CHAPTER 2

Leadership That Achieves Human Systems Integration

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> The single most visible factor that distinguishes major cultural changes that succeed from those that fail is competent leadership at the top.
>
> —Kotter and Heskett, 1992

2.1 INTRODUCTION: BEYOND REDUCTIONISM

Stephen Jay Gould celebrated the February 2001 final release of data on the Human Genome Project as "a great day in the history of science and of human understanding in general." Compared to the number of genes in the humble fruit fly (13,000 to 14,000) or the round worm (just over 19,000), conventional scientific views had estimated well over 100,000 to 142,034 genes in *Homo sapiens* to account for the vastly greater complexity of humans. The Human Genome Project's findings were unexpected: We possess between 30,000 and 40,000 genes—fewer than half again as many as the tiny roundworm. Human complexity does not result from one-directional flow (one gene to protein) to generate our complexity; a single gene can create several messages because of the existence of coding (exons) and noncoding (introns) segments. As Gould exulted, this finding releases us from reductionism:

> From the late 16th century . . . science has strongly privileged the reductionist mode of thought that breaks overt complexity into constituent parts and then tries to explain the totality by the properties of these parts and simple interactions fully predictable from the parts. [This model] works triumphantly for simple systems—predicting eclipses or the motion of planets—but not [for] the histories of their complex surfaces. . . . The collapse of the doctrine of one gene for one protein . . . marks the failure of reductionism. . . . [T]he key to complexity is not more

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> genes, but more combinations and interactions generated by fewer units ... and cannot be predicted.... So organisms must be explained in whole and not as a sum (of parts).
>
> —Gould, 2001

While bureaucratic organizations and their transformation are not individuals, they have been the object of reductionist thinking. Most of the techniques for implementing change are directed at the individual within the organization's internal environment rather than that of the organization as a system (Hay Management Consultants, 1996). Too often system properties are disregarded and changes in individual variables (reward, advancement, and job satisfaction) are equated with changes in the organization itself.

The *structural* model of organizational change illustrates a second form of reductionism. Here the focus is on tangible, visible processes and technologies. Often, enterprises are viewed as a collection or conglomerate of parts and functions similar to a piece of complex machinery. Such an approach fails to consider explicitly the capacity of people to work and manage in new ways (Shields et al., 1999). The *behavioral* model of change seeks to avoid this form of reductionism, making explicit the changed behaviors that will be required of participants. Here it is members of the organization who will be tasked with making the processes, technology, and organizational changes happen.

A third form of reductionism can be found in *classical* and *neoclassical* organizational theory. While these models recognize system-level properties and the role of people in organizations, they define organizations as closed systems, acting independently of their environments (Baker, 1973). More contemporary writers avoid this pitfall by defining organizations as open systems, which exist in fast-changing turbulent environments. Mahortra (1993, p. 1) observes: "To conceptualize an organization as an open system is to emphasize the importance of its environment, upon which maintenance, survival and growth depend."

Whether they view them as open or closed systems, most students of organizations agree that organizations are not easily changed. Shields et al. (1990, p. 302) observe: "By their very nature organizations resist change. Typically, they are very conservative, highly segmented organizations with heavily regimented, strong hierarchical relationships and entrenched procedures." The elements for successful human systems integration (HSI) (Fig. 2.1) illustrate the complexity of changing a bureaucratic organization to achieve HSI. Rather than merely tinkering with an existing structure (a reductionist approach), change agents must succeed in having the organization adopt a new paradigm—one that changes its vision, alters its work culture, shifts awkward organizational components, and accomplishes related changes. As Figure 2.1 implies, these elements are necessary conditions; each must be in place if success is to be achieved.

In our view HSI is both a process and an end state. It is a process that places people at the center of change. Individuals, with their needs, abilities, and aspirations, shape the process of change and are both objects of and authors of that change. As an end state, an HSI-transformed organization is superior to its predecessor. It is more agile, integrated, and effective. It is an organization better able to respond to any challenges it encounters.

2.2 IMPORTANCE OF CULTURE

> To understand change, we must first understand the status quo.
>
> —Roger Martin, in Beer and Nohria, 2000

In addition to rejecting reductionism, the behavioral, structural, and open systems models share an interest in the place of culture in organizations. As used by social scientists, *culture* refers to a group's ways of thinking (beliefs, values, and other assumptions about the world) and doing (common patterns of behavior, including language and other forms of interaction). As Henslin (2001) observes, culture:

- Permeates deep into our thinking, becoming a taken-for-granted aspect of our lives.
- Serves as the lens through which we see our social world.
- Provides implicit instructions about what we ought to do in various situations, a fundamental basis for decision making.
- Creates "moral imperatives" or clear notions of what is right or wrong.
- Tends to persist over time, typically transmitted across generations.

In the world of work, culture represents everyday ways of "doing business" or patterns of behavior that new employees are expected to adopt. We term this form of culture *work culture*. The more visible characteristics of a culture are more malleable than deep-seated beliefs, which may be shaping the behaviors (Kotter and Heskett, 1992), but successful organizational change requires linking required behavioral changes to core values held by the individuals comprising the work culture.

Generally, most enterprises operate in a *functional work culture*. This classic, nineteenth-century industrial model derives from a time that emphasized control, conformity, and continuity. The industrial revolution, which was characterized by the uniformity driven by new industrial procedures and the revolutionary introduction of interchangeable parts, saw the creation of large hierarchical enterprises. The advantages of size generated requirements for reliability, increased work specialization, and continuity of processes

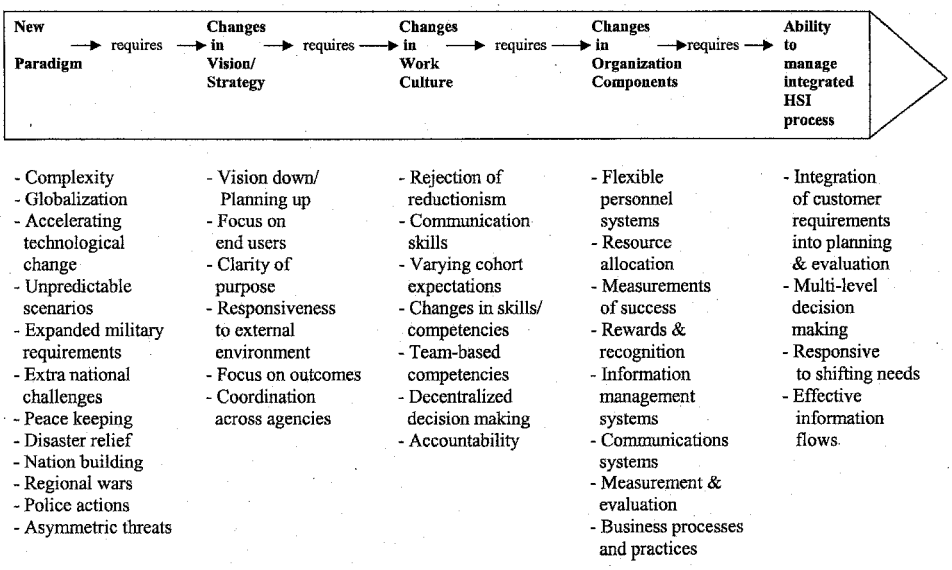

Figure 2.1 Elements for successful HSI.

(in order to create viable products transported to ever more distant markets). A work culture that served emerging industrial enterprises well is ill suited to work that cannot be divided into repetitious, discrete jobs. Traditional management styles fail to capitalize on the total array of its peoples' competencies and creativity, which is necessary to provide the competitive edge for modern knowledge-based work cultures. Also traditional management practices tend to evoke compliance rather than commitment.

In our increasingly complex world, the functional work culture's emphasis on its internal processes and controls is not sufficient. Such a culture tends to encourage competition among functions with resultant overlap, redundancies, confusion, and fragmentation of effort. The competitiveness is reinforced by an American bias to emphasize individuality over collective efforts and to hail the aggressive, competitive individual as an ideal leader (Smith, 1995).

New work cultures focus outward on the end user—the soldier, sailor, airman, or customer—assessing the rapidly changing environment and quickly adapting to new circumstances and requirements. Interestingly, the Department of Defense (DoD) and the armed services, beginning in World War II, have traditionally used the so-called new work cultures for specific purposes, especially in wartime. Task forces, which by their very nature are illustrative of many new culture characteristics, have been an integral part of successful military actions. The shifting paradigm for organization success (Fig. 2.2) illustrates some of these changed requirements. Where the size of an organization was a measure of success in the past, speed of operation became the new measure. Flexibility, integration, and commitment replaced roles, specialization, and compliance.

For example, the reformation of the army's materiel acquisition process in the mid-1980s was a major cultural change, moving away from traditional behaviors. The army had introduced hundreds of new weapon and equipment systems into the force in the late 1970s and early 1980s. Force modernization was occurring just when the military went to an all-volunteer mode. The army encountered two special problems during this era. First, overall system performance did not always meet standards predicted during the engineering phase. Second, new complex systems failed to accommodate the "man–machine" interface when counting the requirements for specific types and numbers of operators, maintainers, and support personnel and impact on length and cost of the training cycle.

