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Perspectives on Innovation

The Nature of Innovation in Organizations

According to the *American Heritage Dictionary* (1994), "Innovation is the *act* of introducing something new." Notice that the definition doesn't say something that has never existed before, implying that a modification of a current product is not an innovation. Nor does it say that every idea is innovative. Note the words, *act of introducing* (risk taking), and the word *new* (creative). These concepts, creativity and risk taking, in combination, are what innovation is all about.

$$\text{Innovation} = \text{Creativity} \times \text{Risk Taking}$$

Innovation manifests itself in myriad ways, small and large, every day. The invention of the fax machine was an innovative act. So was being the first restaurant owner to put out a fish bowl to collect people's business cards. In exchange for a few free lunches, this innovative person was able to discover where his or her lunch crowd was coming from.

Further, innovation does not have to be dramatic or large scale in nature. Incremental improvements are indeed incremental innovations. They add great value

to the success of a company. For example, changing the size or color of Post-it® Notes has provided additional business opportunities for 3M. Certainly one wouldn't want to rely solely on these types of incremental innovative solutions for continued business success, but their value remains nonetheless.

Innovation keeps companies alive through continuous renewal and growth. Without innovative ideas, a company stagnates and may even cease as a going concern. Thus innovation becomes a must, rather than an option. Organizational innovation may range from introducing new products and services to complete reinvention of the organization.

Innovation may mean greater product differentiation or diversification. For example, Pepsi-Cola now has Pepsi, Diet Pepsi, Pepsi One, Diet Pepsi Twist, and so on and so on. Tobacco companies, albeit slow to recognize their ultimate fate, have begun to diversify their product lines to include food and other consumables. Ultimately, this may include redefining paradigms of their core business. For example, if railroads had shifted their paradigm to define their core business as the transportation industry rather than the railroad business, perhaps we'd be flying on Northern Pacific Airways rather than Northwest Airlines.

In other words, you will be left behind if you don't innovate. Take a moment to reflect on the recent history of your organization. Would you characterize it as more competitive as a result of its innovative efforts? Maybe it hasn't been innovative at all and as a result is declining in market share, profitability, or some other measure of success. While the challenges may seem daunting, it's not too late to make adjustments. That's the beauty of building your innovative capacity: it creates the capacity for change, which can help companies modify, adapt, survive, and even thrive in these competitive times.

Consider the following perspectives. Leonard (1998) states, "Innovation, the source of sustained advantage of most companies, depends upon the individual and collective expertise of employees." Hirshberg (1998) says, "Innovation requires the capacity to disdain tradition and break with comfortable routines and mastered skills." Drucker (1985) defines innovation as "the effort to create purposeful, focused change in an enterprise's economic or social potential."

These definitions require breaking with the status quo and, rather than focusing on the past, they focus on future possibilities. Organizations have long recognized the need for innovation. In fact, 3M built its reputation on innovation and is headquartered on Innovation Boulevard! However, the question of how to become more innovative remains a mystery to most. Some look to other companies to

benchmark innovative strategies. Others articulate the need in a vision or mission that's supposed to foster innovation. Still others seek prescriptive, proven formulas, not realizing that such plans run counter to what fosters innovation.

The Necessity of Organizational Innovation

Is the wise old adage "necessity is the mother of invention" applicable today? Can we really afford to wait until the need proves great before we're forced to innovate a solution? In today's competitive marketplace, playing the waiting game is a telltale sign that your organization doesn't understand just how much risk it's taking by failing to act. To be anything less than proactive when it comes to building innovation in your organization is simply giving the upper hand to your competitors.

Most of us value the results of innovative ideas. Innovative ideas usually make our lives easier. Telephones, electric lights, freeways, automobiles, digital phones, airplanes, skyscrapers, colored pencils, calculators, clocks, computers, refrigerators, tape dispensers, and blenders were all once original ideas and innovative responses to challenges.

If we think about the obstacles and constraints our organizations and teams are facing, we'll find that at times the solutions to these issues require us to introduce new ways or means of doing things, that is, a creative solution that someone or some group took the risk to introduce. As today's business challenges are becoming increasingly difficult to manage, today's organizations have to develop innovative solutions to stay competitive. The viability and success of an organization may very well depend on your personal and your team's capacity to foster this capability.

