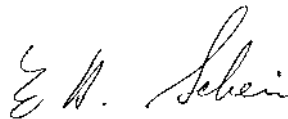# From the Founding Editor

L eadership and the role of the leader in managing change appear to be end-lessly fascinating topics. There are "servant leaders," "seducers," "human-ists," "brilliant designers of experiences that produce learning," "reflective leaders," and "stewards"—take your pick. In this issue, we do not have a single "deep" theme but rather a variety of what we hope are challenging articles to make you reflect and a wonderful, insightful article on how to increase your own reflective potential. Instead of commenting further here, I found myself reflecting on some of the articles and have shared some of my reflections following the articles.

Ed Schein

In This Issue

Edgar H. Schein and Karen Ayas

W e bring forth a diverse collection of articles that entertain the concepts of leadership, community, and culture. We hope this will make you reflect on fundamental choices you make in shaping the organizations you lead or belong to.

We begin the issue with a classic from **Warren Bennis**. First published in 1962, this seminal piece introduces the concept of "organizational health" while exploring the viable measures of health and the true essence of "scientific attitude." Drawing a parallel between organizational behavior and the mental health field, Bennis concludes that the "spirit of inquiry"—much needed to perceive external or internal reality and to act intelligently—implies a confrontation of truth that may not be satisfying or efficient in the short term. Creating an environment where the spirit of inquiry can flourish still remains a challenge for organizations today, as Bennis comments 40 years later. Do not miss this article that Bennis describes as "an outline of my intellectual preoccupation of the past four decades."

Next is a paper that can be classified as a "future classic" from **Russell Ackoff**. In an article that revisits the evolution of the concept of a corporation, Ackoff's wisdom and clarity shine through. He recognizes and explores the implications of viewing the corporation as a community—a social system that exists primarily to serve its members. **Peter Senge** provides his own perspective on Ackoff's view of the firm.

Greg Merten, general manager and vice president at Hewlett-Packard, embodies the leadership principles that arise from viewing the corporation as a community. In his talk to a fellow SoL member organization, the National Security Agency (NSA), he shares his perspectives on leadership and leadership development. His personal story and choices he has made at HP vividly demonstrate what it takes to become a leader. **Dennis Sandow**

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(a researcher) and **Nick Zeniuk** (a consultant) both comment on the uniqueness of Merten's leadership perspective and practice. **Ed Schein** also makes a brief remark.

Karl Weick points to ways in which one can lead in times of chaos and adversity. In his concise essay, Weick offers crucial resources for leaders facing the inexplicable and making sense of events that don't make any sense.

Next is a vivid account of how one company develops its future leaders. **Karen Ayas** and **Philip Mirvis** describe a leadership forum that exemplifies a learning community and memorable experiences designed to produce learning at a personal and collective level. **Tex Gunning**, the president of Unilever Asia Pacific, who sees the personal and professional growth of the young leaders as his personal mission, comments on the impact of the forum and what it might take to build and lead organizations as communities. **Ed Schein** adds a thought-provoking comment.

Another powerful case study is the description of the processes of learning and change at Nuovo Pignone (NP), an Italian company acquired by GE. **Cristiano Busco, Angelo Riccaboni,** and **Robert Scapens** tell a fascinating story that illustrates successful culture change. **Davide Nicolini** comments on the importance of accounting practices for effective and enduring changes in such a case of ''invasion.'' **Ed Schein** reframes this case as one of ''genetic manipulation'' by GE, underscores the changes in the ''cultural DNA'' of NP, and raises an important question: What if financial survival requires compromising of cultural values? **Ranieri de Marchis,** a chief financial officer at NP, shares his perspective.

Jay Bragdon and **Richard Karash** address the question of corporate decision making at a deeper level, challenge the idea of stock price as the key indicator of corporate credibility, and bring forth the concept of ''living-asset stewardship.'' The Global LAMP Index they have developed includes values that constitute cultural DNA and offers a measure of success viable for the long term. **Bettye Pruitt,** a historian, raises a number of provocative questions that make us ponder what it would take for this concept to be widely accepted and practiced.

We close the issue with **Joseph Raelin's** insightful article on reflective practice in organizations. Raelin calls us to think about why we don't have time to think anymore. If you haven't found yourself reflecting on any of the above, this article is a must. And if you have, read on, as this article and thoughtful commentaries that follow offer yet more to reflect on. **Phillip DiChiara's** and **Philip McArthur's** comments and Raelin's response highlight the importance of reflective practice at all levels—individual or interorganizational—for leadership development, cultural change, and community building. Also, **Ed Schein** briefly comments.

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Towards a "Truly" Scientific Management: The Concept of Organization Health

Warren G. Bennis
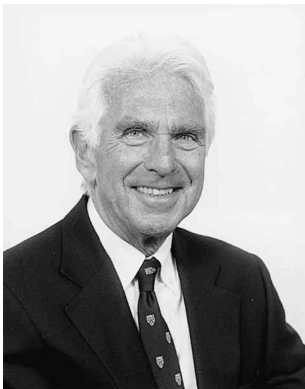
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The main challenge confronting today's organization, whether it is a hospital or a business enterprise, is that of responding to changing conditions and adapting to external stress. The salience of change is forced on organizations because of the growing interdependence between their changing boundary conditions and society (a point that will be elaborated later) and the increasing reliance on scientific knowledge. The traditional ways that are employed to measure organizational effectiveness do not adequately reflect the true determinants of organizational health and success. Rather, these criteria yield static time-slices of performance and satisfaction, which may be irrelevant or misleading. These static, discrete measurements do not provide viable measures of health, for they tell us nothing about the processes by which the organization copes with its problems. Therefore, different effectiveness criteria have to be identified, criteria that reveal the processes of problem-solving. This point is corroborated by some recent works on organizational theory. Consider, for example, these remarks by Wilfred Brown, Chairman and Managing Director of the Glacier Metal Company:

> Effective organization is a function of the work to be done and the resources and techniques available to do it. The changes in methods of production bring about changes in the number of work roles, in the distribution of work between roles and in their relationship to one another. Failure to make explicit acknowledgement of this relationship between work and organization gives rise to non-valid assumptions (e.g., that optimum organization is a function of the personalities involved, that it is a matter connected with the personal style and arbitrary decision of the chief executive, that there are choices between centralized and decentralized types of organization, etc.). Our observations lead us to accept that optimum organization must be derived from an analysis of the work to be done and the techniques and resources available (1960).

The work of Emery and Trist, which has influenced the thinking of Brown, stressed the "socio-technical system," based on Bertalanffy's "open system" theorizing (1950). They conclude that:

> . . . the primary task of managing an enterprise as a whole is to relate the total system to its environment, and not internal regulation per se (Emery and Trist, 1959).

And further that:

> If management is to control internal growth and development it must in the first instance control the "boundary conditions"—the forms of exchange between the enterprise and the environment . . . The strategic objective should be to place the enterprise in a position in its environment where it has some assured conditions for growth—unlike war the best position

is not necessarily that of unchallenged monopoly. Achieving this position would be the primary task or overriding mission of the enterprise (Ibid).

And H.J. Leavitt said on the same subject:

Management development programs need, I submit, to be oriented much more toward the future, toward change, toward differences from current forms of practice and behavior . . . We ought to allocate more of the effort of our programs to making our student a more competent analyst. We ought, in other words, to try to teach them to think a little more like scientists, and indeed to know a good deal more about the culture and methods of scientists (1961).

