PART I

Foundational Principals for Leaders

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The Powerful Connection

Chapter at a Glance

What is the relationship between change, leadership, and creativity? How do these three concepts mutually support one another? Can you imagine a leader who is effective at introducing change but who is not creative? The purpose of this chapter is to examine more closely the three basic pillars of this book—change, leadership, and creativity. To that end, we provide some basic descriptions of these concepts and highlight the degree to which change, leadership, and creativity intertwine like the strands of a rope.

The chapter begins with a description of change, a concept we believe forms a bond between creativity and leadership. We then examine some contemporary descriptions of leadership that highlight a connection to creativity. This chapter concludes with a review of some definitions, views, and characteristics of creativity.

CREATIVE CHANGE: IT'S NOT CHANGING THE BABY

Quoting from Heraclitus again, "You can never step in the same river twice." In that respect, whether you are making something that wasn't there before or responding to what is already new or different, "change" is a constant process. The water looks the same, but it is different. In actuality, life and the conditions that surround it are always in motion. For example, as a natural phenomenon, your body is always changing, and this change will occur whether you want it to or not. Did you know that because the replacement of cells in your body is an ongoing process, you actually have a new liver every six weeks and a new skeleton every three months?

In its broadest sweep there are two kinds of change. First, there is change that exists naturally and is ongoing or cyclic. For example, the sun rises and sets, seasons come and go, and your body changes and grows. Second, there is change that people make either on purpose or in response to what is happening around them. Some examples of this kind of change are changing jobs, changing your mind, changing the way you do things—the order, the purpose, the method.

In the case of the former, change is a natural phenomenon. In the case of the latter, change may be equally "natural," but it has an additional human element. The kind of change that is made on purpose engages your thinking process and thus requires your thinking skills. The main difference is that you apply one more deliberately than the other. In this book, we focus on the kind of change that is introduced more deliberately—that is, intentionally engaging in creative thought to develop yourself and positively influence others.

In the Introduction we shared a definition of creativity developed by organizational psychologist Reginald Talbot (1997). He defined creativity as "making a change that sticks (for a while)" (p. 181). The words in this definition were selected with specific intent. "Making" refers to the fact that creativity is about bringing something into being. It is not enough for people to simply think that they are creative or merely to imagine new possibilities; instead, they must be able to produce both tangible and intangible products.

"Change" refers to the introduction of something new, which can fall anywhere along the continuum from continuous (i.e., incremental improvement) to discontinuous change (e.g., paradigm breaking). Not all change is creative. It is critical to note that when we refer to change within this definition of creativity, we are not simply talking about an exchange. A change can take place when an existing item is replaced by another already established and known item, such as exchanging a broken part in your car with a functioning part. You can change a flat tire, change your mind, change your clothes, and change the baby, but these are not creative acts. When we refer to change within our definition of creativity, we refer to situations in which an explicit attempt is being made to bring an idea into being that has some degree of novelty.

Finally, the phrase "that sticks" means the creative product or idea has some staying power, which occurs as a result of its serving some need or purpose. However, the "stickiness" or value of the creative product or idea may be temporary, thus the final phrase "for a while." Creative thinking is ongoing, and at some point someone usually comes up with a better or a less expensive way of doing things—thus change is ever-present.

THE LEADERSHIP-CREATIVITY LINK

Our discussion of leadership theories, models, and concepts is organized into three sections. The first section examines views that some writers have put forward to differentiate the concept of leadership from that of management. The second section focuses on conceptions of leadership that have implicit connections with creativity. The third section contains a discussion of contemporary theories of leadership that make direct and explicit statements about the centrality of creativity to leadership.

Using Creativity to Draw Apart Leadership and Management

One popular method for developing an understanding of leadership is to contrast it with the term management. Are managers and leaders synonymous in your mind? If not, what differentiates managers from leaders? This comparison has led a number of authors to identify the specific qualities that distinguish leadership from management (e.g., Bennis & Nanus, 1985; Gardner, 1990; Kotter, 1990; Munitz, 1988; Palus & Horth, 2002; Zaleznik, 1977, 1998). In our opinion, it is clear that one construct that distinguishes the concept of leadership from that of management is creativity. Let's take a closer look.

Bennis and Nanus (1985) interviewed 60 successful CEOs and 30 outstanding public sector leaders and found a clear contrast between management and leadership. They reported:

There is a profound difference between management and leadership, and both are important. "To manage" means "to bring about, to accomplish, to have charge of or responsibility to conduct." "Leading" is "influencing, guiding in direction, course, action, opinion." The distinction is crucial. Managers are people who do things right and leaders are people who do the right things. (p. 21)

Bennis and Nanus summarized their findings by saying that management is driven by efficiency, a focus on mastering routine activities, whereas leadership is motivated by effectiveness. In some cases, the most effective methods for achieving important goals are not the traditional tried-and-true means, but rather new and untested approaches, in other words potentially less efficient methods. The leaders they interviewed were people who created new ideas, policies, and procedures. According to Bennis and Nanus, "they changed the basic metabolism of their organizations" (p. 23).