Often when we're confronted with a challenging business obstacle, we merely hope someone will come up with a good idea or strategy—after all, isn't that the way it's worked in the past? Sometimes we may even sit back and criticize those in charge for proposing half-baked solutions. Indeed, if the solution is half-baked, how come it doesn't include the critical insights from those (like you or me) who obviously know a better way? Specifically, why don't we take the risk to introduce our perspectives or come up with new solutions?

Breakthrough innovations are often serendipitous in nature. The value of strategic planning notwithstanding, organizational breakthroughs are frequently the function of an epiphany, a sudden intuitive realization. All of us have epiphanies. Many times they occur after we have separated ourselves from the immediate issues at hand. For example, taking a break from wrestling with difficult issues

around the conference table to exercise over lunch has lead to more than one epiphany. Whether we're working out, waiting for an airplane, or driving home, breakthrough thinking happens at unusual times. It is often unplanned. Limiting breakthrough thinking to brainstorming sessions in the boardroom is an almost certain prescription for failure.

A Limiting Mentality: Organizational Messages That Inhibit Innovation

Organizations, teams, and individuals have trouble with innovating because they often have an arrogance, frequently exhibited as complacency, about their past success; further, they cling to the comfort of predictability and conformity. Ideas outside the realm of current paradigms are criticized as not reflecting the core values of the organization. Other times our immediate supervisor has opportunity areas, and we can't forget the "What's in it for me?" attitude that seems to prevail in such circumstances. The reality is all these things and more contribute to inhibiting innovation.

Landrum (1993) states that large organizations stifle innovators because of the following:

- Arrogance,
- Short-term mentality,
- Expert syndrome,
- MBA syndrome,
- Cultural dysfunction,
- Intolerance of mavericks,
- Risk adversity,
- Micro versus macro vision,
- Not invented here syndrome, and
- A Wall Street mentality.*

Albeit unintentional, these phenomena suggest powerful forces are at work in many of today's large organizations. This mentality provides opportunities for smaller, less established firms that operate with higher degrees of innovative capacity to take advantage. Innovative companies know they have limitations. They look

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for opportunities beyond their immediate realms, depend on everyone to contribute, celebrate the mavericks within their ranks, take greater risks, and establish visions of the future that allow for potentially disparate realities. They develop and maintain a sense of urgency with respect to virtually everything they do.

In *Creative Destruction,* Foster and Kaplan (2001) say:

> "Corporate control systems also undermine the ability of the organization to innovate at the pace and scale of the market. Under the assumption of continuity, for example, the arguments for building a new business can be turned back since its probable success cannot be proven in advance. Corporate control systems limit creativity through their dependence on convergent thinking. Convergent thinking focuses on clear problems and provides well-known solutions quickly. It thrives on focus."

Innovation does not depend on convergent thinking. Innovation depends on divergent thinking, on the ability to change and move in directions that are nonlinear. In Edward De Bono's words, it depends on lateral thinking. In *Lateral Thinking: Creativity Step by Step,* de Bono (1973) says:

> "Lateral thinking is quite distinct from vertical thinking, which is the traditional type of thinking. In vertical thinking one moves forward by sequential steps each of which must be justified. The distinction between the two sorts of thinking is sharp. For instance, in lateral thinking one uses information not for its own sake but for its effect. In lateral thinking one may have to be wrong at some stage in order to achieve a correct solution; in vertical thinking (logic or mathematics) this would be impossible. In lateral thinking one may deliberately seek out irrelevant information; in vertical thinking one selects out only what is relevant."

Corporate directors and shareholders' continued pressure to improve organizational financial performance often requires more than linear improvements; they require breakthrough innovations. According to Hamel and Prahalad (1994), "Most companies long ago reached the point of diminishing returns in their incremental improvement programs."

The key is to understand what fosters innovation within an organization. Little happens without the understanding that creativity and risk taking are the essential components of innovation. Appropriate risk taking coupled with creative ideas is what innovation is all about. Organizations that want greater creativity, risk taking, and innovation must realize that this requires paradigm shifts. Shifts in thinking

that, until they become well-rooted, may be inadvertently undermined by their own actions. The risk is not in undertaking the endeavor; the risk is in failing to remove obstacles impeding success, obstacles that include management's own actions. As organizations demand greater creativity and innovation from their members, they must provide the environments that encourage the behaviors they desire. Failing to do so is tantamount to spinning your wheels; all talk, with no action.