The development of the Bradley fighting vehicle during that period is a good illustration of the failure of traditional patterns of behavior. The mid-1970s prototype held one less soldier than the infantry squad was assigned. This was because designers had failed to accommodate the amount of equipment actually carried by each soldier. The solution was simply to eliminate one position in the squad. This was essentially deciding the number of

Old Success Factors	New Success Factors
• Size	• Speed
• Role clarity	• Flexibility
• Specialization	• Integration
• Control	• Accountability
• "Need to Know"	• Open communications
• Process emphasized	• Outcome emphasized
• "Carrot and stick " rewards	• Internal motivation
• Compliance	• Commitment
• Internal focus	• External coordination

Figure 2.2 Shifting paradigm for organizational success.

infantryman after the fact—on a "space available" when fielding—rather than building a vehicle to fit the number of infantrymen determined early by army doctrine. In this case the army was paying for more infantrymen than could be carried to battle.

The newer, more encompassing systems development process focused attention on the ultimate customer: the user in the field. However, despite extensive documentation of problems and a committed senior leadership, the old culture rewarded program managers for moving a system forward on a tight time schedule and within costs. A number of leaders saw integrating human factors and manpower, personnel, and training (MPT) costs as increasing the "investment" costs and creating potential roadblocks to fielding systems on time. Many different parts of the bureaucracy reacted with concern, particularly where the various activities had been in competition so long they found it difficult to cooperate in an interdisciplinary approach. Nevertheless, the army did make major strides with its Manpower and Personnel Integration (MANPRINT) program, as indicated with the several specific examples in Chapter 18.

Successful cultural alignment for an integrated enterprise requires a shared mindset focusing on outcomes, mission, and requirements for change. The traditional functional work culture organized in a series of functional boxes and in vertical stovepipes must decentralize and also flatten the hierarchy in order to push decision making closer to action taking. Information must be shared laterally and upward as well as down through functional "stovepipes" in the organization. The more organic or behavioral approach showcases the importance of all organization members thinking and acting in a manner consistent with achieving a transformed enterprise. The behavioral approach also warns that such changes must transform the ways in which people in an organization think, act, and believe about the nature of their work.

2.3 LEADERSHIP MATTERS

> I tell people "what got us here won't keep us here."
>
> —Michael Ruettgers, in Hemp, 2001

Leadership is the critical element in creating a new work culture. In large part this is because it is leaders who communicate the behaviors, skills, and abilities necessary to the transformed organization. Leaders accomplish this feat through what they do *and* through what they say. Leaders are responsible for building the trust that will motivate people to follow them into the unknown. Competencies necessary to lead transformational change include vision, the ability to accept ambiguity while managing complexity, flexibility, and the ability to build and inspire a leadership team. A fundamental characteristic of successful change leaders is personal integrity, which is reflected by the ability to evoke trust in others by being consistent and open in words and actions. Such change leaders are open to and acknowledge the emotionalism and difficulties inherent in implementing organizational change. Machiavelli's *Prince* would not be able to lead in today's world unless he recognized the new paradigm for enterprise success.

For leadership development to work, the senior team must work together to make desired values and behaviors explicit, model these behaviors, and integrate them into the appraisal system. Successful change leaders also quickly remove or isolate high-ranking people who fail to "join the team." Major leaders such as Jack Welch of General Electric

(GE) have not hesitated to remove senior individuals who, although highly successful by objective standards, failed to "live the values" in their management of people. Kouzes and Posner (1995) assert that credibility requires *clarity* concerning guiding principles and capabilities necessary to success, *unity* on where the organization is headed and how values will be put into practice, and *intensity* or great consistency linking words and actions.

Our model reinforces Booher's HSI principle 1 (Chapter 1), which posits a top down approach to leadership. Successful leaders realize that, ultimately, only people transform organizations and that there must be "vision down, planning up." Upper level leaders institute change; middle and lower level leaders subsequently assure its success and sustainability. Leaders also assure that initiative is rewarded rather than thwarted at all levels.

Creating vision and overall strategy is largely inductive. Such directional guidance looks toward the future by assessing a broad array of information and looking for pattern. Management per se is fundamentally deductive, with the primary concern of producing orderly results. Planning, the manager domain, is necessary and complementary to vision but cannot substitute for it. Table 2.1 highlights these differences. For more information on comparisons between leader and manager roles see Kouzes and Posner (1987, Chapter 13) and Kotter (1990).

TABLE 2.1 Leaders and Managers: A Comparison

	Leadership Roles	Management Roles
Approach	Inductive and analytic approach that looks toward future; assesses broad array of information, discerns patterns, risks, and opportunities.	Primarily deductive; focus on achieved results or predictable outcome; plan, organize, and control processes and systems.
Critical Tasks	Create vision, establish strategy, model values, motivate others; build constituent buy-in.	Plan, organize and control output/work/processes within a specific arena. Broader domains usually involve more planning whereas more limited spheres of influence tend to emphasize operational issues.
Assignment	Leadership roles assigned or assumed in more informal way, tend to be fluid. Usually given management assignments.	Formal assignment is part of management process. Some managers have leader roles either larger or smaller than management position.
Function through	Motivating others; modeling values; use of multiple communications channels; informal networks.	Planning, assigning routine responsibilities and authority; use of formal mechanisms outlining duties and means of resolving conflicts.

2.4 TRANSFORMATIONAL CHANGE MODEL

> We are not interested in any change, but rather in change that produces results superior to the status quo.
>
> Roger Martin, in Beer and Nohria, 2000

Culture, leadership, and organizational components must all be incorporated into any change effort if enterprise-level transformation necessary to HSI is to succeed. Having outlined the key *elements*, we now turn our attention to the *process* of change. The main steps that earmark successful change are shown in Figure 2.3.

This four-phase approach to an integrated change process—decide, guide, support, and sustain—is prescriptive. If change is to have depth, scope, and sustainability, change agents must execute all phases in the process and incorporate all elements (culture, leaders, and components) for successful change. Omitting any single element will result in a change that is circumscribed or even aborted. Taken together, these four phases represent the way leaders can bring their vision of an HSI organization to reality.

In the following section we elaborate on the four-phase approach, describing the specific tasks that need to be accomplished to complete the process. Their scope and complexity underscore the challenges leaders face to implementing organizational change.

2.5 PHASE 1: DECIDE TO CHANGE

The decision to change initiates the change process (Fig. 2.4). It assumes that key decision makers have identified a compelling need to change, determined its magnitude, and estimated resources required. Leadership, while important to all four phases, is crucial here.

2.5.1 Task 1A: Link Vision to Core Values

With transformational change, the future is uncertain. Leaders are asking people to take a leap of faith into the unknown. An effective way to help people make this leap is to appeal to the organization's core values when communicating the vision. This approach allows

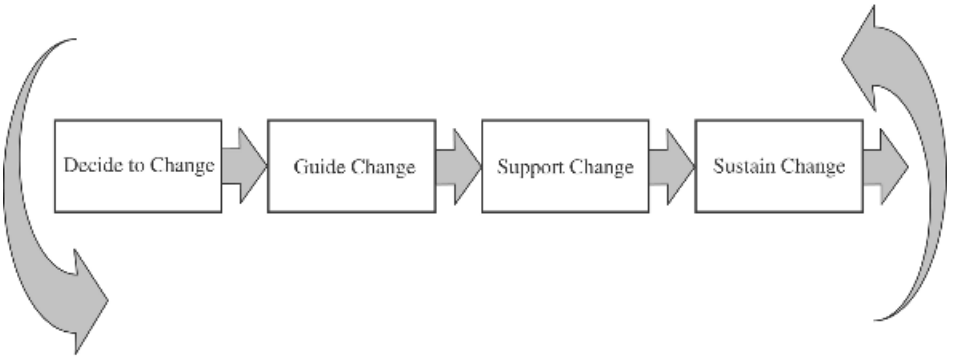

Figure 2.3 HSI integrated change process.

