

# Individual Decision Making and Creativity

## CHAPTER 5

### Chapter Outline

A Decision-Making Model  
Influences on Decision Making  
The Nature of Creativity  
Enhancing and Improving Creativity  
Implications for Managerial Practice

*Case Problem: Real Estate Agent Bree Wants to Become More Creative*



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### Learning Objectives

After reading and studying this chapter and doing the exercises, you should be able to:

1. Work through the decision-making model when faced with a major decision.
2. Identify and describe factors that influence the effectiveness of decision making.
3. Understand the nature of creative decision making in organizations.
4. Enhance your creative problem-solving ability.

Jo Ann Jenkins, CEO of AARP (American Association for Retired Persons) has been cited for her creative and innovative approach to adapting the organization to today's realities. "We have an opportunity to live longer than our parents or our grandparents," she says. "What worked in the past isn't good enough for us to meet our members' needs in the future."

To bring about this transformation, Jenkins has spurred on AARP to expand its reach by building a nationwide presence in all 50 states to deal with multiple aging-related problems. A notable initiative is the AARP Innovation Lab. The mission of the Innovation Lab is to bring together the best, most creative entrepreneurs to share ideas for thinking about people 50 and older as they design new products and services. The mission of the Innovation Lab has also been defined as building a culture of innovation.

The Lab team uses design challenges, pitch competitions, and AARP's relationships with universities and other startup accelerators to co-create products and services. One example is that AARP discovered VRHealth, which uses virtual reality to enable patients who have had strokes or other disabling problems to do physical therapy at home. Another example is Rendever, a company that entertains and engages residents of long-term-care facilities with virtual reality experiences. Residents are able to wear a headset, alone or alongside others, to experience adventures that go beyond their physical limitations, such as a journey back to childhood haunts, or to a new distant land. A third example is that AARP has collaborated with Orbita, a firm that uses artificial intelligence and voice technology to improve patient monitoring.

When Jenkins was appointed as CEO of AARP in 2014, she committed the organization to innovation. AARP taps the creativity of its staff members through internal innovation events, where employees submit ideas for novel products and services. Jenkins emphasizes that employees be everyday innovators. "This means that it's every employee's responsibility to constantly innovate and think about what our members and their families are going to need in the future." Jenkins's driving question is "How might we redesign our life course if in fact we have this opportunity to live to be 100?"

Jenkins joined AARP in 2010 as president of the AARP Foundation, the organization's affiliated charity. Previous to AARP, Jenkins served as the chief operating officer of the Library of Congress. Jenkins has led efforts to redefine AARP's vision, challenge outdated beliefs about seniors, and spark new insights that allow people to adapt to the new realities of aging. The insights include relevant solutions to everyday issues such as health, financial resilience, digital and social connectivity, work opportunities, and personal fulfillment.

Among the many accolades Jenkins has received in her career have been a designation by *Fortune* as "One of the World's 50 Greatest Leaders," and the recipient of the BlackDoctor.org award, "Top Blacks in Healthcare." Jenkins earned a BS from Spring Hill College in Mobile, Alabama, and is a graduate of the Stanford Graduate School of Business Executive Program.<sup>1</sup>

The story about the widely known nonprofit organization and its CEO dramatizes how the organization's purpose is driven by creativity and innovation. The story also illustrates that creativity is welcomed and needed at all organizational levels. In this chapter, we study creativity in the context of individual decision making in organizations. First, we describe a model of the decision-making process; then we examine key influences on decision making, followed by a careful look at the nature and development of creativity.

We return to the study of decision making in Chapter 9 with a description of group decision making. In Chapter 16 we include a discussion of innovation, which can be considered an extension or positive consequence of creativity. The creative aspects of decision making are emphasized in this chapter because employee creativity contributes enormously to organizational success. IBM conducted a survey of more than 1,500 CEOs across 33 industries and 60 countries about the number-one attribute they look for in hir-

ing. The attribute was creativity because every company wants to be at the forefront of its industry and also be an innovation leader. For those outcomes, you need highly creative employees.<sup>2</sup>

## A Decision-Making Model

A **decision** takes place when a person chooses among two or more alternatives in order to solve a problem. People attempt to solve problems because a **problem** is a discrepancy between the ideal and the real. The ability to make good decisions is enormously valuable for a person’s career and job performance. Choosing the right career will most likely mean more job satisfaction, less stress, and a longer life. (Stress-related disorders often shorten life.) Making good business decisions is more complex and difficult than most people recognize.

Managers and corporate professionals may make decisions in a generally rational framework. Nevertheless, at various points in the model (e.g., choosing creative alternatives), intuition and judgment come into play. A well-established fact is that individual decision making is not always rational.

The seven steps in the decision-making process are outlined in Figure 5-1 and described in the following paragraphs. The model is useful for making complex decisions of both a personal and an organizational nature. You might therefore want to use the model in purchasing a car, choosing a career, or deciding whether to drop a product line.

### Identify and Diagnose the Problem

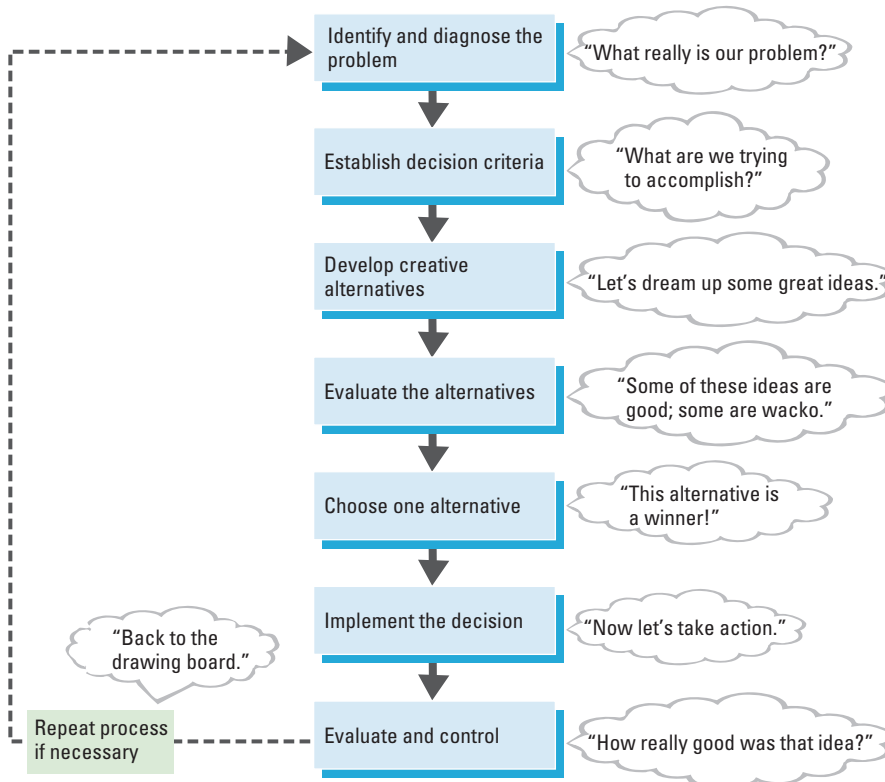
Problem solving and decision making begin with the awareness that a problem exists. In other words, the first step in problem solving and decision making is identifying a gap between desired and actual conditions. A problem occurs when something has gone wrong or has deviated from the norm. At times, a problem is imposed on a manager, such as a demand from upper management to increase online retailing sales by 20 percent. At

### LEARNING OBJECTIVE 1

Work through the decision-making model when faced with a major decision.

**decision** The act of choosing among two or more alternatives in order to solve a problem.

**problem** A discrepancy between the ideal and the real.



**FIGURE 5-1** The Decision-Making Process

other times, the manager has to search actively for a worthwhile problem or opportunity. For example, a human resources manager sought a unique way for her firm to celebrate cultural diversity.

Finding a problem lies at the heart of being a successful entrepreneur. A classic example is why Howard Schultz expanded Starbucks into a chain of cafés in the United States. (Starbucks already existed as a seller of coffee beans to stores.) According to legend, Schultz was traveling in Italy when he noticed that Italians were passionate about strong coffee and their local cafés. The insight hit him that “If it works in Italy, why not at home too?” He would offer Americans something they were not used to, thereby creating a new market.<sup>3</sup>

A thorough diagnosis of the problem is important because the real problem may be different from the one suggested at first look. To diagnose a problem properly, you must clarify its true nature. For example, a problem plaguing many organizations is high employee turnover. An executive might conclude that higher pay would reduce turnover. Yet the true problem might be not enough managers and supervisors in the organization who display care and concern for employees. The expensive solution to the problem of increasing pay then fails to reduce turnover.

