Paradigm Change:
More Magic than Logic

John C. Hillary

Many observers argue that we are in the middle of a revolutionary change in the patterns and processes of human endeavor.

A new "world problematique" has unraveled the old order and we find ourselves in the open space between old and new eras (Toffler, 1970 & 1980; Yankelovich, 1981; Naisbitt, 1982 & 1989; Nicoll, 1984; Lynch & Kordis, 1988; Morgan, 1989; Kanter, 1989; Owen, 1987, 1990). Suddenly, "things" do not work the way they used to work, and "things" are no longer the way we thought they were. Fundamental assumptions about reality are shifting, and we struggle to discover or invent ways to cope with—if not take charge of—change. Between games, while the rules are changing and the old plays not only won't work but tend to get us in trouble, we need leaders more than ever to handle the ball well.

Changes in fundamental assumptions about reality link with a shifting and realigning of purposes, cultures, and core processes (Levy, 1985). These intertwined components of social systems provide not only meaning and logic for human behavior but also order, coherence, and solutions to problems (Kuhn, 1970; Barker, 1988). Now, in the same way that the Newtonian perspective about physical reality ran out of gas when faced with the challenge of relativity, our predominant world view has been called into question by contemporary issues and problems.

Education is and must be caught up in this phenomenon. Educational leaders are asked to ride the tide of large-scale change and to reform public education. They must shepherd their organizations through this time of significant renewal and organic reconfiguration. While school superintendents, principals, and others often orchestrate a variety of mechanical modifications, there are organic alternatives that elude them. Conventional leadership technology enables school administrators to plan and implement first-order change (Watzlawick, et. al.,1974; Levy, 1985, Levy & Merry, 1986). First-order change does not challenge or contradict the established context of "organization." People are not usually threatened either personally or collectively by this type of change.

The deeper changes that frustrate leaders and threaten followers are planned second-order changes (Watzlawick, et. al., 1974; Levy, 1985; Levy & Merry, 1986). These changes intentionally challenge widely shared assumptions, disintegrate the context of "organization" and, in general, reframe the social system. This, in turn, generates widespread ambiguity, discontinuity, anxiety, frustration, confusion, paranoia, cynicism and anger as well as

temporary dysfunction. Such trauma often builds to the point that leaders abandon their efforts. After some well intentioned initial action, the organization emerges jostled but unchanged.

Organizational theory and the professional literature contain much useful information about organizational development (O.D.). This information often guides the strategic planning, implementation, and management of first-order change. The technology of second-order change is much more elusive. There is, however, an emerging body of knowledge that not only explores the nature of the phenomenon but also suggests new and unconventional mind-sets for aspiring leaders (Kanter, 1983 & 1989; Schein, 1988; Garfield, 1986; Kouzes and Posner, 1987; Kotter, 1988; Morgan, 1989; Bennis, 1989; Mohrman, Mohrman, et. al., 1989; Nanus, 1989; Vaill, 1989; Hickman, 1990; Schlechty, 1990; and Owen, 1990). Such knowledge falls under the general rubric of **"Organizational Transformation."**

THE CONTENT OF TRANSFORMATION

While we would like to believe that educational organizations lie somewhere in the space between machine bureaucracy and organized anarchy (See Clark and Meloy, 1987), schools are cooperative organizations. The ongoing growth and development of students is the product of the integrated and coordinated work of many differentiated and specialized units (families, teachers, counselors, administrators, boards of education, departments, divisions, councils, committees, etc.). While these units are somewhat "loosely coupled" (Weick, 1976) they are interdependent and do integrate to support the general productivity of schools.

From the day of their birth

through relatively stable periods of growth to periodic episodes of major change and renewal, cooperative organizations develop and maintain a complex web of rules, roles, and relationships that glue the organization together and keep it running smoothly. Psychology is already far from being a hard science. Cooperative organization amplifies the complexity of human nature and makes analysis and control even more elusive.

Because of the complexity of cooperative organization, it is difficult to develop models and constructs that consistently reflect reality. Yet human beings are driven by the belief that if they keep at it they can eventually discover the power to predict, control, and explain anything. This ongoing saga has produced a myriad of ways to impose structure on cooperative human activity. While these mannequins never seem to prove totally adequate, they do provide leaders with a collection of "tools" with which to attempt to understand and to operate on organizations. Our effectiveness in part, depends on selecting the right tool and using it creatively.

