

**1.1.22. THE FEELING OF ENERGY—THEODORE GÉRICAUT (*RAFT OF THE MEDUSA*)**

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# **1. BACKGROUND**

## **1.1. INTRODUCTION**

### **1.1.23. OTHER USEFUL ORGANIZATIONAL MODELS FOR USING MANAGEMENT TOOLS**

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### 1.1.23.1. ALTERNATIVE MODELS FOR THE ORGANIZATION IN THE MANAGEMENT PROCESS FRAMEWORK

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**As we implement our strategy to address changes due to our organization's environment, we'll need useful organizational models in addition to the structured fourteen-functioned management process.**

Directed by the Management System Model, management system analysis and management system synthesis when assembled together as the structure for the management process give us one representation of the organizational model called for in Figure 1.1.11.4. We'll use this structure most heavily as we study building and using management tools.

The manager conducts a number of broad, focused activities when making decisions and taking actions. These activities include leadership, culture management, and others and are described in the form of an organizational effectiveness model in Module 1.1.23.3. The manager needs his or her management tools to support these activities. Several ways of looking at the organization consider these activities and the way management tools support them. One such model is Weisbord's people, technical, and reward subsystems for the management system shown in Figure 1.1.4. This model gives us another structure for the organization to help us build and use successful management tools. The structure I'll use as the primary organizational model in the center box of Figure 1.1.11.4. is the dual cycle of the fourteen management process functions shown in Figure 1.1.21.7. However, to help tie the tools together to get synergy among them, we'll look at other models for structure.

Consider Figure 1.1.23.1. Notice the relationship of this figure to Figure 1.1.11.4. What's inside the box called organizational models? It depends on what you want to focus on. Your focus is directed by the environment of the management system, or domain of responsi-

bility. One of the traditional tenets of management is that structure follows strategy, which follows environmental change.

When your domain's environment changes, your strategy for operation and for dealing with the environment should change immediately. Your organizational structure, usually thought of in terms of the wiring diagrams we call organization charts (one of your management tools), should adjust to support the new strategy. However, as we look at a structure of management process functions or a structure of activities like leadership and culture management, your emphasis or connections among the parts of the structure will change to meet the need. For example, a change in your environment may cause you to change your strategy in such a way you need to change your emphasis from leadership-dominated activities to culture-management-dominated activities. However, each of these activities is tightly tied to the other. Deal and Kennedy (*Corporate Cultures*) say the business environment is the most significant element in a corporate culture.

The idea of structure following strategy, which follows environmental change shouldn't be foreign to people who practice the engineering process. A need, or application, begets a plan, which leads to the structure of the solution to the need.

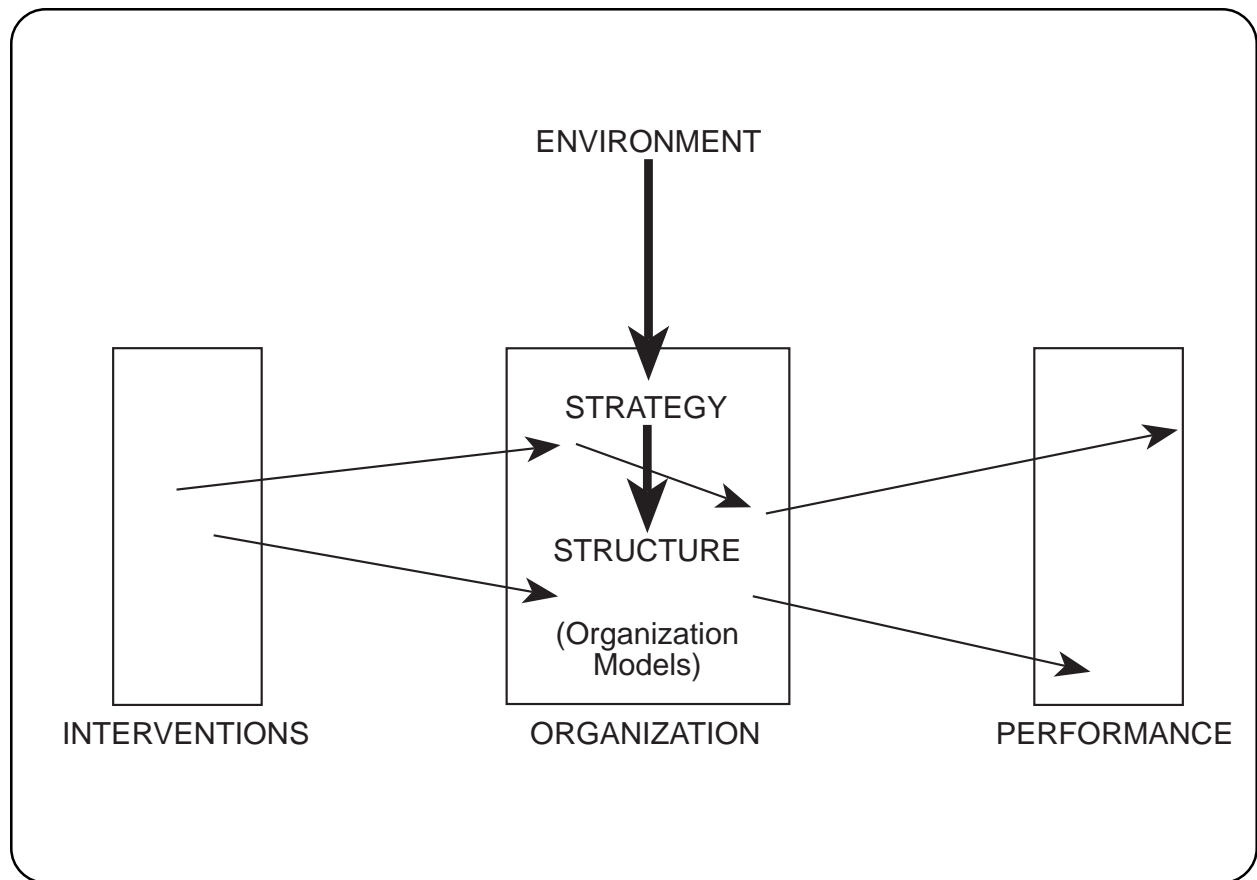
We'll find in Module 1.1.23.3. that the activities-oriented structures for the organizational model in Figure 1.1.23.1. draw heavily on skills of the manager. The management pro-

cess functions draw on skills to build, use, and integrate the management tools—skills for building tools like system analysis, information gathering, information analysis, and developing data and information stores and skills for using tools like communication, getting consensus, and sharing information. I'll discuss these skills as I detail the functions where you need to use them. The activities-oriented structures for the organizational model draw on skills not so keyed to management tools, like envisioning for leadership and cheerleading for culture management. Activities-oriented structures emphasize the manager and his or her roles. Management-process-oriented structures, like the one in Module 1.1.21.7., emphasize decision making.

Decision making is central to the management

process in much the same way as design is central to the engineering process (as described in Module 1.1.11.6.2.). The management process is about decision making and what precedes and follows from decision making. The engineering process is about design and what precedes and follows from design.

As we expand and use Figure 1.1.11.4., we'll need one or more of the alternatives for the organizational model in the center box. In the general sense, all the alternatives are intermingled in the box. If we were to consider each of the alternatives as represented by a different color, their integration in the center box would make it a black box. With all the alternative models working together in the box called organization, that box represents the domain of responsibility not just the operation.



**Figure 1.1.23.1.** We can represent the organization by a number of models as the structure influenced by our strategy as we deal with changes in the organization's environment.

### 1.1.23.2. STRUCTURE RESPONDS TO STRATEGY REFLECTING CHANGES IN THE ENVIRONMENT.

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**While structures in an organization, like reporting structures and geographic layout, are visible and immediate, they can't be developed properly until you have a strategy based on your business environment.**

Figure 1.1.23.2. contains a planning model reflecting the thought process people in an organization need to go through before they can make effective interventions in the domain of responsibility. The planning process must be a closed loop. Strategy and structure are only of value when they result in actions (interventions) changing the organization and affecting the business environment. The organization affects the business environment through its merchandising (suppliers) and its marketing (customers) strategies and interventions.

The process in Figure 1.1.23.2. is highly recursive and you'll find loops within loops. The environment plays the role of forcing function on the organization.

I'll discuss the steps in Figure 1.1.23.2. in the modules about using management tools. Notice, however, the sequence from environment to strategy to structure. Also, notice the decision/action interface (interventions) of the Management System Model represented in the last step. These decisions and actions become the interventions you make on the organization affecting its structure of relationships among people (organization structure), tasks (work flow), and resources (for money, chart of accounts or budget, and reporting structure).