Zaleznik (1977), who wrote a classic essay on the difference between managers and leaders, noted that leaders are proactive. Rather than simply waiting to react to ideas, leaders are forward thinking; they initiate and shape ideas. Leaders communicate ideas that excite others, and they work with others to develop alternatives for how these future images can be made manifest. Table 1.1 provides a highlighted list of the distinctions Zaleznik made between managers and leaders. The descriptions associated with the leader contain many terms commonly found in the creativity literature, for example, proactive, seek potential opportunities, seek change, tolerate chaos, avoid premature closure, develop fresh approaches, and so on.

Table 1.1	Contrasting Managers and Leaders
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Managers	Leaders
• Focus on goals that arise from necessity	• Adopt personal attitude toward goals
• Are reactive, focus on solving problems	• Are proactive, shape ideas
• Ensure day-to-day business is carried out	 Look for potential future opportunities
• Seek order and control	Tolerate chaos and lack of structure
• Regulate existing order of affairs	• Seek opportunities to bring about change
• Are able to tolerate mundane, practical work	 Inspire subordinates and fire up the creative process with their own energy
• Act to limit choices and coordinate opposing views in order to get solutions accepted	 Avoid premature closure, open issues to new options, and develop fresh approaches to long-standing problems
• Believe "If it ain't broke, don't fix it"	• Believe "When it ain't broke may be the only time you can fix it"

SOURCE: Zaleznik (1977, 1998).

John Kotter (1990), a business professor at Harvard University, described both leadership and management as processes. Kotter maintained that leadership is a process whose function is to produce change, while management is a process focused on producing consistent outcomes. We would argue that creative thinking is about change. It is the introduction of new ideas and ways of doing things that serve some purpose—to overcome a problem, meet a need, or seize an opportunity. Creative thinking is a process that results in change, while leaders often act as the impetus for change.

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We do not wish to create the impression that leadership is better than management or that leaders are more important than managers. To be successful, organizations require both sound management and inspiring leadership. Organizations need to be efficient at doing things right and effective at doing the right things. Fullan (2001) provided an excellent observation about the practice of contrasting leadership and management when he stated,

I have never been fond of distinguishing between leadership and management: they overlap and you need both qualities. But here is one difference it makes sense to highlight: leadership is needed for problems that do not have easy answers. . . . For these problems there are no once-and-for-all answers. Yet we expect leaders to provide solutions. (p. 2)

In an update to his 1977 essay, Zaleznik (1998) added an addendum that drives home the idea that creativity is a core leadership competence.

It seems to me that business leaders have much more in common with artists, scientists, and other creative thinkers than they do with managers. For business schools to exploit this commonality of dispositions and interests the curriculum should worry less about the logics of strategy and imposing the constraints of computer exercises and more about thought experiments in the play of creativity and imagination. If they are successful, they would then do a better job of preparing exceptional men and women for positions of leadership. (p. 87)

Some Contemporary Views of Leadership: Implicit Links to Creativity

The extent to which creativity plays a role in leadership is further illustrated by contemporary descriptions of leaders and leadership theories. Many of these descriptions and theories demonstrate implicit connections to creativity; the concepts often contained in this work

touch on well-established concepts from the field of creativity. For example, when you scratch the surface of many contemporary descriptions of leadership, what lies underneath are traits and practices associated with creativity. Table 1.2 illustrates some of the overlap between traits commonly connected to creative people and descriptions of effective leaders. The creativity traits were drawn from Davis's (1986) summary of the research into the personalities of highly creative individuals. The first set of leadership qualities comes from a project conducted by the Drucker Foundation (Hesselbein et al., 1996). In this project, consultants, educators, and executives were asked to describe the leader of the future. The middle column summarizes some of the qualities ascribed to effective future leaders. Note the similarities between the leader of the future and past research findings on attributes of a creative person.

The extent to which creativity serves as a core leadership competence is further reinforced by the work of Kotter (1996). Kotter observed that historically, people regarded leadership as a gift granted to the rare few, but that today it is widely accepted that leadership skills can be taught and developed. Kotter went on to identify five specific skills that when developed, enhance leadership effectiveness. These skills are found in the third column of Table 1.2. As in the Drucker Foundation

Qualities of Creative People	<i>Qualities of Leaders</i> <i>in the Future</i>	Kotter: Leadership & Lifelong Learning
 Curious Energetic Experimenting Independent Industrious Flexible Open-minded Original Playful Perceptive Persevering Questioning Risk taker Self-aware Sensitive 	 Seek options not plans Look for what is possible Must be flexible Pursue vision with intent Tireless, inventive, observant, risk takers who are ever-hopeful builders Challenge assumptions and paradigms Empower the talent, intelligence, and creativity of others 	 Risk-taking Humble self-reflection Solicitation of opinions Careful listening Openness to new ideas
SOURCE: Davis (1986).	SOURCE: Hesselbein, Goldsmith, and Beckhard (1996).	SOURCE: Kotter (1996).