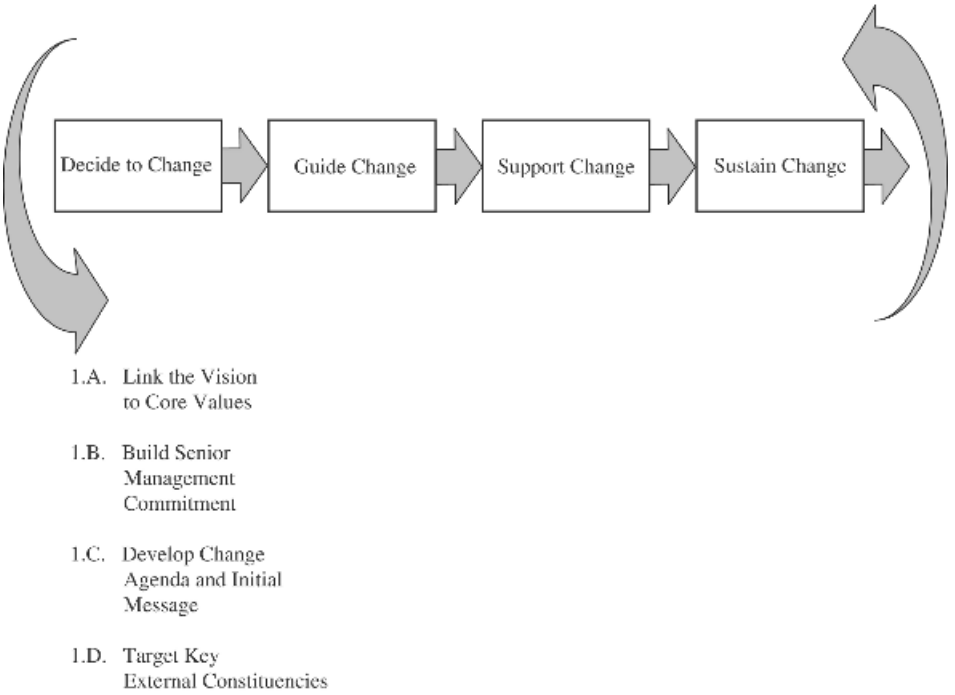

Figure 2.4 Integrated change process—phase 1.

leaders to validate the past while focusing on the future. It provides a bridge for individuals to decide to change, helping them overcome their fear of the unknown.

The army's successful introduction of MANPRINT demonstrates major systems change that radically altered traditional stovepiped functional behaviors. MANPRINT marked the successful introduction of an integrated systems approach to the acquisition process for weapons and equipment in the armed services. The vision was to define a system *as an organization with people and equipment*, superseding the more parochial view that the system was just the equipment. The new comprehensive management system required continuous integration of six functional areas throughout the materiel and information system development and acquisition process. A major barrier facing the planners was the complexity of effort required combined with bureaucratic inertia. The effort was able to seize the moral high ground and simplify the concept by focusing on the fact that the army was going to design and build equipment with soldiers in mind. This was reflected in the slogan: "MANPRINT: Remember the Soldier."

At a different level, the key leadership at the Defense Printing Service (DPS) gave printers the opportunity to mourn the loss of their presses. Printers lost the tactile experience in producing finely crafted, crisp paper products when computer technology replaced century-old offset presses. The new vision tied the new technologies directly to the concept of continuing to take pride in providing the customer with highly effective and efficient service. This vision for DPS also built on the concept of each print shop opening the door to a "worldwide" team. This integrated approach enabled a leveraging of skills and capabilities to bring added technical resources to bear anywhere in the world. The DPS

efforts captured the imagination and commitment of its employees, leading to successful change in the work culture.

Both DoD efforts—MANPRINT and DPS—succeeded in motivating their workforce by defining craft and technical success as that which enabled the ultimate user. The enterprise will only succeed when the ultimate user is effective. Therefore, the measure of success turned from process to outcome.

2.5.2 Task 1B: Build Senior Management[1] Commitment

Senior managers are the primary drivers of change. They often accomplish this by serving as role models for their followers (Burke and Litwin, 1992). The importance of followers' perception of leaders, their credibility and their competencies, cannot be overemphasized. Since leadership is a relational process involving two or more participants, leaders must inspire and motivate; only then will employees act in a manner both different from their conventional behavior and consistent with leadership expectations. Such leaders recognize the complexity of human behavior and are able to move employees to act "outside the box." These generic characteristics help inform our understanding of leadership in general. Successful change leadership may be defined as the process of mobilizing others to achieve a work culture that supports the desired vision and strategy.

When Donald Regan, then chief executive officer (CEO) of Merrill, Lynch, introduced the idea of a "cash management account", or CMA (the radical idea of linking money market and checking accounts to the traditional retail brokerage account), all the senior executives voiced serious and valid objections. Once Regan had gone around the table and listened calmly to each person, he sat back and simply said that, indeed, the difficulties, to include legal and regulatory, were genuine barriers. He then reframed the issue. Regan asked how they as an organization could resolve each of the issues. His leadership resulted in a major transformation across the traditional brokerage business (Pfeffer and Sutton, 2000, pp. 66–67).

One senior change leader in DoD did external benchmarking with a Fortune 50 corporation. When he inquired about managerial resistance to change, the executive stated: "We give management ten days to adjust their attitudes [to the change], or they're gone. Government change leaders do not have the same leeway as private corporations to dismiss their career civilians.[2] Instead, they devote significant personal time to individually working with career civilians in order to achieve support, retirement, or a transfer out of the organization" (Hay Management Consultants, 1996, p. 20).

Key elements for gaining senior management commitment include:

- Articulating a case for change
- Devoting personal time to senior managers, listening to their complaints and concerns in order to diffuse their opposition and provide an outlet for them to vent significant issues and negative reactions
- Assessing individual perspectives on the change required, then selecting only those managers to be members of the change leadership team who will be effective advocates[3]
- Initiating team building to build trust and open communication between the members of the senior team, particularly if the senior team includes people from very different

work groups; e.g. the three DoD work groups—political appointees, military officers, and career civilians
- Building support by including the senior management team in refining and further developing the vision

In the DPS, the new director had to grapple with a new high-level vision for an organization created by the consolidation of the air force, army, and navy printing establishments coupled with the loss of about one third of the personnel and grave fears that more severe reductions in force were to follow. The director built support for the new vision by involving his senior team in its further development. He pulled together the area directors in three different off-site facilitated conferences over a period of 6 months. This in itself was a new way of doing business because these people had never been in the same room together. Once the area directors began to coalesce into a team, they developed their vision, which included:

- "Going digital"—radically changing the nature of their business from printing to offering automating documents in computer-ready formats.
- Creating a "team concept" all the way down through the organization where employees were no longer "Army", "Navy", or "Air Force."
- Setting a new goal for communications, replacing the grapevine as the avenue for communicating change. When motivating for customer communication, the director stated "We wanted the bottom person in the organization as aware of and as enthusiastic about selling to customers as the top." (Hay Management Consultants, 1996, p. 27.) This also means when an organization is being radically down-sized, leaders should present the bad news directly throughout the organization, not try to soften with unrealistic optimistic forecasts.

2.5.3 Task 1C: Develop Change Agenda and Initial Message

Leaders often approach planning for organizational change in much the same way that they would approach project implementation planning. Reengineering efforts, in particular, have not realized the expected performance improvements because of a failure to address the challenges associated with change implementation, especially the challenges of managing the "people side" of change. Successful team members operate on the following principles when developing the change agenda or road map:

- Remain personally involved in the effort, particularly to make key decisions when people run into obstacles.
- Ensure that there is broad participation from all major constituencies in the organization in the planning, design, and implementation.
- Recognize that planning for transformational change needs to be iterative and exploratory. There is more variability in the process and less control; yet the senior leadership is still accountable for results. The agenda is a road map for change, rather than a detailed plan or blueprint.

Several common responses block a work culture's acceptance of the initial change message:

- Highly successful organizations resist the need to change by discounting the reality of the message.
- Change threatens the "comfort level" of individuals.
- Changes in customary "ways of doing business" disrupt power relationships.
- The notion that "everything may need to change" implies that the old roads to success may no longer be available (thereby discounting the senior person's success and increasing career uncertainty for midlevel personnel).
- The increasing amount of societal change has increased stress in people's lives, which contributes to resistance to further change.

To improve the chances of people accepting the change message, individuals must understand that their work lives depend on it. The messages must be concise, direct, and repeated. They must also link the urgency for change to core values. The initial message and subsequent communications about it need to provide honest assessment of how the proposed change will impact people. To maintain and build trust, the initial message should openly and frankly address job and position losses or other negative outcomes. The initial message does not seek to achieve "buy-in," it merely sets the stage for implementing change. Honest communications are central to issues of trust and acceptance.

2.5.4 Task 1D: Target Key External Constituencies

Senior management must also address its external environment. The external constituency includes all those individuals outside the purview of the senior management responsible for leading the change. For instance, the secretary of defense looks to elements outside the DoD—such as key congressional committees—whereas a defense agency may also look to elements in the office of the secretary of defense (OSD) (such as senior DoD officials including the secretary) and other players in the department. The corporate enterprise must look to shareholders, significant partners and competition, government regulators, Wall Street, and public opinion.

Senior managers have to build internal consensus in order to help keep down levels of discord. Discord and uncertainty often generate multiple letters to congressmen, unions, and other external political players. Providing clear, consistent communication helps avoid creating a backlash before the case for change is made to external constituencies who have the political influence to derail the process.

The approach for targeting key constituencies, particularly political influencers, includes the following actions:

- Identify key constituencies who will have concerns about the proposed change. The scope and level of effort spent here should mirror the extent of change planned and the size of organization undergoing the transformation.
- Incorporate plans to work affirmatively with members of the media. They provide a significant avenue for transmitting information and educating significant opinion makers in various constituencies. Such plans may be contingency-only.
- Develop a communications plan and use multiple means to influence targeted constituencies.

Table 2.2 provides a sample of those entities with interests in specific DoD components. A similar identification process can be used for any entity.