From Figure 1.1.23.2., notice that between the business environment and the organization's strategy is the organization containing four steps, or sets of characteristics, describing and defining the organization. Again, we find that if you don't have profound knowledge of your

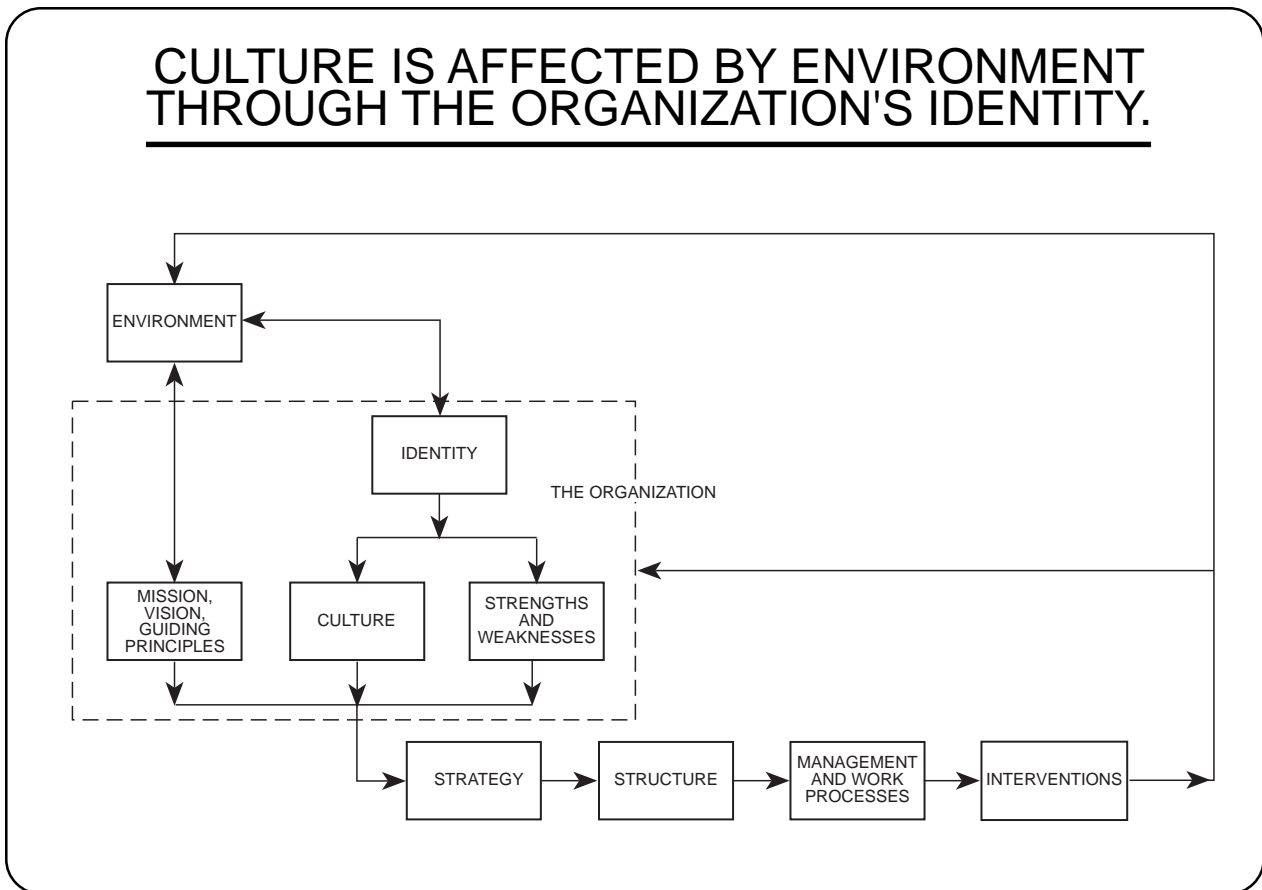
domain of responsibility (the organization) you don't have the foundation to proceed intelligently. The organization steps in Figure 1.1.23.2. tell us we must know identity (who we are), mission (what we do), vision (where we're headed), guiding principles (the rules we follow), culture (what we stand for and believe in), and strengths and weakness (internal and external barriers, threats, and constraints) before we can move forward in planning. The box for strengths and weaknesses is often called SWOT for strength/weaknesses/opportunities/threats or SWOC for strengths/weaknesses/opportunities/constraints.

In discussing organizational change, DeLisi describes an experience he had at Digital. As part of their strategic planning intervention, Digital was working on what was essentially a SWOT analysis. They were preparing the background to work on strategic goals. But, they couldn't bridge from SWOT to strategy without dealing with the culture they had and the culture they wanted. In figuring out their culture, they found they were caught in between an entrepreneurial culture and a professional management culture. This dilemma was essentially what Adizes describes when he discusses the nature of growing and aging in an organization. (Ichak Adizes, *Corporate Lifecycles*, Prentice Hall, 1988, p. 3, p. 227.) The growing company is long on flexibility and can change relatively easily because it has a low level of control. The aging company is long on controllability and has little propensity for change. The dilemma is appropriate because when an organization is both flexible and controllable, the organization is neither too young or too old. It has the advantages of

both growing and aging.

Before Digital could work out their strategy, they had to deal with what kind of company they wanted to be—organizational culture. DeLisi says, “Before this time, key questions masqueraded as structural issues (should we be centralized or decentralized?), strategy issues (should we strive for cost leadership or differentiation?), and control issues (should we control more tightly or continue to give the divisions autonomy?). Now it was clear that the fundamental question facing this company was a cultural one. The company already had a highly entrepreneurial culture, but some managers thought it needed to move toward profes-

sional management, now that it had grown very large. The professionally managed culture, however, represented values that contradicted those of most individuals within the organization; they had grown up with entrepreneurial values. Once the executive committee understood that the core issue facing them was about culture, they decided to reaffirm the values that had made their organization successful in the past. *Apparent issues of strategy, structure, process, and information technology suddenly fell into place.*” (Peter S. DeLisi, “Lessons from the Steel Axe: Culture, Technology, and Organizational Change,” *Sloan Management Review*, Fall 1990, pp. 83- 93.) [italics added]



**Figure 1.1.23.2.** The planning process represents an organizational model emphasizing the effect the environment has on the organization’s strategy, which absolutely must be known before anything can be structured properly.

### 1.1.23.3. THE ORGANIZATIONAL EFFECTIVENESS PYRAMID

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**The organizational effectiveness pyramid tells us how to deal with four types of activities the manager must work in balance to move the organization forward.**

As managers build and use tools to support their decision making, they have a number of things to do and roles to play. The pyramid in Figure 1.1.23.3. includes a significant set of activities at each apex: comprehensive planning, leadership, continuous performance improvement, and culture management. Together, the four significant sets of activities contain the essence of the organization and what the organization does. What an organization does and believes in is displayed as values, norms, and traditions. Values are long-term beliefs that are hard to change [Atkinson]. Traditions are established or customary patterns of action or behavior [Webster]. Norms are unwritten rules of behavior [Perry Buffington]. Together, the four significant sets of activities represent what the people in the business college call organizational effectiveness.

The organizational models I'll discuss as companions to or alternates for the management process functions all center on activities, tracks, fronts, or pursuits—in short, broad sets of things managers do and make decisions about in dealing with their responsibilities. I like the organizational effectiveness pyramid because of the raw strength, durability, balance, and cohesiveness of it. By its very nature, the pyramid shows strength, durability, and tight connections. In civil engineering, we learn what people have known since the pyramids in Egypt were built. In two dimensions, we gain structural strength through the triangle; and in three dimensions, we use the pyramid.

Peter DeLisi of Digital Equipment Corporation [in the Fall 1990 Sloan Management Review, pp. 83-93] when discussing information technology recalls the MIT framework for the

Management in the 90s program as “a model of systemic interactions among organizational elements (information technology, organization and culture, strategy, individuals and their roles, and management processes) with ‘management processes’ in the center. .... I would argue that ‘organizational culture and leadership’ should be separated from organizational structure and granted the central role in the system.” The original MIT framework has been modified a number of times, including DeLisi's version, to search for what goes in the center. (DeLisi then discusses two models for an organization: the original MIT framework and DeLisi's own model.) In Figure 1.1.23.3., I show the kind of elements MIT uses in their framework as apexes and see the center as soft, human issues like values, traditions, and norms. The pyramid doesn't choose a central activity or responsibility of management, but does show cultural components as central, agreeing with DeLisi.

I like the pyramid representation because no apex is central. All apexes must be implemented. If one is ignored or not properly addressed, any short-term improvement will fade away. Since a manager can't do everything at once or is usually more capable or interested in one or more apexes over the others, the manager usually leads out with one apex. The pyramid says that if the manager gets one apex too far out ahead of the others, the strength of the pyramid is threatened. I, like Sherkenbach in his latest book [*Deming's Road to Continual Improvement*], see a manager's activities involving physical, logical, and emotional levels in dealing with an organization. I feel the continuous performance improvement apex emphasizes the physical, in that we need to get to specifics and

measure something for continuous performance improvement. Customers demand quality rather than an illusion of it. I feel the leadership apex emphasizes the logical or mental, in that we need to logically move from the known toward the unknown in living up to a vision. I feel the culture management apex emphasizes the emotional, in that we need to rally people's emotions around beliefs and symbols to excite them in the mission, vision, and guiding principles of the organization. I feel the comprehensive planning apex emphasizes a fourth level I'll call the clairvoyant level, in that we need to forecast the future in all planning and have the vision to see things that don't exist. (According to Webster, clairvoyance is "the power to perceive matters beyond the range of ordinary perception." In the sense that Deming says management is prediction, perceiving beyond ordinary perception is necessary.)

A critical point in all this is that if you're doing continuous performance improvement, you make progress through physical means and arguments; whereas, if you're doing culture management, you make progress through emotional means and arguments. If the issue is emotional, you address that issue with emotional means. Another critical point is that the physical level has its place; but you must not overdo it. The emotional level has its place; but, you must not overdo it. If you push one level, or apex, too far, the pyramid comes apart.

The manager wants to work his or her organizational effectiveness pyramid to take advantage of its strength. As you work one apex, use the management tools appropriate to that apex and based on the right level of effort. But be ready to bring along the other apices with the right tools to meet the needs of each apex.



**Figure 1.1.23.3.** *The organizational effectiveness pyramid shows the strength, durability, balance, and interconnectedness inherent in balancing the activities for meeting a set of responsibilities.*

#### **1.1.23.4. ORIGINS OF THE ORGANIZATIONAL EFFECTIVENESS PYRAMID**

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**As you work two or more of the apexes of the organizational effectiveness pyramid, you discover strong linkages among them, as in the case of culture management and continuous performance improvement providing connections for learning how to change to a quality culture.**

Early in 1990, I was asked by a number of Westinghouse divisions to work with them on culture change. One of the divisions was responsible for operating the Department of Energy facility at the Savannah River Operations Office in South Carolina. At that time, all companies operating DOE sites were working under Secretary Watkins' direction that the DOE complex would change its culture.

I found that Westinghouse at Savannah River wanted to expand their safety culture into a quality culture. This direction spelled the tie-in between continuous performance improvement and culture management. I was also impressed with Edgar Schein's book *Organizational Culture and Leadership*. As an old civil engineer, the triangle of leadership, continuous performance improvement, and culture management displayed the strength that this huge undertaking needed. The graphic representation of the triangle gained favor in its ability to show strength and connections among the several sets of activities.