Creativity and Innovation

Think back for a minute to the definition we presented at the beginning of this chapter: Innovation is the act of introducing something new. The *something new* has its origins in creativity. Innovation demands creativity. Foster and Kaplan (2001) say, "The underlying element in all innovation is creativity. Only by understanding creativity can one grapple with what is needed for sustained performance."

Creativity is the ability to develop new ideas. Those ideas may be as mundane as turning eggshells into little faces or as sublime as the great pyramids of Egypt. They may be as practical as the saltshaker or as absurd as a Pig-Latin alphabet. Regardless of scope, creativity is synonymous with new ideas (Byrd, 1974).

Restrictions on experimenting with new ideas are imposed on most people from early childhood. Children are instructed to keep within the black lines of the coloring book, and doodling is often discouraged and viewed as unproductive. Creating fanciful stories is often interpreted as lying, and pretending is tolerated only until a child reaches a certain age—then it becomes embarrassing. Being out of line—be it the line to the cafeteria, the washroom, the water fountain, or the playground—is considered bad behavior.

Adults on the job are also caught in a variety of binds. Management often seeks coordination, implementation, and follow-through, squeezing any room for creativity out of the equation. Often creativity threatens the status quo. After all, organizations need systems, and what good are systems if people deviate from them? We're not advocating greater creativity in all situations or creativity for its own sake. For example, do we want our heart surgeon or pilot to get creative on us?

Actually we might. If that surgeon or pilot is faced with a situation that demands creativity in order to save our life, we don't want them to necessarily follow the book. Similarly, when our organization or team is confronted with an obstacle that needs to be overcome, we need creativity—and lots of it! Like anything else, knowing when, where, and how much is crucial.

Creativity is measured by originality. In fact, originality is the most commonly acknowledged facet of creativity (Bailin, 1992; Runco & Okuda, 1988). And all of us are original to some degree. But let's not confuse originality with intelligence. People often assume that originality and intelligence are correlated. There is little evidence to support this assumption. Many people with only average intelligence have many original ideas, and some of the brightest people seldom have original thoughts.

So is there a single best definition of creativity? We asked a number of people to provide some definitions. What follows is a partial list of what we heard:

1. Quality of thinking that inspires ingenuity and imagination;
2. Producing something useful that establishes worth/enjoyment and that has not been done before;
3. Expressing yourself openly;
4. Putting things together in a new way;
5. Conjuring something unique;
6. God;
7. Like . . . your imagination, but in a different way;
8. A different way of looking at things;
9. Coming up with new ways of doing things;
10. Looking to do or create something without being hindered by past rules or perceived boundaries;
11. Stretching till it hurts and feels good all at the same time;
12. Doing something and having fun by doing it;
13. Ability, skill, talent that enables one to be free to envision something new or better;
14. The truly great artist has the eyes of a child and vision of a sage (Pablo Cassals);
15. Be not afraid of where your next idea will lead (Charles Eames);
16. Deep within the heart we find the creative self (Cappacchione);
17. Using new or existing ideas to get results in a different way than one would normally think of;
18. Using all outlets available;

19. Being able to build off of old theories or ideas to make new theories;

20. Letting imagination flow independently—no restrictions; and

21. The raw materials for innovation.

Given that creativity is characterized by originality, expressiveness, and imagination (*American Heritage Dictionary,* 1994), it would seem to follow that there isn't one single best definition that works for everyone.

How then do we make these definitions, or any other for that matter, come alive in a shared way in our organizations? Most people within organizations will tell you how much they value creativity. However, as we discussed earlier, creativity in organizations is often suppressed much more often than it is supported. This isn't because mangers have a vendetta against creativity. Everyday creativity is undermined unintentionally in work environments that were established—for entirely good reasons—to maximize business imperatives such as coordination, productivity, and systems control. Unfortunately, the unintended consequence of maintaining the status quo is muted creativity. Only when we focus on how to foster and nurture creativity in others, our organizations, and ourselves will innovation occur.

Fostering Creativity in Organizations

One of the most wonderful things organizations have going for them is that people already have an intrinsic desire to go beyond—to learn, to grow, and to aspire to possibilities within themselves; albeit to varying degrees, we all have this motivation—to use more of ourselves, to tap into our creative capacities.

