

# Learning To Thrive on Paradox

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"The management of organization, of society, and of personal life ultimately involves the management of contradiction.... The choice that individuals and societies ultimately have before them is thus really a choice about the kind of contradiction that is to shape the pattern of daily life."

—*Gareth Morgan, Images of Organization*  
(Sage Publications, 1986)

Managers find themselves pulled in more directions than ever before. They must do more and spend less, focus on core competencies and diversify into new markets, delegate and know the details, cut staff and take care of employees, and take risks and avoid costly mistakes. Rosabeth Moss Kanter calls this "the ultimate corporate balancing act. Cut back and grow. Trim down and build. Accomplish more...in new areas with fewer resources."



Meanwhile, organizations increasingly expect tidy resolutions of contradictory forces.

Such conundrums confront managers in all types of enterprises. Consider the following situations:

- ▶ You work for a large manufacturing firm in which each department has a different priority for the product-development process. Engineering aims for technical excellence, Manufacturing for reproducibility, Sales for rapid turnaround, Marketing for greater versatility, and Customer Service for reliability. Faced with these competing objectives, how do you reduce the time it takes to develop and launch new products?
- ▶ You work for the new administration of a financially strapped, socially troubled city. How do you balance the interest of businesses in lower taxes, of community groups in better services, and of the city government in higher revenues?
- ▶ You work for a five-year-old high-tech company that claimed a phenomenal market share with its start-up product. How do you enable the company to sustain its growth by becoming more market driven while retaining the innovative edge that made it successful?
- ▶ You work for a global firm that increasingly faces local competition in many of its established markets. Do you centralize operations to compete on cost, or do you decentralize operations to compete on customization?
- ▶ In a manufacturing firm whose product lines and markets are expanding, how do you make trade-offs among organizing for functional excellence, for product profitability, and for market responsiveness?

All of these situations involve paradoxes—conflicting choices or conditions, each desirable in theory but seemingly impossible to reconcile in practice. (In contrast, a dilemma is a choice between two equally disagreeable or unfavorable alternatives.)

In the past, when managers encountered a paradox, they resolved the conflict by opting for one path and ignoring the other. When the world moved more slowly, that strategy worked, at least until the second choice or condition festered

into a state that also demanded attention.

Now, competition is keener and market feedback comes faster. The scope of consequences of any particular action is increasing, while the time lapse between actions and consequences is decreasing. If you fire people to increase profitability, then employee morale quickly sinks, along with profits. If you try to grab market share with low prices at the expense of quality, then your customers quickly abandon you.

In short, managers no longer can ignore paradoxes. The art of managing in the 1990s lies in embracing incompatible forces rather than choosing between them.

To embrace paradox successfully, both managers and organizations must develop new mindsets. Managers need to develop new attitudes toward paradox and to learn ways of thinking that resolve seemingly contradictory policies. Organizations need processes for cultivating paradox instead of avoiding it. And they need new structures that institutionalize the management of paradox.

### **A mindset for managing paradox**

Despite the prevalence of paradox in organizational life, the part of our mind that seeks certainty and precision rebels against the very notion of contradiction. In addition, corporate cultures traditionally value such abilities as “making hard choices,” “setting priorities,” and “biting the bullet”—behaviors that cut off certain alternatives in favor of others. (The Latin root of “decide”—*caedere*—literally means “to cut off.”) As a result, we want to avoid acknowledging the very existence of paradox. The signs of avoidance are many: We are paralyzed in decision making, we “blow hot and cold” about a strategy or tactic, we waver between alternatives, and we try to accommodate two or more organizational camps by achieving a superficial consensus.

Learning to work with paradox requires what Peter Vaill calls a “mentality friendly to paradox.” We must appreciate that paradoxes are fundamental to living; in other words, that life is full of contradictions that we must integrate. (See “Paradoxical

Choices and Characteristics,” page 31, for a list of common paradoxes in organizational life.)

Humor can help relieve some of the initial tension that paradox causes. For example, in a 1991 article, Tom Peters presents eight commandments for project managers, including the following:

- ▶ Have total ego. Have no ego.
- ▶ Think big. Think small.
- ▶ Be impatient. Be patient.

You get the idea. As Peters observes, “It’s not clear Mother Teresa could pass all eight tests.” He concluded that a commitment to growth and learning offers the best hope for resolving contradictions; in fact, he was among the first to recommend that managers receive training specifically to help them deal with paradox.

Meeting the challenge of managing paradox entails a commitment to synthesis—a willingness to practice “both/and” thinking when confronted with “either/or” choices. As Kenwyn Smith and David Berg put it in *Paradoxes of Group Life*, “By staying in the paradox, immersing oneself in the opposing forces, it becomes possible to discover the link between them.”

A commitment to synthesis often produces a feeling of balance between opposite forces. In this sense, managing paradox is like learning to ride a bicycle. First, uncertain and anxious, you focus on the differences between the two sides, as you would focus on the training wheels beneath you. Then you discover the balance—the synthesis—that lies in between, and your awareness of the two sides disappears.