As I worked with several of the Westinghouse divisions over the next couple of years, our efforts looked a lot like a very comprehensive planning effort. This observation became more pronounced until I had no choice but to make the triangle a pyramid. In April, 1991, I made a teleconference presentation on *How to Change to a Quality Culture* in which I emphasized culture, culture change, quality, and the management process. I used the organizational effectiveness pyramid as the framework and rally point for those discussions.

I'm always concerned about a framework's completeness. I look for indications that the entities in the framework form a closed set, because I believe when you have a closed set and work the set properly you get a step function increase in synergy.

The engineers working with the pyramid were anxious about the emotional issues involved in culture management. The engineers knew very well you couldn't run things on emotion for very long. Emotion seems fleeting. A cheerleader charges you up today. But the realities of tomorrow have a sobering effect. Clearly, facts, direction, and physical evidence couldn't be neglected. But, I argued, neither could the emotional side of the coin. I suggest using emotional means when dealing with culture and its emotional underpinning. I suggest using physical evidence and facts when dealing with continuous performance improvement. Emotion-based tools and guides have their place, just as fact-based tools do. The four levels of physical, emotional, mental, and forecasting (clairvoyant) filled the bill in searching for balance and for confirming a complete set of activities in Figure 1.1.23.3.

Steve Markham of Virginia Tech's college of business was involved in brainstorming a map (flow diagram) for culture change in a discussion including the organizational effectiveness pyramid. He said that the pyramid offered nothing new in that the apexes were what people in the business college call organizational effectiveness. At this point I named the pyramid. I prefer to believe that what's new is

the engineer's perspective of the strength and cohesiveness of the pyramidal structure and the emphasis the pyramid places on the interdependency of the activities of the apexes. That way, we don't lose the forest as we investigate the trees. You can study any of the trees (apexes) for years and believe that apex is all there is and that following the apex spells success. Many have tried and failed. I worked with a person on a Citibank project who believed he could ride culture management to ultimate success. As a result, he lost his company. The pyramid says you can't forget

the forest (the four sets of activities and how they connect) or you'll fail.

Steve Van Aken reflects on the idea that in materials science a pyramid is a tight, well-bonded (covalent) unit, a diamond. The pyramid is shaped like a diamond, although the unit cell of a diamond is a face-centered cubic. I like the analogy. If we find the fundamental activities of organizational effectiveness bonded like a diamond, we find not only great strength but great beauty.

### 1.1.23.5. SUPPORT FOR THE ORGANIZATIONAL EFFECTIVENESS PYRAMID LINKAGES

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**Researchers and practitioners in organizational effectiveness support the strength and cohesiveness of the organizational effectiveness pyramid by demonstrating the importance of each link between apexes.**

The pyramid gets its strength through the linkages among the apexes. I'll show support for the linkages shown in Figure 1.1.23.3. by relating how each link is demonstrated by a leading researcher or practitioner.

The advocates of the *culture management/continuous performance improvement linkage* are Philip Crosby who said, "Reaching the desired [result is] a matter of culture change. Keeping it there is a matter of management style." [*Quality without Tears*, p. 13], Kiyoshi Suzuki in his book *The New Manufacturing Challenge: Techniques for Continuous Improvement*, and John P. Kotter in his book *Corporate Culture and Performance* (with James L. Heskett).

An advocate of the *culture management/comprehensive planning linkage* is Ralph H. Kilmann in his book *Managing beyond the Quick Fix* (1989). He says, "A multiple approach to organizational success must include a variety of leverage points in order to control—hence manage—performance and morale. A *leverage point* is anything that a manager can change in the organization, such as rules, procedures, objectives, and the acquisition of skills. The principle of multiple approaches is demonstrated by the five tracks: (1) the culture track, (2) the management skills track, (3) the team-building track, (4) the strategy-structure track, and (5) the reward system track. These tracks are designed to remove the full range of at-the-surface and below-the-surface barriers to organizational success. Each track consists of specific leverage points for use by managers and consultants.

Furthermore, as a result of the interconnectedness of every aspect of the organization, the five tracks must be conducted in sequence—(1) through (5)—as multiple, *integrated* leverage points. The first track develops a culture to foster trust, communication, information sharing, and willingness to change among members—the qualities needed to proceed with all other improvement efforts. During the second track, all managers learn new skills for solving complex problems. In particular, they learn the methods for uncovering and then updating assumptions; without a supportive culture, managers would keep their assumptions under lock and key. The third track enables each work group to make daily use of the new culture and updated skills for solving important business problems; gradually, former cliques become effective teams. The fourth track guides these effective teams to address two of the most important yet most sensitive problems an organization can face: its own strategy and structure. Once the organization and all its members are moving in the right direction, the fifth track designs a reward system to sustain high performance and morale into the future. Naturally, the organization's functioning must be examined periodically to evaluate whether fine tuning is needed in any of the tracks. Any external changes in the organization's setting may require corresponding internal adjustments, and the cycle of planned change continues.

Multiple approaches to organizational success, therefore, mean influencing all the organization's surface aspects and its cultural, assumptional, and psychological aspects. This

point is so fundamental that it cannot be overstated. I consider it foolhardy for managers and consultants to try to solve today's interconnected problems with a single approach that uses only one leverage point." (pp. 12-13.) This quote shows the sequencing of tracks from culture management (the culture track) to comprehensive planning (the strategy-structure track).

I'll discuss Kilmann's ideas more when I describe his five tracks in another module.

Advocates of the *leadership/comprehensive planning linkage* are Richard O. Mason and Ian I. Mitroff in their book *Challenging Strategic Planning Assumptions* (1981). They say, "Today, few of the pressing problems policymakers face are truly problems of simplicity or of disorganized complexity. They are more like ... problems of organized complexity. These problems simply cannot be tamed in the same way that other problems can. For this reason Rittle refers to these problems of organized complexity as 'wicked' problems.

Wicked problems are not necessarily wicked in the perverse sense of being evil. Rather, they are wicked like the head of a hydra. They are an ensnarled web of tentacles. The more you attempt to tame them, the more complicated they become. ...Most policy planning and strategy problems are wicked problems of organized complexity." (pp. 9-11.) The authors list six characteristics complex wicked problems exhibit. They are:

"1) Interconnectedness—Strong connections link each problem to other problems. ...

2) Complicatedness—Wicked problems have numerous important elements with relationships among them, including important 'feedback loops' through which a change tends to multiply itself or perhaps even cancel itself out. ...

3) Uncertainty—Wicked problems exist in a dynamic and largely uncertain environment, which creates a need to accept risk, perhaps incalculable risk. ...

4) Ambiguity—The problem can be seen in quite different ways, depending on the viewer's personal characteristics, loyalties, past experiences, and even on accidental circumstances of involvement. ...

5) Conflict—Because of competing claims, there is often a need to trade off 'goods' against 'bads' within the same value system. ...

6) Societal Constraints—Social, organizational, and political constraints and capabilities, as well as technological ones, are central both to the feasibility and the desirability of solutions." (pp. 12-13)

"The wicked problems of organized complexity that policymakers face today have two major implications for designing processes for making policy:

1) There must be a broader participation of affected parties, directly and indirectly, in the policy-making process.

2) Policy making must be based on a wider spectrum of information gathered from a larger number of diverse sources." (p. 13)

I read Mason and Mitroff's suggestion for how to deal with wicked problems as 1) involve the stakeholders (participation—consensus) and 2) use systems thinking. These ideas are two main ideas I'll discuss at length throughout this book. As you look at the characteristics of wicked problems, I believe you'll discover that more and more problems are wicked today. The leadership and comprehensive planning linkage and the complete organizational effectiveness pyramid address the ideas of participation and systems thinking.

The advocate of the *culture management/leadership linkage* is Edgar H. Schein in his book *Organizational Culture and Leadership* (1985).

A advocate of the *comprehensive planning/continuous performance improvement link-*

*age* is J.M. Juran in his book *Juran on Planning for Quality* (1988).

The advocate of the *leadership/continuous performance improvement linkage* is W. Edwards Deming in his book *Out of the Crisis* (1982).



**1.1.23.6. CULTURE, SYMBOLS, AND MODELS—EMANUEL LEUTZE**

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### 1.1.23.7. A STRATEGIC PLANNING FRAMEWORK REFLECTING ORGANIZATIONAL EFFECTIVENESS

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**We can determine a process model of the organization to reflect components of organizational effectiveness and to incorporate planned or unplanned interventions affecting performance.**

In Figure 1.1.23.2., we saw the importance of the environment and changes in the environment on the organization and its planning. Management Systems Laboratories (MSL) has developed a planning process that reflects the cyclic, iterative nature of Figure 1.1.23.2. I show that process, which MSL calls its change management model, in Figure 1.1.23.7.1. A simpler version of Figure 1.1.23.7.1. is shown in Figure 1.1.23.7.2. Notice from Figure 1.1.23.7.1. that we best manage change through a closed-loop process; to be successful in change we need extensive training; and, to implement change, we need basic skills in project management (box number ten in Figure 1.1.23.7.1.).

#### **MSL's Approach**

The planning process is the vehicle by which the organization determines what is *should* be about and how best to do it. Even in the case of public organizations whose missions are dictated by precedent, statute, or regulation, strategic planning is vital to insure all stakeholders are considered in the operational plans and that no part of the organization negatively affects what the organization wants to do. The process in Figure 1.1.23.7.1. is modular and no organization can perform every step completely each planning cycle. However, over a period of time, the organization works through the closed-loop process to improve performance.

#### **Step 1. Prepare the Organization for Planning**

We identify a champion to implement the planning process. The champion wants the planning process improved and can obtain the necessary commitment from employees and resources needed to accomplish the change. We then do an organizational survey to determine the current climate and culture. With the

survey, we interview key personnel who will be involved in the planning process to provide an overall assessment of where the organization is in terms of knowledge and information needed for an effective implementation process.