By understanding this important premise, organizations and individuals can reap the innovative rewards. Much of the work of Rogers (1961), Maslow (1962), Tillich (1957), Riesman (1950), and Fromm (1947) provides a foundation for understanding this drive to hear our own voice. "It's the voice of our true selves which summons us back to live productively, develop fully and harmoniously—that is to become what we potentially are" (Fromm, 1947).

Robert Fritz (1991) talks about this voice and specifically addresses it to creativity:

"Let's face it, most of us have the suspicion that there is much more to life than what we have been led to expect. Our lives are filled with secret possi-

bilities—possibilities that there are dimensions to our selves, depths of our being, and heights to our aspirations that are lurking just below the surface. Despite years of attempts by relatives, friends, acquaintances, and society to bring us to our senses, the desire and impulse to reach for that which is highest in us is still there. After all the appeals to reason, we still have the very human urge to do something that matters to us. Despite all the times that society has endeavored to kill that instinct in us, it just won't die."

One of the most wonderful things about human beings is this desire we have to develop into something more than we currently are. We only use small portions of our brain and creative potential. This creative capacity enables every individual organism the opportunity to continually re-create itself; re-creations that ultimately lead to our self-actualization.

"The self-actualized person believes the locus of evaluation lies within himself. Less and less does he look back to others for approval or disapproval. The only question that really matters to him is, 'Am I living in a way which is deeply satisfying to me, and which truly expresses me?'" (Rogers, 1961). Like a blade of grass growing beneath the cement, we all have a need to let ourselves out of constraining spaces, seeking to find the crack that will lead to sunshine and growth.

"Humans have a natural drive to explore and create, a drive that derives from an urge as basic as hunger or sex" (Robinson & Stern, 1998). This basic primal instinct is the reason we often react so strongly when people reject our ideas. Our creations are the gifts of our selves to the world. Our creative contributions may range from a special cookie recipe to engineering work that helps put people on the moon. Regardless of size or scope, there is an inherent value in each of our creative contributions.

Motivating for Greater Creativity

Knowing we all have creative potential is not enough. We know its value, but it will sit dormant unless we stimulate it. The question is: What will we do to tap into it, to foster it in our organizations, our teams, and ourselves? This is where the gift of motivation becomes so important. Teresa Amabile (2001) says, "According to the intrinsic motivation principle of creativity, people will be most creative when they are motivated primarily by the interest, enjoyment, satisfaction, and challenge of the work itself (intrinsic motivators)."

Self-motivated creativity is uniquely individual in nature; further, the will to create is a powerful force at both the individual and organizational levels. Highly motivated and creative organizations tend to outperform organizations that may have other significant compelling factors, such as greater resources, clearer goals, or more efficient operations. Motivation is about pushing and striving forward. Consider the following list of individuals: Albert Einstein, Susan B. Anthony, Virginia Woolf, Walt Disney, and Lee Iacocca, and these organizations: Microsoft, 3M, NASA, and McDonald's. What do they all have in common? Not only did they recognize and incorporate creativity as a value, but they acted on their intrinsic motivation to become more—each ultimately contributing to society in profound ways. While these are high-profile examples, keep in mind that most innovations are the result of ordinary people and organizations seizing both ordinary and extraordinary opportunities.

Therefore, as we think about how motivation impacts creative efforts, it is important to understand its purpose. It is not motivation for production or motivation for financial reward. While noble pursuits, these will ultimately fall short in terms of innovation. Intrinsic motivation arises when individuals feel both self-determined and competent in their work (Deci & Ryan, 1985). Self-determined, competent people do not thrive in smothering organizations. This premise has its origins in Herzberg's (1966) motivator-hygiene theory, which has two components: maintenance factors, which are necessary to maintain a desired level of employee satisfaction, and motivational factors, such as recognition, responsibility, and growth potential. These motivational factors, such as potential for growth, profoundly impact an individual's willingness to contribute through creation.

Additionally, in *How to Kill Creativity,* Amabile (1998) offers this helpful perspective:

"Specifically, managers will need to understand that creativity has three parts: expertise, the ability to think flexibly and imaginatively, and motivation. Managers can influence the first two, but doing so is costly and slow. It would be far more effective to increase employees' intrinsic motivation and as a result reaping the rewards of their creativity."