### Establish Decision Criteria

**decision criteria** The standards of judgment used to evaluate alternatives.

When solving a problem, it pays to know what constitutes a good decision. **Decision criteria** are the standards of judgment used to evaluate alternatives. The more explicit the criteria, the better the decision will be. In seeking to reduce costs, several of the decision criteria might include the following:

1. Product (or service) quality should not suffer as a result of the cost cutting.
2. Profits should increase as a result of the cost cutting.
3. Employee turnover should not increase because of the cost cutting.
4. Employee morale should not decrease as a result of the cost cutting.

A good starting point in establishing decision criteria, according to the late management guru Peter Drucker, is to ask, “What needs to be done?” rather than “What do I want to do?”<sup>4</sup> In the present example, the manager would ponder whether cost cutting is even worthwhile. Perhaps increasing spending would lead to improvements that would more than pay for themselves, such as hiring a highly talented worker who would make money for the company.

### Develop Creative Alternatives

The third step in decision making is to generate alternative creative solutions. All kinds of possibilities are explored in this step even if they seem unrealistic. Often the difference between effective and mediocre decision makers is that the former do not accept the first alternative they think of. Instead, they keep digging until they find the best solution. For example, a corporate executive who was downsized out of a job wanted to purchase a business to operate. Impatient to renew his career, he purchased a well-known—but poorly performing—franchise. Trying to make the franchise operation profitable drained the rest of his cash reserve and he sold back the franchise at a big loss. Had he researched better alternatives, he might have succeeded. Creativity is such a key part of decision making that it receives separate treatment later in this chapter.

### Evaluate the Alternatives

The next step involves comparing the relative value of the alternatives. The problem solver examines the pros and cons of each alternative and considers its feasibility. Part of evaluating the pros and cons of alternative solutions is to compare each against the decision criteria established in the second step. Some alternatives appear attractive, but implementing them would be impossible or counterproductive. For example, one alternative solution a couple chose for increasing their income was to open an entirely new restaurant and bar in a new complex of office, residential, and retail spaces. When they



discovered that the start-up costs would be approximately \$600,000, they decided that the alternative was impossible for the time being.

### Choose One Alternative

After investing a reasonable amount of time in evaluating the alternative solutions, it is time to choose one of them—to actually make a decision. An important factor influencing this process is the degree of uncertainty associated with it. People who prefer not to take risks choose alternatives that have the most certain outcomes. In contrast, risk takers are willing to choose alternatives with uncertain outcomes if the potential gains appear to be substantial. Despite a careful evaluation of the alternatives, in most decisions ambiguity remains. The decisions faced by managers are often complex, and the factors involved in them are often unclear.



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There are varying degrees of uncertainty associated with business decisions.

### Implement the Decision

Converting the decision into action is the next major step. Until a decision is implemented, it is not really a decision. Many decisions represent wasted effort because nobody is held responsible for implementing them. Much of a manager's job involves helping group members implement decisions. A fruitful way of evaluating a decision is to observe its implementation. A decision is seldom a good one if workers resist its implementation or if it is too cumbersome to implement.

### Evaluate and Control

The final step in the decision-making framework is to evaluate how effectively the chosen alternative solved the problem and met the decision criteria. The results of the decision obtained are controlled when they are the ones set forth during the problem-identification stage. Getting back to the example in the section "Establish Decision Criteria," the decision to cut costs would be considered good if service did not suffer, profits were higher, turnover did not increase, and morale did not decrease.

## Influences on Decision Making

Decision making is usually not entirely rational because so many factors influence the decision maker. Research and opinion emphasize that humans use problem-solving strategies that are reasonably rapid, reasonably accurate, and that fit the quantity and type of information available.<sup>5</sup> In short, people do the best with what they have while making decisions.

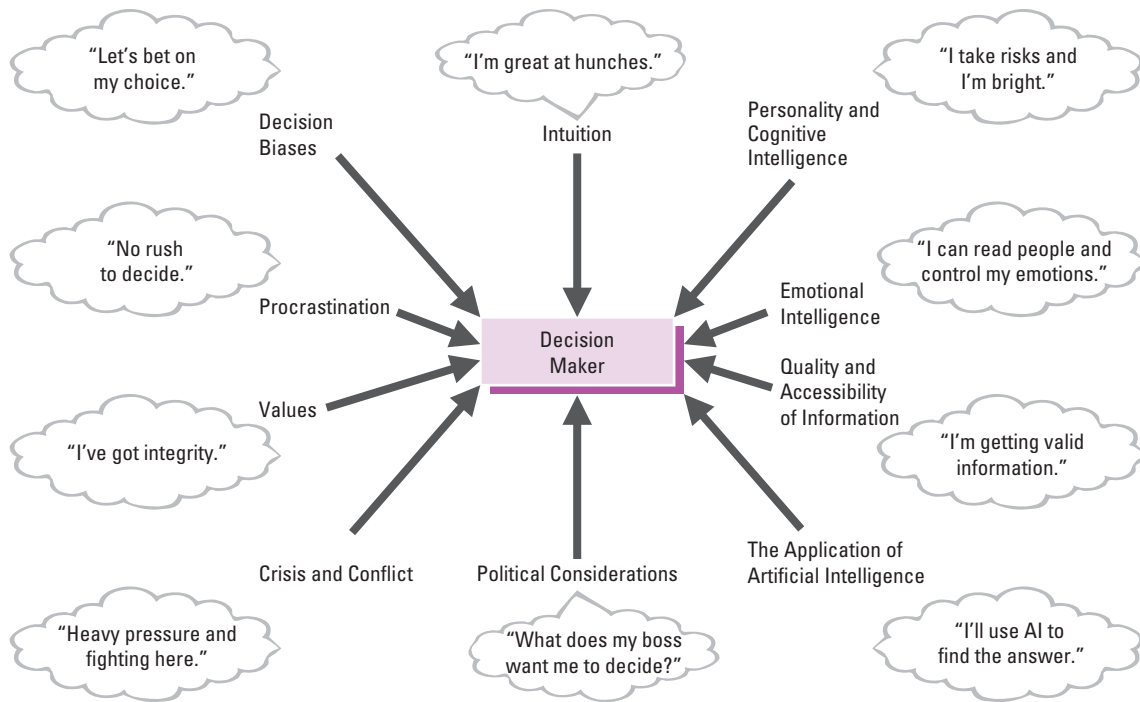
Most decision makers do not have the time or resources to wait for the best possible solution. Instead, they search for decisions, or those that suffice in providing a minimum standard of satisfaction. Such decisions are adequate, acceptable, or passable. Many decision makers stop their search for alternatives when they find a sufficient one.

Accepting the first reasonable alternative may only postpone the need to implement a decision that truly solves the problem and meets the decision criteria. For example, slashing the price of a pickup truck to match the competition's price can be regarded as the result of a sufficient decision. A superior decision might call for the firm to demonstrate to end users that the difference in quality is worth the higher price, which in the long term will increase sales.

According to decision theorist Julia Galef, the correct way of understanding rationality in decision making is that rationality depends on emotions. She explains that rationality is not about getting rid of emotions but analyzing them and taking them into account when

### LEARNING OBJECTIVE 2

Identify and describe factors that influence the effectiveness of decision making.



**FIGURE 5-2** Influences on Decision Making

making decisions.<sup>6</sup> Imagine that an entrepreneur wants to start a new business. At the same time, he recognizes that a major reason for starting the new business is to get revenge on the employer who recently fired him. The entrepreneur must keep in mind not to make foolish decisions about investing in a new enterprise just to satisfy his motive of revenge.

**heuristics** Simplified strategies that become rules of thumb in decision making.

Partly because of the need to make decisions quickly, decision makers often use simplified strategies, also known as **heuristics**. A heuristic becomes a rule of thumb in decision making, such as the policy to reject a job applicant who does not smile during the first three minutes of an in-person or video job interview. A widely used investing heuristic is as follows: The percent of equity in your portfolio should equal 100 minus your age, with the remainder being invested in fixed-income investments including cash. (Some financial advisors recommend 110 instead of 100.) A 25-year-old would therefore have a portfolio consisting of 25 percent fixed-income securities such as bonds, and 75 percent in stocks. Heuristics help the decision maker cope with masses of information, but their oversimplification can lead to inaccurate or irrational decision making.