### **Cultivating paradoxes**

A team of Alfred Sloan’s senior managers once proudly reported back to him with a unanimous decision. He responded by ordering the team to produce at least one dissenting opinion. Sloan, like many excellent managers, knew the value of opposing viewpoints. Good managers often consciously create opposition, believing that from thesis and antithesis is born a more powerful synthesis.

When managers hear only one side of an argument, they should ask what is *not* being considered.



Managers should play the devil's advocate. The key is to adopt a spirit of inquiry, to generate not only opinions about what should be done, but also facts about what is known, particularly the facts that challenge long-standing assumptions.

As Peter Senge observes, such inquiries are likely to succeed when they follow certain ground rules. These include

- ▶ sharing and being willing to test publicly one's assumptions about what is happening and how the organization can best succeed
- ▶ appreciating that others' points of view may combine with your own to produce a better solution
- ▶ using an expert facilitator to model and reinforce the first two rules.

These ground rules make it possible to establish synergy among different and often conflicting viewpoints. In contrast, managers who are uncomfortable with conflict tend to prefer resolving it in a series of one-on-one conversations. They believe they will be more effective in influencing individuals one at a time—in other words, they take the divide-and-conquer approach. Moreover, they do not trust a group to produce a better outcome than they could engineer on their own.

Management teams are one entity that can effectively integrate different points of view. Smith and Berg describe how one such team succeeded: "When both kinds of reactions or opinions could be expressed and tolerated, when opposing forces could coexist (selfishness and selflessness, desires to preserve the status quo and desires for change, a need to protect a personal legacy and a need to enhance it, [or] the primacy of quality and the primacy of profit), the group was able to move. Prior to this release, the group's description of its struggles suggested lots of motion and little movement."

The challenge lies in enabling groups to express, accept, and learn from members' differences instead of downplaying or ignoring them.

Another way that managers can capture the benefits of multiple perspectives is through organizational processes that bring members of a

## Paradoxical Choices and Characteristics

### Choices

Act quickly	Plan for the future
Analyze	Synthesize
Centralize	Decentralize
Compete	Cooperate
Create what isn't	Discover what is
Do	Reflect
Downsize	Protect and value people
Focus	Diversify
Hold on	Let go
Lead	Follow
Manage task	Manage people
Plan	Experiment
Speak	Listen
Take a stand	Respond to the situation
Take risks	Be right

### Characteristics

Autonomy	Coordination
Control (tight)	Freedom (loose)
Costs	Revenues
Creativity	Efficiency
Differentiation	Integration
Ease	Difficulty
External	Internal
Gradual	Quantum
Inclusive	Exclusive
Individual	Organizational
Negotiable	Nonnegotiable
Order	Disorder
Persistence	Flexibility
Product	Process
Rational	Intuitive
Science	Art
Short term	Long term
Simplicity	Complexity
Specialist	Generalist
Structure	Openness and freedom
Technology push	Market pull

whole system together in one room at the same time to resolve their differences.

For example, many companies practice concurrent engineering to facilitate new-product development. They intentionally fan the flames of conflict, rather than trying to douse the sparks of discontent that exist among engineering, manufacturing, sales, marketing, and customer-service units. When a company forces these functions to synthesize their different objectives in the early stages of development, all parties get clear about what to produce and how to produce it.

Similarly, large-scale meetings often are more efficient and effective than smaller team meetings because participants can hear and appreciate all relevant viewpoints simultaneously. Some meeting models can serve more than 500 people from different organizations at one time.

Others, such as the future-search conferences made popular by Marvin Weisbord, work with 60 to 70 people in one room—although running several such conferences on the same subject simultaneously can greatly expand the number of people who can participate.

These models bring together a wide variety of stakeholders to address complex issues. The meeting models differ from those used in large kick-off meetings or academic conferences, because participants, representing multiple organizational functions and levels, do not just share information. Together, they actively create and react to new information in "real time." Participants come away more deeply appreciative of their own and others' situations, goals, and possibilities, and of the whole system of which they are part.

Interaction Associates, a consulting firm based in San Francisco, has developed a different approach. The firm designs large-scale, collaborative problem-solving processes that weave together the contributions of diverse stakeholders over time. This approach enables very large groups to solve complex problems through "accordion planning"—an orchestrated series of large meetings involving all stakeholder groups, and smaller meetings involving subsets of the stakeholders.

Interaction Associates used the process with local businesses, community groups, and multilevel government agencies to improve the economic and social health of a large U.S. city. The process also has been used to redesign the new-product-development process of a major corporation, an effort that involved 30 problem-solving groups from seven business units.

Each of these approaches—management team building, concurrent engineering, large-scale meetings, and collaborative development processes—brings together constituents with diverse, seemingly contradictory perspectives. Each approach typically helps people recognize their similarities by enabling them to establish a shared vision of a desired future and a common picture of current circumstances. The next step is to engage



paradox, rather than avoid it, and to harness the synergistic energy contained in seemingly incompatible options.

