important. • You are trying to maximize your outcome.
Bounded Rationality	• The minimum criteria are clear. • You do not have or you are not willing to invest much time to make the decision. • You are not trying to maximize your outcome.
Intuitive	• Goals are unclear. • There is time pressure and analysis paralysis would be costly. • You have experience with the problem.
Creative	• Solutions to the problem are not clear. • New solutions need to be generated. • You have time to immerse yourself in the issues.

Which decision-making model should I use?

KEY TAKEAWAY

Decision making is choosing among alternative courses of action, including inaction. There are different types of decisions ranging from automatic, programmed decisions to more intensive nonprogrammed decisions. Structured decision-making processes include rational, bounded rationality, intuitive, and creative decision making. Each of these can be useful, depending on the circumstances and the problem that needs to be solved.

EXERCISES

1. What do you see as the main difference between a successful and an unsuccessful decision? How much does luck versus skill have to do with it? How much time needs to pass to know if a decision is successful or not?
2. Research has shown that over half of the decisions made within organizations fail. Does this surprise you? Why or why not?
3. Have you used the rational decision-making model to make a decision? What was the context? How well did the model work?
4. Share an example of a decision in which you used satisficing. Were you happy with the outcome? Why or why not? When would you be most likely to engage in satisficing?
5. Do you think intuition is respected as a decision-making style? Do you think it should be? Why or why not?

11.3 Faulty Decision Making

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LEARNING OBJECTIVES

1. Understand overconfidence bias and how to avoid it.
2. Understand hindsight bias and how to avoid it.
3. Understand anchoring and how to avoid it.
4. Understand framing bias and how to avoid it.
5. Understand escalation of commitment and how to avoid it.

</div>

Avoiding Decision-Making Traps

No matter which model you use, it is important to know and avoid the decision-making traps that exist. Daniel Kahnemann (another Nobel Prize winner) and Amos Tversky spent decades studying how people make decisions. They found that individuals are influenced by overconfidence bias, hindsight bias, anchoring bias, framing bias, and escalation of commitment.

Overconfidence bias[22] occurs when individuals overestimate their ability to predict future events. Many people exhibit signs of overconfidence. For example, 82% of the drivers surveyed feel they are in the top 30% of safe drivers, 86% of students at the Harvard Business School say they are better looking than their peers, and doctors consistently overestimate their ability to detect problems.Tilson, W. (1999, September 20). The perils of investor overconfidence. Retrieved March 1, 2008, from http://www.fool.com/BoringPort/1999/BoringPort990920.htm. Much like friends that are 100% sure they can pick the winners of this week's football games despite evidence to the contrary, these individuals are suffering from overconfidence bias. Similarly, in 2008, the French bank Société Générale lost over $7 billion as a result of the rogue actions of a single trader. Jérôme Kerviel, a junior trader in the bank, had extensive knowledge of the bank's control mechanisms and used this knowledge to beat the system. Interestingly, he did not make any money from these transactions himself, and his sole motive was to be successful. He secretly started making risky moves while hiding the evidence. He made a lot of profit for the company early on and became overly confident in his abilities to make even more. In his defense, he was merely able to say that he got "carried away."The rogue rebuttal. (2008, February 9). *Economist*, *386*, 82. People who purchase lottery tickets as a way to make money are probably suffering from overconfidence bias. It is three times more likely for a person driving 10 miles to buy a lottery ticket to be killed in a car accident than to win the jackpot.Orkin, M. (1991). *Can you win? The real odds for casino gambling, sports betting and lotteries.* New York: W. H. Freeman.

22. What occurs when individuals overestimate their ability to predict future events.

Further, research shows that overconfidence leads to less successful negotiations.Neale, M. A., & Bazerman, M. H. (1985). The effects of framing and negotiator overconfidence on bargaining behaviors and outcomes. *Academy of Management Journal*, *28*, 34–49. To avoid this bias, take the time to stop and ask yourself if you are being realistic in your judgments.

Hindsight bias[23] is the opposite of overconfidence bias, as it occurs when looking backward in time and mistakes seem obvious after they have already occurred. In other words, after a surprising event occurred, many individuals are likely to think that they already knew the event was going to happen. This bias may occur because they are selectively reconstructing the events. Hindsight bias tends to become a problem when judging someone else's decisions. For example, let's say a company driver hears the engine making unusual sounds before starting the morning routine. Being familiar with this car in particular, the driver may conclude that the probability of a serious problem is small and continues to drive the car. During the day, the car malfunctions and stops miles away from the office. It would be easy to criticize the decision to continue to drive the car because in hindsight, the noises heard in the morning would make us believe that the driver should have known something was wrong and taken the car in for service. However, the driver in question may have heard similar sounds before with no consequences, so based on the information available at the time, continuing with the regular routine may have been a reasonable choice. Therefore, it is important for decision makers to remember this bias before passing judgments on other people's actions.

Figure 11.9

Source: [citation redacted per publisher request]. Reprinted by permission.

Anchoring[24] refers to the tendency for individuals to rely too heavily on a single piece of information. Job seekers often fall into this trap by focusing on a desired salary while ignoring other aspects of the job offer such as additional benefits, fit with the job, and working environment. Similarly, but more dramatically, lives were lost in the Great Bear Wilderness Disaster when the coroner, within 5 minutes of arriving at the accident scene, declared all five passengers of a small plane dead, which halted the search effort for potential survivors. The next day two survivors who had been declared dead walked out of the forest. How could a mistake like this have been made? One theory is that decision biases played a large role in this serious error, and anchoring on the fact that the plane had been consumed by flames led the coroner to call off the search for any possible survivors.Becker, W. S. (2007). Missed opportunities: The Great Bear Wilderness Disaster. *Organizational Dynamics*, *36*, 363–376.