	Table 1.2	Traits of the Creative Person and the Effective Leader
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Table 1.3 Kouzes & Posner's Leadership Practices

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- Challenging the Process Looking for innovative ways to improve the organization
 - Search for Opportunities
 - Experiment and Take Risks
- Inspiring a Shared Vision Envisioning the future, creating an ideal image of what the organization can become
 - Envision the Future
 - Enlist Others

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- Enabling Others to Act Building spirited teams
 - Foster Collaboration
 - Strengthen Others
- Modeling the Way Establishing principles for how people will be treated and how goals will be pursued
 - Set the Example
 - Achieve Small Wins
- Encouraging the Heart Making people feel like heroes
 - Recognize Contributions
 - Celebrate Accomplishments

SOURCE: Kouzes and Posner (1995).

list of leadership attributes, Kotter's five skills bear a striking similarity to qualities associated with creative people. Since Kotter suggests these skills can be developed, and because these skills relate directly to creativity, it would seem that creativity training can make a positive contribution to leadership development.

Additional evidence for the link between creativity and leadership goes beyond descriptions of personality traits. For example, Kouzes and Posner's (1995) research on what leaders do to bring about extraordinary results bears a resemblance to known process practices that bring about creative acts. Specifically, when Kouzes and Posner analyzed their data, they found that leaders who were able to facilitate extraordinary accomplishments among their followers tended to engage in five specific behaviors. Kouzes and Posner's five leadership practices are found in Table 1.3. Each leadership practice is followed by two sample strategies.

It is our opinion that the behaviors described by Kouzes and Posner (1995) align with the activities people engage in when involved in the creative process. For example, highly creative people challenge the status quo, take risks, experiment with new approaches, and examine

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alternative ways of solving problems (i.e., Challenge the Process) (Davis, 1986; MacKinnon, 1978; Torrance, 1979). Highly creative people also focus on future possibilities, daydream about potential outcomes, think in terms of "what if" or "what might be," and are adept at getting others to buy into their ideas (Sternberg & Lubart, 1992; Torrance, 1979). These would appear to be related to Kouzes and Posner's Inspiring a Shared Vision. With respect to Modeling the Way, research in the field of creativity has shown that highly creative individuals had mentors who guided them or paragons who influenced their work (Simonton, 1987). Furthermore, creative acts are more likely to come about when people are highly motivated, particularly when they are passionate about their ideas or have great internal drive (Amabile, 1987). This relates to the practice of Encouraging the Heart. So, once again, there are direct relationships between the fields of leadership and creativity. However, in this case rather than finding similar traits between those who lead and those who create, the kinds of practices leaders engage in to bring about great success corresponds with the kinds of practices people engage in when they are being highly creative or inspiring creativity in others.

We are not suggesting that creative people and effective leaders are one and the same. Though the ideas or products developed by successful creative people may ultimately influence others, creative people do not always engage in creative acts that involve others or intentionally seek leadership roles through which they may inspire change. Rather, what we hope to highlight is the fact that in today's complex work and social environments, creativity plays a crucial role in helping leaders to be more effective at facilitating change.

Further evidence for the crucial role creativity now plays in leadership can be found among current leadership theories. Early leadership studies focused on the identification of innate traits associated with individuals who achieved great leadership status. This approach is commonly referred to as "great man" theories of leadership. The underlying assumption was that leaders were born, and as such the key to the identification of successful leaders was to find a stable set of traits that could predict greatness. This line of research did not yield a definitive set of traits; instead, it was found that individuals with certain traits might be successful leaders in one situation but not in other situations (Stogdill, 1948). The failure to find a set of leadership traits led to a shift from a personality-based conception of leadership to a more process oriented approach—that is, views of leadership began to focus more on the dynamic interplay between the leader and his or her followers.

This transition from a trait to a process approach parallels work in the field of creativity, which began by studying the qualities of eminent creators (Cattell, 1906; Cox, 1926; Ellis, 1904; Galton, 1869) and later broadened to include more process-based descriptions of the creative act (Osborn, 1953; Wallas, 1926). The adoption of more processoriented views of creativity and leadership represents another conceptual convergence between the two fields. For instance, Northouse's (2004) summary of the main characteristics found across contemporary views of leadership reflects close conceptual links between leadership and creativity. Northouse identified four basic components of leadership: "(a) leadership is a process, (b) leadership involves influence, (c) leadership occurs within a group context, and (d) leadership involves goal attainment" (p. 3). Each of these four elements can be applied readily to creativity. Creativity is commonly described as a process, a process aimed at achieving some goal that as a consequence has a positive influence on the situation. And often the context in which the creative process is carried out is in groups. Given these parallels, it would seem the strategies and tools drawn from the creative process can do much to enhance a leader's ability to guide a group toward a goal.