This particular effort is well served by a model for organization developed by Amir Levy (1985). According to Levy, cooperative organizations can be viewed as an interacting and hierarchical network of contextual attributes in the following domains: Core Processes, Organizational Culture, Mission/ Purpose, and Paradigm (see Figure 1, next page).

Core processes include the concrete and visible activities that serve the organization— how people behave. They are the everyday policies, procedures, and practices that keep everyone busy. Common examples include the prescriptions of the policy manual, job descriptions, decision making protocols, communication patterns, routine sched-

ules, technology, rewards, and recognition. This domain includes the "profane" (See Rossman, Corbett, and Firestone, 1988), and the "mundane" (See Mohrman, et. al., 1989).

Human interaction creates meaning (Blumer, 1969). As organization members cooperatively implement core processes, a culture develops. The **organizational culture** includes the more abstract and less visible "integrated pattern of human behavior that includes thought, speech, action, and artifacts ..." (Webster, 1976) that develops through the ongoing interaction of organization members. It includes the shared beliefs, values, and norms of behavior as well as the myths, rituals, ceremonies, and styles that symbolize them (See Pfeffer, 1981; Deal & Kennedy, 1982; and Deal, 1985).

The **mission/purpose** of the organization includes the underlying blueprint encoded in the heads and hearts of members that rationalizes both the culture and core processes. This is the autopilot or "guidance system" that propagates the work of the organization and guides cooperative action toward individual and collective productivity.

Finally, the organizational **paradigm** consists of the abstract, underlying, and widely shared mindsets, presuppositions, "metaphysical assumptions" (Kuhn, 1970), "interpretive schemes" (Ranson, Hennings, & Greenwood, 1980), and "metarules" (Smith, 1982) that shape unnoticeably mission/ purpose, culture, and core processes. The paradigm includes the collective "psyche" of the organization (Kilmann, et. al., 1988).

The organization's culture, mission/purpose, and paradigm combine to produce a "unique common psychology" (Vaill, 1989), context, or frame of reference that provides order
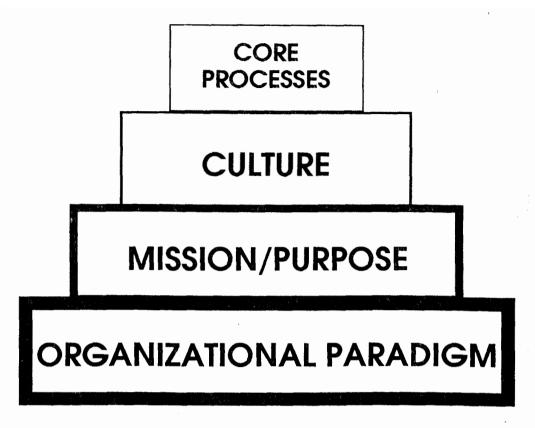
```
┌─────────────┐
│    CORE     │
│  PROCESSES  │
│ ┌─────────────────┐
└─│                 │
  │     CULTURE     │
┌─┴─────────────────────┐
│                       │
│    MISSION/PURPOSE    │
┌┴───────────────────────────┐
│                            │
│  ORGANIZATIONAL PARADIGM   │
└────────────────────────────┘
```

Figure 1

and a built-in rationale for individual and collective thoughts and deeds. Core processes, on the other hand, are the impersonal and concrete behavioral manifestations of this shared sense making apparatus.

Levy's attribute domains are hierarchical in terms of their relative level of abstraction and visibility. Furthermore, they are developmentally embedded or "nested" (Levy & Merry, 1986) in one another as the level of abstraction and invisibility increases. Hence, core processes are not only the most concrete and visible attributes but are also embedded in the more abstract and less visible organizational culture. The most abstract and invisible attributes of organization comprise the organizational paradigm in which are embedded all of the other domains.

As organizations grow and mature, a resonance develops among all attributes and attribute domains. An organizational context develops. The context of

a smoothly running organization includes core processes that are supported by a culture that is consistent with the organization's mission/purpose all of which are aligned with the paradigm of organization. (Note: Smoothly running is not necessarily successful or productive)

A review of Levy's work and the literature on organizational change leads to some important conclusions about the interrelationship between organizational change and the nature of organization.