23. The opposite of overconfidence bias, as it occurs when looking backward in time and mistakes seem obvious after they have already occurred.

24. The tendency for individuals to rely too heavily on a single piece of information.

Framing bias[25] is another concern for decision makers. Framing bias refers to the tendency of decision makers to be influenced by the way that a situation or problem is presented. For example, when making a purchase, customers find it easier to let go of a discount as opposed to accepting a surcharge, even though they both might cost the person the same amount of money. Similarly, customers tend to prefer a statement such as "85% lean beef" as opposed to "15% fat."Li, S., Sun, Y., & Wang, Y. (2007). 50% off or buy one get one free? Frame preference as a function of consumable nature in dairy products. *Journal of Social Psychology*, *147*, 413–421. It is important to be aware of this tendency, because depending on how a problem is presented to us, we might choose an alternative that is disadvantageous simply because of the way it is framed.

Escalation of commitment[26] occurs when individuals continue on a failing course of action after information reveals it may be a poor path to follow. It is sometimes called the "sunken costs fallacy," because continuation is often based on the idea that one has already invested in the course of action. For example, imagine a person who purchases a used car, which turns out to need something repaired every few weeks. An effective way of dealing with this situation might be to sell the car without incurring further losses, donate the car, or use it until it falls apart. However, many people would spend hours of their time and hundreds, even thousands of dollars repairing the car in the hopes that they might recover their initial investment. Thus, rather than cutting their losses, they waste time and energy while trying to justify their purchase of the car.

A classic example of escalation of commitment from the corporate world is Motorola Inc.'s Iridium project. In the 1980s, phone coverage around the world was weak. For example, it could take hours of dealing with a chain of telephone operators in several different countries to get a call through from Cleveland to Calcutta. There was a real need within the business community to improve phone access around the world. Motorola envisioned solving this problem using 66 low-orbiting satellites, enabling users to place a direct call to any location around the world. At the time of idea development, the project was technologically advanced, sophisticated, and made financial sense. Motorola spun off Iridium as a separate company in 1991. It took researchers a total of 15 years to develop the product from idea to market release. However, in the 1990s, the landscape for cell phone technology was dramatically different from that in the 1980s, and the widespread cell phone coverage around the world eliminated most of the projected customer base for Iridium. Had they been paying attention to these developments, the decision makers could have abandoned the project at some point in the early 1990s. Instead, they released the Iridium phone to the market in 1998. The phone cost $3,000, and it was literally the size of a brick. Moreover, it was not possible to use the phone in moving cars or inside buildings. Not surprisingly, the launch was a failure, and Iridium filed for bankruptcy in 1999.Finkelstein, S., & Sanford, S. H.

25. The tendency of decision makers to be influenced by the way problems are presented.

26. When individuals continue on a failing course of action after information reveals it may be a poor path to follow.

(2000, November). Learning from corporate mistakes: The rise and fall of Iridium. *Organizational Dynamics*, *29*(2), 138–148. In the end, the company was purchased for $25 million by a group of investors (whereas it cost the company $5 billion to develop its product), scaled down its operations, and modified it for use by the Department of Defense to connect soldiers in remote areas not served by land lines or cell phones.

Why does escalation of commitment occur? There may be many reasons, but two are particularly important. First, decision makers may not want to admit that they were wrong. This may be because of personal pride or being afraid of the consequences of such an admission. Second, decision makers may incorrectly believe that spending more time and energy might somehow help them recover their losses. Effective decision makers avoid escalation of commitment by distinguishing between when persistence may actually pay off versus when it might mean escalation of commitment. To avoid escalation of commitment, you might consider having strict turning back points. For example, you might determine up front that you will not spend more than $500 trying to repair the car and will sell it when you reach that point. You might also consider assigning separate decision makers for the initial buying and subsequent selling decisions. Periodic evaluations of an initially sound decision to see whether the decision still makes sense is also another way of preventing escalation of commitment. This type of review becomes particularly important in projects such as the Iridium phone, in which the initial decision is not immediately implemented but instead needs to go through a lengthy development process. In such cases, it becomes important to periodically assess the soundness of the initial decision in the face of changing market conditions. Finally, creating an organizational climate in which individuals do not fear admitting that their initial decision no longer makes economic sense would go a long way in preventing escalation of commitment, as it could lower the regret the decision maker may experience.Wong, K. F. E., & Kwong, J. Y. Y. (2007). The role of anticipated regret in escalation of commitment. *Journal of Applied Psychology*, *92*, 545–554.

Figure 11.10

Motorola released the Iridium phone to the market in 1998. The phone cost $3,000 and it was literally the size of a brick.

Source: http://upload.wikimedia.org/wikipedia/commons/b/b0/Iridium_phone.jpg.

So far we have focused on how individuals make decisions and how to avoid decision traps. Next we shift our focus to the group level. There are many similarities as well as many differences between individual and group decision making. There are many factors that influence group dynamics and also affect the group decision-making process. We will discuss some of them in the following section.