Thus it becomes important for organizations to create environments that allow for greater intrinsic motivation. These environments in turn foster creativity and thus help create opportunities for building innovative capacity.

Risk Taking and Innovation

The second component of innovation is risk taking. Recall again the definition of innovation: The act of introducing something new. Taking risks is the only way that creative ideas become reality. Risk is a deliberately willed activity that creates and accelerates change.

Risk taking means that a person is willing to push his or her ideas forward at some potential risk to his or her own security, career, reputation, or self-esteem. It is acting in the face of potential loss to realize potential benefits (Byrd, 1974). *Risk taking is the ability to drive new ideas forward in the face of adversity.*

Risk taking is simply the difference between your reach and your grasp (Gelb, 1998). Risk taking is not an inborn trait. That is, you are not born a high or low risk taker. Some psychologists believe that human beings have an inborn tendency for creativity, growth, and self-actualization (Roweton, 1989). This is what we believe. Others have argued that human personality is adjustable enough for one to become a dependent, risk-avoiding, passive sycophant who cannot be reactive and is help-less in dealing with the environment (Agor, 1991; Winslow, 1990). In other words, there is an innate resistance to take risks beyond what's acceptable in their imme-diate environment.

> "Every definition I read (about risk) was depressing, packed with words like danger, hazard, peril, and exposure, chance of injury, damage, and loss. It's not surprising your life is worth a noble motive—it became clear to me why risk taking makes us so anxious. After all, haven't we heard all our lives that we should avoid dangerous hazards and perils?"
>
> *Walter Anderson*, The Greatest Risk of All

Many of us work with people who are afraid to take risks; as a result they become paralyzed to inaction. There is so much wasted potential because of letting fear drive our choices. Later on in life, we often hear people say that they've been shortchanged. In reality, they've shortchanged themselves because risk-taking opportunities are everywhere; they simply chose not to take action. We also see lots of organizations that miss critical market opportunities. Consequently, they miss the chance to become more. They were afraid to take a risk and fail and failed anyhow. These are the chal-lenges that we face every day. Rarely do we find ourselves with all the data to make a 100 percent correct decision. And if we do find ourselves in that situation, well,

we've mitigated all of the risk out of the equation. Understanding risk taking is such a critical component to our success that any person or company failing to realize this jeopardizes its own well-being through ignorance.

But taking risks just to take risks is pointless. You must be able to see a positive payoff in taking the risks. People who take risks just for the sake of taking risks are addicted to the thrill, not to the appropriateness of the risk given the situation and the potential loss and gains.

Framing a New View of Risk Taking

Rather then play to our natural fears associated with extreme risk-taking behavior, our goal is to frame a new understanding of risk taking.

What's a risk to one person may not be a risk to another. People, teams, and organizations all develop fairly predictable patterns of risk taking. When we determine and become aware of our risk-taking propensities, we can begin to predict our responses to different situations (problem solving, conflict resolution, idea generation, and so forth). This knowledge permits better risk management.

We asked a number of people to define risk taking, just as we did with creativity. Here is a sample of what some of them said:

1. Investment of effort and/or resources with the intention of potential gains, while understanding the possibility of zero return;

2. Betting on the come—establish the bang for the buck;

3. Going out on a limb;

4. Taking a chance;

5. Doing something outside the box;

6. Trying something new without knowing whether it is right or not;

7. Anything without a sure outcome;

8. Doing something that's not a sure success, but one in which the odds are appropriate to the potential value;

9. Making a choice that has the possibility of undesirable results;

10. Doing something I haven't done before;

11. Taking action without penalty of failure;

12. Dangerous fun in the unknown;

13. Pursuing an idea despite the possibility that it could be unsuccessful;

14. Individual risk should be proportionate to the level of return;

15. Ability to move beyond a comfort zone;

16. To envision and implement change that may have ramifications to taking action. In order to thrive and survive, the organization must value and reward risk taking;

17. Cultivating the dream and then setting the intention; and

18. Believing in the beauty of your dream.

Regardless of the definition, there is within our human spirit the desire to take more risks. It is a part of our human makeup.