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An example of a leadership approach with implicit connections to creativity is transformational leadership. Though the term originated in the early 1970s (Downton, 1973), there is recent elaboration from a variety of sources (see Avolio, 1999; Bass, 1985, 1998; Tichy & DeVanna, 1990; Yammarino, 1993). Transformational leaders focus on developing others to their fullest potential. Their goal is to change and transform others in a positive way. Transformational leadership enables others to achieve beyond what is expected. Northouse's (2004) description of one of the main characteristics of transformational leadership intellectual stimulation—provides a direct link to creativity:

It includes leadership that stimulates followers to be creative and innovative, and to challenge their own beliefs and values as well as those of the leader and the organization. This type of leadership supports followers as they try new approaches and develop innovative ways of dealing with organizational issues. It promotes followers' thinking things out on their own and engaging in careful problem solving. (p. 177)

Northouse's comment captures why creativity is central in organizations and how leadership encourages creative thinking.

Changes in organizational structures further support the need for creativity in organizations and for creative leadership. As models of

organizations are transformed from the dominant mechanistic view in which management is needed to control by authority, there is a greater call for leadership to emerge (Handy, 1993). Wheatley (1999) observed that the former twentieth-century organizational structures narrowly defined workers and treated them as "replaceable cogs in the machinery of production" (p. 14). Given this view of organizations, tight management was necessary to avoid chaos and inefficiency. Employees did not need to think or to be creative. They simply needed to carry out their tasks as assigned. To survive in today's competitive environment, organizations must find ways to grow through the creative potential found in their workforce. This competitive environment also exists outside of the realm of business. Not-for-profit organizations compete for limited funding, colleges and universities compete for students, professional and community organizations compete for members and volunteers who have little discretionary time to give. Thus, organizations need leaders—such as those described in transformational leadership theories-who can draw on and facilitate the creative talents of others and who, in their own right, embody the spirit of creativity. This applies equally to those individuals in assigned leadership roles as well as to individuals who emerge to take the lead on a particular task or issue.

Direct Connections: Conceptions of Leadership that Place Creativity at the Core

The previous two sections refer to aspects of creativity but do not formally position it as a core construct of effective leadership. Recently, some authors have been more explicit about the centrality of creativity in leadership (Csikszentmihalyi, 2001; Goertz, 2000; Mumford et al., 2000; Sternberg, 2002; Sternberg, Kaufmann, & Pretz, 2004). Indeed, Sternberg and his colleagues use the term "creative leadership" (Sternberg et al., 2004).

Sternberg (2002) began his exploration of creative leadership by describing the specific role intelligence plays in determining successful leadership. The traditional view has been that effective leadership depends on an individual's level of analytic intelligence—an ability to analyze and evaluate existing ideas and systems. Sternberg, however, suggested that effective leadership relies on successful intelligence. He provided the following description of successful intelligence: "People achieve success by recognizing and capitalizing on their strengths and by recognizing and either correcting or compensating for their weaknesses" (p. 10). Though analytic intelligence serves to support

successful intelligence, Sternberg has added two further abilities, which have been largely ignored with respect to leadership effectiveness: practical and creative intelligence. Practical intelligence allows people to successfully shape their environments to suit themselves. Creative intelligence allows leaders to form a vision, to decide where they wish to lead others. At the core of creative intelligence is the ability to gain support from others by convincing them that your unpopular ideas have merit.

Sternberg (2002) went on to identify specific kinds of creative leadership. According to Sternberg et al. (2004), creative leadership is about propelling others "from wherever they are to wherever the leader wishes them to go" (p. 146). They suggested three fundamental ways in which creative leadership propels others forward. One type of creative leadership accepts current paradigms but finds ways to extend them. A second type rejects current paradigms and tries to replace them. The third form of creative leadership integrates existing paradigms to create a new one.

These three fundamental forms of creative leadership can be further broken down into eight types of creativity. Table 1.4 summarizes the eight types of creativity described by Sternberg et al. (2004). These authors note that different circumstances call for different forms of creative leadership. For instance, Replication is most appropriate when an organization is successful and the goal is to maintain current status, whereas Forward Incrementation is appropriate when the goal is to achieve progress through continuity.

Where Sternberg and his colleagues described different styles of creative leadership, Mumford et al. (2000) proposed a leadership model that articulates the specific attributes that enable a leader to be successful. Mumford and his colleagues' model is directly related to the major proposition of this book: Creativity is a core competence of leadership and creative problem-solving skills enhance leadership effectiveness. You will discover later that a good portion of this book is dedicated to principles and procedures that are extracted from the Creative Problem Solving process. Indeed, Mumford et al. (2000) argued that creative problem-solving skills are critically important to leadership performance. You will learn more about the Creative Problem Solving process in later chapters. For now, we will close this section by describing Mumford and his colleagues' model.