#### **Step 2. Review Inputs, Assumptions, and Constraints**

We review key organizational documentation related to mission, vision, principles, and organizational functions. We review organizational requirements from higher levels of authority (for public organizations, senior department and offices in government, Congressional legislation, etc.; for private organizations, corporate headquarters, stockholders, etc.) to place organizational planning within the context of a larger system.

#### **Step 3. Define the Organizational System**

We define the organizational system by looking at inputs and outputs to the system or by looking at the organization's primary process. We define inputs and outputs, suppliers, consumers, customers, and stakeholders (both internal and external). We want to think beyond the traditional structure and look at the organization as a system.

#### **Step 4. Confirm the Organizational Functions**

We review organizational functions based on the results of the previous step. Organizational functions must align with the current inputs, outputs, suppliers, and customers for efficiency and mission effectiveness. We assess organizational teamwork and acceptance of the responsibility for carrying out the functions defined.

#### **Step 5. Conduct a Situational Analysis**

We review current performance levels within

the context of their internal and external environment. We analyze internal strengths and weaknesses and external opportunities and constraints to set the stage for defining goals and strategies for the organization.

### **Step 6. Define the Strategic Path**

At this point, we have the necessary information to define strategic goals for the organization. Strategic goals state what must be done to accomplish the organization's mission in pursuit of its vision. They represent a desired future state without quantification or time definition. We define strategic goals. We define near-term operational objectives to achieve the strategic goals from the bottom up based on the environmental analysis completed in Step 5.

### **Step 7. Define Strategies**

Now, building on the results of Steps 1-6, we define strategic programs to build on strengths, correct weaknesses, take advantage of opportunities and deal with constraints. We give the programs that are associated with a particular goal identified in Step 6 priority based on availability of resources and importance to the mission.

### **Step 8. Review the Current Mission**

Here, we take a longer view of the strategies being developed and their alignment with the organization's mission. In Step 2, we reviewed the mission as input into the planning process. In this step, we review the mission for content to ensure it aligns with the goals, objectives, and strategies defined in Steps 5-7. If we find little or no alignment, then we either revise the mission statement or develop new strategies that fit the mission. If the mission isn't aligned with the goals, objectives, and strategies and remains unaligned, inefficient work processes and ineffective decision making processes will emerge over time. This emergence will cause the organization to become unstable and adversely affects its ability to react appropriately to changes in the environment.

### **Step 9. Review Organizational Structure**

Prior to implementing strategic planning ef-

forts, we must review the organizational structure and its alignment with the chosen strategies. Does the organizational structure support the successful accomplishment of the goals, objectives, and strategies? If the current structure hinders achievement of strategic goals, we need to consider alternative structures. Occasionally, organizations can't restructure. In such a case, we at least identify structure as a constraint and plan around the constraint.

### **Step 10. Develop Action Plans**

Here we develop the action steps to successfully implement the strategies. The level of the organization doing the planning will determine the specificity of the action steps. For instance, action steps at corporate headquarters are usually broader and more strategic than those at the field level. At this time, we need to define the measures necessary to track progress toward achieving our goals. These action plans form the basic components of the five-year plan.

### **Step 11. Measure Progress**

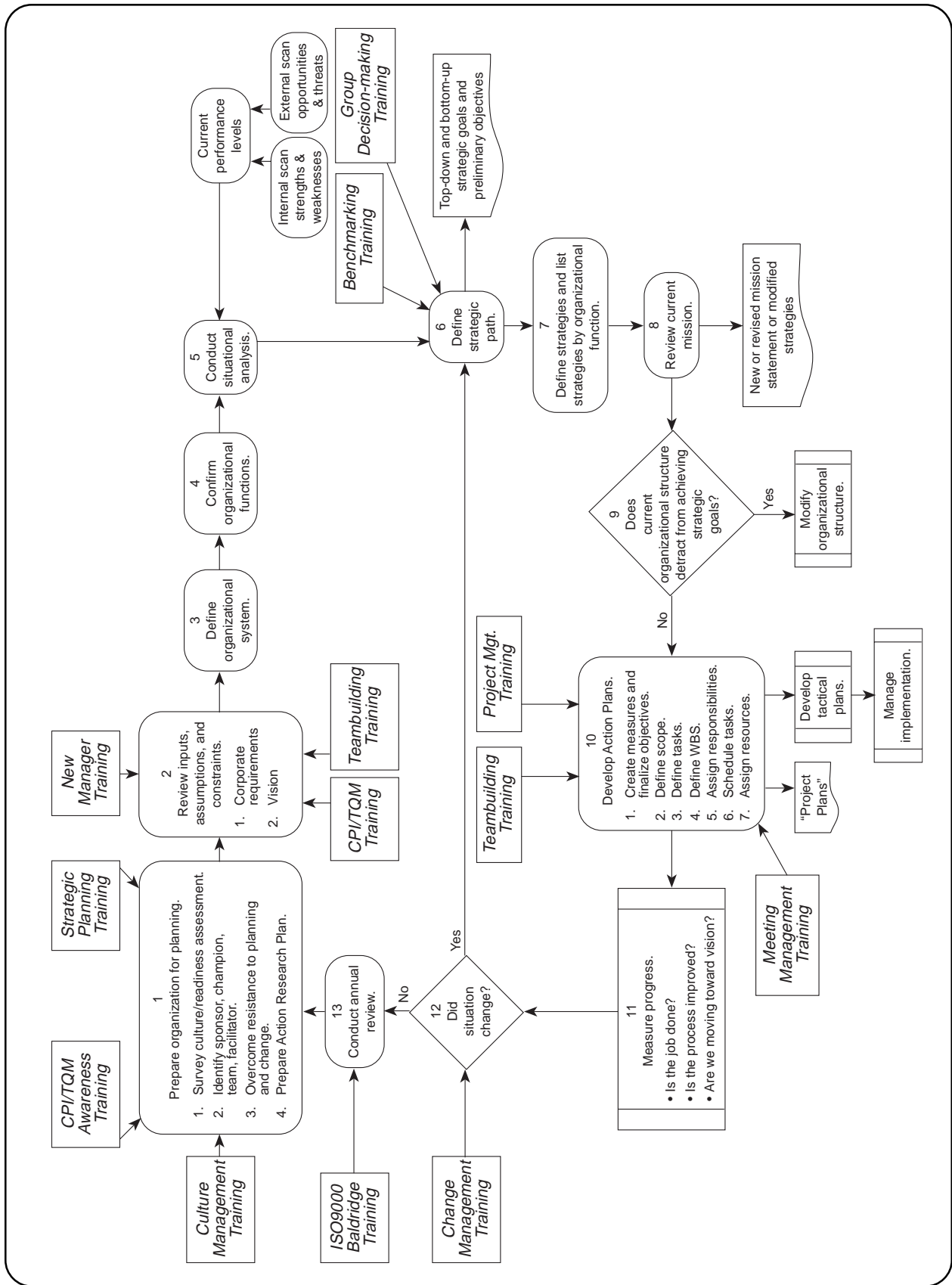
Assessment of progress toward the implementation of strategies and accomplishment of strategic goals is an ongoing process. We must monitor action plans with measures of merit and then adjust accordingly.

### **Step 12. Assess the Situation**

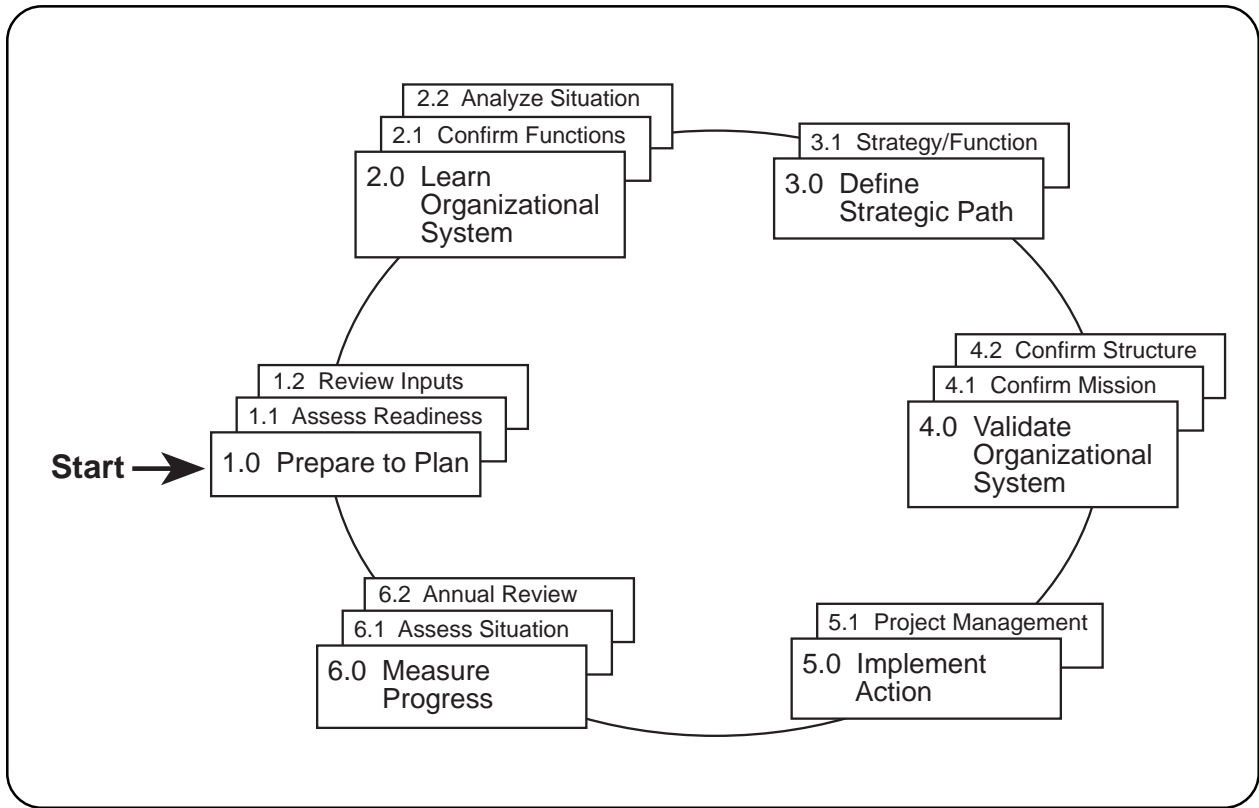
In today's dynamic environment, we must continually monitor our external conditions and adjust to the changing situation. The strategic plan identifies most likely forces to significantly affect an organization's operations and anticipates how these forces might change over time by the use of structured planning tools. Periodically, we must assess the current situation to ensure changes to the internal and external environment haven't made goals or strategies obsolete.