Change calls into question the status quo and disrupts the alignment among organizational attributes. The magnitude of disruption can be assessed by determining which domain(s) is called into question. Least disruptive are changes in core processes that do not call into question the existing culture, mission/purpose, or organizational paradigm. These are first-order changes. The most disruptive changes—second-order changes—on the other hand, call

into question the entire context of organization. Such multidimensional changes not only challenge the content of each domain but also disrupt the alignment among them. Paradigm change is therefore not only traumatic in and of itself, but also challenges other attributes and disintegrates the relationship among all domains. The eventual outcome of such change is a "transformed" or "renewed" organization.

The new vision for schooling suggested by contemporary educators represents a significant "second order" challenge to school organization. This vision supplants the existing mission/purpose as well as requires a commensurate realignment of both organizational culture and core processes. And, to the degree that the new vision is sufficiently radical to call into question the organizational paradigm, aspiring school reformers find themselves face to face with the most complex and dramatic leadership challenge:

transforming their organization. Challenging the existing paradigm and enabling a paradigm transformation seems to be an indigenous part of proactive and genuine school reform.

CREATING A NEW ORGANIZATION IN SCHOOLS CREATES UNIQUE LEADERSHIP CHALLENGES

There are special challenges in orchestrating planned second order change. While it is helpful to know the theory and research that has been assembled under the rubric of organizational transformation, the knowledge and skills required to (1) enable the intentional disintegration of the existing context of organization, (2) facilitate the synthesis of a new context, and (3) survive the turbulent period in between the two are unique to the episode and transcend logical approaches to planning, problem solving, control, and implementation.

Seven years on the "cutting edge" of a major secondary school reform project provides a great opportunity to study organizational behavior during planned second order change. The experience drives one to search for new frames of reference from which to address the many unconventional challenges that arise as an organization struggles through the space between "the way it's always been" and the way it's going be. Organizational transformation can't be smooth and the shear challenge of it all drives practitioners and theorists alike to search for insight and technology that increases the chance that major change efforts will not only succeed but will also endure over time.

What follows is an effort to first identify the major challenges of planned second order change in schools and then to boil my experience down to but a few practical recommendations for serious school reformers.

Leaders of planned second order change in schools face the following challenges:

1. They must conquer a world that is anchored in a pervasive and subconscious status quo.

2. Their work environment is saturated in risk.

3. They must help their organizations through a period of systemwide disconnectedness.

4. They cannot rely on tested technology for guidance.

One challenges "the way it has always been done" through major innovation. The awesome power of the existing context lies unobtrusive until it is aroused by major innovation. When under attack, the established order uses all of its logic and "rules" to fight for survival and even blinds the organization to innovative alternatives. Nearly 500 years ago Niccolo Machiavelli wrote in *The Prince:*

> The innovator makes enemies of all those who prospered under the old order, and only lukewarm support is forthcoming from those who would prosper under the new. Their support is lukewarm partly from fear of their adversaries who have the existing laws on their side and partly because men are generally incredulous, never really trusting new things unless they have tested them by experience. In consequence, whenever those who oppose the change can do so, they attack vigorously, and the defense made by others is only lukewarm. So both the innovator and his friends are endangered together. (p. 51)

This passage from *The Prince* contains great wisdom and insight regarding

the nature of planned second order change. While Machiavelli's assertions were grounded in his observation of a socio-

political transformation in Italy, they reflect the typical response of the status quo when threatened by major innovation. Especially in mature and stable organizations, the culture and paradigm preserve the order and inhibit change (Barrett and Cammann, 1984).

The leader of planned second order change will be regarded as out of context by the organization. If he thinks and behaves in accord with a vision that requires second order change, he has no choice but to violate or challenge the established culture, mission/purpose, and paradigm of the organization. From the existing frame of reference, such behavior will be seen as illogical. Powerful and pervasive psycho-social forces will bear down on the renegade in a relentless organizational effort to bring him back into alignment. Unless the leader succeeds in progressively bending the pervasive frame, persistence is increasingly risky.

During second order change, the organization must face and hopefully pass through a period of widespread psychological ambiguity, social disconnectedness and general confusion (See Buckley & Perkins, 1984; Nicoll, 1984a; Nicoll, 1984b). The requisite disintegration of the existing culture, mission/purpose, and paradigm disrupts the organization's frame of reference. During this time, there is little or no clear and consistent context to guide the thinking and behavior of members. In social systems, this condition produces dysfunction, anxiety, frustration, disequilibrium, and systemic chaos. Bums and Nelson (1984) define such organizations as having "devolved" to a "reactive" state.