In contrasting their approach to past theories that attempted to understand leaders through their behaviors (e.g., transformational leadership, theories of behavioral style, leader-member exchange), Mumford et al. (2000) suggested that, "Leadership can be framed not in terms of specific behaviors, but instead in terms of the capabilities, knowledge,

Table 1.4 Sternberg and Colleagues' Forms of Creative Leadership

Eight Types of Creative Leadership	Brief Definition	Example
Accepts Current Paradigm and Attempts to Extend It		
1. Replication	Leadership that attempts to show the field or organization that it is in the right place at the right time.	Luthiers who try to reproduce a past musical instrument, such as a Stradivarius.
2. Redefinition	Leadership that focuses on showing that a field or organization is in the right place, but not for the reasons that others think it is.	Redefining aspirin for its value in preventing heart attacks.
3. Forward Incrementation	Leadership that attempts to lead an organization or field forward in the direction it is already going.	The introduction of product extension, such as Cheerios with mixed berries.
4. Advance Forward Incrementation	Leadership that focuses on moving an organization or field forward, but beyond where others are ready for it to go.	Fax machines, which were slow to catch on, at least at first.
Rejects Current Paradigm and Attempts to Replace It		
5. Redirection	Leadership that attempts to redirect an organization, field, or product line from where it is heading toward a different direction.	Electric razors, the basic cutting mechanisms are the same as a manual razor, but it was taken in a new direction that resulted in quite a different product.
6. Reconstruction/ Redirection	Leadership that moves a field, organization, or product line back to where it once was so	American Airlines adding leg room in coach seating. Products that represent a return

Eight Types of Creative Leadership	Brief Definition	Example
	that it might move onward from that point, but in a direction different from the one it took from that point onward.	to the past (e.g., Bromo-Seltzer or Brill Cream).
7. Re-initiation	Leadership that endeavors to move a field, organization, or product line to a different, as yet unreached starting point and then to move from that point.	The first spaceships in comparison to airplanes. Products that meet the same need, but in a different way.
Integrates Existing Paradigms to Create a New One		
8. Synthesis	Leadership that integrates two ideas that previously were seen as unrelated or even opposed.	Seaplanes that combine features from boats and airplanes into one product.

SOURCE: Sternberg et al. (2004).

and skills that make effective leadership possible" (p. 12). From this central premise, they developed a theory which holds that leadership performance is directly related to the ability to solve problems.

Figure 1.1 provides our summary of the logical structure of arguments that guided Mumford et al. (2000) from their original contention that leadership can be thought of in terms of capacities to the conclusion that a core leadership capacity is problem solving. These authors are quick to note that the kinds of problems leaders contend with are not of the routine sort. Rather, they are characterized by complexity (i.e., illdefined problems with no single solution path), novelty (i.e., new or changing situations), and ambiguity (i.e., gaps in information). Thus, Mumford et al. suggested that complex, novel, ambiguous problems cannot be solved through routine solutions, but rather they require individuals to reshape and reform their prior knowledge. In short, the problem solving required to be an effective leader must involve creative thinking. These authors concluded that, "The skills involved in creative problem solving influence leader performance" (p. 17).

Figure 1.1Conceptual Underpinnings to the Mumford et al. (2000)Leadership Capacity Model



SOURCE: Mumford et al. (2000).



Figure 1.2 Mumford and Colleagues' Leadership Capacity Model

Figure 1.2 presents Mumford and his colleagues' (2000) model. This model is designed to illustrate how specific leadership characteristics determine leadership performance. As already noted, problem solving is predicted to have a direct impact on performance (see right side of the graphic). Again, recall that problem solving in this model refers to an ability to employ creativity to effectively address complex social problems. Three factors contribute to individuals' problemsolving abilities: (1) their problem-solving skills; (2) social judgment and social skills; and (3) knowledge. At the far left of the model are a number of basic attributes that in turn influence an individual's ability to acquire complex problem-solving skills. These attributes are: (1) general cognitive ability (innate abilities, such as intelligence); (2) crystallized cognitive abilities (abilities that can be developed, such as fluency, speed of closure, divergent thinking); (3) motivation (willingness to take on complex problems); and (4) personality (openness, tolerance for ambiguity, curiosity, risk taking, adaptability, etc.). Although the main thrust of the model focuses on the direct impact personal capabilities have on problem solving and, ultimately, leadership performance, Mumford et al. (2000) do acknowledge the direct and indirect influence of external forces. Thus, Career Experiences and Environmental Influences surround the main facets of the model because they have the potential to affect these person-based components and, in the case of the immediate environment, potentially have a direct effect on

SOURCE: Mumford et al. (2000). Reprinted with permission.

leadership performance. People's past career experiences can have a dramatic effect on crystallized cognitive abilities, motivation, knowledge, and problem-solving skills. Finally, opportunities and constraints in the environment can have a direct effect, positive or negative, on all aspects of this model, from the development of the individual attributes found in the left side of the model to leadership performance on the right.