TABLE 2.2 Identification of Key Constituencies within DoD

Entity Undergoing Change	Senior Team	Senior Official(s)	Agency Heads	Congress	Unions	Private Sector (defense contractors, trade-groups)	Media
Office of the Secretary of Defense	Secretary of defense and key subordinates; chairman, JCS, service chiefs, and key subordinates	President and National Security Council	Senior appointees	Members, esp. committee chairs; other political leadership	National president; national conventions	CEOs, boards of directors	National media
Joint Chiefs of Staff							
Agencies and military services	Senior political appointees, SES, senior military	Secretary of defense, Office of Joint Chiefs of Staff	Senior appointees and career civilians	Congressional staff, committee staff	President and key subordinates	Key persons responsible for market and policy	Esp. trade publications

While the DPS was undergoing significant change, the director identified the various constituencies and determined to target the union, Congress, and private contractors. At DPS, where unions are very significant, the union leaders were dismayed over the prospect of losing a high number of people. The director met with the national head of the employee union, and key DPS senior management worked with union members to ensure that a consistent message was delivered internally to employees and the union. The director and senior managers clearly articulated the changing environment and the need for moving forward with their change vision to internal employees and union officials. Congressional scrutiny of DPS's change effort was intense and hostile as a result of the downsizing and consolidation that was taking place. The director conferred with key committee staff with whom he had developed relationships in order to deliver, once again, a consistent message concerning the requirement for transformational change.

Printing contractors who had been printing massive amounts of DoD documents were concerned about losing business. Their concerns generated pressures from Congress and negative articles in trade publications. The director took the DPS case to the printing community using multiple channels of communication. He attended national conferences and talked with trade publications, emphasizing the fact that DPS needed to maintain certain core functions. Everything else would be put "on the table" for contracting to the private sector. As one senior DPS official noted, "The private sector printing community thought they could do things better. We said, 'You'll be a partner.'" (Hay Management Consultants, 1996, p. 42.)

Consider Boeing Industry, which attracted the world's attention, when it announced its relocation from Seattle to one of three potential locations—Denver, Chicago, or Dallas. This announcement served notice to a number of key constituencies both internal and external, from union to shareholders to cities eager to compete for the corporate presence. It broadcast a new vision for a Boeing corporation that had outgrown its prior image of a manufacturer of airplanes.

2.6 PHASE 2: GUIDE CHANGE

> [E]xemplary leadership and organizational change are impossible without the full inclusion, initiative and cooperation of followers.
>
> —Warren Bennis, in Beer and Nohria, 2000

The main objectives of phase 2 involve determining what new organization will emerge and the action necessary to achieve it (Fig. 2.5). This process is one of application and refinement, or trying out changes and readjusting, depending on the outcome. While the senior leadership is still the primary driver of change, participation begins to percolate throughout the organization, as more people are involved in starting to make the change vision a reality.

2.6.1 Task 2A: Develop Change Plan

> The First Principle: If you know by doing, there is no gap between what you know and what you do.
>
> —Pfeffer and Sutton, 2000

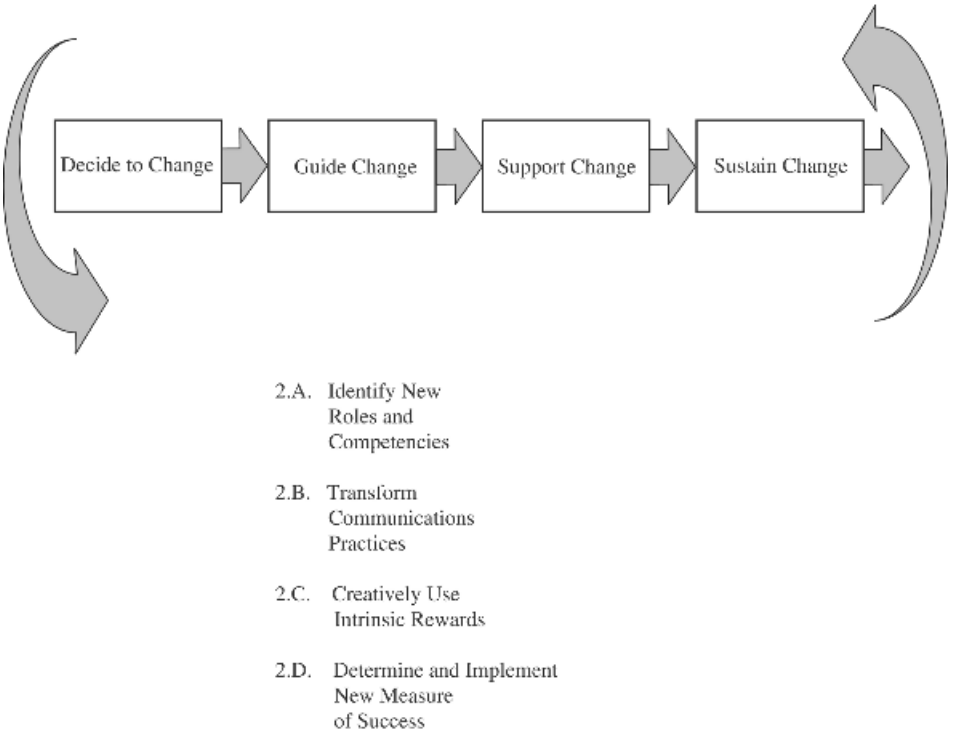

Figure 2.5 Integrated change process—phase 2.

Public organizations commonly make only structural changes because they are relatively easy to implement compared to work culture behaviors. Change leaders need to ensure that the new structure supports changed business processes and the desired work culture. Pfeffer and Sutton (2000) cite the military as an example of learning and knowing by doing. They note the contradiction that "in many companies people are more likely to get ahead by talking smart than by doing smart and productive things." The challenge, then, is to both know and do. That is only possible with more doing than talking, planning, briefing, and critiquing.

Under the leadership of Jack Welch, GE became not only one of the most successful Fortune 50 companies across the past 20 years, it is also identified as the preeminent source of CEOs for other major corporations—demonstrated when the two "also rans" in the grooming for Welch's successor were named as CEOs of Home Depot and 3M. Welch has summarized his efforts as a "hardware" phase preceding the call to transformational change. His hardware phase pared a bloated bureaucracy, beginning with his immediate dismissal of a large central planning selling off or realigning 350 businesses into 13, and reducing the workforce by one quarter. Welch grasped that GE could continue to achieve growing productivity by using the initiative and knowledge of all its employees (Slater, 1994). His incentives have always demonstrated an awareness of the talents and capabilities residing in the entire workforce. In the mid-1980s Welch began a process called "work-out" aimed at bridging the knowing–doing gap. *Work-out* (1) focused on a

business issue or key process within specific functional areas, as people recognized that issues and processes were cross functional; (2) brought together multifunctional/multilevel participation in small-group brainstorming; (3) presented all recommendations to business leaders at a town meeting; and (4) required immediate action by the manager (Pfeffer and Sutton, 2000). An action could be either accepted or rejected (with explanation), or if more information was needed, an action team and deadline for decision was established on the spot.

Work-out facilitated the transformation of GE's culture by overcoming functional specialization and hierarchical power differences that had inhibited information flow and action taking. The model helped all GE people learn how to present more specific, thought-out suggestions and develop initiative. It helped create a training ground for managers who displayed a bias for action, a willingness to listen, and who valued people "who dared to try new things." During the same era the development of "best practices" across functions led to "benchmarking" and to looking outward at other companies to see what practices or processes made them successful, independent of the products they made. While these initiatives may appear to be commonplace today, in many cases GE was breaking new ground with them.

When outcomes rather than processes became the imperative, organizations have to achieve greater flexibility in manpower utilization. Career development and internal selection also need to be recast to align new requirement with changed organizational needs. Through 20 years of leadership there have been only a handful of key initiatives that have driven GE excellence as a corporation and as a preeminent school of executives. During that period, there have been some variations in personnel systems, yet underlying each was the consistent theme of rewarding achievement, honoring risk taking, and ruthlessness in weeding out those who flout the organization's values.

In the federal sector the Defense Logistics Agency (DLA), a senior management group ("the gang of 10" assigned by the agency director to reengineer the headquarters), had 2 weeks to review contractor recommendations and create its reengineering blueprint. The DLA senior planning team redefined the headquarters role as policy, oversight, and resource management (Hay Management Consultants, 1996). Accordingly, the senior management group released certain headquarters executive service (ES) positions for transfer to the field. The design team put middle management back to work, assigning most headquarters (HQ) personnel to teams. This permanent team structure gave the reorganization more flexibility to meet changing business needs while giving managers the opportunity to better decision making by eliminating much of their previous focus on control-oriented tasks.

The senior team understood that individuals needed stability as well as opportunity when undergoing major change:

> We treated the teams like mountain climbing teams who establish camps all up the mountain, but with a "base camp" or a recognized "home room" or "base" doing training, time keeping, leave, and serving as the location where the position of record sits (Hay Management Consultants, 1996, p. 47).

Besides establishing stability at the top and bottom of the organization, DLA notified everyone that no changes in position descriptions or grades would occur for at least a year while the organization was going through the wholesale restructuring. This also provided a necessary element of stability. Senior management continued to concentrate time and

energy on making the behavioral changes happen as the organization reengineered its work processes.