What relevance have these quotations to the main theme of this essay? Note, first of all, that these theorists all view the organization (or institution) as an adaptive structure actively encountering many different environments, both internal and external, in their productive efforts. Note also the key terms: change, uncertainty, future, task, mission, work to be done, available resources, exchanges between the enterprise and environment. There is no dialogue here on the relation between ''productivity'' and ''satisfaction,'' no fruitless arguments between the ''human relationists'' and scientific management advocates. Indeed, it seems that it is no longer adequate to perceive organization as an analogue to the machine as Max Weber indicated: ''. . . (bureaucracy is like) a modern judge who is a vending machine into which the pleadings are inserted together with the fee and which then disgorges the judgement together with its reasons mechanically derived from the code (Bendix, 1960). Nor is it reasonable to view the organization solely in terms of the socio-psychological characteristics of the persons involved at work, a viewpoint that has been so fashionable of late (Bennis, 1959). Rather, the approach that should be taken is that of these quoted writers: organizations are to be viewed as ''open systems'' defined by their primary task or mission and encountering boundary conditions that are rapidly changing their characteristics. Given this rough definition, we must locate some effectiveness criteria and the institutional prerequisites that provide the conditions for the attainment of this criteria.

The Spirit of Inquiry as a Model for Organization

Findings are science's short-range benefits, but the method of inquiry is its long-range value. I have said that the invention of organization was Man's first most important achievement; I now add that the development of inquiry will be his second. Both of these inventions change the species and are necessary for its survival. But both must become a part of the nature of Man himself, not just given house room in certain groups. Organization is by now a part of every man, but inquiry is not. The significant product of science and education will be the incorporation within the human animal of the capability and habit of inquiry.—H. Thelen (1960)

Whether our work is art or science or the daily work of society, it is only the form in which we explore our experience which is different; the need to explore remains the same. This is why, at bottom, the society of scientists is more important than their discoveries. What science has to teach us here is not its techniques but its spirit; the irresistible need to explore.—J. Bronowski (1959)

It has been asserted here that organizations must be viewed as adaptive, problem-solving systems operating and embedded in complicated and rapidly changing environments. If this view is valid, then it is fair to postulate that the methodological rules by which the organization approaches its task and ''exchanges with its environments'' are the critical determinants of organizational effectiveness. These methodological rules or operating procedures bear a close resemblance to the rules of inquiry, or scientific investigation. Therefore, the rules and norms of science may provide a valuable, possibly necessary model for organizational behavior.

First, it should be stated what is meant and what is not meant by ''science'' in this context. It is not the findings of science, the vast array of data that scientists produce. Nor is it a barren operationalism—what some people refer to as ''scientism''—or the gadgetry

utilized for routine laboratory work. Rather it is what may be called the scientific "temper" or "spirit." It is this "spirit of inquiry," which stems from the value position of science, that such authors as Dewey have emphasized must be considered if our world is to survive. This position says essentially that the roles of scientist and citizen cannot be sharply separated. As Waddington put it:

> The true influence of science is an attitude of mind, a general method of thinking about and investigating problems. It can, and I think it will, spread gradually throughout the social consciousness without any very sharp break with the attitudes of the past. But the problems for which it is wanted face us already; and the sooner the scientific method of handling them becomes more generally understood and adopted, the better it will be (1941).

Now it is necessary to look a bit more closely at what is meant by this "scientific attitude." This complex includes many elements, only two of which are considered here. The first may be called the hypothetical spirit, the feeling for tentativeness and caution, the respect for probable error. As Geiger says: ". . . the hypothetical spirit is the unique contribution scientific method can offer to human culture; it certainly is the only prophylactic against the authoritarian mystique so symptomatic of modern nerve failure" (1950).

The second ingredient is experimentalism, the willingness to expose ideas to empirical testing, to procedures, to action. The hypothetical stance without experimentalism would soon develop into a rather arid scholasticism. Experimentalism without the corrective of the hypothetical imagination would bring about a radical, "dustbowl" empiricism lacking significant insight and underlying structures capable of generalization. These two features, plus the corrective of criticism, is what is meant by the methodological rules of science; it is the *spirit of inquiry,* a love of truth relentlessly pursued, that ultimately creates the objectivity and intelligent action associated with science.

But the scientific attitude of which I speak can most easily flourish under specific conditions usually associated with the social organization of the scientific enterprise. As Parson states:

> Science is intimately integrated with the whole social structure and cultural tradition. They mutually support one another—only in certain types of society can science flourish and conversely without a continuous and healthy development and application of science such a society cannot function properly (1951).

What are the conditions that comprise the ethos of science? Barber identifies five that are appropriate to this discussion: rationality, universalism, individualism, communality, and disinterestedness (1952). A brief word about each of these is in order. The goal of science is understanding, understanding in as abstract and general a fashion as possible. Universalism, as used here, means that all men have morally equal claims to discover and to understand. Individualism, according to Barber, expresses itself in science as anti-authoritarianism; no authority but the authority of science need be accepted or trusted. Communality is close to the utopian communist slogan: "From each according to his abilities, to each according to his needs." This simply means that all scientific peers have the right to share in existing knowledge; withholding knowledge and secrecy are cardinal sins. The last element, disinterestedness, is to be contrasted with the self-interest usually associated with organizational and economic life. Disinterestedness in science requires that role incumbents serve others and gain gratification from the pursuit of truth itself. These five conditions comprise the moral imperatives of the social organization of science. They are, of course, derived from an "ideal type" of system, an empirically imaginable possibility but a rare phenomenon. Nevertheless, insofar as they are imperatives, they do in fact determine significantly the behavior of scientific organization.

There are two points to be made in connection with this model of organization. The first was made earlier but may require reiteration: the spirit of inquiry can flourish only in an environment where there is a commitment toward the five institutional imperatives. The second point is that what is now called the "human relations school" (Bennis, 1959) has been preoccupied primarily with the study of those factors that this paper has identified as the institutional imperatives of the science organization. In fact, only if we look at the human-relations approach with this perspective do we obtain a valid view of their work. For example, a great deal of work in human relations has focused on "communi-

cation'' (Berkowitz and Bennis, 1961), ''participation'' (McGregor, 1960), and ''decision-making.'' Overgeneralizing a bit, we can say that most of the studies have been (from a *moral* point of view) predicated on and lean toward the social organization of science as has been outlined here. Note, for instance, that many studies have shown that increased participation, better communication (keeping worker ''informed''), more ''self-control,'' and decreased authoritarianism are desirable ends. Because of their emphasis on these factors, the researchers and theoreticians associated with human-relations research have sometimes been perceived as ''soft-headed,'' unrealistic, too academic, and even utopian. In some cases, the social scientists themselves have invited these criticisms by being mainly interested in demonstrating that these participative beliefs would lead to heightened morale and, on occasion, to increased efficiency. So they have been accused by many writers as advocates of ''happiness'' or a moo-cow psychology (Baritz, 1960).

These are invalid criticisms, mainly because the issue is being fought on the wrong grounds. One of the troubles is that the social scientists have not foreseen the full implications of their studies. Rather than debating the viability of socio-psychological variables in terms of the traditional effectiveness variables, which at this point is highly problematical, they should be saying that the only way in which organizations can develop a scientific attitude is by providing conditions where it can flourish. In short, the norms of science are both compatible and remarkably homogeneous with those of a liberal democracy. We argue, then, that the way in which organizations can master their dilemmas and

The way in which organizations can master their dilemmas and solve their problems is by developing a spirit of inquiry.

solve their problems is by developing a spirit of inquiry. This can flourish only under the social conditions associated with the scientific enterprise (i.e., democratic ideals). Thus it is *necessary* to emphasize the ''human side of enterprise,'' that is, institutional conditions of science, if organizations are expected to maintain mastery over their environment.

Now, assuming that the social conditions of science have been met, let us return to the designated task of identifying those organizational criteria that are associated with the scientific attitude.