A host of influences on the decision-making process contribute to decision effectiveness and quality. We describe nine such influences, as outlined in Figure 5-2.

### Intuition

**intuition** An experience-based way of knowing or reasoning in which weighing and balancing evidence are done automatically.

Intuition is a key personal characteristic that influences decision making. Effective decision makers do not rely on analytical and methodological techniques alone. Instead, they also use hunches and intuition. **Intuition** is an experience-based way of knowing or reasoning in which weighing and balancing evidence are done automatically. Intuition can be based mostly on experience, or mostly on feeling.<sup>7</sup>

When relying on intuition, the decision maker arrives at a conclusion without using a step-by-step logical process. The fact that experience contributes to intuition means that decision makers can become more intuitive by solving many difficult problems. Amazon executive chairman Jeff Bezos has shaped the company into relying heavily on analytics for a wide variety of decisions, including those involving merchandising and performance evaluation. At the same time, Bezos highly values the role of intuition in making major decisions: “All of my best decisions in business and in life have been made with heart and intuition—not analysis. When you can make a decision with analysis, you should do so,

but it turns out in life that your most important decisions are always made with instinct, intuition, taste, and heart.”<sup>8</sup>

An area of business in which intuition plays a major role is strategy, the setting of the overall direction of an enterprise. Adam Brandenburger, a professor at the New York University Stern School, explains that the field of strategy overfocuses on analytic rigor and underfocuses on creativity. And creativity requires heavy use of intuition. An example is the strategy for SpaceX developed by Elon Musk. The inventor overturned three major assumptions about space travel: that it must take place according to a fixed schedule, be paid for by taxpayers, and use one-time rockets.<sup>9</sup>

Although the use of intuition in organizational decision making is now widely recognized, researchers have also found limitations to intuition. When the stakes are high, such as a CEO contemplating acquiring a company in a different field, rational analysis is recommended. The analysis might include receiving input from many people and asking knowledgeable people loads of questions. A Nobel Prize-winning psychologist and two of his colleagues have developed a process for making big strategic decisions, including whether to go through with an acquisition. Their suggested approach, called the Mediating Assessment Protocol, has the goal of putting off intuition-based decision making until a choice can be informed by multiple factors. In short, intuition comes into play after extensive quantitative analysis.<sup>10</sup>

## Personality and Cognitive Intelligence

The personality and cognitive intelligence of the decision maker influence that person’s ability to find effective solutions. A starting point is that the personality trait of risk taking and thrill seeking strongly influences the propensity to take risks. A real estate developer with a strong risk-taking and thrill-seeking tendency might be willing to take a chance and erect a new apartment building in a distressed area of town. Part of her reasoning would be that the new building will start to improve the neighborhood, thereby attracting tenants and gradually improving property values.

Similar relevant personality dimensions are cautiousness and conservatism. Being cautious and conservative can lead to indecisiveness where the decision maker has a tendency to avoid or delay making a decision. Because a key part of a manager’s role is to make decisions, indecisiveness can be a major flaw and highly frustrating to subordinates who await a decision from the manager. At the other extreme from indecisiveness is impulsiveness, where the decision maker jumps quickly to a decision without much analysis.

Perfectionism is another personality factor that has a notable impact on decision making. People who seek the perfect solution to a problem are usually indecisive because they are hesitant to accept the fact that a particular alternative is good enough. **Self-efficacy**, the feeling of being an effective and competent person with respect to a task, also has an influence. Researchers note, for example, that having the right amount of “gall” contributes to innovative thinking.<sup>11</sup> If you have high self-efficacy for many tasks, your self-confidence will increase, leading to more innovative thinking and risk taking.

Optimism versus pessimism is another relevant personality dimension. Optimists are more likely to find solutions than pessimists are. Pessimists are also likely to give up searching because they perceive situations as being hopeless.

Cognitive intelligence has a profound influence on the effectiveness of decision making. In general, intelligent and well-educated people are more likely to identify and diagnose problems and make sound decisions than



Intuition facilitates decision making.

**self-efficacy** The feeling of being an effective and competent person with respect to a task.



Self-efficacy helps in making good decisions.



are those who have less intelligence and education. A notable exception applies. Some intelligent, well-educated people have such a fondness for collecting facts and analyzing them that they suffer from analysis paralysis.

## Emotional Intelligence

Emotional intelligence is important for decision making because how effectively you manage your feelings and read other people affects the quality of your decisions. For example, if you cannot control your anger, you are likely to make decisions that are motivated by retaliation, hostility, and revenge. You might shout and swear at your team leader because of a work assignment you received.

Emotional intelligence also contributes to the problem of making decisions impulsively. The emotionally intelligent individual is able to control impulses to avoid making a decision too quickly. Creating a space of even several seconds between an event and a reaction can prevent an impulsive decision, such as switching suppliers because of a minor problem.<sup>12</sup>

Your emotional intelligence could also influence career decision making. If you understand your own feelings, you are more likely to enter an occupation or accept a position that matches your true attitudes. A common problem is that many people pursue “hot” and/or well-paying fields even when they are not passionate about the field. As a result, they are likely to become discouraged and leave the field—even as early as switching majors. Admitting this lack of passion to oneself might prevent misdirected time and effort.

## Quality of Information and Big Data

Reaching an effective decision usually requires high-quality, valid information. One of the most important purposes of data analytics is to supply managers and professionals with high-quality information. A vice president of manufacturing might contemplate the establishment of a manufacturing plant in a distant city. The vice president would more likely make an effective decision if the data analytics group had accurate information about factors such as the caliber of the workforce and environmental regulations.

**Big Data** refers to enormous amounts of data that have the potential to be mined for information. The use of the term *Big Data* recognizes the importance of collecting vast amounts of data from many sources and then analyzing the data to squeeze out valuable information and insights about customers and employees. Big Data might also be used to predict events, such as future health insurance costs based on the lifestyle choices of current employees. A business example of Big Data is to predict which retail stores are likely to survive or close by analyzing mobile phone calls, demographic information, credit-card bills, and other unconventional data. Such information could be helpful to investors.<sup>13</sup>

The specialist who analyzes Big Data attempts to coax treasure out of messy, unstructured data.<sup>14</sup> Making sense out of data is a real contribution because decision makers typically have more information available than they can absorb and integrate. For example,

a company might use embedded employee badges that collect data on when employees enter the premises, how often they leave the building and return, and which employees enter and exit the building at the same time. But what useful insights might stem from all this information? One potential insight might be that some employees need help with overcoming tardiness.

A. Charles Thomas, the chief data and analytics officer at General Motors, provides an instructive example of the importance of analytics. He says that part of the reason analytics is so important to the auto industry stems from the long lead time needed to create a new vehicle. The process takes about five to seven years. “If you get it wrong, you’ve

**Big Data** Enormous amounts of data that have the potential to be mined for information.



Decision makers often have to sort through Big Data.



wasted five to seven years,” he said. “You have to figure out ways to get as much insight as early as possible about consumer preferences, pricing, features and what is likely to change the digital ecosystem.”<sup>15</sup>

A major purpose of analyzing masses of data is to help managers make decisions on the basis of evidence, rather than relying too heavily on intuition. A marketing example is that online booksellers have been able to track Big Data about which books customers bought, what else they looked at, and how much they were influenced by promotions, along with other information. Soon the booksellers developed algorithms to predict which books individuals might be interested in purchasing next.<sup>16</sup> (Defined simply, an algorithm is a step-by-step procedure for problem solving, particularly for a computer.) These algorithms may enhance sales somewhat, but they can also result in loads of useless emails sent to customers. For example, you might have purchased a book about cocker spaniels as a gift for a friend, but you are not interested in purchasing five other books about dogs. (More about algorithms as used in artificial intelligence is presented next.)

## The Application of Artificial Intelligence

Today’s managerial decision maker is often influenced by both Big Data and its use of artificial intelligence. **Artificial intelligence** (AI) is the ability of a computer program or machine to think and learn in a manner that emulates human intelligence. The machine-learning aspect of AI means that the program learns from the patterns and associations it detects. Predictions have been made that soon AI will be as important for companies as is the Internet.<sup>17</sup> Very few business enterprises could survive without the use of the Internet.