### Engaging paradoxes

Most tools for resolving paradoxical logic involve ways of holding seemingly contradictory positions simultaneously. They usually require naming and appreciating the opposing positions and then highlighting distinctions within them. Approaches fall into four basic categories:

- ▶ "both/and" thinking
- ▶ "best-of-both" thinking
- ▶ expanding the context in space, time, or both space and time
- ▶ "neither/nor" thinking.

Managers can apply many of these thinking tools to strategic planning, in addition to applying them to team-development and organizational development processes.

**"Both/and" thinking.** Here is a simple example: "Improving quality costs money, and it saves money." This premise escaped many U.S. managers until Japanese manufacturers drove the point home during the 1980s. Until then, U.S. managers tended to view quality as a cost of doing business, best managed by rework, special inspectors, and product promotions that emphasized other product features. The prevailing mindset maintained that increasing quality was costly.

Or was it? Japanese products began to claim U.S. markets, attracting consumers on the basis of both high quality and low price. U.S. manufacturers began to ponder whether quality might be not only cheap, but free, as author Phil Crosby puts it in *Quality is Free*.

That example demonstrates that sometimes the simplest solution to a paradox is to answer the question, "How can both sides of the paradox be true?" The answer in this case is that quality closely relates to productivity. Increasing quality requires a short-term investment. But in the long run, companies realize enormous savings from using resources more efficiently. Moreover, when companies believe that quality is free, the belief becomes a self-fulfilling prophecy—companies seek alternatives that incorporate both high

quality and low cost, instead of choosing one and not the other.

Currently, many companies grapple with the following paradox: "People want customized products at commodity prices." How can companies "mass-customize" products and services while minimizing costs? Some companies have developed simple base products, which they can tailor to meet customers' individual needs. For example, a software manufacturer might standardize 80 percent of an application and customize the remaining 20 percent. Textile companies have designed machines that accommodate multiple designs and color schemes. At the touch of a button, for example, a company can mass-produce a "customized" carpet.

Maintaining the mindset of "both/and" requires continuously

## WHEN PEOPLE PERFORM AT THEIR BEST, THEY EXHIBIT CONTRADICTORY BEHAVIOR

posing the question, "How can both X and Y be true?" But the answer is not always obvious.

**"Best-of-both" thinking.** Sometimes, you must discover distinctions within the contradictory forces. Then you can determine how to highlight certain characteristics of the forces under specific conditions to achieve synergy.

In *Patterns of High Performance: Discovering the Way People Work Best*, Jerry Fletcher observes that when people and organizations perform at their best, they tend to exhibit contradictory behavior—for example, a leader who is known as a "benevolent dictator" or an organization that is described as an "innovative imitator."

Similarly, in *In Search of Excellence*, Peters and Robert Waterman, Jr., describe the "loose-tight" controls employed by excellent companies.

One *Fortune* 500 company views itself as a family of entrepreneurs, where support for individual initiative is balanced by extensive requirements for coalition and consensus building.

Fletcher's approach is to help people and organizations develop what he calls "high-performance oxymorons." (An oxymoron is a term that seems to contradict itself, such as "jumbo shrimp.") The oxymoron itself is a paradox. According to Fletcher, the purpose of identifying the oxymoron is not to eliminate the tension inherent in the contradiction. Instead the aim is to raise the tension to a more constructive level. The approach involves five steps:

- ▶ Describe your current performance as an oxymoron.
- ▶ Identify the positive and negative tendencies inherent in each element of the oxymoron.
- ▶ Establish new oxymorons that describe the ideal and the "nightmare" inherent in the original.
- ▶ Rate how well you are doing now.
- ▶ Plan how to manifest the ideal more consistently.

Here is how the process worked for one senior manager. Mary saw herself as a "Careful Adventurer." She described the positive tendencies of "careful" as managing, calibrating, and monitoring her performance. She said the downside of being careful was that she could be too controlling, which stifled her own creativity and that of her subordinates. The positive tendencies of being an "adventurer" were that she was always learning something new, exploring, and doing something different. The negative aspects of being an adventurer were that she never mastered anything and never controlled a situation well enough to produce a predictable result.

We worked with Mary to identify her ideal oxymoron as that of a "Calibrating Explorer," while her nightmare image was that of an "Out-of-Control Controller." Mary's nightmarish side usually emerged when she was asked to turn around a failing organization whose work she knew little about. Pressed into being an expert in an unfamiliar area, Mary managed her subordinates so closely that both she and



they lost sight of their long-term objectives. On the other hand, when Mary established with her boss and colleagues that they all were learners in a new situation, she was able to create an environment where everyone developed new skills and results in a planned way.

In *Polarity Management*, Barry Johnson builds on the concept that each side of a paradoxical situation has both a positive and a negative aspect. He notes that people who are paralyzed by paradox tend to perceive the positive qualities of one side and the negative qualities of the other side, while ignoring the other two aspects. Johnson says the key is to begin with the aspect that a person deems most important, and then to focus alternately on the positive and negative aspects of each side. For example

- ▶ Ask people to cite the positive aspects of the side they favor.
- ▶ Ask them to cite the negative aspects of the side they find worrisome.
- ▶ Ask them to consider the positive aspects of the side they find worrisome.
- ▶ Finally, ask them to consider the negative aspects of the side they favor.