"Most of us have, or know someone who has, shared the sadness of not having taken a risk to live somewhere else, change jobs, or share more love with their parents, children, or significant other. Over the years, whenever I asked older adults what, if any, regrets they had, one theme emerged loud and clear: Looking back they wished they had taken more risks to be themselves. The ability to take action, to actually risk something, is something we don't always do. However, the sadness we feel as a result of not taking risks is a clear indication that it is part of the human spirit. It is linked to motivation. A part that, when wasted, cannot often be recovered." (Leider, 1999)

Becoming more willing to take risks is not easy. Change requires a willingness to accept criticism and to withstand frustration and even condemnation. It means developing authenticity, resiliency, and a self-accepting attitude. But taking risks makes us feel successful. If you aren't motivated to take more risks in your life, you're likely to remain where you are and regret those things that you never did. Consider the following risks:

- Asking for a raise or promotion;
- Enrolling in a class;
- Undertaking a new project;
- Speaking your mind in a meeting;
- Confronting sacred cows; and
- Public speaking or leading a meeting.

Which ones have you taken lately, if any? Which ones make you feel anxious? Which inspires the most fear in you? All of these have an element of risk. None is life-threatening. Yet they may conjure fear and even avoidance in some of us. When they are undertaken, afterward we often feel more alive and successful, primarily because deep down we believe in ourselves. Certainly one learns liberating endeavors encourage nonlinear behavior. That is, success begets success in new untold ways. When we don't take risks, we are afraid to bet on ourselves, even if we believe that we're capable of doing more. Daniel Bursting, quoted in Daniel Kehrer's (1989) *Doing Business Boldly,* writes, "Historically, risk takers are people who shatter the illusion of knowledge. They are willing to try something that everyone thinks is outrageous or stupid."

Fostering Risk Taking in Organizations

There are many organizations that miss critical market or other paradigm shifts and miss opportunities because they didn't have all the information to make a decision—companies that wait until all the cows come home. By then, the competition is already out ahead. Rarely will we have all of the information and if we do, there is not much risk. We have to take risks for the success of our organizations . . . and for ourselves.

Ask most people within an organization and they will tell you that they want to contribute to the success of the organization. Yet organizations don't know how to capitalize on or leverage this reality. In a study of seven hundred managers, Shapira (1995) found the following perceptions and practices regarding risk taking:

- Managers referred primarily to the downside of risk and
- They attended more to the negative or possible loss than to the probability of success.

In this study we see strong evidence that managers view risk taking as threatening. They tend to focus on the downside of risk. By concentrating on the negatives or potential losses, they quell attempts to succeed. Further, they rely on their own perceptions in discerning threats associated with risk. We seek far too much perfection and predictability to take the necessary risks in our organizations or our selves. The interesting thing is that from earliest times human beings have been risk takers. As a species, how would we have survived if we hadn't been creative

and taken risks with the wide variety of animals and threats that surrounded our primitive ancestors? Thorpe (2000) remarks, "Slow, soft humans are the last creatures one would expect to survive in this wilderness of our world. However, we not only survived, but also actually thrived because of our ability to take risks and break the rules, changing strategies in seconds, rather than generations." Although we now live in a wildly different world from those primitive cultures, the truth in this sentiment remains today.

Challenge yourself, for a moment, to think about what risk taking brings to an organization. Risk taking enables growth. Growth comes when we have the courage to lose sight of the shore and travel in unchartered waters. To be sure, peril is often close at hand; but without risk, there is no reward. As organizations grow, however, they often quit taking the risks that they used to take to get them where they are today. Stability and consistency become more important than new ideas and going head-to-head with the competition. In *Highwire Management,* Calvert (1993) says:

> "If you want to be an average manager or have an average organization, little risk taking is required. But, if you're set on high gains, then it demands that you walk on the highwire of management risks. Risk is like walking on a thick tightrope high above the ground without a safety net."

Kouzes and Posner (1987) emphasize that learning from the successes and failures that result from risk taking is "a key that unlocks the door" to opportunity in business. They identify the "hardiness factor" as a requisite for mastering risk. Individuals can keep trying despite failures and focus on the learning rather than on the outcome. In the language of Kouzes and Posner, organizations can foster hardiness by:

- Offering more rewards than punishments;
- Choosing tasks that are challenging, but within the person's skill level to build a sense of control; and
- Encouraging people to see change as full of possibilities and to build an attitude of change.

This hardiness is nothing more than increasing our risk-taking tolerance, a tolerance that if unattended will dwindle over time, resulting in our favoring an attitude of conservatism rather than change.