**artificial intelligence** The ability of a computer program or machine to think and learn in a manner that emulates human intelligence.

A variety of companies have reported that the algorithms produced by artificial intelligence make them more efficient and give employees increased opportunities to perform new types of work. Here are two specific applications of AI to improve operating efficiency:

- The national real estate firm Keller Williams enables individual Realtors to work more productively on their own by giving home buyers an opportunity to automatically search listing photos for specific features such as “granite countertops.”<sup>18</sup>
- Amazon.com Inc., Walmart Inc., and other retailers are using artificial intelligence to decide whether it is financially worthwhile to process a return of online purchases. For small items and for bulky items that are costly to ship, it is often cheaper to refund the purchase and let the customer keep the item.<sup>19</sup>

In almost all cases the artificial intelligence is produced by data scientists, software engineers, or statisticians, yet the manager or corporate professional uses the data and decides whether or not the data are useful. For example, an executive recruiting agency might use AI to identify the ideal candidate for a client’s chief financial officer opening. Yet the members of management team should decide for themselves on such vital factors as how well they would enjoy working with this candidate and whether the candidate would fit in with the company culture.

## Political Considerations

Under ideal circumstances, organizational decisions are made on the basis of the objective merits of competing alternatives. In reality, many decisions are based on political considerations, such as favoritism, alliances, or the desire of the decision maker to stay in favor with people who wield power. Political factors sometimes influence which data are given serious consideration in evaluating alternatives. The decision maker may select data that support the position of an influential person whom he or she is trying to please. For instance, a financial analyst was asked to investigate the cost-effectiveness of outsourcing the payroll department, so he gave considerable weight to the “facts” supplied by a provider of payroll services. This allowed him to justify having an outside firm

assume responsibility for the payroll function—a decision he knew that the influential person favored. Political factors in decision making, therefore, present an ethical challenge to the decision maker.

Pressure from top management has been cited as a political force that leads managers to make overly optimistic forecasts in analyzing proposals for substantial investments. By inflating the probable benefits of a project and minimizing the downside, these managers lead the organization into initiatives that are likely to fall short of expectations.<sup>20</sup> An example would be top management placing heavy pressure on an automotive marketing executive to come up with a dramatic new model that will enhance the company's prestige and profits. Facing this pressure, the marketing executive makes an optimistic proposal for a new vehicle that will compete against the Rolls Royce. The company proceeds to build a \$375,000 luxury sedan that becomes a complete flop, partially because the automobile company is perceived by the public as a producer of ordinary—not prestigious—vehicles.

## Crisis and Conflict

In a crisis, many decision makers panic. They become less rational and more emotional than they would be in a calm environment. Decision makers who are adversely affected



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by crisis perceive it to be a stressful event. As a consequence, they concentrate poorly, use poor judgment, and think impulsively. Under crisis, some managers do not bother dealing with differences of opinion because they are under so much pressure. A smaller number of managers perceive a crisis as an exciting challenge that energizes them toward their best level of problem solving and decision making. Conflict is related to crisis because both can be an emotional experience. For example, a CEO might be in conflict with a member of the executive team over whether retirement benefits should be frozen. The conflict upsets the CEO to the point that he makes the poor decision of firing the executive in question.

Facing a conflict can sometimes hamper decision making.

## Values of the Decision Maker

Values influence decision making at every step. Ultimately, all decisions are based on values. A manager who places a high value on the personal welfare of employees tries to avoid alternatives that create hardship for workers, and therefore implements decisions in ways that lessen turmoil. Another value that significantly influences decision making is the pursuit of excellence. A manager or professional who embraces the pursuit of excellence (and is therefore conscientious) will search for the high-quality alternative solution.

Attempting to preserve the status quo is a value held by many managers, as well as others. Clinging to the status quo is perceived as a hidden trap in decision making that can prevent people from making optimal decisions. People tend to cling to the status quo because they think they can prevent making a bad decision simply by not taking action at all.<sup>21</sup> If you value the status quo too highly, you may fail to make a decision that could bring about major improvements. For example, the sales manager might want to maintain a large outside sales force even though the vast majority of customers prefer to purchase online. Keeping more outside sales reps on the payroll than necessary prevents lowering the cost of selling company goods.

## Procrastination

**procrastinate** To delay taking action without a valid reason.

Many people are poor decision makers because they **procrastinate**, or delay taking action, without a valid reason. Procrastination results in indecisiveness and inaction and is

a major cause of self-defeating behavior. People can overcome procrastination by learning how to become more self-disciplined. Part of the process involves setting goals for overcoming procrastination and conquering the problem in small steps. For example, a person might first practice making a deadline for a decision for a minor activity, such as responding to a group of email inquiries.

## Biases that Influence Decision Making

The description of personality traits, values, and political factors as influences on decision making hints at the problem of biases when making decisions. These biases lead to predictable mistakes because the decision maker repeats the same error systematically. Among the many such biases investigated by decision theorists is overconfidence.<sup>22</sup> According to this bias, most of us are overconfident in our ability to estimate and we therefore do not acknowledge the true uncertainty. Overconfidence in our decisions can lead to ignoring some of the potential negatives in the situation. One of the managerial problems associated with overconfidence is that the person is likely to overlook the importance of contingency plans. For example, the executive cited above in relation to political pressures did not develop a plan to exit the super-luxury sedan business.

Another bias that affects decision makers after they have made a decision is confirmation bias, which refers to the idea that we pay the most attention to information that supports the decision we have made. At the same time, we dismiss or minimize information that does not support our decision. A problem with the confirmation bias is that it may interfere with profiting from decision mistakes. An example of confirmation bias in practice would be an executive who decides to outsource manufacturing to one supplier and stop outsourcing to another supplier. The executive now looks for examples of satisfactory products from the new supplier and ignores problems.

A decision-making bias that resembles narrow-minded thinking is the not-invented-here (NIH) syndrome. NIH is a negative attitude toward knowledge derived from an external source.<sup>23</sup> A marketing office experiencing the NIH syndrome might ignore useful new ideas from people in other departments, in disciplines outside of marketing, and from other companies. It takes a lot of deliberate effort to avoid rejecting ideas from external sources. A couple of the ideas about enhancing and improving creativity presented later in this chapter are helpful in overcoming the NIH syndrome.

## The Nature of Creativity

Creativity in organizations continues to be a vital topic, and the foundation of organizational success. By being creative, organizations can regularly produce innovative products and services, and keep them competitive in the market.<sup>24</sup> **Creativity** can be defined simply as the process of developing good ideas that can be put into action. The term **innovation** emphasizes the commercialization part of creativity, such as developing an innovative product, as will be discussed in Chapter 16 about organizational change and innovation. We approach the nature of creativity from three perspectives: steps in the creative process, characteristics of creative people, and conditions necessary for creativity.

### Steps in the Creative Process

Understanding the steps involved in creativity helps a person become more creative and better manage creativity among others. An old but well-accepted model of creativity can be applied to organizations. The model divides creative thinking into five steps, as shown in Figure 5-3. Not all creative thinking follows these steps exactly, but the model works much of the time.

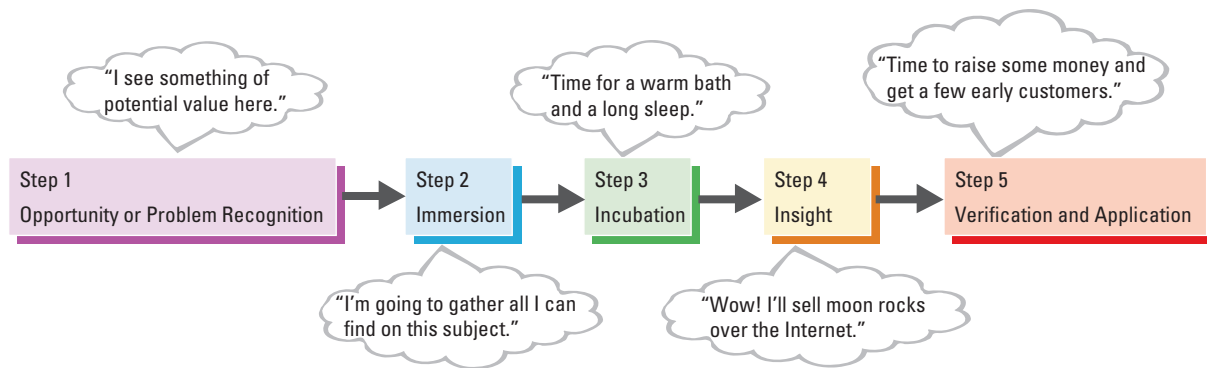
Step 1 is *opportunity or problem recognition*: A person discovers that a new opportunity exists or a problem needs resolution. Step 2 is *immersion*: The individual concentrates on the problem and becomes immersed in it. The person will recall and collect information that seems relevant, dreaming up alternatives without refining or evaluating

### LEARNING OBJECTIVE 3

Understand the nature of creative decision making in organizations.