2.6.2 Task 2B: Design and Deploy Ongoing Total Communications

> I wish we knew what we know at HP.
>
> —Lou Platt, CEO Hewlett Packard, in Pfeffer and Sutton, 2000

Design and implementation of an effective communication strategy is a major challenge to teams directing change. Trust in the communicator is built through the integrity of the messages and the ways in which communications occur. Employees find it difficult to take actions on their own without access to accurate and timely information. Sharing information widely is a key hallmark of the new work cultures, particularly in times of transition. "Listening down and across" may be one of the most effective communication skills. Effective communication requires multiple channels—formal and informal, upward and downward. Policy announcements, reorganization plans, and procedural memos alone cannot do the job. Senior managers need to deliver change messages personally by, for example, calling an all-hands meeting.

2.6.3 Task 2.C: Create and Reward Early Successes

Change leaders must get people to "buy-in." Obtaining commitment to a new vision and new behaviors can be a daunting undertaking. Short-term successes provide concrete evidence that change is possible. Visible, early successes bring the change vision down to a tangible level while undermining the naysayers. Further, such visible successes establish the credibility of the project, the team, and the management that supports them.

In addition to creating early wins, building momentum requires a process of publicizing successes and rewarding the people involved. The work-out sessions in GE provided multiple opportunities for success, and, as Welch put it, allowed people to pick "the low-hanging fruit." This process reinforces behavior, sustains commitment, and communicates to the rest of the organization that there are personal benefits from the change. To summarize, leaders can capitalize on small wins and short-term successes by implementing early changes with the following characteristics:

- Visibility (changes in work processes that involve some form of organizational change are most visible).
- Strong likelihood for success defined in terms of desired outcomes.
- Targeted to organizational units where key managers are strong supporters of the change agenda.
- Success defined in terms of outcomes and behaviors consistent with the desired work culture.
- A number of people involved in the change.
- Recognition and rewards provided for those who achieve desired outcomes and behaviors.

Rewards and recognition can be designed to appeal to people's intrinsic motivation. *Intrinsic motivation* refers to psychological needs that drive people to perform, such as a

desire to master skills that others recognize and appreciate, a desire to have control over one's work, and a desire to influence others (Steininger, 1994). In an environment where there is a requirement for massive change and significant ambiguity, individuals are naturally apprehensive and concerned. Issues about job security, power, control, and influence all become extremely important. An implementation plan that breaks the vision into doable pieces and provides an opportunity for people to experience short-term success helps to reestablish feelings of control and self-worth.

The army's key leaders incorporated planning for early success in their MANPRINT effort by integrating HSI into the army's weapons acquisition process. In order to expedite learning and minimize the impact of an early failure, a number of pilot projects were selected. These were chosen because they provided experience in each phase of the acquisition process and provided experience in procurement procedures.

The Light Helicopter Experimental (LHX) Program that produced the Comanche helicopter—now one of the weapons systems for the army—was selected as an army pilot program. Six functional areas (manpower, personnel, training, human factors, system safety, and health hazards) were identified and empowered to act as a team on this project. This process brought broad ownership, facilitated involvement, and *provided many opportunities for success*. Supervision of critical components was retained at a high level. The visibility of LHX demonstrated a high level of senior leadership commitment. The pilot project was the subject of an active information campaign ranging from keeping the senior leadership informed to routine briefings to newly assigned personnel. Such visibility not only sustained support but also allowed it to grow (Blackwood and Rivello, 1994).

2.7 PHASE 3: SUPPORT CHANGE

> If you are doing everything perfectly, you aren't trying hard enough![4]
>
> —Gordon Moore, 2001

During the third phase in the change process (Fig. 2.6), implementation is underway. The road map is in hand, implementation teams are at work, and the leadership team is tracking progress. The transformation effort now includes people at all levels. Supporting change requires efforts focusing on the redesign of various structural components that channel work flow and organizational structure so that the new work culture becomes the accepted norm. Structures help to anchor the change.

2.7.1 Task 3A: Identify New Roles and Competencies

Many reengineering efforts rely solely on training and education as the tool for turning the reengineered work processes into reality. The hard work of implementation, however, requires more than sending people to training sessions. As important as training is, change leaders must first identify the human resources they will need to perform each new or modified process—the new roles, responsibilities, and competencies people will need to do the work effectively. The process of identifying roles and competencies must deal with the characteristics of the *work required*, not the characteristics of *the people* who have been or will be doing the work. Organizations as disparate as GE and the World Bank are striving to create new opportunities for sharing this tacit knowledge.

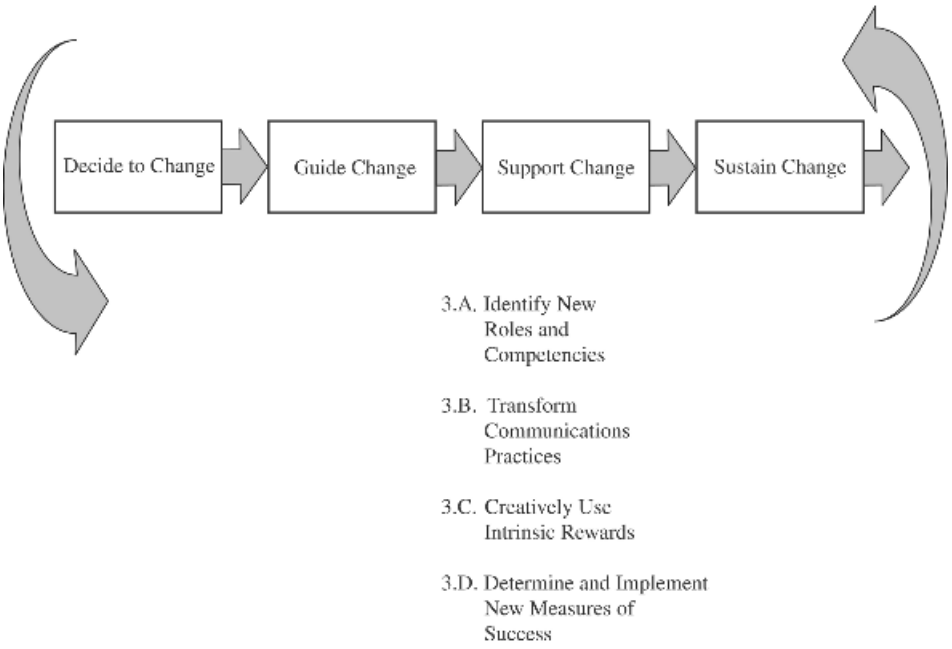

Figure 2.6 Integrated change process—phase 3.

Change leaders must ensure that the following occurs in order to set the stage for effective change implementation:

- *Clearly articulate the new roles people will be required to play:* The new roles should support the new work flow, organizational structure, and work culture.
- *Identify what excellence looks like:* What are the specific responsibilities and competencies that will be needed for success? If the change involves moving to teams, identify the competencies (interpersonal skills, open communications skills) that would be required of all team members, leaders, and others.
- *Assess the existing talent pool:* This is needed to match people to the new roles and determine the extent to which the new competencies need to be developed. The assessment results become the basis for the organization's training and development plan.
- *Incorporate a bias for action:* Traditional work culture with its emphasis on routine, hierarchical deference, and tendency to hoard information seriously limits the ability to benefit from initiative, creativity, and on-the-spot knowledge. Preference for action taking and willingness to tolerate mistakes are critical to new work cultures.

Given the constraints of the public sector, some maintain that defining new roles and competency requirements would be difficult to achieve. However, many of the DoD change leaders interviewed by the authors have restructured their organizations, made greater use of teams, and created new team and individual roles for personnel.

A responsive, flexible workforce is a key component in all transformational change, regardless of the particular shape the work and organizational structure takes. In additional

to technical competencies, this new workforce will need a broad spectrum of behavioral competencies. Communications, coaching, cooperation, and influence abilities are increasingly important for most of the workforce; more and more people are required to make decisions, work in teams, and negotiate across traditional functional boundaries. Unless organizations systematically develop these abilities in their people, old ways of "doing business" will persist.

GE and Allied Signal have taught thousands of managers and employees how to determine customer needs. This training helps provide organization members a common vocabulary, measures, approach to problem solving, and vision. Training programs are defined around competencies that align with business strategies.

Practice does not make perfect—*perfect practice makes perfect*. Acquiring behavioral skills requires hands-on training rather than education, which are traditionally more lecture, reading, and discussion driven. Those without the necessary skills or having very limited skills need to practice, correct, and practice again. The most effective way to build behavioral competencies is through practice, coaching and feedback, and the chance to apply new skills on the job. Often on-the-job, just-in-time opportunities for detail to other offices/directorates or opportunities for cross-functional training provide effective skills development techniques.

Historically, DoD training in behavioral competencies for civilians has been focused on career managers. For the most part, the system presumes behavioral competency in political appointees. In contrast, the military services have a longer history of shaping behavior through training (both for technical performance and leadership) throughout the ranks.