Management science and O.D. practice provide a tested technology for planning, directing, controlling and evaluating the ongoing development of core

processes within an established context. However, one will find little theoretical or practical guidance in the organizational literature concerning how to implement or "midwife" (Owen, 1987) second order change. We know what it is and there are case studies that describe what happens during it, but a mastery of what is really going on and the means to intentionally make it happen remain elusive.

RISING TO THE LEADERSHIP CHALLENGE—SOME SUGGESTIONS

Warren Bennis (1989) tells us that "the Greeks believed that excellence was based on a perfect balance of eros and logos, or feeling and thought, both of which derive from understanding the world on all levels, ...". Indeed, the knowledge and skills required to transform schools transcend scientific rationality. To envision, to energize, and to enable changes in the paradigm, mission/purpose, and culture of schools leans more in the direction of the supersensible, the intuitive, the spiritual, the metastrategic—the magical.

Conquering the Status Quo

The leader of second order change in schools must never underestimate the pervasiveness of the existing context—the status quo. The present organization of schooling is the product of decades of development. The deep resonance that exists among paradigm, mission/ purpose, culture, and core processes will fight for survival. Like progressive resistance exercise, the greater the challenge to "the way it has always been," the greater its conservative response. There is no greater threat to the existing order than planned second order change.

While there is no standard procedure for disarming the status quo, knowing where

you're going and what you are up against can inspire action.

Create a vision that people can sink their teeth into. Vision creates images that become powerful transformative tools for both individuals and organizations (Wilner, 1975). When the dominant images of a culture are anticipatory, they lead social transformations (Polack, 1973). The vision must transcend the prescription of core processes and paint a picture of the transformed culture, mission/purpose, and paradigm. It is important that organization members be able to make value judgments about where they are in relationship to where they should be going. Visions that are too general and lack clarity generate spirit draining frustration and groping throughout the organization.

Lead as if you are already there—be symbolic. The vision that is on paper comes to life through the behavior and language of leadership. The complexity of second order change provides many opportunities for leaders to be perceived as inconsistent and uncommitted. There is absolutely no substitute for "walking the walk you talk." It can only enhance trust and confidence across the organization.

Create a "community of learners." Organization members learned "the way it is" through years of consistent experience. Second order change requires them to unlearn the "the way it is" and learn the new way of doing business (See Argyris, 1977). Leaders of second order change must become teachers of their organizations. The vision must be the core of the lesson plan.

Bring the organizational subconscious to consciousness. People must be able to examine and critique the existing context in terms of the vision. Proclaim that the behavior of the organi-

zation is its culture on display. Take every opportunity to examine the cultural attributes underlying behavior. Creatively expose beliefs, values, and norms that are inconsistent with the vision and create language, metaphors, myths, rituals, and ceremonies that support the vision.

MINIMIZING THE RISK

The instigator of second order change must consistently behave in ways that will not make sense when framed by the existing context. With time and leadership, the organizational environment must move from initially and naturally selecting against the innovation to selecting for the innovation. The extinction of the old way of doing business is the desired outcome. Hence and with time, the risk should gradually shift away from the innovator and toward those who persist in holding on to "the way it's always been." Unless the leader of second order change can progressively bend the frame of reference in support of the change, it is the change that will be condemned to extinction.

The leader of second order change must be credible. Without credibility, the change agent might get someone's attention but has little chance of conquering the status quo. As commitment to the change deepens and spreads, and the organization begins to transform in the direction of the vision, the credibility of the leader will increase. Pursuing the vision will make more and more sense.

Identify the dominant coalition and secure their commitment and support. Planned second order change cannot take place without it. The dominant coalition has autonomy over many variables that enable the organization to change radically and adapt proactively (Child, 1972). And, their values and belief systems affect the willingness of others to accept change

(Levy, 1985). If the vision isn't their's to begin with, they must learn the new frame of reference and behave accordingly. On the one hand, if the dominant coalition has positive attitudes toward change, and indeed pursues a pro-change policy, highly radical innovations can be introduced (Hage, 1980). On the other hand, dominant coalitions manipulate their power in order to preserve the status quo and maintain their privileges (Levy, 1985). It is the serious and risky responsibility of the visionary to transform the dominant coalition. They must be able to consistently lead from the new frame of reference.

Go slow to go fast. It is worth the time and effort to establish consistent support at the top before going too far in acting on vision. If the top leaders are not visibly committed, it will be difficult to establish and maintain any change momentum within the organization.