**creativity** The process of developing good ideas that can be put into action.

**innovation** The process of creating new ideas and their implementation or commercialization.



**FIGURE 5-3** Steps in the Creative Process

them. Step 3 is *incubation*: The person keeps the assembled information in mind for a while. He or she does not appear to be working on the problem actively, yet the subconscious mind takes over. While the information simmers, it is arranged into meaningful patterns. One way to capitalize on the incubation phase of creativity is to deliberately take a break from creative thinking. Instead, engage in a routine activity such as updating your electronic address book or sorting through email. By immersing yourself in an entirely different and less taxing mental activity, a solution to the creative problem may emerge.

Step 4 is *insight*: The problem-conquering solution flashes into the person's mind at an unexpected time, such as on the verge of sleep, during a shower, or while running. Insight is also called the *aha! experience*; all of a sudden, something clicks. Step 5 is *verification and application*: The individual sets out to prove that the creative solution has merit. Verification procedures include gathering supporting evidence, logical persuasion, and experimenting with new ideas. Application requires tenacity because most novel ideas are at first rejected as being impractical.



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The insight step in the creative process is essential.

### Characteristics of Creative People

Creative workers are different in many ways from their less creative counterparts. The characteristics of creative people, including creative leaders, can be grouped into three key areas: knowledge, intellectual abilities, and personality. Yet, as explained by Robert J. Sternberg, so many things are true about some creative people, but there are exceptions. For example, most creative people are high in self-esteem, but not all. Yet one consistent attribute of creative people stands out—the decision to be creative. Creative people decide that they will forge their own path and follow it, for better or worse.<sup>25</sup>

A useful insight into understanding creativity and the characteristics of creative people is that creative ability is a continuum rather than a binary characteristic. People vary considerably with respect to creative-thinking ability, but most people can strengthen some of their personal characteristics that contribute to creativity. For example, curiosity enhances creativity, and most people can practice being more curious.

### Knowledge

Creative problem solving requires a broad background of information, including facts and observations. This is particularly true because creativity often takes the form of combining two or more existing things in a new and different way. Internet search engines become more profitable by combining the exquisite technology of the search engines with the concept behind the Yellow Pages. For example, if you search for a singer, you will receive pop-up ads selling the singer's music.



## Intellectual Abilities

Creative problem solvers tend to be bright rather than brilliant, even though some of the best-known creative people are brilliant. An example of a brilliant creative person is Elon Musk, the CEO of Tesla Motors. He is also one of the founders of the company that became PayPal, as well as the space exploration company, SpaceX (as mentioned above). He has spearheaded the construction of an underground Hyperloop between New York and Washington, a ride that will take 30 minutes. Musk holds undergraduate degrees in physics and business (reflecting more of his high intelligence!). A good sense of humor and intellectual playfulness are outstanding characteristics of a creative problem solver. Humor helps release creativity, and some creativity is required to be funny.

Creativity can stem from both *fluid intelligence* and *crystallized intelligence*. Fluid intelligence depends on raw processing ability, or how quickly and accurately we acquire information and solve problems. Like raw athletic ability, fluid intelligence begins to decline by age 30, partly because our nerve conduction slows. Crystallized intelligence is accumulated knowledge that increases with age and experience. The implication for a manager who wants to assemble a creative group is to staff it with workers of varying ages. Younger generation members of the group might have the wildest, most unique ideas. However, the older-generation members might have better intuition as to what will work.

Creative people maintain a youthful curiosity throughout their lives. The curiosity is not centered just on their field of expertise; they are enthusiastic about solving puzzling problems. Creativity consultant Juanita Weaver notes that when viewing the world with open and curious eyes, anything can trigger a new idea.<sup>26</sup> A person might be playing with a cat and observe how the cat's claws extend and contract based on the needs of the moment. Voila! The cat-watcher thinks of a new concept for a studded snow tire.

Creative people think divergently. They can expand the number of alternatives to a problem, thus moving away from a single solution. Yet the creative thinker also knows when it is time to think convergently, narrowing the number of useful solutions so innovation can occur.

## Personality

Creative people tend to have a special type of self-confidence labeled **creative self-efficacy**, the belief that one can be creative in a work role. The major contributors to creative self-efficacy are self-efficacy about the job in general, experience on the job, and a supervisor who serves as a good model and persuades the worker that he or she is capable of finding imaginative solutions.<sup>27</sup>

Creative people can tolerate the isolation necessary for developing ideas. Talking to others is a good source of ideas, yet at some point the creative problem solver has to work alone and concentrate. Creative people are frequently nonconformists and do not need strong approval from a group. Many creative problem solvers are risk takers and thrill seekers who find developing imaginative solutions to problems to be a source of excitement. As Todd Yellin, vice president of product at Netflix, explains it, "If you're not falling on your face, you're not leaning far enough forward to take risks."<sup>28</sup> (Netflix staffers are required to be creative.)

Creative people are also persistent, which is especially important because so many alternatives might have to be explored before finding a workable solution. Creative people enjoy dealing with ambiguity and chaos. Less creative people become quickly frustrated when task descriptions are unclear and disorder exists.

Ted Cannis, the CEO of Ford Pro, represents a robust example of business creativity. He oversaw the creation of the Mustang Mach-E, the first electric vehicle Ford Motor Company built from scratch. Cannis, who has an advertising and finance background, observed that the field was filled with affordable EVs with "eco" branding. Relying on market research, his team identified a new cohort of tech-savvy consumers who cared about design. The same group of people was also interested in value, space, and sustainability.



Kathy Hutchins/Shutterstock

An example of a brilliant creative person is Elon Musk, the CEO of Tesla Motors.

**creative self-efficacy** The belief that one can be creative in a work role.

Internal company data indicated that many of Ford's existing customers were also curious about EVs. "You had SUV people who want something sporty and fun, and performance people who wanted something fast and cool. That means Mustang," said Cannis. The electric Mustang Mach-E was launched in 2020, and has captured a large market share.<sup>29</sup> (The price of the 2022 model started at approximately \$44,000.)

## Conditions Necessary for Creativity

Certain individual and organizational conditions are necessary for—or at least enhance—the production of creative ideas. The most consistent of these conditions are described here.

### Expertise, Creative-Thinking Skills, and Internal Motivation

Teresa M. Amabile has summarized 22 years of research about the conditions necessary for creativity in organizations, and later on, other observers have reported similar findings. Creativity takes place when three components join together: expertise, creative-thinking skills, and the right type of motivation.<sup>30</sup>

*Expertise* refers to the knowledge necessary to put facts together. The more facts floating around in your head, the more likely you are to combine them in some useful way. *Creative thinking* refers to how flexibly and imaginatively individuals approach problems. If you know how to keep digging for alternatives and avoid getting stuck in the status quo, your chances of being creative multiply. Persevering, or sticking with a problem to a conclusion, is essential for finding creative solutions. A few rest breaks to gain a fresh perspective may be helpful, but the creative person keeps coming back until a solution emerges.

The right type of motivation is the third essential ingredient for creative thought. A fascination with or passion for a task is more important than searching for external rewards. People will be the most creative when they are motivated primarily by the satisfaction and challenge of the work itself. Although Jeff Bezos ultimately became extraordinarily wealthy from building Amazon.com, he was primarily motivated by the challenge of finding a way to capitalize on the potential of the Internet as a marketing vehicle.