2.7.2 Task 3B: Transform Communications Practices

Communications is central to the issue of both sustaining and accelerating change in an organization. The Oracle Corporation sends change consultants to work with senior leaders at enterprises installing new Oracle systems so that the enterprise can both anticipate and shape the cultural ramifications (Hart, 2001). When an organization is reengineered around processes and has turned to a cross-functional (as opposed to a stovepiped) structure, the formal information flow will have been changed. Radical changes in the capture and flow of information will impact the culture. They will occur whether or not expected and planned for.

Prior to the development of computers and networking systems, gathering data and information was laborious and their distribution was difficult. A common characteristic of new work cultures is greater movement of information sideways and downward. When information is shared in this way, it short-circuits grapevines and rumors as a medium of exchange. Good information policies and practices:

- Are inclusive, rather than "need to know," reducing the potential for "ins and outs" generating internal tensions and competition.
- Provide the basis for decentralizing decision making and action taking by making the information necessary for good decisions at appropriate levels.
- Create a shared culture through shared vocabulary and common viewpoints.

Many classic avenues of communication have traditionally been exploited by work organizations. These strategies for transmitting knowledge and common understandings and acceptance of new processes can be improved upon and supplemented. This can be achieved by including the powerful informal transmission channels along with the formal ones. Good commanders as well as managers in the public and private sectors have historically used informal communication avenues to create an upward flow of information from subordinates. They have engaged in "walking around" and assessing morale. Senior managers should encourage their managers, supervisors, and team leaders to use this informal communications technique.

At the World Bank an "all-in-one" information kiosk allows teams to set up e-mail distribution lists so that progress reports, correspondence, and meeting notes can be easily shared and accessed by other members of the organization. SmithKline Beecham (Research and Development) uses groupware technology to set up databases by subject so that people from different geographic locations and other functions can contribute to information interchange.

GE, New York Life, Digital Equipment Corporation, Exxon, SmithKline Beecham, and the World Bank are organizations that have used town meetings as a means of removing vertical boundaries (Ashkenas et al., 1995).

In May 2001 IBM conducted a marathon brainstorming session titled "WorldJam" to which it invited all 320,000 employees. The *New York Times* reported:

> By the end of the three-day exchange . . . nearly 52,600 workers had logged in at one time or another. . . . The visitors generated more than 6,000 proposals and comments, and viewed five postings each on average. . . . IBM set out 10 broad problems to work on for a limited period in a setting that combined elements of moderated chat, electronic bulletin boards, and online polls.
>
> —Fedder, 2001, C1

It is too soon to say what the results will be in terms of knowledge transfer; however, one explicit goal IBM set was to study its potential for spreading ideas horizontally throughout the worldwide organization. Planning was already underway for a similar project spanning all of the sales forces later in 2001 (Fedder, 2001, C5).

2.7.3 Task 3C: Creatively Use Intrinsic Rewards

As Kouzes and Posner (1995) note, the role of the leader is to create the appropriate work culture wherein employees motivate themselves. Self-motivation or intrinsic motivation is variously defined as: "self-fulfillment" or sense of self-esteem and respect; or the necessity of having a clear role that gives meaning to life. Individuals are self-motivated when they are valued for their contributions. One theologian explains the vast difference between a mere job and meaningful work: a job is about economics, or extrinsic motivators, whereas "work comes from the inside out" (Fox, 1994, p. 120).

To use intrinsic rewards to modify behaviors, managers may have to first change themselves. In place of focusing on and controlling actions, they need to mobilize and motivate others. Command and control management involves close monitoring and controlling of subordinates' behavior and sends a message that the leader lacks trust in the ability and judgment of people within their purview. Command and control managers often fail to provide subordinates sufficient information for them to make effective

decisions and initiate actions. As a result, control-oriented managers tend to discourage creativity and initiative. Effective leadership:

- Makes it safe to experiment or take risks.
- Encourages creative thinking.
- Avoids early negative feedback to new ideas.
- Rewards initiative and honors risk takers.

A tragic example of the consequences of failure in a traditional work culture is the United States' mistaken targeting of the Chinese embassy during the Kosovo conflict. The bombing coordinates were based on inaccurate and old data. At least one employee questioned the location but failed to aggressively call this to anyone's attention. The result was the death of two Chinese in their embassy. Ideally, a work culture that encourages subordinates to actively question discontinuities is also one where individuals are well informed about any given operation.

Effective senior managers also exhibit sensitivity to the cultural expectations of different work groups. For example, at DoD it has been customary to present awards for outstanding performance to service members when the individual is rotated from a given position or billet to the next assignment. This pattern differs from current practices surrounding a variety of civilian awards, which are given in connection with the annual performance appraisal or immediately upon the completion of a major project. As a consequence of the differences among the three work group cultures (career civilians, political appointees, and active-duty military), military supervisors sometimes fail to adequately manage the civilian awards system. Supervisors need to tailor rewards to different work cultures in all organizations, whether they are in the State Department or a Fortune 100 company.

2.7.4 Task 3D: Determine and Implement New Measures of Success

All organizations undergoing transformational change must establish a means to monitor and assess their progress toward achieving agreed-upon goals. This process can be encapsulated as "generating feedback mechanisms" (Nadler et al., 1995). These mechanisms are not separate activities; they are tailored to the specific change objectives and woven into the fabric of change management.

The team responsible for developing the new measures needs to follow a number of guidelines (Osborne and Gabler, 1992). These include:

- Recognize that there is a significant difference between measuring process and results. Process is relatively easy to capture; results are more difficult but more important to document.
- Be aware of the vast difference between documenting efficiency and effectiveness. Efficiency is a measure of the cost of production, while effectiveness measures the quality of output. Both phenomena need to be included in a comprehensive monitoring effort.
- Involve all participants in developing change measures. This guideline assures that employees will "buy into" the change measurement process. Initially it involves senior managers but will later broaden out to include all affected middle managers.

- Try to strike a balance between using too few and too many measures. If too few measures are used, not all change objectives will be measured. By creating too many, the power of all measures may be diluted and managers will be overwhelmed with information.
- Focus on maximizing the use of performance data. Performance measures assist managers in planning and conducting their work. Other measures, in contrast, are typically seen as burdensome and merely as reporting requirements.
- Plan to subject measures to annual review and modification. The fluid nature of organizational change means that measures, which appeared ideal when originally developed, may not work out as well in practice. While at this stage in the measurement design process such specifics are unknown, they still need to be anticipated.
- Realize that while "zero tolerance" may be an effective standard for scientific endeavors, it does not apply to human performance, especially when judgment is warranted.

The effectiveness of performance measures depends upon people's willingness to provide accurate data. People who are afraid of failure and its repercussions can distort or fail to provide accurate responses. Any new work culture must build on a foundation of trust and emphasize that the objective of measurement is to bring about continuing improvement.

One way to build this trust is to ensure that leaders deemphasize perfectionism in dealing with their people. The concept of "perfection," or absolute adherence to rules and regimen, are marks of success or failure in the functional work culture. Perfection, however, is the enemy of continuing change and improvement in the process, time-based, or network cultures. The pursuit of perfection destroys initiative and rewards the "we've always done it this way syndrome."

Some individuals simply may not be able to work with the new measurement system. One senior manager interviewed rewrote the performance standards for some of the key positions so that they were more outcome-oriented. People now had to relate budget expenditures to the overall new mission of the organization, whereas in the past, their performance standards related to how well they managed organizational spending. One of the affected employees refused to change his old approach, saying that he had not done business this way before and could not do it the new way; he left the organization.

2.8 PHASE 4: SUSTAIN CHANGE

When an organization has experienced significant change, the transformation will not be complete. Work flow may be different, behaviors may be cross-functional, and decision making may be more rapid, effective, and broad-based. These changes, however, may be short-lived. True transformation must be long-term, extending into the next generation. This phase addresses the steps HSI change leaders can take to sustain change (Fig. 2.7). They can achieve sustained change by assessing and readjusting direction, creating new and supportive policies and procedures. They can also work to dismantle existing barriers and prevent external constituencies from imposing new ones.

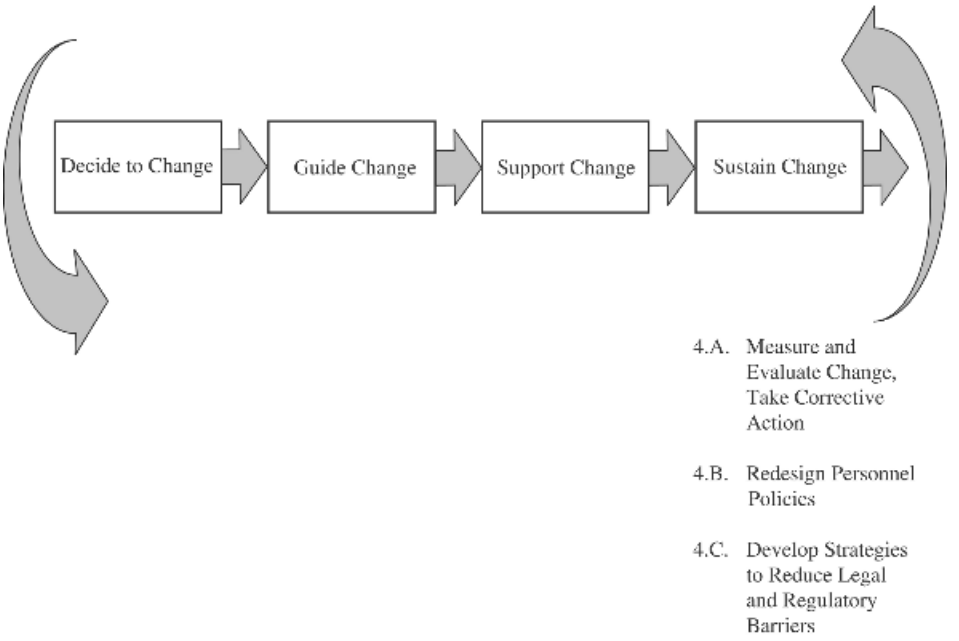

Figure 2.7 Integrated change process—phase 4.