KEY TAKEAWAY

Understanding decision-making traps can help you avoid and manage them. Overconfidence bias can cause you to ignore obvious information. Hindsight bias can similarly cause a person to incorrectly believe in their ability to predict events. Anchoring and framing biases show the importance of the way problems or alternatives are presented in influencing one's decision. Escalation of commitment demonstrates how individuals' desire to be consistent or avoid admitting a mistake can cause them to continue to invest in a decision that is no longer prudent.

EXERCISES

1. Describe a time when you fell into one of the decision-making traps. How did you come to realize that you had made a poor decision?
2. How can you avoid escalation of commitment?
3. Share an example of anchoring.
4. Which of the traps seems the most dangerous for decision makers and why?

11.4 Decision Making in Groups

> **LEARNING OBJECTIVES**
>
> 1. Understand the pros and cons of individual and group decision making.
> 2. Learn to recognize the signs of groupthink.
> 3. Recognize different tools and techniques for making better decisions.

When It Comes to Decision Making, Are Two Heads Better Than One?

The answer to this question depends on several factors. Group decision making has the advantage of drawing from the experiences and perspectives of a larger number of individuals. Hence, a group may have the potential to be more creative and lead to more effective decisions. In fact, groups may sometimes achieve results beyond what they could have done as individuals. Groups may also make the task more enjoyable for the members. Finally, when the decision is made by a group rather than a single individual, implementation of the decision will be easier, because group members will be more invested in the decision. If the group is diverse, better decisions may be made, because different group members may have different ideas based on their backgrounds and experiences. Research shows that for top management teams, diverse groups that debate issues make decisions that are more comprehensive and better for the bottom line.Simons, T., Pelled, L. H., & Smith, K. A. (1999). Making use of difference: Diversity, debate, decision comprehensiveness in top management teams. *Academy of Management Journal*, *42*, 662–673.

Despite its popularity within organizations, group decision making suffers from a number of disadvantages. We know that groups rarely outperform their best member.Miner, F. C. (1984). Group versus individual decision making: An investigation of performance measures, decision strategies, and process losses/ gains. *Organizational Behavior and Human Performance*, *33*, 112–124. While groups have the potential to arrive at an effective decision, they often suffer from process losses. For example, groups may suffer from coordination problems. Anyone who has worked with a team of individuals on a project can attest to the difficulty of coordinating members' work or even coordinating everyone's presence in a team meeting. Furthermore, groups can suffer from groupthink. Finally, group decision making takes more time compared to individual decision making, because all members need to discuss their thoughts regarding different alternatives.

Thus, whether an individual or a group decision is preferable will depend on the specifics of the situation. For example, if there is an emergency and a decision needs to be made quickly, individual decision making might be preferred. Individual decision making may also be appropriate if the individual in question has all the information needed to make the decision and if implementation problems are not expected. On the other hand, if one person does not have all the information and skills needed to make a decision, if implementing the decision will be difficult without the involvement of those who will be affected by the decision, and if time urgency is more modest, then decision making by a group may be more effective.

Figure 11.11 *Advantages and Disadvantages of Different Levels of Decision Making*

Individual Decision Making		Group Decision Making	
Pros	**Cons**	**Pros**	**Cons**
Typically faster than group decision making	Fewer ideas	Diversity of ideas and can piggyback on others' ideas	Takes longer
Best individual in a group usually outperforms the group	Identifying the best individual can be challenging	Greater commitment to ideas	Group dynamics such as groupthink can occur
Accountability is easier to determine	Possible to put off making decisions if left alone to do it	Interaction can be fun and serves as a teambuilding task	Social loafing—harder to identify responsibility for decisions

Groupthink

Have you ever been in a decision-making group that you felt was heading in the wrong direction but you didn't speak up and say so? If so, you have already been a victim of groupthink. **Groupthink**[27] is a tendency to avoid a critical evaluation of ideas the group favors. Iriving Janis, author of a book called *Victims of Groupthink,* explained that groupthink is characterized by eight symptoms:Janis, I. L. (1972). *Victims of groupthink.* New York: Houghton Mifflin.

Figure 11.12

27. A tendency to avoid a critical evaluation of ideas the group favors.

1. **Illusion of invulnerability** is shared by most or all of the group members, which creates excessive optimism and encourages them to take extreme risks.
2. **Collective rationalizations** occur, in which members downplay negative information or warnings that might cause them to reconsider their assumptions.
3. **An unquestioned belief in the group's inherent morality** occurs, which may incline members to ignore ethical or moral consequences of their actions.
4. **Stereotyped views of outgroups** are seen when groups discount rivals' abilities to make effective responses.
5. **Direct pressure** is exerted on any members who express strong arguments against any of the group's stereotypes, illusions, or commitments.
6. **Self-censorship** occurs when members of the group minimize their own doubts and counterarguments.
7. **Illusions of unanimity** occur, based on self-censorship and direct pressure on the group. The lack of dissent is viewed as unanimity.
8. **The emergence of self-appointed mindguards** happens when one or more members protect the group from information that runs counter to the group's assumptions and course of action.

In January 1986, the space shuttle Challenger exploded 73 seconds after liftoff, killing all seven astronauts aboard. The decision to launch Challenger that day, despite problems with mechanical components of the vehicle and unfavorable weather conditions, is cited as an example of groupthink.Esser, J. K., & Lindoerfer, J. L. (1989). Groupthink and the space shuttle Challenger accident: Toward a quantitative case analysis. Journal of Behavioral Decision Making, 2, 167–177; Moorhead, G., Ference, R., & Neck, C. P. (1991). Group decision fiascoes continue: Space shuttle Challenger and a revised groupthink framework. Human Relations, 44, 539–550.