Passion for the task and high intrinsic motivation contribute to a total absorption in the work and intense concentration, which is known as the **experience of flow**. When "an experience is engrossing and enjoyable, the task becomes worth doing for its own sake regardless of the external consequences."<sup>31</sup> Perhaps you have had this experience when completely absorbed in a hobby or being at your best in a sport or dance. (*Flow* also means being "in the zone.") A highly creative businessperson, such as an entrepreneur developing a plan for worldwide distribution of a product, will often achieve the experience of flow. Self-Assessment 5-1 gives you an opportunity to think about your powers of concentration.

**experience of flow** Being "in the zone"; total absorption in one's work.

### Environmental Need

Three factors outside the person play a key role in fostering creativity. An environmental need must stimulate the setting of a goal. This is another way of saying, "Necessity is the mother of invention." So often the light bulb is mentioned as an example of creativity, and there is a modern version to this tale. Light bulb manufacturers have observed that many aging people want to appear younger. In response to this need, the manufacturers have introduced dozens of new bulbs, including a flattering array of fluorescent, halogen, and new incandescent bulbs that are an improvement over soft light. These "natural light" bulbs make wrinkles and blemishes appear less evident. By responding to this new environmental need, light bulb sales increased about 6 percent during the period measured.<sup>32</sup> Facing a conflict or struggle can also present an environmental need, such as a company needing a way of getting a new product to market fast in order to survive.

### Encouragement from Others and Having Creative Coworkers

Another external factor in creativity is encouragement, including a permissive atmosphere that welcomes new ideas. A manager who encourages imaginative and original thinking, and does not punish people for making honest mistakes, is likely to receive creative ideas from employees. A study suggests that encouragement from family and friends, as well as

## SELF-ASSESSMENT 5-1

### A Checklist of Behaviors and Attitudes Reflecting Good Concentration and Focus

Attitude or Behavior	Yes	No
1. I rarely miss a deadline on a work project.		
2. When I begin a work activity, I am able to get started almost immediately.		
3. When I am introduced to a person for the first time, I usually catch the person's name clearly.		
4. I rarely read an entire news article online or in print.		
5. I find messages longer than a tweet difficult to follow.		
6. I haven't read an entire book, except when reading a book was required for a course.		
7. I have been able to perform well in a mental activity such as playing poker, chess, checkers, or doing a crossword puzzle.		
8. I am good at spotting typographical and spelling errors while I am reading.		
9. It is difficult for me to watch a movie, television program, or sporting event without sending a tweet or a social media post about every 5 minutes.		
10. I enjoy activities that force me to concentrate, such as meditation or yoga.		
11. A few minutes after meeting a person for the first time, I can recall the color of his or her eyes.		
12. I rarely ever lose or misplace items such as keys, handbag or wallet, gloves, or smartphone.		
13. I have considerable difficulty in sticking with one activity for more than 10 minutes.		
14. While at the grocery store or supermarket, I usually neglect to purchase one or two items, even if they are on my shopping list.		
15. It is easy for me to listen carefully to the words when my national anthem is being played, such as at a sporting event.		
16. I can fall asleep readily by thinking intently about something.		
17. It is uncomfortable for me to have a meal without background noise such as a television show, the radio, or other people talking around me.		
18. At work or at play, I am so focused on what I am doing it seems that I am wearing blinders as do horses.		
19. I enjoy studying the details of whatever I am doing.		
20. I spend far too much time trying to find electronic or paper documents.		

**Scoring and Interpretation:** The answers suggesting good concentration and focus are as follows:

1. Yes	5. No	9. No	13. No	17. No
2. Yes	6. No	10. Yes	14. No	18. Yes
3. Yes	7. Yes	11. Yes	15. Yes	19. Yes
4. No	8. Yes	12. Yes	16. Yes	20. No

The higher you scored out of the 20 questions, the more likely it is that you have good concentration and focus. Also, if it was a struggle for you to complete the checklist, you may have a problem with concentration and focus.

from a supervisor, enhances creative thinking on the job. The participants in the study were both administrative and production employees in the Bulgarian knitwear industry. Support for creativity was measured by questions such as, “My family and friends outside this organization give me useful feedback about my ideas concerning the workplace.” Supervisors rated employee creativity. The researchers concluded that (a) supervisors and coworkers and (b) family and friends each made their own contribution to worker creativity.<sup>33</sup>

### **Mood**

You may have noticed that you think more creatively when you are in a good mood. A positive mood apparently also contributes to creative job performance, even if mood might not be truly classified as a condition necessary for creativity. One finding from a larger study suggests that managers with high emotional intelligence can sometimes trigger enough positive affect in their subordinates to enhance their creativity.<sup>34</sup> In other words, if the manager can help workers feel good, those workers might be better creative problem solvers.

Conclusions from about 100 studies on mood conducted by Australian psychologist Joseph Forgas provide indirect evidence that a positive mood can enhance creativity. People who are in a good mood tend to have upbeat judgment.<sup>35</sup> As a result, they are more likely to recognize the possibilities of a creative alternative to a problem—such as an EV Mustang!

### **Moderate Time Pressures**

Some people are at their creative best when facing heavy time pressures. Several studies, however, suggest that feeling crunched leads to a creativity drop for most people. The greater the time pressure, the less likely workers are to solve a tricky problem, envision a new product, or have the type of “aha!” experiences that lead to innovation. Time pressure is a creativity dampener because it limits people’s freedom to reflect on different options and directions. When workers believe they are faced with an urgent mission, the negative effects of time pressures are reduced.<sup>36</sup>

## **Enhancing and Improving Creativity**

### **LEARNING OBJECTIVE 4**

Enhance your creative problem-solving ability.

A unifying theme runs through all forms of creativity training and suggestions for creativity improvement. Creative problem solving requires an ability to overcome traditional thinking. The concept of traditional thinking is relative and difficult to pin down but generally refers to a standard and frequent way of finding a solution to a problem. A traditional solution to a problem is thus a model or recurring solution. For example, traditional thinking suggests that to increase revenue, a retail store should conduct a sale. Creative thinking would point toward other solutions, such as increasing revenue by holding dramatic in-store demonstrations of a few products.

The central task in becoming creative is to break down rigid thinking that blocks new ideas. A conventional-thinking manager might accept the long-standing policy that spending more than \$8,000 requires three levels of approval. A creative leader might ask, “Why do we need three levels of approval for spending \$8,000? If we trust people enough to make them managers, why can’t they have budget authorization to spend up to \$15,000?”

Overcoming traditional thinking is often characterized as *thinking outside the box*, an expression that has become a cliché to the point that many people find it annoying. A “box” in this sense is a category that confines and restricts thinking. During the aftermath of Hurricane Katrina that hit the Gulf Coast in 2005, rescue specialists thought outside the box regarding where to lodge rescue workers and construction workers. Cruise ships were hired, giving the workers temporary living quarters offshore. Here we describe several illustrative approaches and techniques for enhancing employee creativity. Recognize also that the conditions for creativity just described can be converted into techniques for creativity enhancement. For example, a manager might be able to enhance creativity by encouraging imaginative thinking.



1. *Managerial support and encouragement.* The most influential step a manager or leader can take to bring about creative problem solving is to develop a permissive atmosphere that encourages people to think freely. Praising creative work is important because, for most people to sustain their passion, they must feel that their work matters to the organization. Creative ideas should be evaluated quickly rather than put through a painfully slow review process. Encouragement fosters creativity, and the opposite is also true: discouragement inhibits creativity. Advertising executive Charlie Brower says a new idea “can be killed by a sneer or a yawn . . . stabbed to death by a quip and worried to death by a frown.”<sup>37</sup>



Chaay\_Tee/Shutterstock

Brainstorming can be done in small groups

2. *Brainstorming.* Brainstorming, which most of us have already done, is the best-known technique for developing mental flexibility. The technique is also widely used to find solutions for real problems. Brainstorming is also accomplished online—participants from different locations enter their suggestions into software. Each participant’s input appears simultaneously on the screens of the other participants. In this way, nobody feels intimidated by a dominant member, and participants think more independently. To increase the efficiency of brainstorming, participants are sometimes told in advance of the problem or problems to be solved. Prethinking can result in some more refined ideas being brought to the brainstorming session.