The Criteria of Science and Mental Health Applied to Organizations

> Perhaps no other area of human functioning has more frequently been selected as a criterion for mental health than the individual's reality orientation and his efforts at mastering the environment.—M. Jahoda (1958)

> I now propose that we gather the various kinds of behavior just mentioned, all of which have to do with effective interaction with the environment, under the general heading of competence.—Robert White (1959)

> All aspects of the enterprise must be subordinated to . . . its *primary task*. It is not only industrial enterprises, however, which must remain loyal to their primary tasks. This is so of all human groups, for these are all compelled, in order to maintain themselves in existence, to undertake some form of appropriate action in relation to their environment. . . . An organism, whether individual or social, must do work in order to keep itself related to its external environment, that is, to meet reality.—Eric Trist (Brown, 1960)

These quotations provide the framework for the following analysis. They express what has been the major concern throughout this paper: that, when organizations are considered as ''open systems,'' adaptive structures coping with various environments, the most significant characteristic for understanding effectiveness is competence, mastery, or as the term has been used in this essay, problem-solving. It has been shown that competence can be gained only through certain adaptations of science: its attitude and social conditions. It is now possible to go a step further by underlining what the above quotations reveal, that the criteria of science bear a close kinship to the characteristics of what mental-health specialists and psychiatrists call ''health.''

There is an interesting historical parallel between the development of criteria for the evaluation of mental health and the evolution of standards for evaluating organizational

health. Mastery, competence, and adaptive, problem-solving abilities are words relatively new to both fields. In the area of organizational behavior these words are replacing the old terms ''satisfaction'' and ''work competence.'' Similarly, an important change has taken place in the mental-health field, which has had some of the same problems in determining adequate criteria. Rather than viewing health exclusively in terms of some highly inferential intra-psychic reconstitutions, these specialists are stressing ''adaptive mechanisms'' and ''conflict-free,'' relatively autonomous ego-functioning, independent of id energies.

The main reason for the confluence of organizational behavior and mental health is basically quite simple. Both the norms of science and the methodology of psycho-therapeutic work have the same goal and methodology: to perceive reality, both internal and external; to examine unflinchingly the positions of these realities in order to act intelligently. It is the belief here that what a patient takes away and can employ *after* treatment is the methodology of science, the ability to look facts in the face, to use the hypothetical and experimental methods—the spirit of inquiry—in understanding experience.

Sanford has said in this connection:

> . . . most notably in Freud's psychoanalytic method of investigation and treatment. (This method is in my view, Freud's greatest, and it will be his most lasting contribution.) By the method I mean the whole contractual arrangement according to which both the therapist and patient become investigators, and both objects of careful observation and study; in which the therapist can ask the patient to face the truth because he, the therapist, is willing to try to face it in himself; in which investigation and treatment are inseparable aspects of the same humanistic enterprise (1958).

And in Freud's words:

> Finally, we must not forget that the relationship between analyst and patient is based on a love of truth, that is, on the acknowledgement of reality, and that it precludes any kind of sham or deception (1959).

It is now possible to postulate the criteria for organizational health. These are based on a definition by Marie Jahoda, according to which a healthy personality ''. . . actively masters his environment, shows a certain unit of personality, and is able to perceive the world and himself correctly (1958). Let us take each of these elements and extrapolate it into organizational criteria.

1. "Actively Masters His Environment": Adaptability

In terms of this paper, this characteristic coincides with problem-solving ability, which in turn depends upon the organization's flexibility. Earlier it was pointed out that flexibility is the freedom to learn through experience, to change with changing internal and external circumstances. Another way of putting it, in terms of organizational functioning, is to say that it is ''learning how to learn.'' This is equivalent to Bateson's notion of ''deutero-learning,'' the progressive change in rate of simple learning (1947).

2. "Certain Unit of Personality": The Problem of Identity

In order for an organization to develop adaptability, it needs to know who it is and what it is to do; that is, it has to have some clearly defined identity. The problem of identity, which is central to much of the contemporary literature in the mental-health field, can in organizations be examined in at least two ways: (a) determining to what extent the organizational goals are understood and accepted by the personnel, and (b) ascertaining to what extent the organization is perceived veridically by the personnel.

As to the problem of goals, Selznick pointed out:

> The aims of large organizations are often very broad. A certain vagueness must be accepted because it is difficult to foresee whether more specific goals will be realistic or wise. This situation presents the leader with one of his most difficult but indispensable tasks. *He must*

specify and recast the general aims of his organization so as to adapt them, without serious corruption, to the requirements of institutional survival. This is what we mean by the definition of institutional mission and role (1957).

The same point is made by Simon, Smithburg, and Thompson: ''No knowledge of administrative techniques, then, can relieve the administrator from the task of moral choice—choice as to organizational goals and methods and choice as to his treatment of the other human beings in his organization (1950).

In addition to the other clear definition of mission, which is the responsibility of the leader to communicate, there also has to be a working consensus on the organization of work. Wilfred Brown's work is extremely useful in this connection. He enumerates four concepts of organization: the *manifest* organization, the one that is seen on the ''organization chart'' and is formally displayed; the *assumed* organization, the one that individuals perceive as the organization (were they asked to draw their phenomenological view of the way that things work); the *extant* organization, the situation as revealed through systematic investigation, say by a student of organizations; and the *requisite* organization, or the situation as it would be if it were ''in accord with the real properties of the field in which it exists.''

''The ideal situation,'' Brown goes on to say, ''is that in which the manifest, the assumed, the extant, and the requisite are as closely as possible in line with each other (1960). Wherever these four organizational concepts are in contradiction, we find a case of what Erikson calls ''identity diffusion'' (1959). Certainly this phenomenon is a familiar one to students and executives of organizations. Indeed, the great attention paid to the ''informal group'' and its discrepancy with the formal (difference between the manifest and the assumed organizations or between the manifest and the extant) testifies to this.

> Flexibility is the freedom to learn through experience, to change with changing internal and external circumstances.

Another useful analogy to the mental-health field shows up in this discussion. Many psychotherapeutic schools base their notions of health on the degree to which the individual brings into harmony the various ''selves'' that make up his personality. According to Fromm-Reichmann, ''. . . the successfully treated mental patient, as he then knows himself, will be much the same person as he is known to others (1950).

Virtually the same criterion is used here for organizational health, i.e., the degree to which the organization maintains harmony—and knowledge—about and among the manifest, assumed, extant, and requisite situations. This point should be clarified. It is not necessary to organizational health that all four concepts of organization be identical. Rather, all four types should be recognized and allowance made for all the tensions attendant upon their imbalance. It is doubtful that there will always be total congruence in organizations. The important factor is recognition; the executive function is to strive toward congruence insofar as it is possible.

3. ''Is Able to Perceive the World and Himself Correctly'': Reality-Testing

If the conditions for requisite organizations are to be met, the organization must develop adequate techniques for determining the ''real properties'' of the field in which it exists. The field contains two main boundaries, the internal organization and the boundaries relevant to the organization. March and Simon, in their cognitive view of organization, place great emphasis on adequate ''search behavior.'' Ineffective search behavior—cycling and stereotypy—are regarded as ''neurotic'' (1958).

However, it is preferable here to think about inadequate search behavior in terms of perception that is free from need-distortion. Abraham Maslow places this in perspective:

> Recently Money-Kyrle, an English psychoanalyst, has indicated that he believes it possible to call a neurotic person not only *relatively* inefficient, simply because he does not perceive the real world as accurately or as efficiently as does the healthy person. The neurotic is not only emotionally sick—he is cognitively *wrong!* (Jahoda, 1958). The requisite organization requires reality-testing, within the limits of rationality, for successful mastery over the relevant environments (March and Simon, 1958).

In summary, then, I am saying that the basic features of organization rely on adequate methods for solving problems. These methods stem from the elements of what has been called the scientific attitude. From these ingredients have been fashioned three criteria or organizational mechanisms, which fulfill the prerequisites of health. These criteria are in accord with what mental-health specialists call health in the individual.

The basic features of organization rely on adequate methods for solving problems.