The process also works in reverse. (In other words, first ask people to express their concerns about the side they dislike, and then ask them to explain the positive features of the side they prefer. Next, ask them to consider the negative aspects of the side they prefer, and conclude by reflecting on the positive qualities of the side they dislike.)

For example, suppose one segment of a support function, the "expert" contingent, argues strongly for telling line managers what to do. Another segment, the "servant" coalition, believes that the support function exists to serve line managers and respond to requests.

Using Johnson's approach, there are two ways to resolve the conflict. In the first, representatives of both sides would meet in mixed groups and fill in the four aspects. For example, they could begin with the negative aspects of being an expert and conclude with the positive aspects of demonstrating expertise. Then, they

would review the four lists in a different order to widen their perspective on the whole picture.

The process would enable both contingents to see that providing expertise has its advantages (the group might provide vital functional knowledge to the company) and its disadvantages (line managers might view the group as irrelevant, or even obstructionist). Likewise, providing service has advantages (the group can meet line managers' needs) and disadvantages (line managers might expect the group to clean up the line's messes.)

In the second approach, we would ask the "experts" and "servants" to meet in their own groups and adopt the others' point of view.

With either approach, the experts and servants are able to develop a synthesis of the two sides—asking

## THE NEW ORGANIZATION IS A NETWORK OF FLUID CROSS-FUNCTIONAL TEAMS

line managers to make decisions using the support function's expert input and follow-up.

**Expanding the context in space.** Sometimes managers find it difficult to capitalize on the two sides of a paradox because they assume that the positive aspects of both sides must manifest at the same location. Headquarters staffs, in particular, tend to believe that everything of value to the company must emanate from headquarters. But most groups suffer from the same tendency. Hence, you might ask:

- ▶ Are we assuming both sides of the paradox cannot exist simultaneously?
- ▶ How can the organization support the positive aspects of both sides of the paradox at different locations simultaneously?

For example, consider the question, "How can our organization both centralize and decentralize to

gain the advantages of both strategies at the same time?" Organizations frequently revolve from centralization to decentralization and back again. When profits are down, managers tighten controls, often at the expense of local responsiveness. When creativity and innovation take precedence, managers delegate more power to people closer to the customer. But, as Kanter notes, current environmental conditions require both belt-tightening and creative responses at the same time.

The matrix organization represents one early solution to this problem. Matrices were intended to combine the cost-effective use of functional resources with the localized flexibility of independent businesses. But even their proponents now view matrices as a last resort because of the confusing allegiances and time-consuming management responsibilities they create.

New types of solutions are emerging. One type draws on theories of organization culture and transformation. Establishing or revitalizing an organization's purpose, vision, and values across locations aligns people's commitments without the traditional constraints imposed by centralized control systems. Another type of solution emerges from developments in information technology that allow work formerly done in one place to be done in many locations. New technologies also foster the consolidation of previously decentralized efforts.

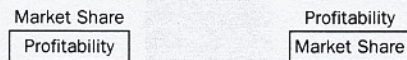
Approaches based on clarifying organizational focus and introducing new information-processing technology are necessarily complementary. Within organizations, many managers do not readily share information or align their local business practices, because they do not perceive that they are working toward a shared purpose and vision. When structural solutions made possible by information technology are reinforced by a clear, shared organizational focus, we see the successful blending of the two discrete approaches.

Organizational alternatives made possible by new technology include Peter Drucker's information-based organization and Charles Savage's network organization. Drucker envisions an organization that comprises

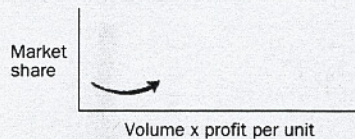


**FIGURE 1**  
**Four Steps to Spiraling**

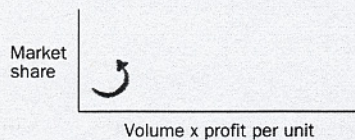
1. Containing: Market share and profitability are contained in and constrained by each other.



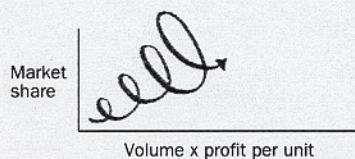
2. Sequencing: Increase market share by generating volume with low profit per unit.



3. Cycling: Invest profits in one market to build market share in another.



4. Spiraling: Repeat the cycle to achieve high market share and profitability in many markets.



ad hoc task-focused teams held together by clear, agreed-upon values and objectives. Savage builds on this vision by describing the new organization as a network of "virtual," or fluid, cross-functional teams that continuously define and redefine themselves to create and capture emerging opportunities in better ways.

These alternatives rely on distributed information processing. In the past, the economies of scale produced by centralized development were frequently outweighed by the inapplicability of headquarters' solutions to field problems. Now, expert resources can be "excentralized" in one field location, producing companywide solutions from a location close to the customer. Similarly, people who once had to work at the same site now can work together from multiple locations using a variety of telecommunications technologies.