Prethinking has also been framed as *nominal brainstorming* in which team members think independently before sharing their ideas. In this way, more carefully reasoned ideas are brought into the brainstorming session. Another refinement of brainstorming is to have group members draw their solutions the best they can if they are not skilled at drawing. One reason drawing as a brainstorming technique can be effective is that some people have difficulty describing a process or thing strictly in words, making diagrams helpful.<sup>38</sup> Clyde, a member of a brainstorming team at a brewery, might say, “I’ve got an idea that will make our beer bottles stand out from the competition. Let me sketch it for you on the whiteboard.”

The Skill-Development Exercise gives you a chance to apply brainstorming to a practical business problem.

3. *Idea quotas.* A straightforward and effective technique for enhancing worker creativity is to simply demand that workers come up with good ideas. Being creative therefore becomes a concrete work goal. Thomas Edison used idea quotas, with his personal quota being one minor invention every 10 days and a major invention every 6 months. Google company practice (not quite a formal policy) permits some

## SKILL-DEVELOPMENT EXERCISE

### Brainstorming about Empty Mall Retail Space

Your group assumes the role of a team of professionals for a developer and operator of shopping malls. In recent years shopping malls have lost considerable value. Online shopping has been one force reducing the number of tenants and shoppers found in malls. Vacant retail store space is found in many malls. Your brainstorming task is to identify a list of about six possible types of tenants for empty mall space. The tasks

could be framed as identifying new uses for empty mall space that would result in profitable rents.

Present your findings in a bulleted list to the rest of the class. Also make note of how your suggestions for attracting new tenants compare to the suggestions of the other class groups. The class as a whole might voice an opinion on which suggestion is the most likely to expand the market for rented mall space.

technical employees to devote 20 percent of their time to thinking up great new ideas, even with an uncertain financial payoff. Note that this Google practice refers to a *time* quota for ideas, yet the time allotted to ideas is likely to result in generating ideas. Another aspect of forcing the generation of ideas at Google is an intranet that regularly collects fresh ideas from employees. Every employee spends a fraction of the workday on research and development. Two of the tangible outcomes of the intranet technique and the thinking time allotment are Gmail and AdSense.<sup>39</sup>

4. *Heterogeneous groups.* Forming heterogeneous groups can enhance creativity because a diverse group brings various viewpoints to the problem at hand. Key diversity factors include professional discipline, job experiences, and a variety of demographic factors. Diverse groups encourage diverse thinking, which is the essence of creativity.<sup>40</sup> The most influential aspects of diversity are inner qualities such as personality, values, and abilities, also known as deep-level diversity.<sup>41</sup> In building a diverse group for creativity, it would be helpful to choose people from different demographic and cultural groups who have a variety of personalities, values, and abilities.
5. *Financial incentives.* A variety of laboratory studies have concluded that working for external rewards, particularly financial rewards, dampens creativity.<sup>42</sup> If you focus on the reward, you may lose out on the joy (internal reward) of being creative. In work settings, however, financial incentives are likely to spur imaginative thinking. Such incentives might include paying employees for useful suggestions and paying scientists royalties for patents that become commercially useful. For example, IBM is consistently one of the leading companies with respect to being awarded patents. IBM employees who are awarded patents are paid cash bonuses.
6. *Architecture and physical layout.* Many companies restructure space to fire up creativity, harness energy, and enhance the flow of knowledge and ideas. Any configuration of the physical environment that decreases barriers to divergence, incubation, and convergence is likely to stimulate the flow of creative thinking.<sup>43</sup> The reasoning is that creative thinking is more likely to be enhanced by cubicles rather than corner offices, by elevators rather than escalators, and by atriums rather than hallways. In short, creating the opportunity for physical interaction facilitates the flow of ideas, which in turn facilitates creative thinking. However, as described in Chapter 2, some workers dislike open work areas because it interferes with their concentration and creative thinking.

The accompanying Organizational Behavior in Action feature illustrates the importance two key financial executives place on in-person interaction for enhancing creativity.

7. *Inspiration.* A leadership strategy for enhancing creativity and innovation is to inspire workers to think creatively. Inspiring creativity encompasses a wide range of behaviors, including establishing a permissive atmosphere. Similarly, when workers believe they are working for a cause, such as helping people plan their financial futures, or curing a disease, they are more likely to be creative. The unusual creativity of Elon Musk has inspired workers throughout the companies he heads, and those he has headed the past, to think creatively.
8. *Feedback seeking.* An effective way for managers to facilitate creativity is to encourage workers to seek feedback on their own creative performance. A conclusion derived from a multitude of analyses is that individuals can enhance their creative problem solving by actively seeking feedback on their work from various sources. The proactive behavior of actively seeking feedback is important because external sources may not always provide their feedback spontaneously or at the right time. It is also likely that the external sources, such as supervisors and coworkers, may not be aware of the employee's need for support.<sup>44</sup> An example of asking for feedback from an external source would be to present an idea to a coworker and ask, "Have you ever seen anything like this before?"

**Two Top-Level Banking Executives Believe That Human Connections Enhance the Creative Spark**

Goldman Sachs is a high-end investment bank with headquarters in New York City. In 2021, during the work-from-home movement spurred on by the COVID-19 pandemic, Goldman CEO David Solomon called remote work an “aberration” that is not conducive to productivity. Solomon said, “I do think for a business like ours, which is an innovative, collaborative culture, this is not ideal for us. And it’s not a new normal.”

In a memo sent to employees, Goldman executives requested that employees make plans to be ready to return to the office by June 14 in the United States and June 21 in Britain (the United Kingdom). The memo also explained, “We know from experience that our culture of collaboration, innovation, and apprenticeship thrives when our people come together, and we look forward to having more of our colleagues back in the office so they can experience that once again on a regular basis.” Solomon had never taken a pause from going to the office through the pandemic. When the Omicron COVID-19 variant became widespread in later 2021, Goldman extended the date of the return to the office until February 2022.

Despite the push for returning workers back to company offices, Goldman Sachs said it is committed to giving staff enough flexibility to manage both their professional and personal lives. Employees who were unable to comply with their division’s return-to-work plan were asked to discuss the situation with their manager.

The thinking of David Solomon was reinforced by another executive at a top-tier bank. JPMorgan CEO Jamie Dimon said that relying too much upon Zoom meetings slows down decision making because there is no immediate follow-up. He added that with remote

work there is an absence of spontaneous idea generation and creativity because you don’t interact with people at the office coffee machine or talk with clients in unplanned scenarios. Neither do you travel to meet with customers and employees for feedback on your products and services. Dimon was upset when he learned that JPMorgan lost business when bankers from competitors visited potential clients in person and his bank did not.

Dimon recognized that some workers would dislike a return to commuting, “but so what.” He added, “I’m about to cancel all my Zoom meetings. I’m done with it.”

**QUESTIONS**

1. What experience have you had personally that “batting around ideas” with someone else in person enhanced your creativity or productivity?
2. Considering that commuting back and forth to work in the New York metropolitan area is very expensive and time consuming, do you think that Dimon is inconsiderate of the welfare and feelings of JPMorgan staff members?

*Source:* Original story based on facts and observations in the following sources: Geoff Colvin, “Losing Connection,” *Fortune*, August/September 2020, pp. 19–21; Andrew Ross Sorkin et al., “Bankers, Please Return to Your Desks,” *The New York Times* (www.nytimes.com), May 5, 2021, pp. 1–3; Jack Kelly, “Goldman Sachs Tells Employees to Return to the Office by July 14, As Wall Street Pushes Back on the Work-From-Home Trend,” *Forbes* (www.forbes.com), May 5, 2021, pp. 1–3; Thomas Franck and Hugh Son, “Goldman Sachs CEO Is Summoning Workers Back to the Office by June 14,” *CNBC* (www.cnbc.com), May 4, 2021, pp. 1–4; Charley Grant, “Goldman Extends Delay in Return to Office until Feb. 1,” *The Wall Street Journal*, January 14, 2022, p. B9.

A caution about the role of feedback in creativity is that if the feedback is perceived to be threatening, creativity may decrease rather than increase. The problem is intensified when the feedback is unsought.<sup>45</sup> An example of feedback likely to be perceived as threatening would be, “That’s a really stupid idea.”

9. *Creativity training.* A standard approach to enhancing individual and organizational creativity is to offer creativity training to many workers throughout the organization. Much of creativity training encompasses the ideas already covered in this chapter, such as learning to overcome traditional thinking and engaging in some type of brainstorming. Various techniques are used to encourage more flexible thinking, such as engaging in child’s play, squirting each other with water guns, and scavenger hunts. An extreme technique is to deprive participants of food and rest for 24 hours so their defenses are weakened, and they are then mentally equipped to “think differently.” Other creativity training techniques are more cerebral, such as having participants solve puzzles and ask “what if” questions.