Hirshberg (1998) writes, "Every business needs to develop strategies to overcome fear, discomfort, and resistance. Fostering a corporate culture that accommodates opposing viewpoints without negative repercussions is a good starting point, but even this is not easy." Developing an authentic culture is a daunting task that requires commitment, time, and energy. It requires shifting conventional thinking to embrace, rather than shy away from risk. It means taking risk-management concepts, reframing them to include positive attributes, and encouraging healthy aspects of risk taking into all aspects of the organization.

In one sense, healthy risk taking can be viewed as experimentation. Thomke (2001) writes, " Experimentation lies at the heart of every company's ability to innovate. In other words, the systematic testing of ideas is what enables companies to create and refine their products. In fact, no product can be a product without having first been an idea that was shaped, to one degree or another through the process of experimentation" [taking risks]. Here we begin to see yet another perspective on the value and nature of risk taking to organizations. And within the definition of experimentation there are also different tolerances, ranging from conservative laboratory analysis to bold entrepreneurial type approaches of betting on the come.

Innovation = Creativity x Risk Taking

We've made some important discoveries in our work to date. Foremost is the belief that innovation is synonymous with creativity. Our point of view is that creativity is an integral part of innovation, but it is not innovation in itself. Innovation is also about risk taking.

We also believe that measuring the innovative capabilities of organizations is not something that's being done. This is due primarily to the fact that people believe it can't be clearly measured and defined—that it's too elusive and complex to measure. But over time each of us, and even our organizations, develop a unique and unmistakable creative and risk-taking orientation. This orientation (high, moderate, or low) may change during different periods of our life or the life cycle of our organization, but each person's and organization's current creative and risk-taking orientation can be measured. We will explore this in the next chapter.

In addition, many people try to explain innovation by reporting on retrospective case studies that describe successful innovative applications in organizations. That is, they write about the characteristics of innovation in organizations that have proven to be innovative. Retrospective studies of specific organizations capture only one point in time; they don't help with the future.

Further, innovation is often characterized as needing to be dramatic or radical if it's to have any benefit. Not only is this untrue, but it perpetuates the belief that innovation is beyond the capabilities of each and every person in the organization, thus discouraging attempts by would-be innovators.

Let's think about the big picture for a moment. The willingness to take risks and drive creative ideas to fruition has resulted in the many valuable products we use today. We might still be cooking over an open fire, storing food in the earth, and using horses as our primary means of transportation had certain people not taken the risks to push their creative ideas. Indeed, we wouldn't have fax machines, cell phones, or personal computers if it weren't for those people who were willing to be creative and take risks. Throughout time, creative people and risk takers have been instrumental in making our lives easier and more interesting.

These are the true innovators, aren't they? Are these people so unusual? Are they so different from you and me and the organizations we all work for? No, they are like us. We are not seeking to create organizations of *innovators,* but rather organizations that have *the capacity to be innovative.* The difference between the two will unfold as we continue our discussion. For now, we ask you to accept the fact that innovative capacity can be increased in individuals and organizations.

In this book we take the concept of innovation and make it real in terms of understanding what it is, how it can be applied, and how individuals, teams, and organizations can accelerate their innovative capacities.

Ideas for the Consultant

If working with teams or setting the stage for work with an entire organization:

- Break the definition of innovation into two parts. Remember, innovation is the act (risk taking) of introducing something new (creativity). Explore each aspect of the equation. (We are intentionally leaving out how you do this so that you can innovate your own new creative approach to exploring these concepts.)

- Ask them to consider the following:

  Does the act of innovation always produce something better?

  Is breakthrough innovation always necessary?

  What are examples of incremental innovations? (And breakthrough innovations?)
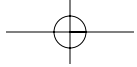
- Assert the thesis that we all can be more creative and take more risks. Discuss it. Where does the discussion go? Toward an unlimited future of possibilities? Or somewhere else? Why?

- Have people discuss self-actualization. How does it fit with the *Innovation Equation's* premise that we all can be more creative and take more risks?

- What makes it hard to take risks? Take the opportunity to explore where the messages around risk taking and creativity come from.

- Brainstorm two ideas for increasing creativity in ourselves or others.

- Brainstorm two ideas for greater risk taking in ourselves or others.