Undeniably, some qualifications have to be made. The mensuration problem has not been faced, nor have the concrete details for organizational practice been fully developed. Nonetheless, it has been asserted that the processes of problem-solving—of adaptability—stand out as the single most important determinant of organizational health and that this adaptability depends on a valid identity and valid reality-testing.

Some Implications of the Science Model for Organizational Behavior

There is one human characteristic which today can find a mode of expression in nationalism and war, and which, it may seem would have to be completely denied in a scientific society. That is the tendency to find some dogma to which can be attached complete belief, forthright and unquestioning. That men do experience a need for certainty of such a kind can scarcely be doubted . . . Is science, for all its logical consistency, in a position to satisfy this primary need of man?—C.H. Waddington (1941)

We are not yet emotionally an adaptive society, though we try systematically to develop forces that tend to make us one. We encourage the search for new inventions; we keep the mind stimulated, bright, and free to seek out fresh means of transport, communication, and energy; yet we remain, in part, appalled by the consequences of our ingenuity and, too frequently, try to find security through the shoring up of ancient and irrelevant conventions, the extension of purely physical safeguards, or the delivery of decisions we ourselves should make into the keeping of superior authority like the state. These solutions are not necessarily unnatural or wrong, but historically they have not been enough, and I suspect they will never be enough to give us the serenity and competence we seek . . . we may find at least part of our salvation in identifying ourselves with the adaptive process and thus share . . . some of the joy, exuberance, satisfaction and security . . . to meet the changing time.—E. Morison (1950)

The use of the model of science as a form for the modern organization implies some profound reforms in current practice, reforms that may appear to some as too adventurous or utopian. This criticism is difficult to deny, particularly since not all the consequences can be clearly seen at this time. However, let us examine a few consequences that do stand out rather sharply.

1. The Problem of Commitment and Loyalty

Although the viewpoint does have its critics, such as William H. Whyte, Jr., most administrators desire to develop high commitment and loyalty to the organization (1956). Can the scientific attitude, with its ascetic simplicity and acceptance of risk and uncertainty, substitute for loyalty to the organization and its purpose? Can science, as Waddington wonders, provide the belief in an illusion that organizational loyalty is thought to provide? The answer to this is a tentative "yes and no." Substituting the scientific attitude for loyalty would be difficult for those people to whom the commitment to truth, to the pursuit of knowledge, is both far too abstract and far too threatening. For some, the "escape from freedom" is a necessity, and the uncertain nature of the scientific attitude would be difficult to accept. However, it is likely that even these individuals would be influenced by the adoption of the science model by the organization. Loyalty to the organization *per se* would be transformed into loyalty and commitment directed to the spirit of inquiry. What effect would this have on commitment?

Gouldner, in another context, has supplied an important clue. He pointed to a difference between individuals in terms of two organizational roles, "locals and cosmopolitans"

(1957). The cosmopolitan derives his rewards from inward standards of excellence, internalized and reinforced through professional (usually scientific) identification. On the other hand, the local derives his rewards from manipulating power within the hierarchy. The locals are considered to be better organization men than the cosmopolitans. Loyalty within the scientific organizational conditions specified here would be directed not to particular ends or products or to work groups but to identification with the adaptive process of the organization.

2. Recruitment and Training for the Spirit of Inquiry

There are some indications that the problems of recruitment and training for the social organization of science are not as difficult as has been expected. For one thing, as Bruner has shown (1961), today's school children are getting more and better science teaching. It is to be hoped that they will learn as much about the attitude of science as they will about its glamour and techniques. In addition, more and more research-trained individuals are entering organizations. As McGregor points out: ''Creative intellectual effort by a wide range of professional specialists will be as essential to tomorrow's manager as instruments and an elaborate air traffic control system are to today's jet pilot (1961). Individuals trained in scientific methodology can easily adapt to, in fact will probably demand, more and more freedom for intellectual inquiry. If McGregor's and Leavitt and Whisler's (1958) prognostications are correct, as they presently seem to be, then there is practically no choice but to prepare a social milieu in which the adaptive, problem-solving processes can flourish.

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3. Intergroup Competition

Blake and Mouton, guided partly by the work of the Sherifs (1953), have disclosed for examination one of organization's most troublesome problems, intergroup conflict and collaboration. These chronic conflicts probably dissipate more energy and money than any other single organizational disease. Intergroup conflict, with its ''win-lose'' orientation, its dysfunctional loyalty (to the group or product, not to the truth), its cognitive distortions of the outsider (the ''enemy''), and its inability to reach what has been called ''reactive synthesis'' effectively disrupts the commitment to truth. By means of a laboratory approach Blake and Mouton have managed to break

> . . . the mental assumptions underlying win-lose conflict. Factually based mutual problem identification, fluidity in initial stages of solution, proposing rather than fixed position taking, free and frequent interchange between representatives and their constituent groups and focussing on communalities as well as differences as the basis for achieving agreement and so on, are but a few of the ways which have been experimentally demonstrated to increase the likelihood of arriving at mutually acceptable solutions under conditions of collaboration between groups (1961).

What the authors do not explicitly say but only imply is that the structure of their experimental laboratory approach is based on the methods of inquiry that have been advocated in this paper. Theirs is an action-research model, in which the subjects are the inquirers who learn to collect, use and generalize from data in order to understand organizational conflict. Rational problem-solving is the only prophylaxis presently known to rid organizations of persistent intergroup conflict.

Loyalty, recruitment and training, and intergroup hostility are by no means all the organizational consequences that this paper suggests. The distribution of power, the

problems of group cohesiveness, the required organizational fluidity for arranging task groups on a rational basis, and the change in organizational roles and status all have to be considered. More time and energy than are now available are needed before these problems can be met squarely.

However, one thing is certain: whatever energy, competence, and time are required, it will be necessary to think generally along the directions outlined here. Truth is a cruel master, and the reforms that have been mentioned or implied may not be altogether pleasant to behold. The light of truth has a corrosive effect on vested interests, outmoded technologies, and rigid, stereotypic patterns of behavior. Moreover, if this scientific ethos is ever realized, the remnants of what is now known as morale and efficiency may be buried. For the spirit of inquiry implies a confrontation of truth that may not be ''satisfying'' and a deferral of gratification that may not, in the short run, be ''efficient.'' However, this is the challenge that must be met if organizations are to cope more successfully within their increasingly complicated environments.

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Commentary

by Warren G. Bennis

I reread my 1962 paper at my own peril. The concerns were obvious. What if time had transformed the voice that seemed so authoritative into something that seemed downright naïve? What if the ideas no longer did credit to the person I've become? What if time had simply proven me wrong. Well, it was like anticipating an old friend you hadn't seen in 40 years and hoping he looked just like you remembered him.

Although I sat down with some trepidation, rereading the article turned out to be a delightful surprise, although I have to confess, its voice, so to speak, is not quite the one I have now. The younger Bennis was more tolerant of and fluent in academic language, more taken with charts and tables and those elegant 2 × 2 diagrams, than the present one is. But then again, he had spent most of his time in classrooms and libraries. Another thing: the article's repeated use of male pronouns when describing leaders was obviously written before the contemporary women's movement reminded us that the best and the brightest sometimes wear skirts instead of trousers. (*The Feminine Mystique* was published one year after this article appeared.) But the ideas, the essence of the paper, have held up and perhaps are more relevant today than any author has the right to expect.

One of the pleasures and surprises of reviewing this piece was the discovery that it is essentially an outline of my intellectual preoccupations of the past four decades. I continue to be fascinated by the tension in organizations between personal actualization—freedom, if you will—and the achievement of institutional goals. I continue to have faith in science, with its respect for dissent and its commitment to experimentation, as a model for organizational health and vitality. And I am more interested than ever in creative collaboration, the process whereby a group pools its talents and creates something that transcends the contributions of individuals.