### **Step 13. Conduct Annual Review**

Annually, we must review Steps 1-5 to revisit our mission in light of the current situation and assess progress toward achieving our goals for the year.



**Figure 1.1.23.7.1.** The MSL Change Management Model, largely produced by Will Guerrero, shows the closed-loop process nature of continuous improvement.



**Figure 1.1.23.7.2.** Brian Kleiner’s simplification of the change model highlights six major phases of the change process.

### 1.1.23.8. WEISBORD'S PEOPLE, TECHNICAL, AND REWARD SYSTEMS

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**The domain of responsibility considered as a management system includes three highly-interactive subsystems: people, technical, and reward systems.**

I introduced Weisbord's model for people, technical, and reward systems in Module 1.1.4. when asking time-honored, fundamental management questions. Weisbord's model, reproduced in Figure 1.1.4., is especially useful because of its simplicity, robustness, and universal application. You can see these three systems (or I prefer to call them subsystems of the management system) at play everywhere.

Early in Weisbord's career, he was introduced to his model with the suggestion to "stop building long lists of undifferentiated problems and instead think of [himself] as managing three related systems." In reviewing what he calls "'exemplary individuals' in management history," Weisbord links pairs of the subsystems. Frederick Taylor took the engineer's technical approach to management. Kurt Lewin and Douglas McGregor took the social scientist's people approach to management. Fred Emery and Eric Trist took a combination, or sociotechnical, approach to management. Weisbord says, "Trist coined the phrase *sociotechnical system* to underscore his observation that the interaction of people (a social system) with tools and techniques (a technical system) results from choice, not chance. Our choices are dictated by economic, technological, and human values." (p. 143.)

We know that people look at management from the socioeconomic perspective and from perspectives combining the economic (reward) and the technical subsystems. As a matter of fact, Frederick Taylor was also known for combining the economic and technical subsystems. (Weisbord, p. 64.) Everyone asks questions ultimately involving all three subsystems. When they apply their expertise,

they tend to focus on the question from one or two of the subsystem perspectives.

Weisbord says, "Trist invented a way of thinking about management more grounded in the way businesses really run. He called it 'finding the best match between social and technical systems.' Emery, perhaps the first to apply open systems thinking to social change, pointed out that optimal results could be achieved only when social systems, which obey the laws of biology, psychology, and sociology, are *designed integratively* with technical systems following the laws of physics, chemistry, and engineering." (p. 23, italics added) As a management systems engineer, you'll need to mix the quantitative sciences (technical systems) with the qualitative sciences (people systems) with great facility.

Weisbord finds Taylor "a perfect projection screen for the dialogue in each of us between social and technological impulses ...." (p. 27.) Throughout Weisbord's book, he presents us with the issue of balance—here the need to balance people and technical aspects of management, later to balance the Theory X and Theory Y impulses in all of us.

In discussing Taylor further, Weisbord says, "His intent was to accumulate the best knowledge available and ensure its quick transfer. .... That is still our intent. Productive workplaces require it. Yet we know for certain now that optimum productivity and human satisfaction can't be reduced to rules and formulas, whether grounded in economics, engineering, or human relations. Indeed, high-quality work requires a creative interaction of all three perspectives. In successful workplaces workers,

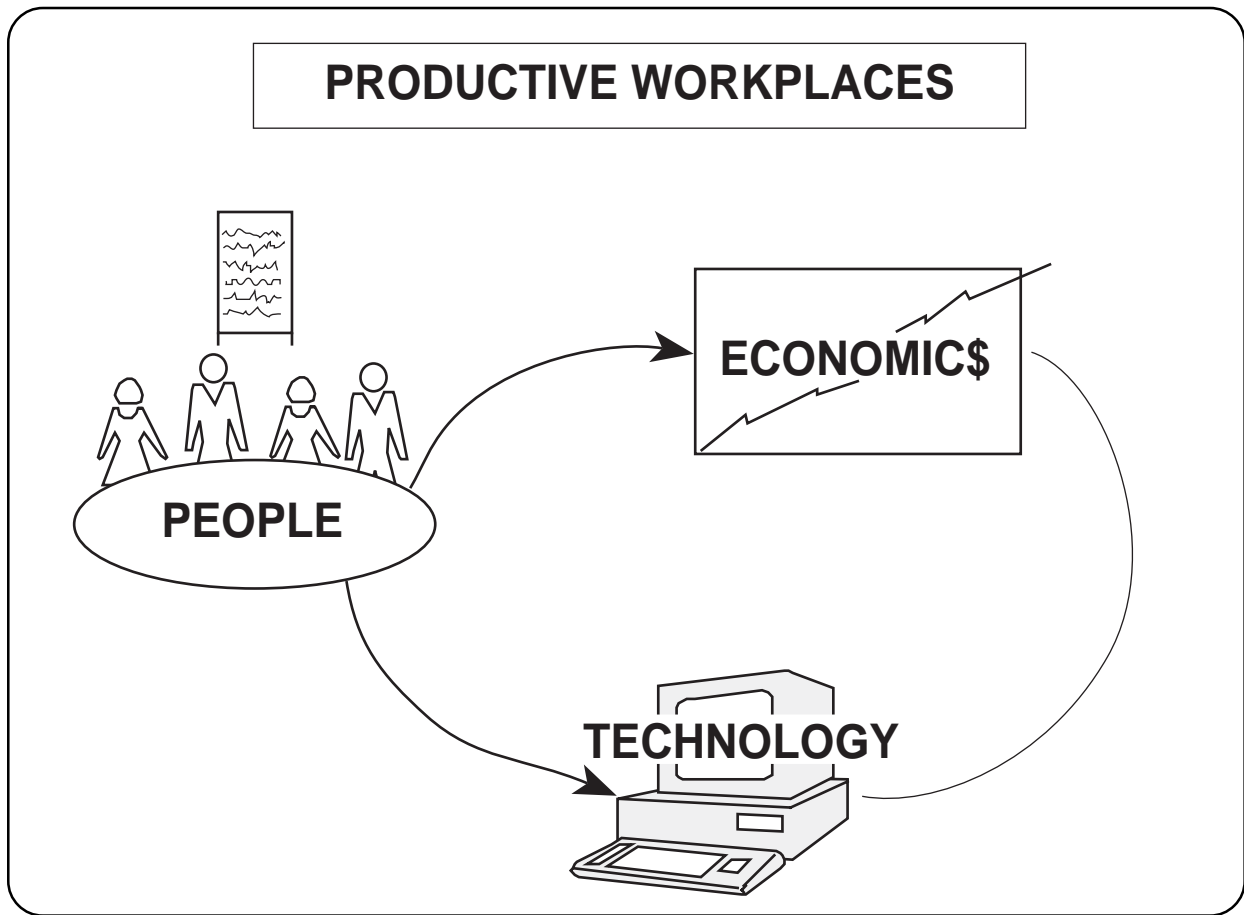
managers, and staff specialists achieve a partnership, learning together, bringing skills, expertise, information, and mutual support to economic and technical problems. .... Moreover, we simply do not know enough about the complex process of working to make a true science of figuring out the right balance among people, economics, and technology. In each place it will be different. .... The important thing to see is that three realities—social, technical, and economic—must be simultaneously worked with if we wish to achieve productive workplaces. More, none of the three bailiwicks can be left to experts. Information from and about all three must be freely available to everybody, so that an organization develops through mutual influence, knowledge, and commitment, rather than coercion, whimsy, or unilateral action.” (pp. 64-66.)

Weisbord considers his people, technical, and reward systems to be the makeup of a productive workplace—if you will, a management system. He illustrates the fundamental nature of the subsystems in a diagram I’ve reproduced here as Figure 1.1.23.8. He says this about the diagram: “If I have learned anything from my time trip it is this: those who set sail to improve innovation and stability, work and working life, quality and output, always come up short if they focus only on technology, only on costs or profits, only on human resources. Productive workplaces require that people—

you, me, everybody—be deeply engaged in understanding and working with economic and technological matters. The only sensible way to make real a commitment to ‘our people’ is to have our people work together in rethinking their own work—as captured in [Figure 1.1.23.8.]. Figuring out how to do that has been a dominant theme for workplace improvers for two decades now.” (p. 180.) In short, balance is the answer.

In his last discussion of economics, technology, and people, Weisbord says, “My major ah-ha after finishing this book is how concepts of improvement evolved over the last century, from experts solving problems piecemeal (Taylorism), to everybody solving problems piecemeal (participative management), to experts improving whole systems (systems thinking), and now everybody improving whole systems (third-wave stuff).” (p. 373.)

Later when I discuss the generalist perspective, I’ll argue the importance of drawing connections among seemingly dissimilar things. Bühler, the psychologist, described the ah-ha (or aha) experience. Lou Middleman in his book *In Short* says he defines an “Aha! as a suddenly perceived connection between two or more things you did not previously see as connected.” (p. 17) So, when we say we had an aha we mean we understand a new connection.



**Figure 1.1.23.8.** *A productive workplace includes people, economics, and technology subsystems working within a whole system. (taken from Weisbord, p. 180)*



### 1.1.23.9. KILMANN'S FIVE TRACKS

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**Kilmann designed his five tracks (culture, skills, team-building, strategy-structure, and reward system) to organizational success to act on five leverage points in his Barriers to Success Model to transform all controllable barriers into channels for success.**

Kilmann's Barriers to Success Model fits well within the organization box of the management process framework and, according to Kilmann, approaches the world as a complex hologram.