The purpose of this section on leadership was to provide support for the conceptual link between creativity and leadership. We now turn our attention to the concept of creativity.

✤ CREATIVITY: THE NECESSARY FUEL FOR CHANGE

Because our major premise is that what we know about creativity can assist in developing leaders, we will examine what we mean by creativity, including some basic definitions, views, and characteristics of creativity.

Changing Views of Creativity: From Fringe to Essential Workplace Skill

As creativity professionals, we have noticed that people's views of creativity have changed over the last decade or so. In the early 1990s, when we asked participants in our workshops to describe creativity, it was not uncommon for us to hear comments like: "You have to be eccentric to be creative." "You can't enhance someone's creativity." "Some people have it and some don't." "That's for artists and scientists." "Creativity is unpredictable." "You can't measure it." "It's bizarre." "That's what happens in research and development." "Children are creative." "I'm not creative." To a certain degree, there was a perception that creativity was strange, weird, and uncontrollable.

These past reactions to creativity did not surprise us. As Sternberg and Lubart (1999) put it, notions of creativity have been steeped in mystical beliefs. To the Greeks, the muse or some other external force allowed individuals to create. Davis (1986) indicated that some people believe creativity is a "mysterious mental happening"; ideas seem to come from nowhere and cannot be controlled, and if the creative process is too closely scrutinized there is a risk of damaging it (pp. 50–52).

Today our audiences give us more productive descriptions of creativity. When asked to list words or phrases they associate with creativity, we typically receive responses like "imagination," "problem solving," "risk taking," "challenging the status quo," "being innovative,"

"necessary for survival," "being adaptable," "creating change," "thinking outside of the box," "being original," "fun," "energizing," "non-linear thinking," "dynamic," "thinking of possibilities," "invention," and "growth." It is clear to us that there is a greater appreciation of the importance of creativity in all aspects of life. This observation is further supported by the work of Florida (2002), who provided the following explanation of the force behind the accelerated pace of change that has occurred over the last half century:

The driving force is the rise of human creativity as the key factor in our economy and society. Both at work and in other spheres of our lives, we value creativity more highly than ever, and cultivate it more intensely. The creative impulse—the attribute that distinguishes us, as humans, from other species—is now being let loose on an unprecedented scale. (p. 4)

About the time we began to see a change in how people responded to the word "creativity," there was a study conducted by the American Society of Training and Development (ASTD) that revealed a positive view of creativity. They wanted to find out what skills employers believed were most important in the workplace. Carnevale, Gainer, and Meltzer (1990) conducted an extensive 30-month investigation within organizations across the United States. Their data were gathered from a wide variety of organizations that included health care, manufacturing, service, education, and government. They found that "increasingly, employers have been discovering that their work forces need skills that seem to be in short supply, skills over and above the basic academic triumvirate of reading, writing, and computation" (p. xiii). Analysis of their data generated a list of skill sets believed to be essential in today's workplace. Two of these basic skill sets were creative thinking and problem solving. The full set of workplace skills is found in Table 1.5. In addition to creativity, you will see that leadership is also a skill featured in this list.

The research sponsored by ASTD highlights the perception that creativity is not simply about the arts, but that it is an important skill in the workplace, whether it be government or industry, public or private, for profit or not-for-profit. Furthermore, creativity is a skill that is valuable at all levels of the organization and in all functions. Creativity is not limited to the R&D (research and development) function anymore. Opportunities to solve problems and to engage in breakthrough thinking can and should happen throughout the organization (Henry, 2001; Kuhn, 1988; Van Gundy, 1987; West, 1997).

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Table 1.5Workplace Basics

- The Foundation Knowing how to learn
- Competence Reading, writing, and computation
- Communication Listening and oral communication
- Adaptability Creative thinking and problem solving
- Personal Management Self-esteem, goal setting, motivation, personal and career development
- Group Effectiveness Interpersonal skills, negotiation, teamwork
- Influence Organizational effectiveness and leadership

SOURCE: Carnevale, Gainer, and Meltzer (1990).

Further support for the importance of creativity and related skills is found in the Wall Street Journal's recent assessment of business schools. In 2001 the Wall Street Journal began to publish the results of recruiters' evaluation of business programs (Alsop, 2001). The survey recruiters used to critique business schools resulted from a year-long consultative process with business school representatives, corporate recruiters, students, search firms, independent consultants, and members of relevant associations. According to Alsop (2001), "the goal was to identify school and student characteristics that recruiters consider most important when they make decisions about which schools to recruit from and which students to recruit" (p. R4). Among the 13 student attributes, four appeared to be directly related to creativity: original and visionary thinking; analytical and problem-solving skills; strategic thinking; and adaptability, which included the ability to deal with ambiguity. The same business school evaluation was conducted in 2002 and 2003 and produced similar results. More recently, the August 1, 2005 issue of Business Week featured a special report on creativity (Nussbaum, Berner, & Brady, 2005). One of the main points in this report was that organizations can no longer compete just on cost or quality. In the future, the core competency that will separate successful organizations from those that fail will be creativity.