COPING WITH DISCONNECTEDNESS

Planned second order change is a traumatic experience for an organization. It is equivalent to being taken from the psychosocial comfort of an established and stable home, passing through a period of homelessness, and reestablishing comfort and stability in a place where the fundamental rules, roles, and relationships are radically different.

Persuading people to let go of the "old way of doing business" is one issue. Enabling them to survive the period of "homelessness" is even more challenging. Many restructuring efforts have failed and the organizations have gone back to the future when unable to endure the psychosocial consequences of second order change. It is therefore imperative that leaders of planned second order change support people as they individually and collectively "let go" of

the way it has always been and open themselves up to the chaos that must precede a return to new stability. This support must be equal in quality to the support that was provided by the old context. If not, the memory of the old order will seduce people back. This is a time for leaders to be gardeners, not mechanics (See Owen, 1990).

Teach people about the second order change process. If people know and understand what is going on, their trauma is greatly reduced. They can put a name to what they are experiencing and even help others understand what is going on. Learning about second order change should be one of the first lessons encountered by the "community of learners."

Apply strong, consistent, centralized, and trusted leadership. People will not let go of the old way and move out into the "white water of change" without somebody at the controls who they believe knows where they are going and how to get there. If people sense weakness and/or lack of commitment at the top they will either sit and wait or fake it. Delegation and "empowerment" should come later when a transition plan is needed to alter and refine core processes.

Use the top of the decision making system as a mechanism to communicate commitment and instill confidence. The decision making apparatus must be used to clear up ambiguity and confusion not add to it. Nothing retards and adds to the confusion of second order change more than decisions that are seen as inconsistent with vision. Decision making is a powerful opportunity to be symbolic.

Don't spend too much time in the space between the way it was and the way it is going to be. You risk institutionalizing disconnectedness and norming ambiguity. This amplifies the

challenge and increases the complexity of change manifold.

Don't hesitate to play the role of leader as healer and social therapist. During second order change, people need personal and professional support at least as much as they need clear and consistent information. Organizational transformation is a psychosocial phenomenon. It is enabled by leadership that is more therapeutic than strategic.

DOING WITHOUT TESTED TECHNOLOGY

Leaders of planned second order change will find that organizational development and scientific management technology fall short of being effective in enabling multidimensional changes in the context of organization. In fact, the careless application of rational approaches to organizational development may prove catastrophic. The same strategies, approaches, and cause-effect relationships that produce growth and productivity within an established context create additional chaos, frustration, dysfunction, and general paralysis when applied to second order change.

Unfortunately but understandably, there is little tested technology to guide the leadership of second order change. While there are many models, constructs, cycles, and theories, the world of the abstract, relative, and metaphysical does not succumb to prediction, control, and explanation. The best one can do is to integrate (1) the best of what is known about rational organization, (2) an intense study of the transformation literature and case study research, and (3) a deep appreciation for sources of insight that transcend rationality, e.g., imagination, inspiration, intuition, mythology, and spirituality. There is much to learn about the nonrational side of organization and the nonrational phenomena that support what is sensible.

Don't treat second order change lightly. Messing with the abstract and invisible attributes of organization is risky business. You are tampering with the complex programming of a very sophisticated and nonrational system. This realization must temper natural tendencies to be impatient or overly planned, strategic, and rational.

You must be able to lead from the gut. Leaders of second order change must not rely on just their heads for decisions. A creative and intuitive blend of head and heart (with an emphasis on heart) is necessary to maneuver safely within the contextual world of organization. In a sense, the above "prescriptions" contradict the assertion that where second order change is concerned, there are no rules. Their collective flavor, however, should be sufficiently "offbeat" to suggest the need to explore enhanced leadership perspectives when instigating second order change.

MORE MAGIC THAN LOGIC

The leader of second order change must be able to transcend rational management approaches to change. Second order change challenges an organization's subconscious sense making system. As standard management maneuvers work because they tap into the sense making system, they cannot be used to orchestrate second order change. Strategic planning, for example, is a wonderful technology for fine tuning core processes and projecting the growth of an organization within an established context. During second order change, however, the use of such technology is senseless if not dangerous until the job of transforming the context is well under way.

Western man tends to be captivated by scientific rationality. We have learned to operate as if

there is order to everything. While we live in a rational world, we realize from time to time that nonrational things go on. It has only been recently that we have begun to acknowledge a better balance between the sensible and the supersensible. This broadening of perspective is manifest in new approaches to leadership—approaches that apply to second order change.