Source: http://en.wikipedia.org/ wiki/ Image:Challenger_flight_51-l_cre w.jpg.

OB Toolbox: Recommendations for Avoiding Groupthink

- Groups should do the following:

    - Discuss the symptoms of groupthink and how to avoid them.
    - Assign a rotating devil's advocate to every meeting.
    - Invite experts or qualified colleagues who are not part of the core decision-making group to attend meetings and get reactions from outsiders on a regular basis and share these with the group.
    - Encourage a culture of difference where different ideas are valued.
    - Debate the ethical implications of the decisions and potential solutions being considered.

- Individuals should do the following:

    - Monitor personal behavior for signs of groupthink and modify behavior if needed.
    - Check for self-censorship.
    - Carefully avoid mindguard behaviors.
    - Avoid putting pressure on other group members to conform.
    - Remind members of the ground rules for avoiding groupthink if they get off track.

- Group leaders should do the following:

    - Break the group into two subgroups from time to time.
    - Have more than one group work on the same problem if time and resources allow it. This makes sense for highly critical decisions.
    - Remain impartial and refrain from stating preferences at the outset of decisions.
    - Set a tone of encouraging critical evaluations throughout deliberations.
    - Create an anonymous feedback channel through which all group members can contribute if desired.

Sources: Adapted and expanded from Janis, I. L. (1972). *Victims of groupthink*. New York: Houghton Mifflin; Whyte, G. (1991). Decision failures: Why they occur and how to prevent them. *Academy of Management Executive*, *5*, 23–31.

Tools and Techniques for Making Better Decisions

Nominal Group Technique (NGT)[28] was developed to help with group decision making by ensuring that all members participate fully. NGT is not a technique to be used routinely at all meetings. Rather, it is used to structure group meetings when members are grappling with problem solving or idea generation. It follows four steps.Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes.* Glenview, IL: Scott Foresman. First, each member of the group begins by independently and silently writing down ideas. Second, the group goes in order around the room to gather all the ideas that were generated. This process continues until all the ideas are shared. Third, a discussion takes place around each idea, and members ask for and give clarification and make evaluative statements. Finally, group members vote for their favorite ideas by using ranking or rating techniques. Following the four-step NGT helps to ensure that all members participate fully, and it avoids group decision-making problems such as groupthink.

Delphi Technique[29] is unique because it is a group process using written responses to a series of questionnaires instead of physically bringing individuals together to make a decision. The first questionnaire asks individuals to respond to a broad question such as stating the problem, outlining objectives, or proposing solutions. Each subsequent questionnaire is built from the information gathered in the previous one. The process ends when the group reaches a consensus. Facilitators can decide whether to keep responses anonymous. This process is often used to generate best practices from experts. For example, Purdue University Professor Michael Campion used this process when he was editor of the research journal *Personnel Psychology* and wanted to determine the qualities that distinguished a good research article. Using the Delphi technique, he was able to gather responses from hundreds of top researchers from around the world and distill them into a checklist of criteria that he could use to evaluate articles submitted to his journal, all without ever having to leave his office.Campion, M. A. (1993). Article review checklist: A criterion checklist for reviewing research articles in applied psychology. *Personnel Psychology*, 46, 705–718.

Figure 11.13

Communicating is a key aspect of making decisions in a group. In order to generate potential alternatives, brainstorming and critical thinking are needed to avoid groupthink.

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Majority rule[30] refers to a decision-making rule in which each member of the group is given a single vote and the option receiving the greatest number of votes is

28. A technique designed to help with group decision making by ensuring that all members participate fully.

29. A group process that utilizes written responses to a series of questionnaires instead of physically bringing individuals together to make a decision.

30. A decision-making rule in which each member of the group is given a single vote, and the option receiving the greatest number of votes is selected.

selected. This technique has remained popular, perhaps due to its simplicity, speed, ease of use, and representational fairness. Research also supports majority rule as an effective decision-making technique.Hastie, R., & Kameda, T. (2005). The robust beauty of majority rules in group decisions. *Psychological Review*, *112*, 494–508. However, those who did not vote in favor of the decision will be less likely to support it.

Consensus[31] is another decision-making rule that groups may use when the goal is to gain support for an idea or plan of action. While consensus tends to require more time, it may make sense when support is needed to enact the plan. The process works by discussing the issues at hand, generating a proposal, calling for consensus, and discussing any concerns. If concerns still exist, the proposal is modified to accommodate them. These steps are repeated until consensus is reached. Thus, this decision-making rule is inclusive, participatory, cooperative, and democratic. Research shows that consensus can lead to better accuracy,Roch, S. G. (2007). Why convene rater teams: An investigation of the benefits of anticipated discussion, consensus, and rater motivation. *Organizational Behavior and Human Decision Processes*, *104*, 14–29. and it helps members feel greater satisfaction with decisions.Mohammed, S., & Ringseis, E. (2001). Cognitive diversity and consensus in group decision making: The role of inputs, processes, and outcomes. *Organizational Behavior and Human Decision Processes*, *85*, 310–335. However, groups take longer with this approach, and if consensus cannot be reached, members tend to become frustrated.Peterson, R. (1999). Can you have too much of a good thing? The limits of voice for improving satisfaction with leaders. *Personality and Social Psychology*, *25*, 313–324.