2.8.1 Task 4A: Measure and Evaluate Change, Take Corrective Action

In completing the previous task, the organization embraced measures documenting the full range of organizational change. To sustain change over time, however, leaders must use the information effectively and modify the measurement system as needed. Effective use of the rich lode of quantitative and qualitative information generated is another major challenge. Some of the issues that need to be resolved include:

- *Utility of Measures Adopted* Are the measures the organization now employ effectively capturing the kind of information needed or should others be substituted?
- *Frequency of Collection* Is there a good balance between timing of data gathered and the assessment of progress? Should some information be gathered more often or less often and why?
- *Resources Expended in Data Collection Effort* Is the magnitude, frequency, or timing of the data collection cost effective?
- *Extent of Use* Are the tools developed to assess change widely used, or are they restricted to a few work units or divisions?
- *Application to Decision Making* If information is to be useful, it should inform decision making and be used by management to direct actions that move the organization toward its goals. To what extent is decision making being driven by the information?

Any measurement effort that assesses change must also look at action taking, communication flow effectiveness, and participant behaviors. Additional questions to ask when assessing cultural change include:

Action taking	Are managers and workers displaying a willingness to initiate actions as opposed to simply applying rules and procedures?
Communications	Is information flowing more appropriately up and across the organization and is organizational information more accessible?
Behaviors	Are cross-functional teams and behaviors becoming more standard than individual, functional, and technically stovepiped behaviors?
Effectiveness	Do measures reflect the quality of output that supports the war fighter rather than focusing only on efficiency?

After a massive reinvention of itself that included consciously focusing on shaping the work culture, the Defense Mapping Agency (DMA) moved from a functional, work culture to one that is more process-based. DMA received the Vice Presidents' Hammer Award in January 1996. The process of change began in September 1994 when DMA established a nine-member Reinvention Task Force Team reporting to the agency's director. They found the following:

- The equivalent of 30 years' backlog at their current production rate
- Too much hierarchy
- A workforce isolated from its customers
- Functional stovepipes rather than an organization built around core processes

As a result of its "reinvention," the DMA reduced policy documents by 42 percent. By eliminating redundant or outdated forms, DMA achieved a 51 percent reduction in forms. The organization reduced its hierarchy from 11 to 3 levels, thereby achieving greater efficiency in action taking. More of the workforce was shifted to customer support teams. Most importantly, the agency now has a DMA report card from customers reporting how effective the organization is in producing "quick-fill" product requests. The outcome is more effective support to the war fighter. DMA now constantly evaluates performance, making change as necessary. "Reinvention doesn't stop. The Defense Mapping Agency is evolving with its customers in order to meet their evolving requirements, and that means continual improvement or change" (Hay Management Consultants, 1996, p. 70).

2.8.2 Task 4B: Redesign Personnel Policies

Although people by this stage are already performing tasks in new ways, change cannot be sustained into the next generation without addressing the formal personnel systems. For the new way of working to persist beyond the change leader's tenure, the changes that were implemented (in processes, organization structure, competencies, leadership, etc. discussed in phases 2 and 3) need to be institutionalized. This happens when senior management changes the systems and policies that drive the way people work together and are organized, evaluated, developed, promoted, and selected.

Addressing the federal personnel system poses a significant challenge. Implementing change in this setting involves identifying the specific personnel system changes that need to be made, the barriers to each, and whether the barriers are imposed internally or externally. For each required change, ranking their relative importance and ease of making the change can clarify which changes should be the top priority for action. For agency-imposed barriers (policies or regulations), effective use of negotiation and influence skills can bring success.

Making such changes can be a daunting task, and most of the change leaders interviewed discussed circumventing policy barriers rather than dismantling them. One DLA change leader interviewed described the strategy and actions he and his senior managers took to formalize personnel changes in this agency's senior ranks to assure the new work culture would be sustained after the leader left the organization. In DLA's change vision, headquarters was to focus on policy and the field on execution.

The leadership team took the following two actions to sustain the vision over time:

1. *Increased the span of control of Senior Executive Service (SES) positions*. This permitted an immediate transfer of some SES slots (and people occupying them) out of headquarters, emphasizing the decentralization of decision making for operations.
2. *Established a formal rotation process for a headquarters senior SES position*, whereby the agency's most senior civilian would rotate out of his/her position into another headquarters position every 3 years. The intended result was for the top SES position to rotate, with no single individual having the opportunity to become ensconced long-term in the top permanent civilian position. Another result was that the key change leader ensured that future "empire building" would be counter-productive. Further, no long-term civilian would be in a position to have sole influence over the selection or approval of the agency's senior cadre of permanent civilians—and would be less likely to be considered the *de facto* leader of the organization. Having a single permanent senior civilian as a deputy director can build a bias against change or at least toward a limited perspective on what the organization needs.

By deliberately departing from traditional HSI organizational structure, the agency change leaders were able to set up an operating concept that would persist in supporting a cross-functional perspective and openness to change that would not otherwise be possible.

2.8.3 Task 4C: Develop Strategies to Reduce Legal and Regulatory Barriers

In the earlier discussion, several objectives in the HSI change process (build senior manager commitment, target key political influencers, and creatively use intrinsic rewards) outlined strategies leaders can use to build internal and external support for change. As important as these actions are, they rely on the talent and energies of highly motivated leaders. If change is to be sustained, it needs to be further legitimized through internal policy redesign as well as by influencing the broader legislative and political environment. Externally imposed regulations that are irrelevant to DoD's primary mission reinforce risk-averse, compliance-oriented behaviors—typically viewed as "bureaucratic" behavior associated with the traditional functional work culture. In response to congressional or other agencies inquiries, it is easier for managers to explain they followed the rules than

why their judgment led to a better deal for the government. Therefore, removing key regulatory and legal barriers can be of prime importance in ensuring that the new work culture persists over time.

Despite current procurement reform, the nature of our political system will likely continue to focus on equity over efficiency. The continued pressures to fund military programs over the DoD's and military departments' objections illustrate this point. Congress and the current administration are now perhaps more focused on government effectiveness than previously, but even this concern has many political elements. Therefore DoD's key political appointees have the responsibility for working with Congress to change legal barriers to change. The military and senior career civilian leadership in DoD has a responsibility for working affirmatively with other federal agencies to obtain regulatory change.

Good performance measures are an important tool for influencing Congress and other external constituencies. They help to enlist the support of members of Congress and to request consideration for pilot programs; setting new standards for performance measures that have been implemented effectively across the organization can be used proactively. Their presence can preempt the kind of General Accounting Office (GAO) and inspector general (IG) investigations that lead to the imposing of additional rules and procedures. Such impositions often thwart progress rather than adding value.

2.9 OVERCOMING CHALLENGES TO CHANGE

> Changing an organization is inherently and inescapably an emotional human process.
>
> —Duck, 2001

Collectively, the four phases of change and their associated tasks represent a model for designing, initiating, and implementing transformational change. The realization of such an enormous undertaking requires significant resources and high levels of commitment by the participants. Each *component of change* identified earlier in this chapter must be in place if the *process of change* is to succeed. As Figure 2.8 illustrates, when key elements of change are absent, planned changes are derailed. Adopting a static rather than a dynamic, responsive vision, for example, leads to diffuse, directionless actions and decision making by the organization and its leaders. Similarly, the failure to align the components of structure, process, technology, and measures results in a continuation of inefficiencies and an overall failure to sustain planned innovations.

Challenges and barriers to the process of change occur at all points. However, they are most significant at two watersheds—the decide to change and sustain change phases. The initial tasks of the former phase (build senior management commitment and link the vision to core values) provide the catalyst for initiating the macrolevel changes this report has outlined. It is the top leadership in any large organization that must initiate transformational change. Further, senior leaders are the source of the new vision. They must agree on what the vision comprises and then translate it into a message that resonates with the core values of the hundreds of thousands of men and women who will ultimately be responsible for making the vision real.