Kilmann describes his five tracks as actions on five leverage points to transform controllable barriers into channels for success in an organization in his book *Beyond the Quick Fix*. (Jossey-Bass, 1984) Kilmann argues that past approaches to organizational success (the right-hand box in the management process framework) have failed because each looked for a single answer in a complex, open system. He indicates the human relations training of the 1940's, management by objectives of the 1950's, decentralization of the 1960's, corporate strategy of the 1970's, and corporate culture of the 1980's (Salmans, 1983) weren't effective because their perspectives were too narrow. (p. ix.)

Kilmann offers the solution. He says, "Single approaches are discarded because they have not been given a fair test. Essentially, it is not the single approach of culture, strategy, or restructuring that is inherently ineffective. Rather, each is ineffective only if it is applied by itself—as a quick fix. .... The only alternative is to develop a truly integrated approach." (p. x.) I like this thinking because Kilmann doesn't discard any of the previous approaches as wrong. Instead, he sees each as stepping stones toward an integrated, effective solution. Such a solution brings success defined as achieving both high performance and high morale over an extended period of time. Kilmann lists five tracks within a complete

program to get this success.

"The complete program consists of five tracks: (1) the culture track, (2) the management skills track, (3) the team-building track, (4) the strategy-structure track, and (5) the reward system track. If any of these tracks is implemented without the others, any effort at improving performance and morale will be severely hampered. Any benefits derived in the short term may soon disappear. Lasting success can be achieved only by managing the full set of five tracks on a continuing basis." (p. x.)

You can see reflections of the other organizational models in Kilmann's tracks. You see the culture management apex of the organizational effectiveness pyramid, the strategy-structure connection in the model linking structure to strategy to environmental change, and the reward system of Weisbord.

Kilmann further says, "The five tracks—in contrast to a quick fix—are integrated in a carefully designed sequence of action; one by one, each track sets the stage for the next track. .... To illustrate the integrated nature of the five tracks, consider the following scenario: If I could investigate only one aspect of an organization in order to predict its long-term success, I would choose the reward system. In essence, if members feel that (1) the reward system is fair, (2) they are rewarded for high performance, and (3) the performance appraisal system regularly provides them with specific and useful information so that they know where they stand and can improve their performance, then, in all likelihood, all tracks have been managed properly. The reward system could

not motivate members to high performance if all the other barriers to organizational success had not been removed by the preceding four tracks.” (pp. x-xi.)

With this comment, Kilmann sets up the need to remove barriers to success. Recall Lewin’s force field analysis, where we say the way to move the status quo in the direction we want is to emphasize reducing restraining forces over enhancing driving forces.

Kilmann says, “Behind every approach to organizational success is a theory. This theory proposes how a change in one set of variables will bring about change in a second set. The first set of variables usually includes leverage points that are directly controllable by managers and consultants; the second set is the intended result—organizational success.

The theory that supports a quick fix states that a change in *one* independent variable, such as strategy, is enough to change a desired outcome, such as performance. This type of theory is as simple and machine-like as the quick fix itself. The theory that supports an integrated approach states that changes in *several* interrelated variables, such as strategy, structure, and culture, are necessary to achieve the intended results. The theory behind the five tracks, therefore, must show the complex relationships among many different kinds of variables.” (pp. 31-32.)

Recall that the framework for the management process brings out relationships between variables related to the interventions, variables related to the organization, and variables related to performance. When we understand the variables and their relationships we understand the framework for the management process. I agree that high morale must be included in the success criteria in the performance box of the management process framework.

Kilmann introduces his model by saying, “Fig-

ure [1.1.23.9.] shows the theory behind the five tracks in the form of a model. The model consists of five broad categories representing the open systems aspects of an organization plus, at center stage, three holographic aspects that add the dimension of depth. .... The double arrows surrounding the ‘holographic diamond’ signify the strong reciprocal influence between the three below-the-surface aspects and all the other categories. .... The purpose of the holographic model is to understand and master all these ‘interrelated guesses.’” (p.32-33.)

The arrows in the management process framework of Figure 1.1.11.4. between boxes and within boxes represent hypotheses we need to substantiate for a given domain of responsibility. Kilmann’s model fits comfortably within the organization box, except that the “The Results” category belongs in the performance box of Figure 1.1.11.4. Kilmann calls his model the Barriers to Success Model and he identifies uncontrollable barriers and controllable barriers. His five tracks relate to the controllable barriers.

“Regarding the *uncontrollable* barriers, each organization has three ‘facts of life.’ The first is the setting in which the organization exists. While dynamic complexity can be monitored, it must be taken as a given. The second uncontrollable barrier is the human psyche—deep-seated, relatively fixed styles to cope with life’s problems. The third such barrier is assumptions—the unstated beliefs behind decisions and actions. While assumptions are hidden from view, they can be updated to reflect reality with proper management skills and a supportive culture.” (p. 34.)

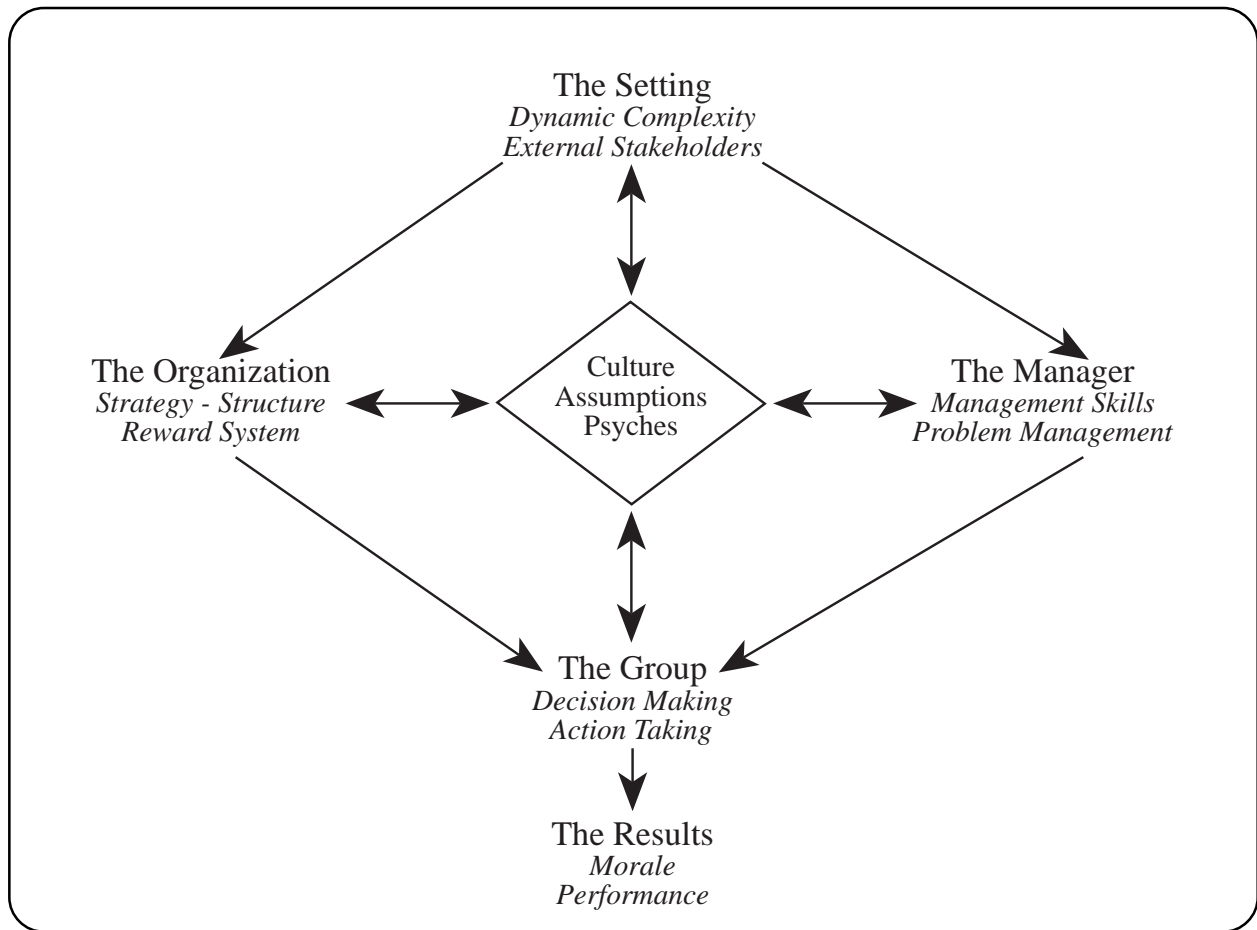
The setting in Kilmann’s model is the environment in some models, the category that allows the model to represent an open system. Notice that the other categories flow from the setting category in Figure 1.1.23.9.

Kilmann further says, “Regarding the control-

lable barriers, each organization has five leverage points that can affect morale and performance: (1) the firm's culture, (2) the managers' skills for solving complex problems, (3) group approaches to decision making and action taking, (4) strategic choices and structural arrangements, and (5) the purpose and design of the reward system. There also may be a number of other leverage points whereby the organization can be 'touched' directly, but these other points tend to provide quick fixes (such as replacing personnel or reclassifying jobs) rather than long-term solutions to complex problems.

The five tracks to organizational success were designed to act on these five leverage points—to transform all controllable barriers into channels for success. The culture track is a series of planned action steps to identify an outdated culture, develop the new culture that will move the organization forward, and then implement the new culture into each work unit. The

management skills track, as a series of action steps, provides managers with the new skills necessary to address dynamic complexity—skills for surfacing, examining, and then updating assumptions. The team-building track does three things to improve the quality of group decision making in a series of action steps: (1) keeps the troublemakers in check so that they will not disrupt cooperative team efforts, (2) brings the new culture and updated assumptions into the day-to-day decision making of each work group, and (3) enables cooperative decisions to take place across work group boundaries, as in multiple-team efforts. The strategy-structure track goes through a step-by-step process to determine (or confirm) the new strategic directions of the firm, including the organizational structures that would most support the accomplishment of the firm's mission. The reward system track goes through its action steps to design the compensation and performance appraisal system necessary to sustain the benefits from all the other tracks.”