The contemporary definition of effective leadership is leaning away from the narrowness of rational management and toward a more open and unrestricted multifaceted approach to leadership. In *Managing as a Performing Art,* Peter Vaill (1989) discusses this shift in our approach to leadership when he states,

> A paradigm shift is under way, and as we reach for better ideas about what action in organization is, we have to let this transformation occur, I think, even if it takes us into some very unusual places and invites us to consider some rather offbeat ways of talking about management and leadership. (p.112)

In *Leaders: The Strategies for Taking Charge,* Warren Bennis and Burt Nanus (1986) studied a large sample of effective leaders and defined four strategies for taking charge of change:

(1) Management of attention,

(2) Management of meaning,

(3) Management of trust, and

(4) Management of self.

These strategies are both "offbeat" and transcend the potential of rational approaches to leadership.

In *Large-Scale Organizational Change,* Allan Mohrman, et al., (1989) describe the "Magic Leader" as a special kind of leader who appears to be critical

during planned second order change. The three major components of the behavior of these leaders are:

Envisioning - the creation of a picture of the future that people can accept and which can generate excitement.

Energizing - the direct generation of energy.

Enabling - help people perform in the face of challenging goals by providing emotional assistance to get tasks accomplished.

The magic leader "provides a psychological focal point for the energies and aspirations of people in the organization" and "serves as the embodiment of some type of organizational ego ideal" (Mohrman, et al., 1989).

These works and many other like them combine to define a provocative distinction between the way schools have been *managed* through the past and the way they need to be *led* into the future. As Warren Bennis (1989) states, "I tend to think of the differences between leaders and managers as the differences between those who master the context and those who surrender to it." (p.44)

And so, to the degree that a vision of schooling calls into question the paradigm, the purpose, and the culture of the organization, second order change becomes the agenda. In order to enable the transformation of our schools, Boards of education, superintendents, principals, department chairs and teachers must individually and collectively **"master the context"** within which they work and face challenges that require more leadership than management—more magic than logic.

REFERENCES

Argyris, C. (1977). Double loop learning in organizations. *Harvard Business Review.* , 55, 115-125.

Barker, J. A. (1988). *Discovering the future: The business of paradigms.* St. Paul, MN: ILI Press.

Barrett. L. & Cammann, C. (1984). Transition to change: Lessons from N.S.C. In J. Kimberly and R. Quinn (Eds.), *New futures: The challenge of managing corporate transitions.* Homewood, Illinois: Dow Jones-Irwin.

Bennis, W. (1989). *Why Leaders can't lead: The unconscious Conspiracy continues.* San Francisco: Jossey-Bass.

Bennis W. and Nanus, B. (1986). *Leaders: The strategies for taking charge.* New York: Harper and Row.

Blumer, H. (1969). *Symbolic interactionism: Perspective and method.* Englewood Cliffs, NJ: Prentice-Hall.

Buckley, K. W. & Perkins, D. (1984). Managing the complexity of organizational transformation. In J. D. Adams (Ed.), *Transforming Work..* Alexandria, VA: Miles River Press.

Burns, F. & Nelson, L. (1983). High performance programming (mimeo). Alexandria, VA: High Performance Systems Consulting Pub.

Child, J. (1972). Organizational structure, environment, and performance: The role of strategic choice. *Sociology,* , 6,1-22.

Clark, D. and Meloy, J. (1987). Recanting Bureaucracy: A demoncratic structure for leadership in schools. Unpublished Paper.

Deal, T. E. (1985). The symbolism of effective schools. *Elementary School Journal* 85(5), 601-620.

Deal, T. E. & Kennedy, A. (1982). *Corporate Cultures: The rites and rituals of corporate life.* Menlo Park, CA: Addison-Wesley, Inc.

Garfield, C. (1986). *Peak performers: The new heroes of American business.* New York: William Morrow and Co.

Hage, J. (1980). *Theories of organizations..* New York: John Wiley and Sons.

Hickman, C. R. (1990). *Mind of a manager soul of a leader.* New York: John Wiley & Sons.

Kanter, R. M. (1983). *The change masters.* New York: Simon and Schuster.

Kanter, R. M. (1989). *When giants learn to dance: Mastering the challenges of strategy, management, and careers.* New York: Simon and Schuster.