31. A decision-making rule that groups may use when the goal is to gain support for an idea or plan of action. This decision-making rule is inclusive, participatory, cooperative, and democratic.

OB Toolbox: Perform a Project "Premortem"

Doctors routinely perform postmortems to understand what went wrong with a patient who has died. The idea is for everyone to learn from the unfortunate outcome so that future patients will not meet a similar fate. But what if you could avoid a horrible outcome before it happened by proactively identifying project risks? Research has shown that the simple exercise of imagining what could go wrong with a given decision can increase people's ability to correctly identify reasons for future successes or failures by 30%.Mitchell, D. J., Russo, J., & Pennington, N. (1989). Back to the future: Temporal perspective in the explanation of events. *Journal of Behaviorial Decision Making*, *2*, 25–38. A "**premortem**[32]" is a way to imagine what might go wrong and avoid it before spending a cent or having to change course along the way. Gary Klein, an expert on decision making in fast-paced, uncertain, complex, and critical environments, recommends that decision makers follow a five-step process to increase their chances of success.

1. A planning team comes up with an outline of a plan, such as the launching of a new product.
2. Either the existing group or a unique group is then told to imagine looking into a crystal ball and seeing that the new product failed miserably. They then write down all the reasons they can imagine that might have led to this failure. Each team member shares items from their list until all the potential problems have been identified.
3. The list is reviewed for additional ideas.
4. The issues are sorted into categories in the search for themes.
5. The plan should then be revised to correct the flaws and avoid these potential problems.

This technique allows groups to truly delve into "what if" scenarios. For example, in a premortem session at a *Fortune* 500 company, an executive imagined that a potential billion-dollar environmental sustainability project might fail because the CEO had retired.

Sources: Breen, B. (2000, August). What's your intuition? *Fast Company*, 290; Klein, G. (2007, September). Performing a project premortem. *Harvard Business Review*, *85*, 18–19; Klein, G. (2003). *The power of intuition: How to use your gut feelings to make better decisions at work.* New York: Random House; Pliske, R.,

32. A way to imagine what might go wrong and avoid it before spending a cent or having to change course along the way.

McCloskey, M., & Klein, G. (2001). Decision skills training: Facilitating learning from experience. In E. Salas & G. Klein (Eds.), *Linking expertise and naturalistic decision making* (pp. 37–53). Mahwah, NJ: Lawrence Erlbaum Associates.

Group Decision Support Systems (GDSS)[33] are interactive computer-based systems that are able to combine communication and decision technologies to help groups make better decisions. Research shows that a GDSS can actually improve the output of groups' collaborative work through higher information sharing.Lam, S. S. K., & Schaubroeck, J. (2000). Improving group decisions by better pooling information: A comparative advantage of group decision support systems. *Journal of Applied Psychology*, *85*, 565–573. Organizations know that having effective **knowledge management systems**[34] to share information is important, and their spending reflects this reality. Businesses invested $2.7 billion into new systems in 2002, and projections were for this number to double every 5 years. As the popularity of these systems grows, they risk becoming counterproductive. Humans can only process so many ideas and information at one time. As virtual meetings grow larger, it is reasonable to assume that information overload can occur and good ideas will fall through the cracks, essentially recreating a problem that the GDSS was intended to solve, which is to make sure every idea is heard. Another problem is the system possibly becoming too complicated. If the systems evolve to a point of uncomfortable complexity, it has recreated the problem. Those who understand the interface will control the narrative of the discussion, while those who are less savvy will only be along for the ride.Nunamaker, J. F., Jr., Dennis, A. R., Valacich, J. S., Vogel, D. R., & George, J. F. (1991, July). Electronic meetings to support group work. *Communications of the ACM*, *34*(7), 40–61. Lastly, many of these programs fail to take into account the factor of human psychology. These systems could make employees more reluctant to share information because of lack of control, lack of immediate feedback, or the fear of online "flames."

Decision trees[35] are diagrams in which answers to yes or no questions lead decision makers to address additional questions until they reach the end of the tree. Decision trees are helpful in avoiding errors such as framing bias.Wright, G., & Goodwin, P. (2002). Eliminating a framing bias by using simple instructions to "think harder" and respondents with managerial experience: Comment on "breaking the frame." *Strategic Management Journal*, *23*, 1059–1067. Decision trees tend to be helpful in guiding the decision maker to a predetermined alternative and ensuring consistency of decision making—that is, every time certain conditions are present, the decision maker will follow one course of action as opposed to others if the decision is made using a decision tree.
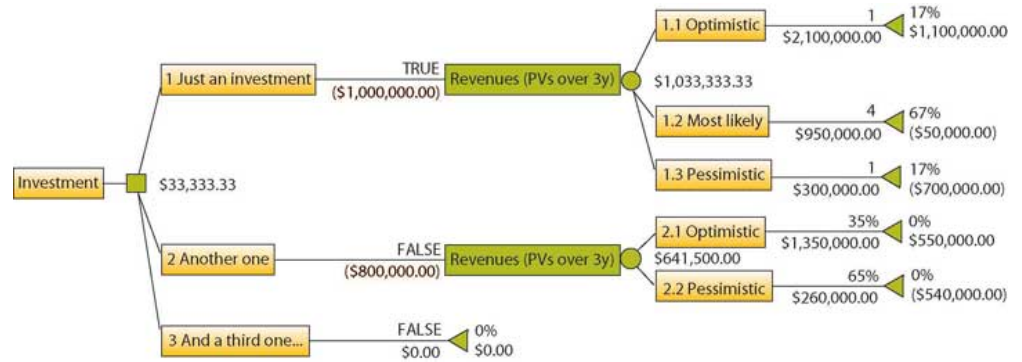
33. Interactive computer-based systems that are able to combine communication and decision technologies to help groups make better decisions.