Christopher Bartlett and Sumantra Ghoshal build on these themes of centralized, decentralized, and excentralized organizations in

*Managing Across Borders: The Transnational Solution*. They examine the ways that multinational companies are meeting the challenge of managing by function, business, and geography.

Bartlett and Ghoshal describe three different strategies previously used by companies: a "global" approach that takes advantage of centralized resources to produce economies of scale, a "multinational" strategy that decentralizes resources to adapt uniquely to local needs, and an "international" approach that emphasizes exploiting parent-company knowledge and capabilities through worldwide diffusion and adaptation.

Bartlett and Ghoshal suggest that companies now have to employ all three strategies in concert—albeit in distinct combinations suitable to their businesses—to become what they term truly "transnational" companies.

**Expanding the context in time.** Along with exploring how both sides of a paradox can coexist in space, managers also benefit from taking time

into account. As Charles Hampden-Turner notes in *Maps of the Mind*, "Order and disorder, doubt and certainty can surely be entertained simultaneously in one mind. They may have to be implemented sequentially, but that is different."

The short- and long-term effects of many managerial decisions tend to be contradictory. That fact heightens the need for a time-expanded view of paradox. Complex systems frequently exhibit what is termed "worse-before-better" behavior (things get worse before they get better) and "better-before-worse" behavior (things get better before they get worse).

Hence, another set of questions to ask:

- ▶ How can we resolve a contradiction by focusing on each side in sequence?
- ▶ How can we achieve long-term consequences consistent with what we want in the short term?

Here are examples of paradoxes that you can address by expanding the context in time:

- ▶ "How can you be both task oriented and people oriented?" Peter Hersey and Kenneth Blanchard's situational-leadership model provides a four-step sequence for attending to subordinates as they learn a task. First, when subordinates are new to a task, managers put a lot of emphasis on helping them structure the task. Second, managers build strong relationships with subordinates to support their task focus. Then, they maintain the relationships but pay less attention to the task as people develop competence. Finally, managers let employees carry out the task on their own as much as possible.
- ▶ "How can you be both decisive and open to new ideas?" Robert Quinn addresses this question in *Beyond Rational Management* using his "competing-values framework." He recommends that managers first focus inside themselves as they decide what they want to create, and then focus externally as they work with others to create it. He says managers should welcome a wide variety of inputs as they consider how to proceed and should act decisively as these inputs coalesce in their minds.
- ▶ "How can you cut staff and sustain



morale?" Many companies make the mistake of cutting frontline people prematurely without first tackling the harder tasks of cutting unnecessary work and management layers. The result is that morale drops. Often, profits drop as well, when essential work goes undone. An awareness of the "better-before-worse" principle could discourage companies from taking the easy way out, if the goals of reducing staff and sustaining morale are equally important.

**Expanding the context in space and time.** Relaxing assumed constraints on both space and time simultaneously often leads to an even more powerful synthesis than addressing each factor separately. The question becomes, "How can the best of both sides be integrated in different locations over time?"

A technique based on the work of Charles Hampden-Turner is one approach to relaxing both spatial and temporal constraints. We call the approach "spiraling" because the result is a diagram showing how each side of the paradox reinforces the other in ever-expanding cycles over time.

For instance, consider the question: "How can we achieve both high profits and market share?" At first glance, these goals might appear incompatible. High profits suggest high prices. High market share suggests low prices.

We can use spiraling to resolve the paradox and answer the question. The spiraling technique involves four steps (see figure 1, on page 35).

- 1 Consider how each side of the paradox is contained in the other. For example, you can achieve high market share by combining a low profit per unit sold with high volume. You achieve high profit by generating high share across markets.
- 2 Order the variables in such a way that one provides the foundation for the other. In this example, selling your product at a thin profit margin to attain high market share in one market enables you to generate the high volumes and overall profits to invest in a new market.
- 3 Alternate between the two variables, so that each reinforces the other over time. For example, you can repeat the sequence to achieve

high market share and high profits in more than one market.

- 4 Test to ensure that the first three steps work together to produce the synthesis you want.

The Japanese have successfully used this strategy to achieve high market share and profitability in many markets.

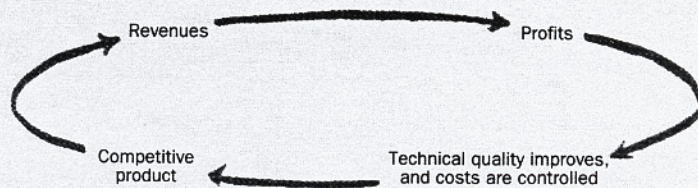
Here is another situation in which spiraling can resolve a paradox: "How can a department both focus and diversify to continue to demonstrate its added value?"