**Figure 1.1.23.9.** Kilmann's Barriers to Success Model identifies the leverage points where you can apply the five tracks as channels for success. (taken from Kilmann)

### 1.1.23.10. SINK'S SEVEN FRONTS

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**The organization can be viewed as containing seven (or perhaps eight) fronts using tools and guides to translate interventions into success criteria. The eight fronts include planning systems, culture management, infrastructure, education and development, measurement systems, recognition and rewards, politics, and technology.**

Scott Sink brought to some mutual work we were doing a concept of seven fronts for improving performance within a grand strategy perspective. Under a grant for the United States Department of Energy, one of the fronts became more specific and another front was added—at least for the grand strategy application of the grant. I'll quote the seven fronts and their use in developing a grand strategy from a paper by Kent E. Williams, Harold Kurstedt, and D. Scott Sink titled *A Grand Strategy System Helps Managers Continuously Improve their Planned Strategies*. (American Society for Engineering Management, October 1991)

“Figure [1.1.23.10.] shows the conceptual model [for] grand strategy [and] includes six elements: past, present, future, fronts, integration within and among fronts, and feedback across time horizons. The systems, tools, and procedures associated with managing performance across the fronts, are implemented in the present to become past strategy to be measured in terms of success or failure, and will lead to future decisions regarding needed interventions. Future strategies for continuous improvement must be influenced by what has been done in the past to ensure constancy of purpose (Deming, 1991). There are seven fronts: culture, measurement, planning, infrastructure, rewards and recognition, education and development, and politics. Interventions of one front may or may not affect other frontal interventions.

Fronts include the systems and tools used to manage and eventually improve the perfor-

mance of organizational activities. If managers don't manage these fronts synergistically, they won't satisfy four major success criteria: cost, schedule, quality, and satisfaction of critics.” (p. 91.)

The seven fronts (or however many) can be tied together hypothetically as an organizational model within the organization box of Figure 1.1.11.4. The success criteria belong in the performance box. Rather than using the term procedures with the tools, I would use guides to be consistent with the concept of tools and guides in Module 1.1.16.8. I'll show later that procedures are one type of guide.

Williams, et al continue, “The seven fronts will be integrated as interventions incorporated into present strategy during the process of formulating planned or future strategy for desired organizational change. These fronts, therefore, are believed to affect the quality of the grand strategy system process shown in Figure [1.1.23.10.]. If the difference between desired outcome of past and present strategy is unacceptable, improvement to the organization can be promoted by the intervention of activities, tools, and systems associated with each front. As an example of implementing a grand strategy system, planned strategy and its implementation must be monitored by the appropriate measurement system. Formulating planned strategy must integrate planning with staffing, budgeting, sales, marketing, production capacity, etc. Likewise, activities associated with other fronts must be considered in formulating planned strategy. The seven fronts

defined are:

**Planning Systems:** Interventions to enhance the way the organization plans, particularly planning for improvement (e.g., Total Quality Management/Leadership implementation and deployment), includes integrating planning activities with other management functions (e.g., budgeting, staffing, reporting).

**Culture Management:** Interventions to identify, understand, and improve the organization's shared values, beliefs, and norms.

**Infrastructure:** Parallel structure (outside the formal organization chart) established to support a continuous performance improvement implementation.

**Education and Development:** A broad spectrum of interventions aimed at continuously improving an organization's base of knowledge and skills.

**Measurement Systems:** Interventions to enhance the indices the management team uses to determine how the organization is performing (i.e., whether it is improving, and/or if it is in control).

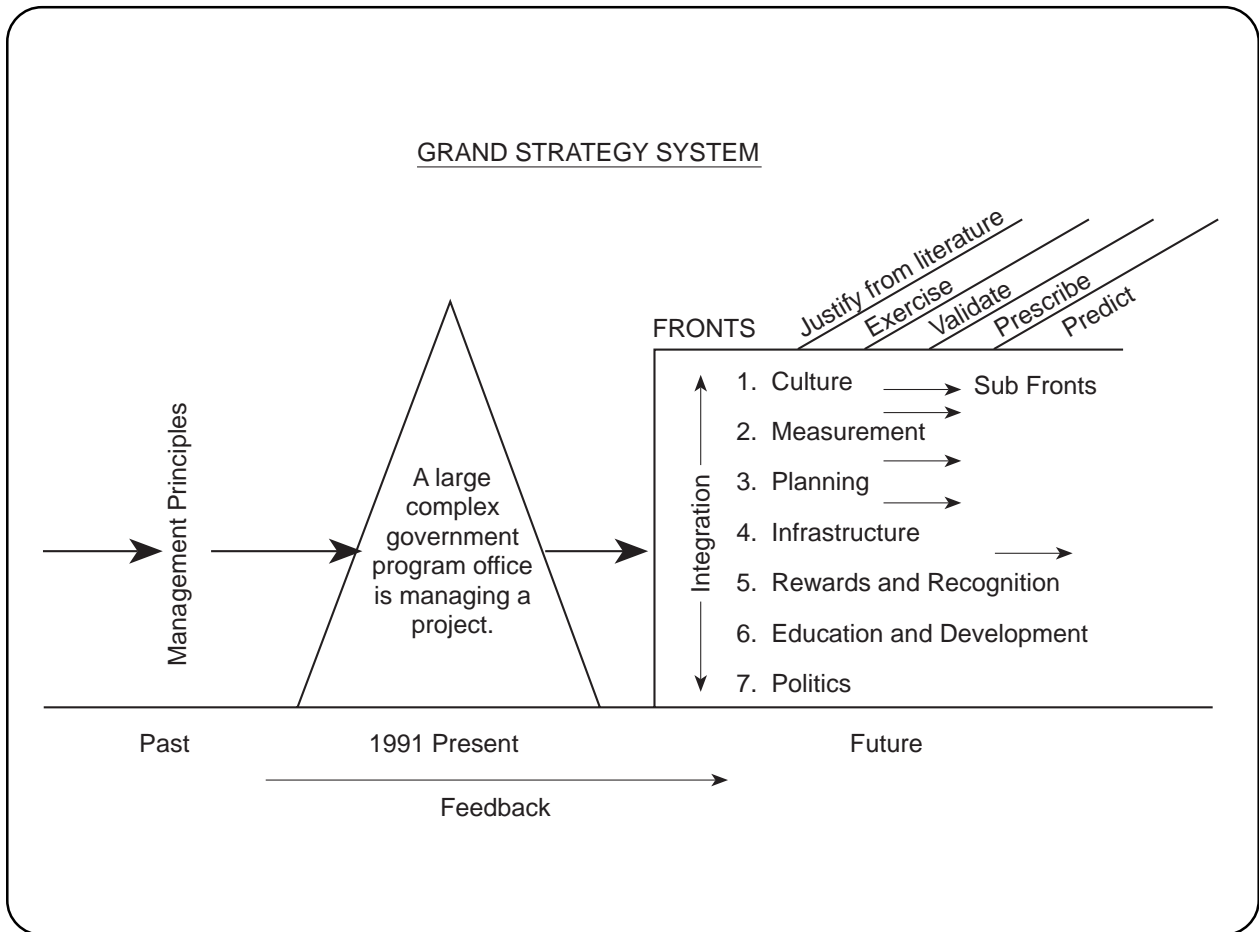
**Recognition and Rewards:** Interventions to improve the way an organization recognizes/

rewards employees on a formal and informal, financial and non-financial, individual and group basis.

**Organization-Specific:** Areas of strategic importance due to the organization's current internal and external environments." (p. 92.)

The organization-specific front was oriented toward politics, especially for a government agency and defined in grant documents as "The system that focuses on interorganizational linkages, networking, maintaining essential communication within organization and between organizations, upline posturing, influencing decisions and actions within and around the organization, managing the task environment (e.g., quality [checkpoints]), includes the concept of political astuteness, incorporates informal organization theory." The eighth front is technology. The front is defined in grant documents as "... very generally 'the way things get done'. To include software, hardware, procedures, methods, processes." (From grant reports)

Fronts are called fronts because you don't let one get ahead of the other. The word front is a military analogy. A front is an area of emphasis to move on an objective. If one front gets too far ahead of the others, the front can be cut off and you'll fail the objective.



**Figure 1.1.23.10.** *The Grand Strategy System concept emphasizes the past, present, and future perspectives and the seven fronts for management as we advance from justification to prediction approaches. (taken from Williams, et al)*



### 1.1.23.11. HOW TO USE THE VARIOUS ORGANIZATIONAL MODELS

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**You can use the various organizational models to help stimulate and to help answer management questions. The choice of model or models depends on the question and the situation.**

My intent is to find a number of good models to use individually or in combination conceptually within the organization box of the management process framework. When the framework is complete and the application determined, you can add a thorough understanding of the natural laws at play under the umbrella of the systems approach and deal with questions and determine answers to get the most out of your domain of responsibility.

Your choice of model to represent the organization depends on the performance criteria you want to study. Choose a model that works best with the criteria you want. I'll discuss a number of sets of criteria in the modules in Section 1.1.25. Then, you'll be able to do some matching.

I emphasize management tools. You can work all the models together in your mind or select one or two to learn about building and using management tools. Of course, in the cycle of building and using management tools—working within the engineering process—I like the management process functions.

There are more models out there, each based on the author's perspectives, experiences, and needs. As long as people express their individuality, we'll continue to accrue more models. I see this accrual as a good thing. The more arrows we have in our quiver, the more we'll be able to bring home the meat.