34. Systems for managing knowledge in organizations, supporting creation, capture, storage, and dissemination of information.

35. Diagrams where answers to yes or no questions lead decision makers to address additional questions until they reach the end of the tree.

Figure 11.14

Utilizing decision trees can improve investment decisions by optimizing them for maximum payoff. A decision tree consists of three types of nodes. Decision nodes are commonly represented by squares. Chance nodes are represented by circles. End nodes are represented by triangles.

Source: http://upload.wikimedia.org/wikipedia/en/9/93/Investment_decision_Insight.png.

KEY TAKEAWAY

There are trade-offs between making decisions alone and within a group. Groups have a greater diversity of experiences and ideas than individuals, but they also have potential process losses such as groupthink. Groupthink can be avoided by recognizing the eight symptoms discussed. Finally, there are a variety of tools and techniques available for helping to make more effective decisions in groups, including the nominal group technique, Delphi technique, majority rule, consensus, GDSS, and decision trees.

EXERCISES

1. Do you prefer to make decisions in a group or alone? What are the main reasons for your preference?
2. Have you been in a group that used the brainstorming technique? Was it an effective tool for coming up with creative ideas? Please share examples.
3. Have you been in a group that experienced groupthink? If so, how did you deal with it?
4. Which of the decision-making tools discussed in this chapter (NGT, Delphi, and so on) have you used? How effective were they?

11.5 The Role of Ethics and National Culture

Ethics and Decision Making

Because many decisions involve an ethical component, one of the most important considerations in management is whether the decisions you are making as an employee or manager are ethical. Here are some basic questions you can ask yourself to assess the ethics of a decision.Adapted from ideas contained in Kenneth Blanchard and Norman Vincent Peale (1988). *The power of ethical management*. New York: William Morrow.

- Is this decision fair?
- Will I feel better or worse about myself after I make this decision?
- Does this decision break any organizational rules?
- Does this decision break any laws?
- How would I feel if this decision were broadcast on the news?

The current economic crisis in the United States and many other parts of the world is a perfect example of legal yet unethical decisions resulting in disaster. Many experts agree that one of the driving forces behind the sliding economy was the lending practices of many banks (of which several no longer exist). In March of 2008, a memo from JPMorgan Chase & Co. was leaked to an Oregon newspaper called "Zippy Cheats & Tricks" (Zippy is Chase's automated, computer-based loan approval system). Although Chase executives firmly stated that the contents of the memo were not company policy, the contents clearly indicate some of the questionable ethics involved with the risky loans now clogging the financial system.

In the memo, several steps were outlined to help a broker push a client's approval through the system, including, "In the income section of your 1003, make sure you input all income in base income. DO NOT break it down by overtime, commissions or bonus. NO GIFT FUNDS! If your borrower is getting a gift, add it to a bank account along with the rest of the assets. Be sure to remove any mention of gift funds on the rest of your 1003. If you do not get Stated/Stated, try resubmitting with slightly higher income. Inch it up $500 to see if you can get the findings you want. Do the

same for assets."Manning, J. (2008, March 27). Chase mortgage memo pushes "Cheats & Tricks." *The Oregonian*. Retrieved November 1, 2008, from http://www.oregonlive.com/business/index.sff/2008/03/ chase_memo_pushes_che.html.

While it is not possible to determine how widely circulated the memo was, the mentality it captures was clearly present during the lending boom that precipitated the current meltdown. While some actions during this period were distinctly illegal, many people worked well within the law and simply made unethical decisions. Imagine a real estate agent that knows a potential buyer's income. The buyer wants to purchase a home priced at $400,000, and the agent knows the individual cannot afford to make payments on a mortgage of that size. Instead of advising the buyer accordingly and losing a large commission, the agent finds a bank willing to lend money to an unqualified borrower, collects the commission for the sale, and moves on to the next client. It is clear how these types of unethical yet legal decisions can have dramatic consequences.

Suppose you are the CEO of a small company that needs to cut operational costs or face bankruptcy. You have decided that you will not be issuing the yearly bonus that employees have come to expect. The first thing you think about after coming to this decision is whether or not it is fair. It seems logical to you that since the alternative would be the failure of the company and everyone's losing their jobs, not receiving a bonus is preferable to being out of work. Additionally, you will not be collecting a bonus yourself, so that the decision will affect everyone equally. After deciding that the decision seems fair, you try to assess how you will feel about yourself after informing employees that there will not be a bonus this year. Although you do not like the idea of not being able to issue the yearly bonus, you are the CEO, and CEOs often have to make tough decisions. Since your ultimate priority is to save the company from bankruptcy, you decide it is better to withhold bonuses rather than issuing them, knowing the company cannot afford it. Despite the fact that bonuses have been issued every year since the company was founded, there are no organizational policies or laws requiring that employees receive a bonus; it has simply been a company tradition. The last thing you think about is how you would feel if your decision were broadcast on the news. Because of the dire nature of the situation, and because the fate of the business is at stake, you feel confident that this course of action is preferable to laying off loyal employees. As long as the facts of the situation were reported correctly, you feel the public would understand why the decision was made.