An HR department can create specialties (diversify) within a certain area of expertise (focus). It identifies a first level of focus—its purpose of leveraging the contributions of all

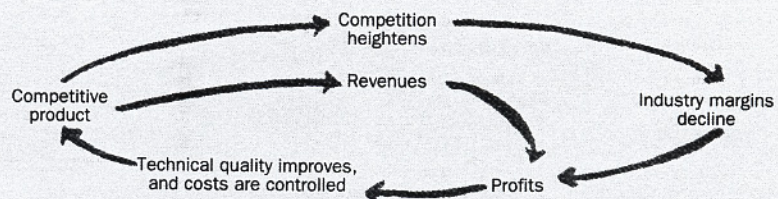
FIGURE 2

## A Systems-Thinking Approach to Paradox

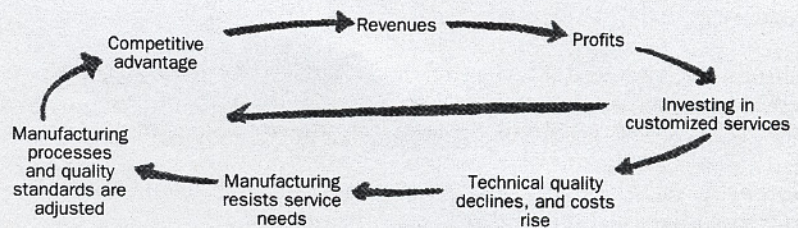
**Manufacturing perspective.** Producing high-quality products at low prices drives the company's profits and growth.



**Corporate perspective.** Raising standards for quality spurs competitors to increase quality, which lowers profit margins industrywide and reduces the company's overall profitability.



**Marketing perspective.** Customized service increases manufacturing costs and decreases technical quality in the short run, but increases overall profitability in the long run.



employees to the company's success—and then establishes strategic areas in which to diversify over the next year. These might include

- 1 increasing employee motivation
- 2 developing individual skills consistent with the company's targeted core competencies
- 3 improving collaboration across organizational functions in support of key business processes.

Next, each team focuses on a strategic area for one year. Each team is accountable for developing the skills it needs, base procedures, and products to build knowledge and focus within its strategic area. For example, the team focusing on collaboration proposes a new perfor-



mance-management system for cross-functional work and introduces a course in systems thinking.

The following year, the department determines which strategic areas to carry over one more year, which to add, and which to transfer to other departments. It decides to outsource individual skills training to a combination of both line managers and outside suppliers, while expanding its own work in the other two strategic areas.

Now, it's time to diversify again, with people taking on new roles within the updated strategic areas. They build on last year's work where appropriate, and start fresh on new projects. They document their work at the end of the second year, and the process starts again with a renewal of purpose.

Systems thinking is another approach that enables managers to map the interaction of different viewpoints over time. As an example, consider how one company is addressing the question of whether its strategic thrust should be in manufacturing or in marketing.

The manufacturing people maintain that the company's success was built on its commitment to developing high-quality products at low prices. But, over time, the higher-quality products spurred competitors to increase the quality of their products, lowering industry margins and the company's overall profitability.

The marketing people argue that customized service now holds the key to the company's future, even though offering such service will cause manufacturing performance to decline initially.

When the company traces the feedback relationships among relevant business factors and the time delays involved, people come to see that adjusting manufacturing processes and quality standards in the short run is the best way to increase the company's competitive advantage and overall long-term profitability. (See figure 2.)

**"Neither/nor" thinking—choosing a third option.** A Jewish proverb advises that, if there are two courses of action, you should always pick the third.

All the ways of thinking introduced so far to engage paradox have

involved some kind of "both/and" thinking. Paradoxically, the final way of engaging paradox is to think "neither/nor" instead of "both/and." The question to consider is this: "Are the two sides of the paradox intended to achieve a common vision or goal?" If so, focus on the result instead of choosing between the two sides.

For example, many companies, particularly those with strong foundations in engineering, experience tension between letting their technological interests drive their investments and letting their market needs drive them. Should an organization invest in the technology it wants customers to buy, or should it allocate resources to what customers want, whether or not it really wants to provide what customers want? One way out of the paradox is to choose neither path. By doing so, you might ironically wind up traveling both of them.

If a company begins by clarifying the vision of what it wants to create, people usually discover that what is most important to them is creating something that serves others. Sometimes, companies understand what will best serve customers before the customers know it themselves. In these cases, technology pushes the company. At other times, companies recognize that the customers know what they need most clearly. At these times, they let the customer lead the way. The road taken is the one that leads to making the world a better place. The paradoxical forces of "technology push" and "market pull" both help drive the company along that road.

### **Institutionalizing paradoxes**

The organizational processes and ways of thinking introduced so far stimulate managers to work with the paradoxes that make up organizational life, and give them tools and support for doing so. But, as noted earlier, people resist the very notion of contradiction in the first place.

To ensure that managers address paradoxes rather than avoid them, organizations need new designs that institutionalize particularly critical paradoxes so that managers must confront and synthesize them. Some paradoxes that can be managed in this way include the following:

- ▶ freedom versus discipline
- ▶ short-term versus long-term effects of decisions
- ▶ functional excellence versus product profitability versus market responsiveness
- ▶ hierarchy versus democracy.