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Defining Creativity: Novelty Made Useful

Thus far we have described how views of creativity have changed over the last decade, but we have not fully delved into what is meant by creativity. Perhaps the most common definition of creativity offered by those in the field of creativity is the production of original ideas that serve some purpose. What is important to note about this definition is that creativity is not synonymous with pure novelty or being different. Being original and being creative are not the same. Rather, creativity is clearly about doing something in an original way that is at the same time useful. Using these two primary features of a creative act, novelty and usefulness, Figure 1.3 presents a simple two-by-two matrix that helps to show what distinguishes creative products from other products or ideas. In this matrix, the upper right quadrant is reserved for those products that have some element of newness and that clearly meet some purpose in a satisfactory way, such as the recent success associated with the Apple iPod. When we say products, we do not limit this to tangible products, but it is meant to include intangible items such as services, music, ideas, and theories. This is the intent of deliberate creativity: to introduce something that is both new and useful-a creative change.

When something is not new, has no element of originality, yet is highly useful, such as the standard No. 2 pencil, we refer to this as a utilitarian product. In other words, we use it because it does what it was



Figure 1.3 What makes a product creative?

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made to do. When we go to the store to purchase a standard No. 2 pencil there is no shock or surprise by what we find. The product hasn't changed in decades. We use it because it continues to serve its purpose well.

In the upper left quadrant of Figure 1.3 are fads. These are products and ideas that have great novelty but low usefulness. A product or idea whose primary appeal is its novelty, such as the 1970s pet rock and the fashion trend of platform shoes for men, will soon fade away when people realize it has little practical value. In some cases, fads get recycled by the next generation. This is often the case in fashion and hairstyles. This happens because what is old hat for one generation might be novel for another.

Finally, in the lower left quadrant of Figure 1.3 we have ideas and products that are not new and have little usefulness. We call it repeating past mistakes because thoughts and actions in this quadrant have been tried before, thus they are not novel, and they either met with successful results initially, but not now, or weren't useful from the very start. Outdated laws that are still on the books provide excellent examples of this quadrant. A law in Austin, Texas, for example, states it is illegal to carry wire cutters in your pocket (Powell & Koon, n.d.). Why? This law was enacted in the days of the Wild West when cowboys would cut barbed wire fences of property owners to allow their cattle through.

Customs and traditions also provide excellent examples of this quadrant. By definition customs and traditions cannot be new, and sometimes they are not very useful. In organizational life you may run into useless traditions, such as policies and procedures that appear to have lived well beyond their usefulness. Have you ever earnestly questioned an organizational practice only to get the response, "But that's the way we've always done it" or "That's our policy"? Statements like this are clear indicators that you are bumping into something that is definitely not new and may no longer be satisfactorily fulfilling its intended purpose.

Another behavior we associate with this quadrant is doing something over and over again and expecting a different result. Have you ever hit an illuminated elevator call button numerous times expecting your repeated efforts to bring the elevator car faster? Have your ever tried to solve a computer problem by repeating the same commands, hoping that just once it might work? These are simple examples. More serious examples include repeating the same sales strategies that produced modest outcomes and expecting a dramatic gain in sales, leaders who want to change their relationship with their followers but who do not change the nature of their interactions, or teachers who expect students to show significant gains in skill level but who find it impossible to adopt new teaching strategies.

A Systems Model for Creative Change

The novelty-usefulness definition of creativity tells us what is and is not creative, but it does not tell us how creativity operates. To do this we turn to a systems model of creativity. Many scholars agree that creativity is made up of four distinct facets (MacKinnon, 1978; Rhodes, 1961; Stein, 1968). The four main elements of creativity are person(s), process, environment, and product. Although these facets have their own discrete attributes, they do influence one another and therefore create a system for how creativity works.

In Figure 1.4, the Creative Change Model, we depict how these facets interact to yield creative products and eventually produce creative change (again, we say "creative" change because we are talking about the deliberate introduction of something that is new). Creativity begins with an individual or a team of individuals. The **person(s)** facet in this system *considers individual skills, knowledge, personality, experiences, and motivation that all have an influence on the amount and kind of creativity an individual or team is likely to produce.* The **process** facet refers to *the stages of thinking individuals and teams go through as they develop creative ideas in response to predicaments and opportunities.* As in the case of the person facet, the quality of the process often has a direct impact on the quality of the product produced. These two facets are not completely independent; in fact, we suggest that they interact. In Chapter 12 we describe how people possess different preferences for certain aspects or stages of the creative process.