Decision Making Around the Globe

Decision-making styles and approaches tend to differ depending on the context, and one important contextual factor to keep in mind is the culture in which

decisions are being made. Research on Japanese and Dutch decision makers show that while both cultures are consensus-oriented, Japanese managers tend to seek consensus much more than Dutch managers.Noorderhaven, N. G. (2007). Comprehensiveness versus pragmatism: Consensus at the Japanese-Dutch interface. *Journal of Management Studies*, *44*, 1349–1370. Additionally, American managers tend to value quick decision making, while Chinese managers are more reflective and take their time to make important decisions—especially when they involve some sort of potential conflict.

Another example of how decision-making styles may differ across cultures is the style used in Japan called *nemawashi*. Nemawashi refers to building consensus within a group before a decision is made. Japanese decision makers talk to parties whose support is needed beforehand, explain the subject, address their concerns, and build their support. Using this method clearly takes time and may lead to slower decision making. However, because all parties important to the decision will give their stamp of approval before the decision is made, this technique leads to a quicker implementation of the final decision once it is decided.

KEY TAKEAWAY

Asking yourself some key questions can help you determine if a decision you are considering is ethical. A decision being legal does not automatically make it ethical. Unethical decisions can lead to business failures for a variety of reasons. Different cultures have different styles of decision making. In countries with a collectivist orientation, a high value is placed on building consensus. Some national cultures value quick decision making, whereas others believe in taking time to arrive at a decision. Taking national culture into account is important in effective cross-cultural business interactions.

EXERCISES

1. How can you assess if you are making ethical decisions or not?
2. Have you seen examples of ethical or unethical decisions being made? Describe what you observed.
3. Have you seen examples of national culture affecting decision making?
4. What advice surrounding decision making would you give to someone who will be managing a new division of a company in another culture?
5. What can go wrong when cultural factors are ignored?

11.6 Empowered Decision Making: The Case of Ingar Skaug

"If you always do what you always did, you always get what you always got," says Ingar Skaug—and he should know. Skaug is president and CEO of Wilh. Wilhelmsen ASA (OSE: ABM), a leading global maritime industry company based in Norway with 23,000 employees and 516 offices worldwide. He faced major challenges when he began his job at Wilhelmsen Lines in 1989. The entire top management team of the company had been killed in an airplane crash when returning from a ship dedication ceremony. As you can imagine, employees were mourning the loss of their friends and leadership team. While Skaug knew that changes needed to be made within the organization, he also knew that he had to proceed slowly and carefully in implementing any changes. The biggest challenge he saw was the decision-making style within the company.

Skaug recalls this dilemma as follows:

I found myself in a situation in Wilhelmsen Lines where everyone was coming to my office in the morning and they expected me to take all the decisions. I said to people, "Those are not my decisions. I don't want to take those decisions. You take those decisions." So for half a year they were screaming about that I was very afraid of making decisions. So I had a little bit of a struggle with the organization, with the people there at the time. They thought I was a very poor manager because I didn't dare to make decisions. I had to teach them. I had to force the people to make their own decisions.

Figure 11.15

Source:
http://www.wilhelmsen.com/
about/invest/corporate/
Management/Pages/
IngarSkaug.aspx.

His lessons paid off over the years. The company has now invented a cargo ship capable of transporting 10,000 vehicles while running exclusively on renewable energy via the power of the sun, wind, and water. He and others within the company cite the freedom that employees feel to make decisions and mistakes on their way to making discoveries in improved methods as a major factor in their success in revolutionizing the shipping industry one innovation at a time.

Case written by [citation redacted per publisher request]. Based on information from McCarthy, J. F., O'Connell, D. J., & Hall, D. T. (2005). Leading beyond tragedy: The balance of personal identity and adaptability. *Leadership & Organizational Development Journal, 26*, 458–475; Skaug, I. (2007, July). Breaking free in turbulent times: The intersection of turbulence, innovation and leadership. *Business Leadership Review, 4*, 1–7; Furness, V. (2005). Interview with Ingar Skaug. *European Business Forum*. Retrieved April 4, 2008, from http://www.ebfonline.com/article.aspx?extraid=30; Norwegian executive Ingar Skaug named chairman of Center for Creative Leadership's Board of Governors. (2006, September). Center for Creative Leadership news release. Retrieved April 4, 2008, from http://www.ccl.org/leadership/news/2006/skaug.aspx.

DISCUSSION QUESTIONS

1. What are some additional challenges Ingar Skaug probably faced while taking over control of Wilh. Wilhelmsen?
2. Skaug says that for the first several months as CEO, he deferred many decisions to other employees. In what types of situations might this have been inappropriate? Would Skaug's method have worked if he were taking over a hospital or an investment firm?
3. How would you approach a situation like Skaug's?
4. For Skaug, the decision to defer decisions worked for the company. What are some potential pitfalls this management style could have fallen into? Does the pace of the industry make a difference in what management style is appropriate (e.g., the fast pace of a high-tech company versus the slower pace of an industrial manufacturing company)?

11.7 Conclusion

Decision making is a critical component of business. Some decisions are obvious and can be made quickly, without investing much time and effort in the decision-making process. Others, however, require substantial consideration of the circumstances surrounding the decision, available alternatives, and potential outcomes. Fortunately, there are several methods that can be used when making a difficult decision, depending on various environmental factors. Some decisions are best made by groups. Group decision-making processes also have multiple models to follow, depending on the situation. Even when specific models are followed, groups and individuals can often fall into potential decision-making pitfalls. If too little information is available, decisions might be made based on a feeling. On the other hand, if too much information is presented, people can suffer from analysis paralysis, in which no decision is reached because of the overwhelming number of alternatives.