Three emerging organization designs address those paradoxes.

**The Viable Systems Model.** Stafford Beer's Viable Systems Model is an organization design that establishes conscious management of the freedom/discipline and short-term/long-term paradoxes. The design, described in Beer's book *The Heart of Enterprise*, comprises five systems, or work functions.

System One comprises the basic delivery units that provide products and services to the organization's customers. System Two ensures that the multiple delivery units that make up System One coordinate the delivery of their offerings.

System Three is the operational management function. It monitors the progress of System One to ensure that short-term results are achieved and to ensure compliance with agreed-upon operational goals. A second important function of System Three is to manage the relationship between System One and System Two.

System One units require flexibility to meet their customers' varied needs. System Two provides the necessary coordination among the diverse efforts of System One units. One of the best ways that System Three can facilitate the required balance between flexibility and coordination is by helping the various System One units develop and self-regulate System Two without interference.

System Four is the development function of the organization. While System Three focuses on results "inside and now," System Four focuses on "outside and then" issues.

System Five is the board function, whose purpose is to ensure the long-term success of the organization. It does this by ensuring that System Three and System Four work closely together to balance operational and developmental factors contributing to overall system health. System Five also is responsible for ensuring that the organization maintains strong



relationships with the higher-level systems on which the organization depends, such as the industry or regulatory environment.

Beer's model highlights several typical weak points in organization design—in other words, ways organizations avoid critical paradoxes instead of addressing them. Two weak points:

- ▶ Failure to establish a strong System Two, or coordination, function. The result is confusion between the legitimate control function of System Three and the equally legitimate diversity required by the multiple units of System One. Without a strong System Two, systems Three and One are at odds, and self-regulated coordination gives way to conflicting demands for control and independence.

- ▶ Failure to establish a strong System Four or development function. The result is a collapse of System Five into System Three, where System Five intervenes or gets pulled into operational details at the expense of facili-

tating overall organization health.

Beer has applied this model to organize such systems as a large insurance company, the economic regulatory apparatus of a country, a television station, a national trade-training network, a medium-size paper company, and an academic medical center.

**The multidimensional organization.** Russell Ackoff developed a multidimensional organization model to address ways of managing three different organizational dimensions that always compete for attention and resources.

Earlier we stated that the matrix organization, an attempt to manage along two dimensions simultaneously, failed because it created confusing allegiances and time-consuming management responsibilities. The other shortcoming of matrices is that for modern corporations, two dimensions are not enough. In addition to what have now become diverse functions,

products, and services, companies must also manage across multiple customer bases, including geographies and industries. In fact, the joke in one multinational is that a promotion means you get one additional boss.

Ackoff observes that three criteria dominate decisions about how work gets divided: output (product or service), input (functions contributing to the output), and markets or classes of customers. His design establishes all three types of units as profit centers accountable to the corporation for delivering profitable service to their customers.

In Ackoff's model, a free-market economy replaces the typical planned economy, whose shortcomings were highlighted by the breakup of many of the world's Communist societies. Units exchange goods and services internal or external to the organization (subject to certain guidelines established by the executive office to promote synergy and economies of scale).

### Further Reading

*Creating the Corporate Future*, by Russell Ackoff. (John Wiley & Sons, 1981).

*Managing Across Borders: The Transnational Solution*, by Christopher A. Bartlett and Sumantra Ghoshal. (Harvard Business School Press, 1989).

*The Heart of Enterprise*, by Stafford Beer. (John Wiley & Sons, 1979).

*Quality Is Free: The Art of Making Quality Certain*, by Philip B. Crosby. (McGraw-Hill, 1979).

*Process Management: How To Design and Manage Collaborative Problem Solving Processes*, by Michael Doyle and David Straus. (Interaction Associates, 1979).

"The Coming of the New Organization," by Peter Drucker. *Harvard Business Review*, January/February 1988.

*Patterns of High Performance: Discovering the Way People Work Best*, by Jerry Fletcher. (Berrett-Koehler, 1993).

*Maps of the Mind*, by Charles Hampden-Turner. (Free Press, 1981).

*Charting the Corporate Mind: Graphic Solutions to Business Conflicts*, by Charles Hampden-Turner. (Free Press, 1990).

*Management of Organizational Behavior: Utilizing Human Resources*, by Peter Hersey and Kenneth H. Blanchard. (Prentice-Hall, 1977).

*Polarity Management*, by Barry Johnson. (HRD Press, 1992).

*When Giants Learn To Dance*, by Rosabeth Moss Kanter. (Simon and Schuster, 1989).

*Images of Organization*, by Gareth Morgan. (Sage Publications, 1986).

"Eight Commandments for Project Managers," by Tom Peters, Tribune Media Services, July 1991.

*In Search of Excellence*, by Tom Peters and Robert H. Waterman, Jr. (Harper and Row, 1982).

*Beyond Rational Management*, by Robert E. Quinn. (Jossey-Bass, 1988).