Creativity training would be of little value if creativity could not be taught. The comments of Wharton School professor Ron Schrifft are representative about the teaching of creativity. He notes first that there are individual differences in creativity, with this ability following a normal distribution. Within these limits, he adds that, if you train yourself, you can become more creative. “Because creativity can be developed; it can be taught.”<sup>46</sup>

## Implications for Managerial Practice

1. A widely recommended decision tool for finding the root cause of a problem is to ask a series of questions, called the *Seven Whys* (or sometimes *Five Whys*). By asking “why” seven times, you are likely to get to the core issue of a problem. For example, as a CEO you observe that turnover is way above average in one division. The questioning might proceed in this manner:

*Question 1:* “Why is turnover high?”

*Answer 1:* “Because we have loads of people who decide to leave the firm.”

*Question 2:* “Why are they leaving?”

*Answer 2:* “I guess they are not too happy.”

*Question 3:* “Why aren’t they happy?”

*Answer 3:* “They may not like the working conditions here too much.”

*Question 4:* “Why don’t they like the working conditions?”

*Answer 4:* “It’s kind of a high-pressure atmosphere.”

*Question 5:* “Why is it a high-pressure atmosphere?”

*Answer 5:* “The supervisors stay on people’s backs.”

*Question 6:* “Why do the supervisors stay on people’s backs?”

*Answer 6:* “Most of them think that the best way to get results is to keep the pressure on employees.”

*Question 7:* “Why don’t supervisors know more about supervising workers?”

*Answer 7:* “A lot of them need more training in managing people, or they shouldn’t have been chosen for supervisory positions in the first place.”

2. Learning to be more creative is like learning other skills: Patience and time are required. As a manager, by practicing techniques and attitudes, you will gain the confidence and skill to build a group (or company) where creative thinking is widespread. A desirable goal is to find a way to tap the creativity of everyone for whom you are responsible.<sup>47</sup>
3. A basic approach to enhancing your own creativity is to give yourself some quiet time to think, and free up space in your brain to allow new ideas to emerge. Taking walks and meditating often enhance creativity because you have the opportunity to relax your brain.

## Summary of Key Points

1. *Work through the decision-making model when faced with a major decision.* A decision takes place when a person chooses from among two or more alternatives in order to solve a problem. The decision-making model presented here incorporates the ideas that managers make decisions in a generally rational framework, yet intuition and judgment also enter into the model. The seven steps in the model are as follows: (1) identify and diagnose the problem, (2) establish decision criteria, (3) develop creative alternatives, (4) evaluate the alternatives, (5) choose one alternative, (6) implement the decision, and (7) evaluate and control.
2. *Identify and describe factors that influence the effectiveness of decision making.* Heuristics are often used to simplify decision making. A host of influences contribute to decision-making quality, including intuition, personality and cognitive intelligence, emotional in-



telligence, quality of information and Big Data, the application of artificial intelligence (AI), political considerations, crisis and conflict, the values of the decision maker, procrastination, and decision-making biases.

3. *Understand the nature of creative decision making in organizations.* Understanding the steps involved in creativity can help a person become more creative and better manage creativity among others. The steps are as follows: (1) opportunity or problem recognition, (2) immersion, (3) incubation, (4) insight, and (5) verification and application.

Creative workers are different from others in several key areas. They typically have a broad background of knowledge and tend to be bright rather than brilliant. Both fluid intelligence and crystallized intelligence contribute to creativity. Creative people have a youthful curiosity and think divergently. Creative workers tend to have a positive self-image, including creative self-efficacy, and are often nonconformists who enjoy intellectual thrills, along with ambiguity and chaos.

For creativity to occur, three components must join together: expertise, creative-thinking skills, and internal motivation characterized by a passion for the task. Total absorption in the work, also known as the *experience of flow*, is also important. An environmental need should be present, including facing a conflict, as well as encouragement from others and having creative coworkers. A positive mood also contributes to creativity, as do moderate time pressures.

4. *Enhance your creative problem-solving ability.* A unifying theme runs through all forms of creativity training and suggestions for creativity improvement: Creative problem solving requires an ability to overcome traditional thinking. Techniques for enhancing creativity include managerial support and encouragement, brainstorming, imposing idea quotas, forming heterogeneous groups, offering financial incentives for creative problem solving in work settings, and using a physical layout conducive to creative thinking. Also helpful are inspiration for creative thinking, seeking feedback on creativity, and creativity training.

## Key Terms and Phrases

decision, p. 103

problem, p. 103

decision criteria, p. 104

heuristics, p. 106

intuition, p. 106

self-efficacy, p. 107

Big Data, p. 108

artificial intelligence, p. 109

procrastinate, p. 110

creativity, p. 111

innovation, p. 111

creative self-efficacy, p. 113

experience of flow, p. 114

## Discussion Questions and Activities

1. Can you give an example of an outstandingly successful decision in business? Explain why you consider the decision to be an outstanding success.
2. A handful of businesspersons who have earned billions of dollars stand ready to, or already have, purchased a professional sports team. To what extent do you think emotions influenced their decision to purchase the team?
3. Which decision criteria are relevant for you in choosing a career?
4. Provide an example from your own Internet use that you think illustrates the use of Big Data to influence you to make a purchase. To what extent did you feel manipulated or exploited?
5. A technique for creative problem solving is to remind oneself of a problem just before going to sleep. Upon waking up, a good solution often presents itself. How does this technique relate to the steps in the creative process?
6. Plastic bags are under constant attack from environmentalists. Although these bags have not been eliminated, their use is restricted. How can manufacturers of plastic bags go about finding a creative solution to the threats to their industry?
7. Work together in a small group to reach a conclusion about several new products or services the world really needs. Explain why you need creative thinking to answer this question.
8. Recent experiments suggest that walking improves the free flow of ideas and creativity. If you can squeeze in the time, take a 30-minute walk sometime during the next week and observe if you can then think more creatively about any problem you are facing.
9. Many people contend that because an enormous amount of information is available on the Internet to solve most problems, the need for creative thinking has diminished. What is your opinion on this issue?
10. Ask an experienced worker what he or she believes is the most important action a manager can take to enhance creative thinking among group members. Compare the response you get with the information in this chapter.

## CASE PROBLEM: Real Estate Agent Bree Wants to Become More Creative

Thirty-year-old Bree is a commercial real estate agent, working for Coalition Properties in Vermont. Although she works for Coalition, the only money she earns is from sales commissions, usually about 6 percent of the sale price of a property. Bree also pays part of the advertising expenses for properties for which she is the listing agent.

Bree is earning enough money to keep her satisfied, but the owner of the agency, Courtney, is not totally satisfied with her performance. Courtney recently said to Bree during a review of monthly sales, “Bree, I want to you to break through with some bigger sales. You are closing sales here and there, but Coalition needs some bigger sales to make a respectable profit.”

Bree responded, “I am not disputing what you say, but could you give me an example of the type of bigger sale you are referring to?”

“I’ve got a good example for you,” said Courtney. “We are the listing agent for a 35-acre plot on Castle Road that sits across from private homes and a senior residence. The property has been for sale for 20 years with no buyer yet. You haven’t even generated one lead for the property.”

Bree responded, “True enough, but that great big property had been sitting there for many years before I joined Coalition. The problem seems to be that the

property is zoned for residential, and there are already enough housing developments close by. No developer wants to risk such a big development.”

“I think I see the problem,” said Courtney. “You would be earning more income for yourself and the Coalition if you were less conventional in your thinking. You are a valuable member of our team, but you would be even more valuable if you were a more creative real estate agent.”

With a quizzical expression, Bree said, “I am creative with respect to decorating my house, cooking, and choosing gifts for friends and family members. But being creative in commercial real estate sales is pretty tough. Either someone wants to buy a property or not. Let me think about how I can become more creative, and I’ll get back to you with my plan.”

### Case Questions

1. What is your opinion of Bree’s belief that it is difficult to be creative in a field such as commercial real estate selling?
2. What practical steps might Bree take to become more creative in her selling?
3. What role should Courtney play in helping Bree become more creative as a real estate agent?

## Endnotes

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