I would like to think, also, that this paper limns the fallacy of the new "numbers game," those misleading metrics and so-called criterion variables that are in common use today to pad earnings. The "bottom line," as now conceived, is a tragic folly, trapping too many innocents in a false dream. The idea that the stock price alone is the key indicator of organizational viability is ludicrous; for that matter, so is any single financial result. The effect of this "off-balance sheet" hocus-pocus as well as other accounting gimmicks has still not seen its day. Unless this chicanery is checked, corporate credibility will lead and already has led to disillusionment. But enough damage has been done, and more will be reported—big time—in a newspaper near you. The financial irregularities and other "neat" devices have led to egregious short-termism, which has in turn led to the recent Tyco International, Enron, and Arthur Andersen debacles. We can expect to see the downfall of many other respected corporations that were also taken in not only by these shady metrics but by the fallacy of concreteness; to wit: if it is easily counted and measured, that's reality. It reminds me of that old saw about the man searching for his car keys under the lamplight when they fell yards away from the light, further down the darkened driveway.

I have to confess that I'm very proud my 40-year-old article is reprinted in *Reflections*, a journal I respect for its intellectual range and unobvious essays. Most of all, I'm proud to be published in the journal founded and edited by my former MIT colleague, Ed Schein.

The Corporation as a Community, Not as a Corpus

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The concept of a corporation has evolved from a purposeless *mechanism* created by its god (the owner) to do his work, to a purposeful, *animate system* (an organism) with a head and distributed owners but with parts whose purposes are irrelevant to both, to a *social system* that is obliged to serve the purposes of its parts and its containing systems and their parts. As a social system, the corporation has begun to be viewed as a *community*, an organization with no owners but which exists primarily to serve the needs of its stakeholders, particularly its members.

Charles Handy has argued convincingly that corporations should be viewed as communities, not as organisms (1999). I have reached the same conclusion by a different route, and I present it here along with some consequences to management and organizations.

The Mechanistic View

Industrial enterprises, as we know them today, began with the Industrial Revolution, normally dated to the mid-1700s in Europe and the mid-1800s in the US. While England was industrializing and urbanizing, the US was displacing the American Indians, developing agriculture, and constructing a communication and transportation infrastructure that yielded markets large enough to sustain enterprises that could extend beyond the small, dispersed communities in which they were located.

Although the Industrial Revolution came late to the US, it was responsible for one major innovation—establishment of the first school of business, The Wharton School, created by Joseph Wharton, a blacksmith, at the University of Pennsylvania in 1881. It was quickly followed by others.

The advent of an academic approach to management and organization required a concept of an economic enterprise, a description of its nature. It is not surprising that the one adopted reflected the way the universe was conceptualized. Sir Isaac Newton, following the French philosopher Descartes, saw the universe as a mechanical system—a hermetically sealed clock. This system cannot display choice, nor can its parts. Its behavior is determined by its internal structure and the causal laws of nature, which Newton thought he had formulated. A system is a whole that is defined by its function in one or more larger systems of which it is a part. How can the universe, a system that contains everything, be given a function in a larger system? Newton escaped this dilemma by saying that the universe is a system that God created to do His work. Every religion in the West accepted this belief, regardless of sectarian differences.

It is not surprising that early enterprises were also conceptualized as mechanisms that their gods, the owners, created to do their work. Like God in the universe, the owners of an enterprise had virtually unlimited ability to use it and its parts as they saw fit. The work of enterprises was to provide the owners returns on their investments by making
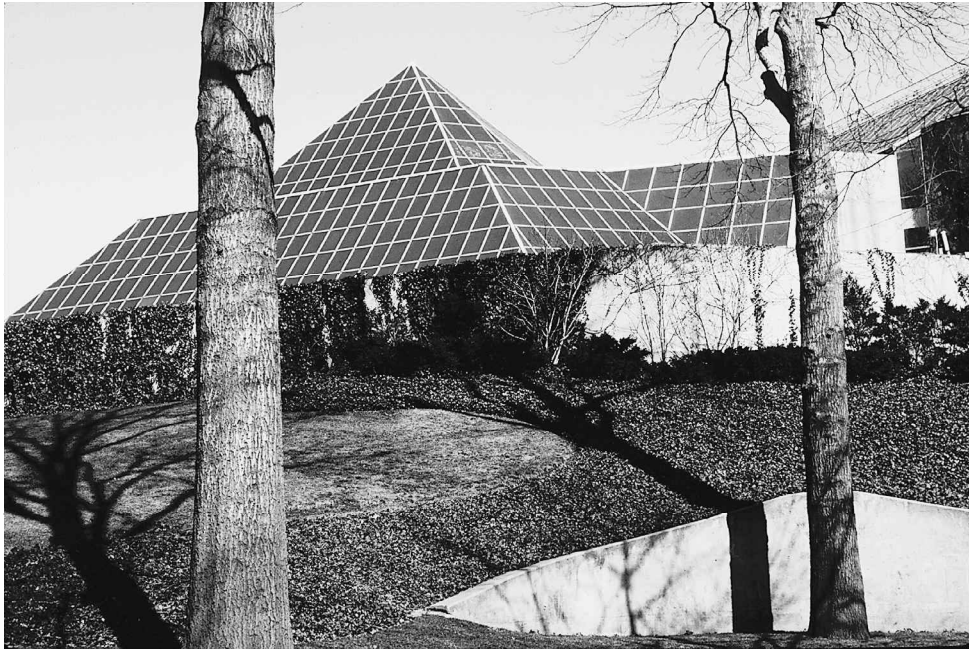
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a *profit*. The owners saw profit as the raison d'être of a business enterprise, and many still do.

The owners viewed employees as machine parts easily replaced when they no longer functioned well or were no longer needed. Such treatment was possible and accepted as long as (1) members of the work force had very low skills, (2) there was a plentiful supply of people who wanted to work (especially immigrants) with little education and low levels of aspiration, and (3) there was no form of social security. Therefore, the unemployed either had to depend on others for support or starved. Under these conditions, employees tolerated abusive jobs and conditions, very low compensation, and a miserable quality of work life. Charles Dickens's writings reflect these conditions.

Of course, workers were people with purposes of their own. However, the owner as employer was not under any obligation to treat them as such. As a result, workers were the object of dehumanizing mechanistic treatment, a process cast in concrete by Frederick W. Taylor, who viewed workers as surrogate machines or machine parts.

An owner was treated as a god within the mini-universe he had created. He was present and all powerful in it; there were no laws or regulations to constrain his treatment of others in or out of the enterprise. Government had not yet intervened, and unions had not yet formed. Environmental protection agencies and advocacy groups were yet to come. The environment was a passive supplier of the needs of the enterprise and a passive receiver of its output, including its waste. It was assumed to have an infinite capacity for both.

Once the US embraced the Industrial Revolution, it rushed successfully to catch up with Europe. Ironically, the success yielded by the mechanistic view of economic enterprises was its undoing. Industry mechanized increasingly in the early twentieth century, which required increased education and workers' skills. As these increased, the cost of their replacement also increased; workers became less disposable. Aware of this, they became less pliant than their predecessors. At the same time, government regulation and unions began to appear, both primarily directed at protecting workers' health and safety. Meanwhile, the economy thrived.

The Organismic View

The major change in the prevailing concept of an economic enterprise occurred because, even if most enterprises reinvested all their profit in growth, they could not grow as fast as possible. In order to realize all possible growth, the owners had to give up some control

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by sharing ownership to raise the additional capital required. Most of the enterprises that survived and grew chose equity financing, a way to raise capital by sharing ownership. Ownership became diffuse, no longer concentrated in a powerful presence but dispersed among absentee owners, an abstract spirit.

Enterprises recapitulated what had happened to deity in the West 1,900 years earlier: God himself had disappeared and become an abstraction. An institution, the *church,* had been created to facilitate communication between man and God, and a profession, the *clergy,* was established to manage that institution. The same thing occurred in industry; the institution of *management* was created. *Managers,* like their counterparts the clergy, claimed to know the will of the owners by revelation. But, as James Burnham pointed out in his provocative book, *The Managerial Revolution,* corporations were no longer controlled by their owners, but by managers (Burnham, 1941). The church, of course, is similarly managed—by the clergy, not God.