*Fifth Generation Management*, by Charles M. Savage. (Digital Press, 1990). This book can be purchased through ASTD Press, 703/683-8100. Order code: SAFG. Priority code: BVM. \$28 for ASTD members, \$30 for nonmembers.

*The Fifth Discipline*, by Peter M. Senge. (Doubleday, 1990). This book can be purchased through ASTD Press, 703/683-8100. Order code: SETF. Priority code: BVM. \$23 for ASTD members, \$25 for nonmembers.

*Paradoxes of Group Life: Understanding Conflict Paralysis and Movement in Group Dynamics*, by Kenwyn Smith and David Berg. (Jossey-Bass, 1987).

*Managing as a Performing Art: New Ideas for a World of Chaotic Change*, by Peter Vaill. (Jossey-Bass, 1989).

*Productive Workplaces*, by Marvin R. Weisbord. (Jossey-Bass, 1989).



The executive office itself operates as a profit center, responsible for making a profit on investments it provides to the individual units. Part of the executive office's income derives from the interest it charges units on their investments, and part of its income comes from a corporate tax paid by each unit for corporate services the executive office provides.

The design can accommodate distinct groups of units within each broad dimension, such as geographical and industry markets. It can be introduced in some parts of an organization without changing others. It can be diluted in several ways if necessary. Several chemical companies, computer companies, and an oil company have instituted the model, in whole or in part.

**The circular organization.** Ackoff also developed a circular organization model as a way of merging the benefits of hierarchy (division and integration of labor) with the benefits of democracy (participative management). In this model, each manager reports to a management board. Except for the boards at the top and the bottom of the hierarchy, the composition of each board is the same. Each board comprises a manager, his or her immediate superior, and his or her immediate subordinates. Each board is charged with

- ▶ coordinating the activities of the units that report to the manager whose board it is
- ▶ integrating the activities of those units with the activities of units two levels above and two levels below
- ▶ establishing policies for the manager's reporting units
- ▶ evaluating and approving the performance of the manager.

Applications of this design appear in organizations including hospitals, a packaged-foods company, a state commission, a chemicals company, and an oil company.

The designs of Beer and Ackoff help institutionalize four critical paradoxes common to all organizations. Because organization redesign challenges people's perceptions of their own power in significant ways, they often avoid it in favor of less penetrating alternatives. But any of these designs also can be introduced as an approach to revitalizing important

personal and organizational values. For example, Beer's emphasis on self-regulated coordination (System Two) and Ackoff's multiple profit centers appeal to an entrepreneurial spirit without sacrificing corporate requirements for control and results.

### Thriving on contradiction

The organizational processes, ways of thinking, and designs summarized here provide managers with powerful approaches for working with, rather than eliminating, paradoxes. (See "Developing the Capacity To Thrive on Contradiction.") At best, people can use these tools to embrace contradiction, and thereby manage themselves and others more effectively.

We live, after all, in a world of differences and interdependencies that will not go away. As Gareth Morgan states, "Any phenomenon implies and generates its opposite. We cannot know what is cold without knowing what is hot. Day and night, good and evil, figure and ground.... In each case, the existence of one side depends on the other. Opposites are intertwined in a state of tension that also defines a state of harmony and wholeness."

Look again at the list of paradoxes in "Paradoxical Choices and Characteristics" (page 31). Notice that if you had only one column to work with, you would find yourself permanently out of balance. Inevitably, you must, at the very least, acknowledge the other side. At best, you can embrace contradictions as part of moving toward balance and completeness in all dimensions. ■

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## Developing the Capacity To Thrive on Contradiction

### Adopt a mindset "friendly to paradox."

- ▶ Learn to appreciate the value of synthesis.
- ▶ Develop a feeling of balance.
- ▶ Have fun.
- ▶ Commit to growth and learning.

### Cultivate paradoxes.

- ▶ Inquire into opposing viewpoints.
- ▶ Establish organizational processes incorporating divergent views.
- ▶ Use large-scale meeting formats.

### Engage paradoxes.

- ▶ Develop "both/and" thinking. Ask "How can both X and Y be true?"
- ▶ Examine "best-of-both" thinking. Develop conditions to support the positive characteristics of each side of the paradox.
- ▶ Expand the context in space. Ask: "Are you assuming both sides of the paradox cannot exist simultaneously?" "How can the positive sides of both be supported to coexist at different locations at the same time?"
- ▶ Expand the context in time. Ask: "How can you resolve the contradiction by sequencing the focus on both sides over time?" "How can you achieve long-term consequences consistent with what you want in the short term?"
- ▶ Expand the context in space and time. Ask: "How can the best of both sides be integrated in different locations over time?" Apply such thought processes as spiraling and systems thinking.
- ▶ Consider "neither/nor" thinking as an alternative to "both/and" thinking. Ask: "What higher-level goal do both sides of the paradox seek to achieve?"

### Institutionalize paradoxes.

- ▶ Experiment with such organization designs as the viable systems model, the multidimensional organization, and the circular organization.
- ▶ Introduce these designs in the context of relevant personal and organizational values.