Creative thinking does not happen in a vacuum. It takes place in particular settings. In some cases these settings may stimulate creative thinking, and in other cases they may inhibit creative thought. This facet is referred to as the **environment**, *the ways in which the psychological and*

Figure 1.4 Creative Change Model: A Systems Approach



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physical workplace climates, or the cultures in which you live, influence the expression of creative behavior. You cannot take someone who has all the right personality characteristics and thinking skills to be creative and simply put him or her in any situation and expect great things. Recent research by Teresa Amabile (Amabile, Burnside, & Gryskiewicz, 1999) of the Harvard Business School has identified the kinds of characteristics of the workplace that tend to facilitate or undermine creative performance.

The three facets of person, process, and environment interact to yield particular outcomes. In other words, the quality of the creative product depends upon people working through certain processes in particular kinds of environments. People with the right skills, knowledge, and personal traits who work through an effective process in an environment that is conducive to creative thought are more likely to produce creative **products**—*tangible and intangible outcomes that are new and useful.*

Creative change does not automatically occur because an individual, team, or organization has developed a new product. We define a **creative change** as the adoption of a creative product that can come in many forms. If the product is intended for use only by the individual creator, such as a new plan for reducing stress, then creative change occurs when this person has implemented the idea. By contrast, innovation occurs when an organization has successfully commercialized a new product or implemented a new program or service. The creative product is the starting point for business innovation, and according to Janszen (2000), "innovation is generally accepted as being the golden route to building a growing and prosperous company" (p. 7). Soo, Devinney, Midgley, and Deering (2002) showed that organizations that were rated in the top 20% for innovation enjoyed more than 35% more market share than those organizations in the bottom 20%. So if innovation is critical to the long-term success of an organization, and the creative product is the impetus to innovation, then it will be critical for organizations to create the right interaction between the person, process, and environment. If organizational leaders do not nurture the basic elements that support creative behavior, it is unlikely that their organizations will bring about creative change, whether that is an innovative product, social change, educational reform, enhanced levels of human service, and so on.

The process has an iterative aspect to it; that is, once a creative change has been successfully adopted, it is highly likely that this new idea, product, service, or practice will have a transformative effect on people, their processes, and their environments. Although this model focuses on the successful adoption of creative change, it is possible that when a proposed change is rejected, this failure has the potential to have some measurable effect on people, processes, and environments as well.

This systems view of creativity illustrates why creativity is difficult to bring about in organizations. Like the ingredients in a recipe, although all have their own unique flavor, it is the combination of the ingredients that results in a complete dish. Figure 1.4 shows how these basic creativity elements interact with one another. For example, we know that training in creative thinking (i.e., process) improves the work climate (i.e., environment) of teams (Firestien, 1996). Individual personalities (i.e., person) influence the nature of the work environment (Ekvall, 1991). Formal training in creativity techniques and principles (i.e., process) significantly enhances individuals' thinking skills (i.e., person) (Parnes, 1987). Returning to the recipe metaphor, organizational creativity is achieved only when the right ingredients are combined. Assuming that an organization will be creative, for example, because it has hired highly creative people is like assuming that the only ingredient necessary to make a good chicken soup is the chicken itself.

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Leaders who wish to foster creative thinking and change must recognize the importance of all the facets of creativity. They must understand their own and others' creative abilities. They must master the creative process and be able to facilitate this process in others. They must find ways to build work environments that encourage creative thought. Given the importance for leaders to understand these elements of creativity, we have used person, process, and environment as a basic framework for much of this book. Chapters 5 through 11 focus on mastering the creative process, specifically the Creative Problem Solving (CPS) process. Chapter 12 focuses on people and how individuals will express preferences for different aspects of the creative process. Understanding how different personalities engage in creative thinking is invaluable for understanding how to improve a team's ability to move through the creative process and introduce change. Chapter 13 describes the kind of work environment leaders should create to stimulate creativity and change. The final chapter discusses how the creativity principles and procedures presented in this book can become internalized so that individuals can begin the process of developing into creative leaders.

✤ APPLYING WHAT YOU'VE LEARNED

The intent of this chapter was to underscore the critical link between leadership and creativity—change—thereby positioning creative thinking as a core competence of leaders who bring about positive change. The close relationship between creativity and leadership was captured well when Simonton (1984) observed that "when the most

famous creators and leaders are under scrutiny, the distinction between creativity and leadership vanishes because creativity becomes a variety of leadership" (p. 181). The following activities will help you deepen your understanding of this important connection.

- What is your personal definition of creativity? How do you define leadership? Examine these definitions and identify ways in which they relate. What are the conceptual connections?
- Identify a leader in your life who had a profoundly positive impact on you. List the qualities that you believe made this person an effective leader. Inspect this list of qualities and identify items that are closely related to creativity. Ask yourself to what degree do you possess these same qualities. Consider what you might do to develop some of the qualities you believe are most important.
- Identify a leader who was successful in drawing out the creative thinking of others. What did he or she do, and what was the consequence of this ability to promote creative thinking in others? Now consider a leader who undermined creative thinking. What did he or she do that had a negative influence on creativity? What was the consequence of his or her behavior?