As ownership of an enterprise dispersed, its managers became preoccupied with *survival* and *growth;* return on the investment of its owners became a requirement for survival, not an objective. This led to a change in the way enterprises were conceptualized— from a mechanistic to an animate system, an organism. Unlike mechanisms, animate organisms are considered to have purposes of their own, but their parts do not; behavior of their parts was believed to remain determined.

In the eyes of the law and the public, enterprises were biological entities or persons. Publicly owned enterprises were called *corporations,* a word derived from *corpus,* a body. The chief executive was and is still called the *head* of the firm (mechanisms have no head). Stafford Beer carried the analogy further in his two well-known books, *The Brain of the Firm* (its management) and *The Heart of the Enterprise* (its value system) (Beer, 1972; 1981). Many other biological concepts were applied to corporations, for example, sickness, health, birth, maturity, and death. The employees of an enterprise—who were required to have increasing skills, hence, training, because of the advances in the mechanization of work—were then viewed as difficult-to-replace organs of a body, rather than as easily replaceable machine parts. Their health and safety became management's major preoccupation; the work environment and conditions were increasingly regulated by government and protected by emerging unions. Sweatshops and abusive use of women and children in the workplace were significantly reduced.

In the eyes of the law and the public, enterprises were biological entities or persons.

The Social-Systemic View

World War II initiated another major change in the conceptualization of enterprises. The military drafted many workers, who had to be replaced due to the great demands on industrial productivity. Spurred by patriotism, women became part of the work force— for example, Rosie the Riveter and Tillie the Toiler. Many women were dependent on men who had entered the service and, therefore, were provided with a living allowance by the US government. Thus, their principal reason for working was *not* economic, but to support the war effort. To get the most out of them, managers had to treat them as people with interests and purposes of their own. If they were unsatisfied, the quality and quantity of their output was negatively affected. Managers did not treat them as organs of a corpus or replaceable machine parts.

The men returning from World War II were fed up with military discipline, with being deprived of self-control, and with being treated as less than human. They too wanted their employers to pay more attention to their humanity. These increasingly liberated and demanding men and women were molded by World War II into the parents of the ''Spock generation''—children who were raised more permissively than any of their predecessors. Later, when these products of permissive upbringing entered the workforce or higher education, they were less tolerant of autocratic rule than even their parents. They expected a great deal more from work than compensation. More and more, they wanted work to be *fulfilling* as well as rewarding.

The increasing focus on the purposefulness of the parts of systems was reflected in the groups forming within systems that protested the way in which their members were treated by the containing system. Examples include the race movement, women's liberation, the generation gap, alienation from work, and the poverty in third-world countries. Increasing attention to such demands yielded what might be called the *humanization movement*. Society and corporations were pressured to become more humane.

At the same time, individuals and organizations increasingly protested the way corporations of which they were not a part were affecting them and their environments, reducing their quality of life. The environmental and consumer movements were conspicuous examples of external demands placed on corporations.

Management had to take into account the needs and desires of *all* the corporate stakeholders (that is, all those directly affected by corporate behavior). These included not only the employees at all levels (including management), but also the shareholders, customers, consumers, suppliers, government, creditors, debtors, and so on. Management was gradually inundated in a sea of purposes: those of the corporation, its parts, the larger systems of which it was a part, and parts of its containing systems. Furthermore, objectives were inconsistent both within each level and between levels.

Such concerns are not those of the brain or head of a biological entity, an animate organism. Consequently, corporations are now in the early stages of conceptualization as *social systems,* which have purposes of their own, whose parts have their own purposes, and as parts of larger purposeful systems that also have purposeful parts.

> *Corporations are now in the early stages of conceptualization as* social systems, *which have purposes of their own, whose parts have their own purposes.*

Increasingly, from the viewpoint of society, *the function of corporations is to produce and distribute wealth.* The productive employment they provide is the only way society can simultaneously produce and distribute wealth. Every other way of distributing wealth consumes it. When enterprises graduated from being seen as mechanisms to being seen as organisms, growth was deemed necessary for survival, because its opposite, contraction, ended in death. Furthermore, the production of profit came to be not an end, but a requirement for survival. Peter Drucker once pointed out that profit is to an enterprise what oxygen is to a human being: necessary for its existence, not the reason for it. Profit itself has no value; what it can be used for does.

Development versus Growth

A similar transformation is occurring as corporations are conceptualized as social systems: survival and growth are a means to a different corporate objective — *development,* its own development and that of its stakeholders, large and small. Development is not the same thing as growth. Neither is necessary for the other. Cemeteries and rubbish heaps grow; they do not develop. Einstein continued to develop long after he had stopped growing.

Development is an increase in the desire and ability to satisfy one's own needs and legitimate desires, and those of others. (The fulfillment of a legitimate desire does not deprive others of their ability to pursue their needs and legitimate desires.) Development is an increase in *competence. Quality of life* is an appropriate index of development; *standard of living* is an appropriate index of growth. These indexes can increase independently of each other, and either may increase when the other decreases. It is for this reason that the focus on quality — of work life, of life itself, and of products and services — became so prominent in the post-World War II era. We have been willing to sacrifice standard of living to improve the quality of life.

The Need for Democracy

The corporation viewed as a social system differs fundamentally from one viewed as an organism. *In an organism, the parts exist to serve the whole; in a social system, the whole exists to serve its parts.* Animate organisms all have a centralized control center: the brain.

Autocratic control, which characterizes most organically conceptualized corporations, is dysfunctional in organizations whose well-educated parts know better than their superiors how to perform their functions. The greater the educational level of the nonmanagerial members of a work force, the less effective is command-and-control management. *Democracy becomes essential for an organization that has a highly educated work force and is conceptualized as a social system.*

A social system is democratic to the extent that the following conditions hold:

1. All those who can be affected by a decision made in the system can participate in making the decision either directly or indirectly through representatives they select.
2. There is no ultimate authority in the system; all those who have authority over others individually are subject to their collective authority. Therefore, no one can hold a position of authority without approval of those over whom they exercise it.
3. Every member of a social system is free to do whatever he or she wants to do, provided it has no effect on others. If it does affect others, and the others approve, it can be done; otherwise, it cannot be done.

This last condition eliminates the issue of centralization versus decentralization. All decisions are made at the lowest organizational level that includes all those affected, never at a higher level.

A democratic social system cannot be seen as either a machine or an organism; it must be conceptualized as a *community.* As Charles Handy put it:

> [In a community] the individual is a member, not an employee, a resource, not a cost, and is not easily to be expelled. Those who provide the investment needed get their fair return and their security, but they do not own it. No one owns a community, any more than one owns a family (Handy, 1999: 51).

Corporate shareholders are viewed as investors, not owners. Ownership has traditionally been associated with the investment of money in the form of stock purchases. This concept was initiated at a time when investment capital was a relatively scarce resource. It no longer is. As economies have grown, the principal hurdle involved in starting an enterprise, or growing one that exists, is no longer the acquisition of capital, but the acquisition of knowledgeable, intelligent, and competent people's time.

Time, unlike money, is limited and not renewable. Time invested in an enterprise cannot be withdrawn as money can, and it cannot be increased by investment. Therefore, in a real sense, employees make the largest investment in an enterprise. When an enterprise ceases to exist, the employees suffer the most. Most stockholders can continue their lives with only minimal disruption, if any. They can hedge their financial investments in ways an employee usually cannot hedge his or her investment of time.

The point is not that employees should be seen as owners of an enterprise, but that ownership is no longer a relevant concept. In a firm treated as a community, employees are treated as residents. Stockholders are investors who are entitled to a financial return on their investment, as a community's bondholders. The obligations of a firm-as-community to its residents (employees) are more varied and more important than its financial obligations to those who invest money in it.