While the military culture dominates DoD, there are at least six distinct cultures that coexist within this complex organization—the four military service cultures, the civilian civil service culture, and the political appointee culture. If such diverse groups are to be

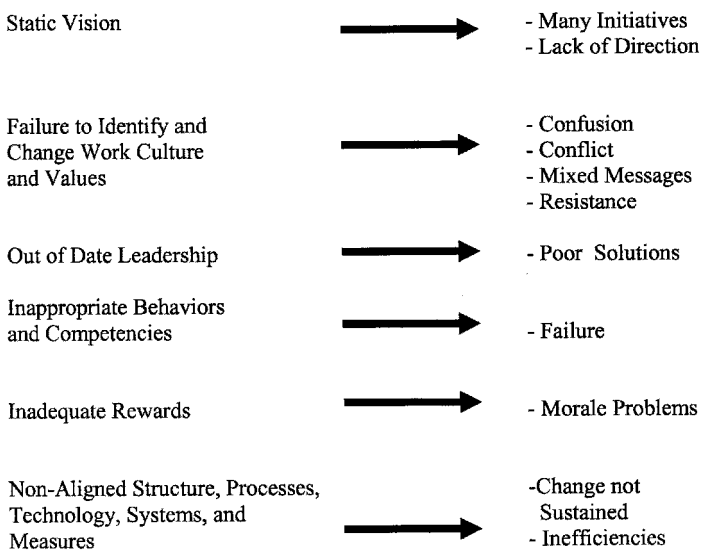

Figure 2.8 Consequences of omitting change components.

persuaded that change is in their interest, leaders must tailor the message to each constituency. Leaders are faced with the challenge of respecting existing values while presenting an alternative way of conducting business. Furthermore, the scale of change required necessitates the early involvement of a senior leader cadre acting as a single voice, articulating the change message consistently. A considerable amount of energy and thought needs to be invested early in the change process, if the transformational change effort is to succeed. The change message must be broad enough to appeal to all culture groups while coalescing them around a new, shared vision.

At the latter phase (sustain change) a different set of challenges emerges. Now the organization has undergone major transformation and is better prepared to meet its changing mission. Recently minted, the changes instituted may be tenuous. If the organization is to be prevented from reverting to former, now inappropriate actions, renewed energy has to be devoted to maintaining the new structures. Leaders must assure that the organization continues to respond to changing circumstances—internal and external. A major component that emerges at this phase is the monitoring function (measure and evaluate change and take corrective action). The organization needs to quantify its progress in the areas of action taking, communication flows, and participant behaviors; multidimensional transformational change necessitates an ongoing monitoring of activities. Further, the information generated must be used to inform management decisions—a process that underscores the dynamic nature of HSI.

2.10 CONCLUSION

> In this and like communities, public sentiment is everything. With public sentiment, nothing can fail; without it, nothing can succeed.
>
> —Abraham Lincoln, First Lincoln–Douglas Debate

The Human Genome Project freed the scientific community from thinking that behavior could be reduced to genetic imperatives. In a similar vein, as students of organizations, we need to avoid viewing bureaucracies simplistically. In reality, work organizations are complex, multilayered entities that, by their very nature, resist change. Taking a simple formula for change and trying to apply it is merely tinkering with change. The approach outlined in this chapter builds on the premise that leaders can transform work environments through planned and systematic actions that touch all components of the organization. Leaders must make a case for change and paint a clear picture of what the transformed organization will look like. The process continues within the organization—involving more and more participants—and outside of it, as key constituencies are brought on board. Finally, the changes are sustained over time by implementing new structures and procedures.

While leaders are at the center of the process, it is the rank and file who determine whether or not an organization has been transformed. Do they now think and act the same way or differently? And, if the latter, do their actions support the new organizational culture? Only when these questions are answered can one determine whether or not successful organizational change has occurred. The chapters that follow will arm leaders with specific information to help decide, guide, support, and sustain the HSI culture.

NOTES

1. In this and the narrative following, the term "senior management" is used to describe the most senior-level managers in the organization undergoing change, usually general officers and SES career civilians. "Middle management" is used to refer to the next level(s) of management to the supervisory level, generally major through colonel and GS-13 through GS-15.
2. Military officers and political appointees can more easily be removed from their positions than can career civilians at the GS-15 level and below.
3. Since DoD change leaders cannot make changes to the senior management team as easily as top leaders in the private sector can, some methods for constraining resistant senior managers include giving them assignments where their views will not be communicated downward, providing them with new performance standards, and helping them determine whether to stay or leave the organization.
4. ABC Nightly News, Interview with Gordon Moore (Chairman Emeritous of Intel Corp, known for "Moore's Law"), May 25, 2001.

REFERENCES

Ashkenas, R., Ulrick, D., Jick, T., and Kerr, S. (1995). *The Boundaryless Organization: Breaking the Chains of Organizational Structure*. San Francisco: Jossey-Bass.

Beer, M., and Nohria, N. (Eds.). (2000). *Breaking the Code of Change*. Boston: Harvard Business School Press.

Blackwood, W. O., and Rivello, R. N. (1994, February). *Organizational Change: Lessons Learned from MANPRINT*. Washington, DC: Department of the Army.

Burke, W. W., and Litwin, G. H. (1992). A Causal Model of Organizational Performance and Change. *Journal of Management*, *18*(3), 523–545.

Duck, J. D. (2001). *The Change Monster: The Human Forces That Fuel or Foil Corporate Transformation and Change*. New York: Crown Business.

Fedder, B. J. (2001, May 28). IBM Meets with 52,600, Virtually. *New York Times*, pp. A1, C1.

Fox, M. (1994). *The Reinvention of Work: A New Vision of Livelihood for Our Time*. San Francisco: Harper.

Gould, S. J. (2001, February 19). Humbled by the Genome's Mysteries, Op-Ed. *New York Times*, section A.

Hart, B. K. (2001). Interview with Sandy Robinson, Organization Change Consultant for Oracle Corporation.

Hay Management Consultants. (1996). *Beyond Reengineering: A Behavioral Approach to Leading Change in the Department of Defense*. Arlington, VA: Hay Group.

Henslin, J. (2001). *Sociology: A Down to Earth Approach*. Boston: Allyn and Bacon.

Kotter, J. P. (1990). *A Force for Change: How Leadership Differs from Management*. New York: Free Press.

Kotter, J. P., and Heskett, J. L. (1992). *Corporate Culture and Performance*. New York: Free Press.

Kouzes, J. M., and Posner, B. Z. (1987). *The Leadership Challenge*. San Francisco: Jossey-Bass.

Kouzes, J. M., and Posner, B. Z. (1995). *Credibility: How Leaders Gain and Lose It, Why People Demand It*. San Francisco: Jossey-Bass.

Mahorta, Y. (1993). *Role of Information Technology in Managing Organizational Change and Organizational Interdependence*. Available: www.brint.com/papers/change (Retrieved January 10, 2001).

Osborne, D., and Gabler, T. (1992). *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector*. Reading, MA: Addison Wesley.

Pfeffer, J., and Sutton, R. I. (2000). *The Knowing-Doing Gap: How Smart Companies Turn Knowledge into Action*. Boston: Harvard Business School Press.

Shields, J., Harris, C. S., and Hart, B. K. (1999). Culture, Leadership and Organizational Change. In A. P. Sage and W. B. Rouse (Eds.), *Handbook of Systems Engineering and Management*. New York: Wiley.

Shields, J., Johnson, K. M., and Rivello, R. N. (1990). The Acquisition Decision Process. In H. R. Booher (Ed.), *MANPRINT: An Approach to Systems Integration*. New York: Van Nostrand Reinhold.

Slater, R. (1994). *Get Better or Get Beaten! 31 Leadership Secrets from GE's Jack Welch*. New York: Irwin Professional Publishing.

Smith, H. (1995). *Rethinking America*. New York: Random House.

Steininger, D. J. (1994). Why Quality Initiatives Are Failing: The Need to Address the Foundation of Human Motivation. *Human Resource Motivation. 33*(4), 601–617.

RECOMMENDED READING

Baker, F. (1973). *Organizational Systems: General Systems Approaches to Complex Organizations*. Homewood, IL: Irwin.

Bennis, W., and Nanus, B. (1985). *Leaders: The Strategies for Taking Charge*. New York: Harper & Row.

Builder, C. (1989). *The Masks of War: American Military Styles in Strategy and Analysis*. Baltimore: Johns Hopkins University.

Farquar, K. W. (1995, Spring). Guest Editor's Note: Leadership Transitions—Current Issues, Future Directions. *Human Resource Management*, pp. 110–122.

Gilley, J. W., and Boughton, N. W. (1996). *Stop Managing, Start Coaching: How Performance Coaching Can Enhance Commitment and Improve Productivity.* New York: McGraw-Hill.

Hemp, P. (2001, January). Managing for the Next Big Thing: An Interview with EMC'S Michael Ruettgers. *Harvard Business Review.*

Nadler, D. A., Shaw, R. B., and Walton A. E. (1995). *Discontinuous Change: Leading Organizational Transformation*. San Francisco: Jossey-Bass.

Thomas, K. W. (2000). *Intrinsic Motivation at Work: Building Energy and Commitment*. San Francisco: Berrett-Koehler.

Wilson, J. Q. (1989). *Bureaucracies: What Government Agencies Do and Why They Do It*. New York: Basic Books.