Ethics and culture both play a part in decision making. From time to time, a decision can be legal but not ethical. These gray areas that surround decision making can further complicate the process, but following basic guidelines can help people ensure that the decisions they make are ethical and fair. Additionally, different cultures can have different styles of decision making. In some countries such as the United States, it may be customary to come to a simple majority when making a decision. Conversely, a country such as Japan will often take the time to reach consensus when making decisions. Being aware of the various methods for making decisions as well as potential problems that may arise can help people become effective decision makers in any situation.

11.8 Exercises

ETHICAL DILEMMA

Herb's Concoction (and Martha's Dilemma): The Case of the Deadly FertilizerJeanne Enders, Portland State University. Used by permission of the author.

Martha Wang worked in the Consumer Affairs Department of a company called Herb's Garden Products. Martha was a relatively new employee and had only worked there 6 months, while most employees at Herb's had been with the company since its beginning back in 1958. She enjoyed her job and hoped to be promoted at her next performance appraisal. One especially exciting part of working at Herb's was that they had made a public commitment to protecting the environment. There were regular meetings at work about the choice to brand the organization in this way, sell their products at "green" markets, and capture some of the growing consumer market for natural products. Martha's values were closely aligned with this mentality, so she really loved her new job at Herb's Garden Products. How quickly things change.

One day, Martha received a call from a dissatisfied customer who complained that Herb's Special Fertilizer Mix killed her dog, an expensive and beloved toy poodle. Martha knew that the fertilizer was made mostly of fish byproducts and chicken manure, but she had also heard there was a "secret ingredient" that had only been revealed to long-time employees. The company had advertised the product as "safe enough to eat for breakfast" and "able to work wonders on any plant." However, Martha had used the product only once herself. Shortly after applying the fertilizer, Martha found several dead birds near the garden where she had spread the most fertilizer. At the time, she convinced herself this was just a coincidence. Listening now to this customer describing the death of her small dog after lying on the soil near the fertilizer, Martha began to wonder if those birds had perished for the same reason. Martha took the customer's name and number and went immediately to her boss.

Martha's boss was Herb's nephew, Mac. Once Martha explained her story about her own experience with the fertilizer and the customer's claim that it killed her dog, Mac began to smile. "Some people will complain about the littlest things," Mac said. Martha protested that it was her job as a consumer affairs officer to address the serious concerns of this customer and follow company procedure to ensure the safety of future customers and their pets. Mac laughed and said, "You really believe that something is wrong with our product? We've been selling this fertilizer for 35 years. People love it! Now

and again someone whines about finding dead animals, but that's just their imagination. After all, we use all-natural ingredients!" Martha thanked Mac for his help and slowly headed back toward her cubicle. She felt extremely confused and torn about her role at this point. What should she tell the customer when she called her back? Was the fertilizer safe? Should she worry about working in a place with potentially dangerous products? What about quality issues for the company's products in general? Were Herb's other products unsafe or of poor quality? What might be the environmental impact of this product as it runs off into lakes and streams? As her head began to spin with the difficulty of the task ahead of her, the phone suddenly rang. It was Herb himself, the owner and founder of the company. "Martha," the voice on the other line whispered, "Herb's Special Fertilizer is our best seller! Don't let us down."
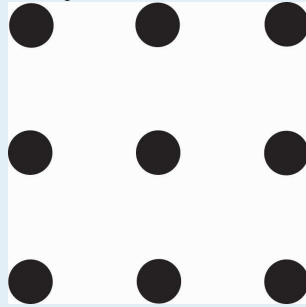
NOW It Is Your Turn

- What kind of decision does Martha face? What are some of her decision-making challenges?
- What recommendations do you have for a company facing this situation? What should they do to deal with this customer complaint? From the perspective of the management at Herb's Garden Products, what are some next steps that could be taken?

INDIVIDUAL EXERCISE

The Nine Dots Problem

Instructions: Using only four straight lines, intersect all the dots without ever lifting up your pen or pencil.

Figure 11.16

GROUP EXERCISE

Moon Walk and TalkNASA educational materials. Retrieved March 2, 2008, from http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Survival_Lesson.html.

Warning: *Do not discuss this exercise with other members of your class until instructed to do so.*

You are a member of the moon space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles (320 km) from the rendezvous point. During reentry and landing, much of the equipment aboard was damaged, and because survival depends on reaching the mother ship, the most critical items available must be chosen for the 200-mile (320 km) trip. Please see the list of the 15 items left intact and undamaged after landing. Your task is to rank the items in terms of their importance for your crew to reach the rendezvous point. Place the number 1 by the most important, 2 by the next most important, and so on, with 15 being the least important.

TABLE 11.1

Undamaged items	My ranking	Group ranking	NASA ranking	My difference	Group difference
Box of matches					
Food concentrates					
50 feet of nylon					
Parachute silk					
Portable heating unit					
Two 45-caliber pistols					
One case dehydrated milk					
Two 100 lb. tanks oxygen					
Stellar map (of moon's constellations)					
Life raft					

Undamaged items	My ranking	Group ranking	NASA ranking	My difference	Group difference
Magnetic compass					
5 gallons of water					
Signal flares					
First aid kit containing injection needles					
Solar powered FM receiver–transmitter					