Kilmann, R. H., Covin, T. J., & Associates (1988). *Corporate transformations: Revitalizing organizations for a competitive world.* San Francisco: Jossey-Bass.

Kotter, J. P. (1988). *The leadership factor.* New York: Macmillan.

Kouzes, J. M. & Posner, B. Z. (1988). *The leadership challenge: How to get extraordinary things done in organizations.* San Francisco, CA: Jossey-Bass

Kuhn, T. (1970). *The structure of scientific revolution.* Chicago: University of Chicago Press.

Levy, A. (1985). *Transforming organizations: Second order planned change.* University of California, Santa Barbara: Dissertation.

Levy, A. & Merry, U. (1986). *Organizational transformation: Approaches, strategies, and theories.* New York: Praeger.

Lynch, D.& Kordis, P. L. (1988). *Strategy of the Dolphin: Scoring a win in a chaotic world.* New York: William Morrow and Co.

Mohrman, A. M., Mohrman, S.A., Ledford, G. E., Cummings,T. G. & Lawler, E. E. (1989). *Large scale organizational change.* San Francisco: Jossey Bass.

Morgan, G. (1989). *Riding the waves of change: Developing Managerial competencies for a turbulent world.* SanFrancisco: Jossey-Bass.

Naisbitt, J. (1982). *Megatrends.* NewYork: Warner Books.

Naisbitt, J. & Aburdene, P. (1990). *Megatrends 2000: Ten directions for the 1990's.* New York: William Morrow and Co., Inc.

Nanus, B. (1989). *The leader's edge: The seven keys to leadership in a turbulent world.* New York: Contemporary Books, Inc.

Nelson, L .& Burns, F. (1984). High Performance Programming: A framework for transforming organizations. In J. D. Adams (Ed.), *Transforming Work.* Alexandria, VA: Miles River Press.

Nicoll, D. (1984a). Consulting to organizational transformation. In John D. Adams, (Ed.), *Transforming Work.* Alexandria, VA: Miles River Press.

Nicoll, D. (1984b). Grace beyond the rules: A new paradigm for lives on a human scale. In John D. Adams, (Ed.), *Transforming Work.* Alexandria, VA: Miles River Press.

Owen, H. (1990). *Leadership Is.* Potomac, MD: Abbott Publishing.

Owen, H. (1987). *Spirit transformation and development in organizations.* Potomac, MD: Abbott.

Pfeffer, J. (1981). Management as symbolic action: The creation and maintenance of organizational paradigm. In L. Cummings and B. Staw (Ed.), *Research in organizational behavior,* Vol. 3. Greenwich, CN: JAI Press.

Ranson, S., Hinings, B. & Greenwood, R. (1980). The structuring of organizational futures. *Administranve Science Quarterly* 25: 1-17.

Rossman, G., Corbett, H. & Firestone, W. (1988). *Change and effective schools: A cultural perspective.* Albany, NY: State University of New York Press (SUNY).

Schein,E. (1988). *Organizational culture and leadership.* SanFrancisco: Jossey-Bass.

Schlechty, P. C. (1990). *Schools for the 21st Century: Leadership Imperahves for Educational Reform.* SanFrancisco: Jossey-Bass, Inc.. (CTi has this)

Smith, K. K. (1982). Philosophical problems in thinking about organizational change. P. S. Goodman and Associates, (Eds.) *Change in Organizations.* San Francisco, CA: Jossey-Bass.

Toffler, A. (1970). *Future Shock.* New York: Random House.

Toffler, A. (1981). The third wave. New York: Bantam Books.

Vaill, P. B. (1989). *Managing as a performing art: New ideas for a world of chaotic change.* SanFrancisco: Jossey-Bass.

Watzlawick, P., Weakland, J., & Fisch, R. (1974). *Change.* New York: W. W. Norton & Co.

Weick, K. E. (1979). *The social psychology of organizing.* Reading, Mass: Addison-Wesley.
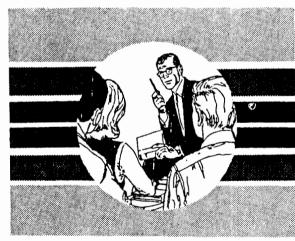
Yankelovich, D. (1981). New rules in American life. *Psychology Today,* April, 1981, pp. 35-91.

John C. Hillary is Director of Curriculum, Township High School District 214, 2121 S. Goebbert Road, Arlington Heights, Illinois 60005. Phone 708/364-8644