Like Kilmann, I say stay away from the quick fix. I recognize the complexity of the situation. I've heard it said that problems are simple; the solutions are complex. I think the

strength of this book is that it doesn't favor a single model but provides a definition and scope for a discipline involving the engineering and management processes and the systems approach in a way that the present and future models can make a contribution. If ever there was a discipline where you can't stop growing and learning, it's management systems engineering.

I showed a number of general management questions in Module 1.1.4. and grouped them by Weisbord's systems. You can use other models to stimulate new questions, especially more-detailed questions.

Your choice of model or models also depends on how you want to slice the pie of your domain and what you intend to apply the model to. You see a lot of overlap, but you also see subtle differences among the models. If you want to look at verifying performance, use the management process functions. If you want to look at appraisals, use Kilmann's five tracks. If you want to look at rewards, look at Kilmann, Weisbord, or Sink's seven fronts or a combination of the three. If you want to look at indicators or collecting data, use the management process functions. If you want to look at measurements, use Sink's seven fronts. If you want to look at projects, use the management process functions and/or Sink's seven fronts.

If you want to emphasize your effectiveness as a manager, try Weisbord's people, technical, reward systems. If emphasizing grand strategy and the comprehensive planning apex of the organizational effectiveness pyramid, try

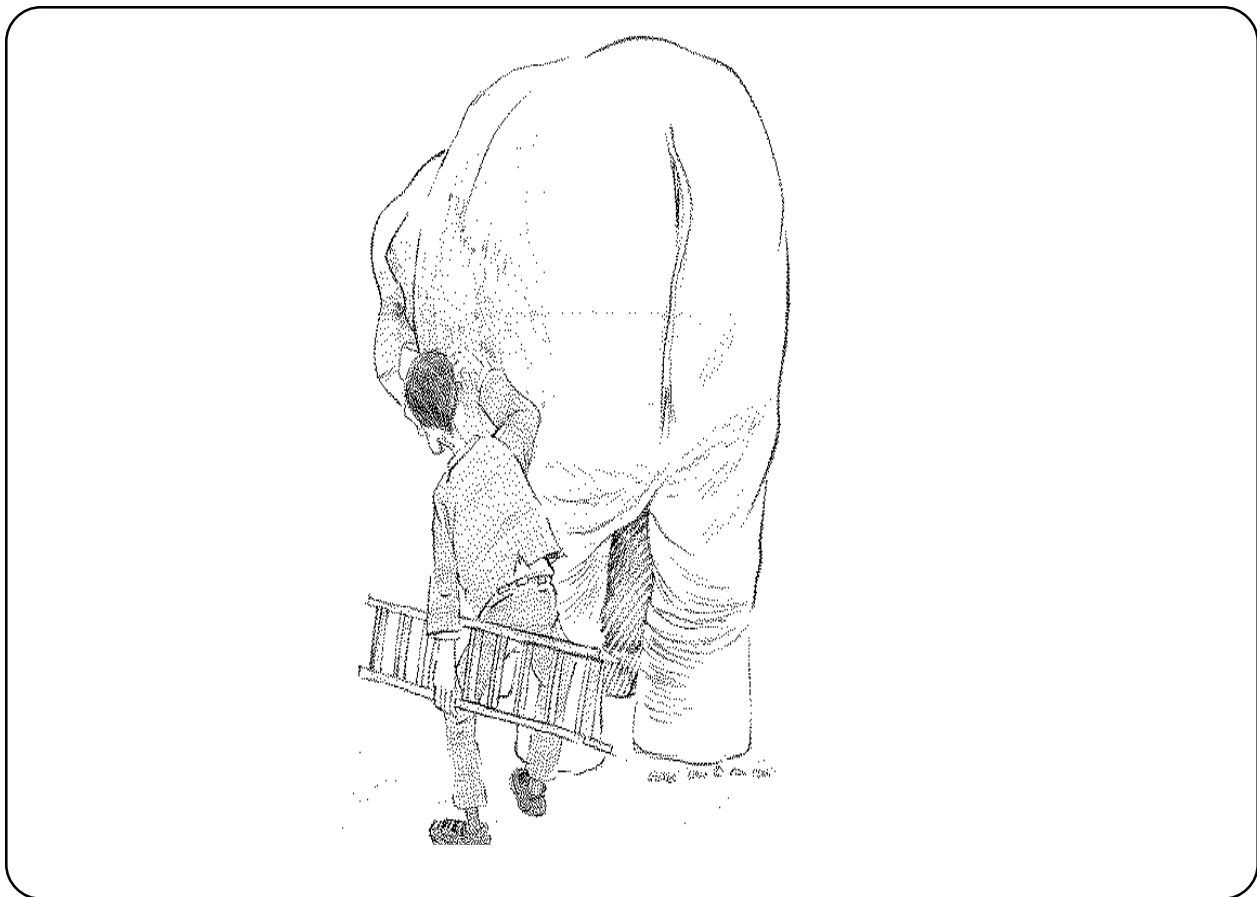
Sink's seven fronts and a model for success criteria I'll discuss shortly. If emphasizing success, use one model. If emphasizing productivity, use another. If emphasizing how tools help managers save time and reduce crises, use the ABC Model. But, I'm getting ahead of myself.

You can see culture as central to DeLisi, reward as the culmination of Kilmann's tracks, and all apexes of the organizational effectiveness pyramid as balanced. When things rotate around a focal point, you have centrality. When things flow, you have sequence. When things work together, you have balance.

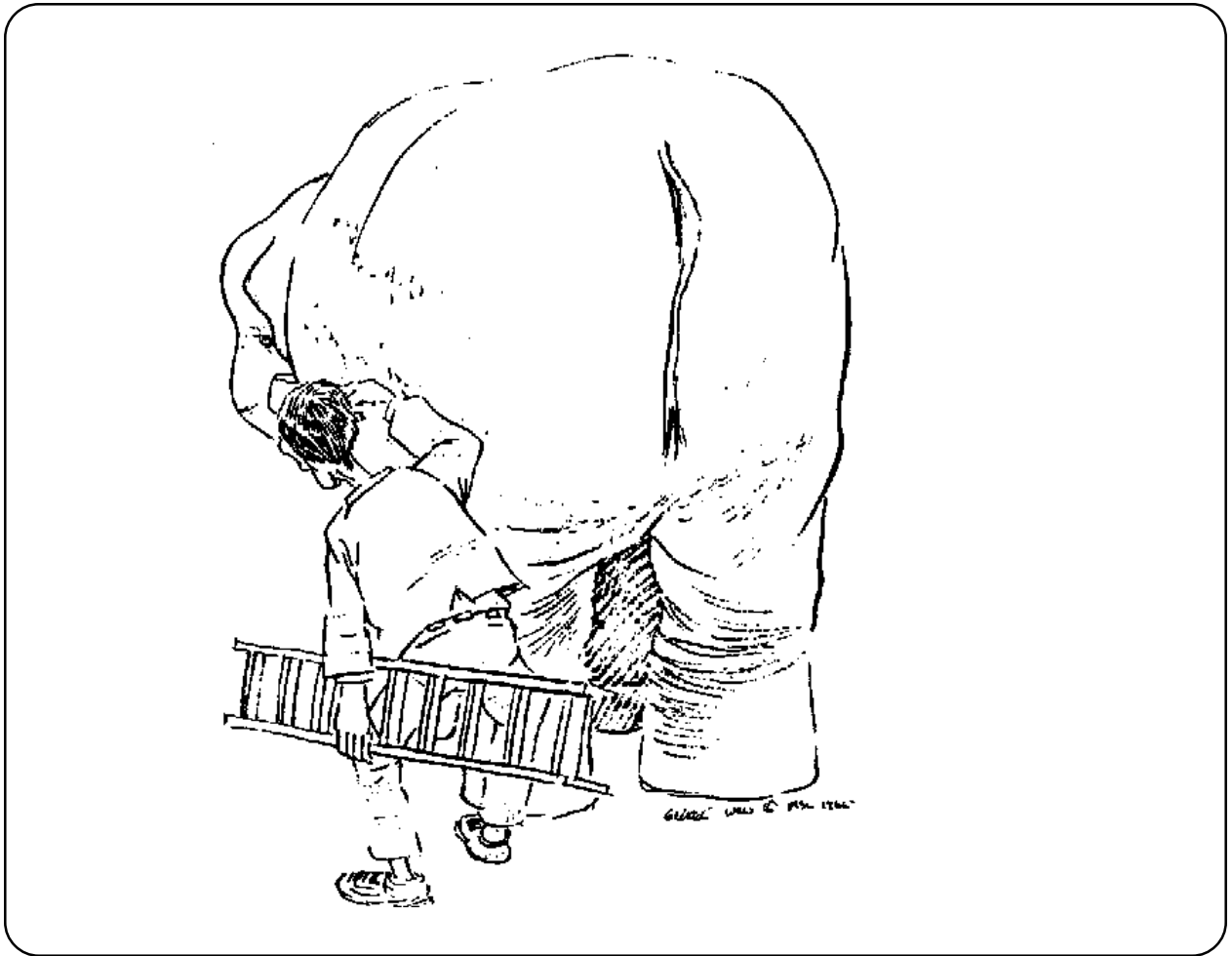
You can see a great deal of overlap among the models I've discussed. I don't think you can

link the models together very well. You can trace the similarities through the models, like the issues of culture, rewards, and planning. I do think you should consider the biases and strengths of each one and work them conceptually together in your mind and find the model or the combination of models that points you in the direction to answer the question you have.

The situation in an organization is quite complex. Figures 1.1.23.11.1. and 1.1.23.11.2. illustrate an old analytically-oriented joke about how to deal with such complexity. Figure 1.1.23.11.1. asks the fundamental question: How do you eat an elephant? The answer is: One bite at a time. Figure 1.1.23.11.2. asks the next fundamental question: Where do you take the first bite?



**Figure 1.1.23.11.1.** *“How do you eat an elephant?”*



**Figure 1.1.23.11.2.** *“Where do I take the first bite?”*



**1.1.24. THE STRENGTH OF THE PYRAMID—EUGENE DELACROIX**  
*(LIBERTY LEADING THE PEOPLE)*

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