In a firm treated as a community, employees are treated as residents.

A community provides the facilities, processes, and infrastructure that enable its members to pursue their objectives and enable the community to serve its other stakeholders. Those who manage a community are subject to control by and are accountable to those who are managed. This is why those who govern communities are referred to as ''public servants.'' Democratic communities are ''lowerarchical,'' not hierarchical.

The corporation as a community is itself part of one or more larger communities and therefore has a function in them, particularly in the smallest containing community. As noted above, the principal corporate function in containing communities is the production and distribution of wealth. Productive employment is the one known way of simultaneously producing and distributing wealth. All other ways of distributing wealth consume it. In addition, every community has a responsibility for contributing to the development

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of its containing communities. The more the parts of a community contribute to that community's development, the more it can contribute to theirs.

Corporations operating outside their national homes have the same obligation to the nations in which they operate as they do in their home country. They can and should serve as an important instrument for national development, particularly in less developed countries. Without an equitable (not an equal) distribution of wealth and development among and within nations, there can be no lasting global peace. It appears that foreign corporations can collectively contribute more to the development of many less developed countries than can their governments. Arie de Geus argues that the corporation of the future must display ''civic behavior'' and ''good citizenship'' in all the countries in which it operates (1997: 202). If wealth, development, and democracy were more equitably distributed among and within nations, it is doubtful that the world would be experiencing as much conflict as it is currently.

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Internal Market Economies

Communities that have employed a centrally controlled and planned economy (for example, the Soviet Union) have had difficulty surviving, and none have thrived. They have never attained a high level of economic development because, however well they have solved the distribution-of-wealth problem, they have failed to solve the production-of-wealth problem. As a result, they end up distributing poverty. Their failure derives from the fact that their economies breed internal bureaucratic monopolies that are neither efficient nor responsive to the parts of the community they are supposed to serve. Therefore, another requirement for continuous development of a community, and a corporation treated as such, is that it employ *a market economy* internally. Most, if not all, community purchases should be subject to competitive alternative sources. An effective community is a social system that permits internal monopolies only when they are essential for systemic development or are required for security purposes.

Conclusion

A community is a system of parts whose properties are derived from the properties designed into the whole. The whole is not a mere aggregation of separately designed and controlled parts; it is a ''coming together'' of the parts into a whole. This means that a corporate plan should not be an aggregation of plans separately prepared by its parts, but that the plans of the parts should be derived from and coordinated with a plan for the whole.

The corporation as a community has an obligation to contribute to the development of all the countries in which it operates primarily, but not exclusively, by the production and distribution of wealth.

I have identified only a few implications of conceptualizing a corporation as a community (for additional consequences, see de Geus, 1997). Such implications have only begun to be recognized and explored. The corporations exploring them are likely to lead the way and dominate the future.

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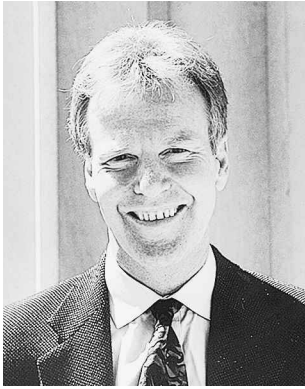
by Peter M. Senge

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Russell Ackoff, one of the pioneers of systems thinking applied to management, argues that the concept of the corporation has evolved: from a purposeless mechanism to serve its owner to an organism to a human community, a social system. I firmly believe Ackoff's insights are crucial. Pondering the implications of shifting from the mechanistic view to seeing organizations as living human communities has been enormously insightful for me over the past few years. Moreover, I believe such a shift in thinking on a large scale holds great promise for the long-term well-being of organizations and their members, as well as the larger social and natural systems within which we all live.

Yet, of all Ackoff's comments, the one that most sticks with me is the simple statement: "We are in the early stages of conceptualizing corporations as social systems." It leads me to wonder, "How early is 'early'?" And, "What assures us that this evolution in thinking is inevitable?"

In the Summer 2002 issue of *Reflections,* Lotte Bailyn commented on the differences between American executives and their counterparts from Asia and Europe. Listening to their comments to MIT Sloan Fellows students over the course of a year, she was struck by how often the Europeans and Asians spoke of the responsibilities of their firms to their employees and to society, while the Americans spoke almost exclusively of their responsibility to shareholders.

Applying Ackoff's characterizations of the stages in corporate evolution, this would suggest that the Asian and European business communities have evolved toward the human community conceptualization, while their American counterparts remain entrenched in an earlier stage. Ackoff says that when the company is conceptualized as machine, its purpose is simple: to make a profit for its owners. Or, as Arie de Geus has said, from the machine worldview, "a company is a machine for producing money" (1997). Seen as a human community, according to Ackoff, it must take into account all its stakeholders, including its members (obligations to whom are "more important than its obligations" to investors) and the larger systems of which it is a part—exactly what Bailyn observed the American managers not doing.

These views are not limited to American businesspeople. Not too long ago, in a seminar with many management experts at Harvard, I was asked to debate a leading economist, Michael Jensen of Harvard, on the purpose of organization change. Jensen's main point was that it does businesses and society a disservice when we allow the purpose of the business to be construed as anything other than "the maximization of firm value," and that increasing economic value of the firm should in turn guide all change efforts. In particular, Jensen is a passionate critic of the "stakeholder" theory of the firm because he believes that people are not capable of maximizing a "multi-valued objective function." In other words, if you ask a firm's managers to maximize several objectives—such as profit, employee well-being, positive social and environmental impact—this is simply not possible, and the consequent loss of focus will compromise business performance. Jensen's passion on the subject was fueled by what he saw as the squandering of resources and "politicization" that comes when management is distracted by trying to satisfy too many purposes, and often ends up putting its own interests first. Not surprisingly, Jensen was one of the intellectual leaders of the "shareholder revolt" that swept through American enterprise in the 1990s.[1]

Where does the shareholder revolt fit on Ackoff's evolutionary path? Indeed, it is not an isolated datum. There are many other signs that the mechanistic and organismic views are alive and well. As far as I can see, referring to investors as the owners of the firm is still commonplace, another of Ackoff's characteristics of the pre-community view of the firm. So too are "human resource" departments. It seems to me that seeing people as resource inputs to a firm's production is very different from seeing them as members of a community.

All of this would not be quite so disquieting if we believed the American model of capitalism was declining in influence. But, if anything, the opposite seems to be happening worldwide. The shareholder revolt that started in the US spread to Europe in the mid-1990s. Tough CEO "drivers of shareholder value" (how's that for a mechanical metaphor!) were widely sought and much publicized as "heads" of many European firms, just as happened in the US. Today, by and large, the Jack Welch model of the shareholder value CEO still seems to be the paragon for most business journalists, although there are a few signs that the hero CEO myth is cracking, as suggested by a cover story of *The Economist* titled "Fallen Idols: The Overthrow of Celebrity CEOs" (May 4–10 2002). Executive malfeasance toward investors has commanded news headlines for months. It is hard to

imagine similar public outrage arising for systematically violating employees' rights or for destroying local communities or ecosystems. Overall, it is hard to be sanguine that the evolution of which Ackoff speaks is indeed occurring.

My own feeling is that the shift from the mechanistic to the living system view is far more profound and challenging than we realize. As Visa's founding CEO Dee Hock says, "We are all closet Newtonians," deep down convinced that someone is in control, or ought to be. Mechanistic thinking dominates our most formative institution, school: "right (versus wrong) answers" to artificial problems, fragmentation of interconnectedness into largely arbitrary academic disciplines, and avoidance of making mistakes, which is the only way any living system learns. By the time we enter our adult, professional lives, we are master reductionists.

Moreover, things tend to get worse rather than better in times of crisis. As neuro-physiologists say, "The brain downshifts under stress." The greater the perceived threat, the more likely are deeply conditioned instincts to determine behavior. They express themselves in simplistic reactions to get things "back in control," ranging from the shareholder revolt and search for the hero CEO in business to the "standardized testing" movement to save public education.

I doubt that Ackoff would disagree with any of this—indeed it *is* in line with being in the early stages of seeing corporations as social systems. Yet, business organizations and all large institutions are likely to be facing *more* stress, not less, in the future. So, it becomes crucial for all of us to ask, "What will it take to continue to support the evolution Ackoff predicts, given the types of pressures likely to prevail on real people and real institutions?"

Lotte Bailyn concluded her comment in the last issue by asking whether or not the SoL community could "provide the venue for such a conversation" about the purpose and role of companies in the whole society. Indeed, it has started to do just that, through the "Global SoL Network" (see, for example, the "Marblehead Letter" on the SoL website ⟨www.solonline.org⟩, written by a group of member company executives convened in June 2001). A similar meeting occurred at the SoL Annual Meeting in June 2002. There is an expanding array of change projects attempting to foster ongoing collaboration and mutual support—among companies, NGOs, and governmental organizations—in diverse social and environmental arenas (for example, see updates on the SoL Sustainability Consortium on the SoL website).

But, we must all keep asking what will support this evolution. The birth of a new species, like any birth, is perilous.

Note

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Leadership Is Sourced by a Commitment to Personal Development

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In today's world, organizations must continually evolve to stay relevant to customer, shareholder, or constituent's needs and remain competitive. If this evolution has not occurred, something more drastic—reinvention—is called for. An organization reinventing itself goes through a crisis in leadership from top to bottom. Because leadership is about causing change, we all need to be leaders, especially when significant change is required. Key questions for each of us are these: What changes are needed? What choices am I making in relationship to those changes? How competent am I in perceiving and delivering on those choices?

My premise is that a continuing ability to lead is sourced by an ongoing commitment to personal development. Change is too prevalent for anyone to believe that his or her position grants a license to avoid learning and developing. Learning needs to be part of the culture of all organizations at all levels; otherwise, we become misfits.

The most effective leaders have a synergistic balance of analytical skills related to IQ and to emotional skills referred to in the literature as EQ, or emotional intelligence, a measure of how capable we are in creating value in relationships with others. Peter Senge once told me that a former CEO of Royal Dutch Shell said that he considered his greatest attribute as CEO was his willingness to be vulnerable. That is an example of the value of emotional intelligence. IQ is more straightforward and measurable than EQ, which often gets a bad rap as "touchie-feelie" or some other pejorative moniker. In our complex world, no one can see everything. The most accurate picture emerges from a variety of people and sources. Productive relationships with others, that is, high EQ, give access to those sources.

Dave Packard, one of the founders of Hewlett-Packard, had "11 Simple Rules," a set of personal relationship rules that he used to become a more effective leader. They are an indication of his EQ. The rules were found in HP archives a few years ago, unfortunately, after Dave had written *The HP Way*.[1] In the late fifties, Dave recommended these rules to his newly appointed division managers, when the company created its first divisions, as a way they could continue their personal learning. In this masterful stroke, he communicated to the new managers that not only was it okay to keep learning about yourself on the job, but also it was critical. Even he, as the head of the company, was very deliberate about being a "work in progress."

Our ability to learn and to adapt ourselves to changing conditions lies largely in EQ attributes. All too often, organizations focus on analytical skills while excluding EQ, which creates leaders who can analyze problems but who are ineffective at forming powerful teams to lead change. At HP, if general managers fail, it is not because they aren't smart enough, but because they can't lead a team effectively. In HP's case, we have moved from a very distributed, autonomous set of businesses to one company, acting as an integrated whole. This requires a powerful blend of both analytical and emotional intelligence to create customer value in a complex organizational environment.

I have been with HP for almost 30 years, all that time in management and, more recently, in senior management. For the past 20 years, I have been involved in the explo-

sive growth of the inkjet business, probably HP's most successful technology invention. I have spent the past 17 years in an environment of constant change, growing an organization from about 75 people in 1984 to about 10,000 people by 2000, with annual revenues growing from about $3 million in the first year to several billion dollars currently. We produce hundreds of millions of ink cartridges annually at sites we have created around the world. To maximize productivity, we have chosen to operate these sites as a single, integrated whole in a high-change, high-growth environment. The transition from a collection of silos to a ''single factory'' was an immense organizational challenge that took years to realize, but it has brought huge value to the bottom line.

Genesis of the Need for Change

Arie de Geus, in *The Living Company,* documented a study of the characteristics of a long-lived company.[2] One is that the company is aware and responsive to the greater environment in which it operates. The digital age will break down many old structures and will function by principles more related to biology and living systems than to mechanistic principles predicated on the illusion of command and control. These changes are not just fundamental; the rate at which they occur is accelerating, rendering old methods of dealing with change inadequate, hence, HP's need to reinvent itself from a ''fiercely loyal collection of tribes'' to a single integrated company.

Let me tell you a story that explains HP's need for transformation and shows the inadequacies of old methods and organizational responses. We have sold thousands of 600 series DeskJet printers to a customer who uses them in a connected environment for which they were not designed. This caused many problems that eventually led to a meeting between HP and the customer. Eight customer representatives and 56 HP employees showed up—everyone who thought they had something to say about the matter!

The way we need to operate in order to bring value to our customers requires new levels of trust and new skill not only in relationships, but also in effective communication, in system value, and in collaboration. It also requires a new level of ''it isn't about me or my career, or my organization; it's about the customer, the shareholder, and our fellow employees.'' At HP, we relate to each other and accomplish work based on the ''HP way,'' a set of values and practices. I have been a serious student of the HP way for the past 10 years. When I reflected on the ''11 Simple Rules'' that Dave recommended to his new division managers, I realized that Dave Packard and Bill Hewlett's relationship to each other and to personal learning is what created the HP way. If we are to preserve it, each of us needs to develop the same relationship to personal learning that Bill and Dave exemplified. We must continually recreate the HP way. When we treat the HP way as the source, as opposed to the consequence, of something more fundamental, that is, personal learning, then it devolves into a set of entitlements or empty phrases, because we don't consider our accountability in preserving the values by practicing the behaviors. I believe this is true in any organization; capability to operate effectively must be continually recreated by employees learning about themselves, their environment, and others. This is at the heart of leadership. Relationships generate value. That is so obvious, we often miss their importance. Bill's nephew once asked him if he and Dave ever fought. Bill answered, ''No, never!'' I once calculated HP's size if it had grown at a 20% lower rate because Bill and Dave lacked a working relationship. It would have been about $12 billion, not $50 billion. If it had grown at half the historical rate, it would be about $200 million, roughly the size of Tektronix, which started about the same time!

My Development as a Leader

I would like to talk about my leadership development—my story. My goal is to change your life, not because I say anything particularly brilliant, but rather because something I say, coupled with your engagement, will change your perspective, which will change your behavior, which will change your life. *Remember, we see the world not as it is, but as we are.* So I ask you not to accept or reject what I say merely on the basis of what you already know, but to be open to the possibility that what you know should be discarded for something better.

During the past 20 years in HP's inkjet business, my responsibilities have grown many times. It is unusual for someone to stay at the top of an organization in a business that is doubling roughly every two years. I credit my role as one of the vice presidents of this multibillion dollar business to my willingness to develop personally.

Be open to the possibility that what you know should be discarded for something better.

About 10 years ago, three events or circumstances jolted me out of avoiding personal change. The first was that my boss was going to retire in a year or two and I wanted his job. He told me I was far from a shoo-in. The business was growing rapidly, and there was concern as to whether I could provide the necessary leadership. Whoever replaced him had to be able to lead what the organization would become, not what it was at that time. Although I appreciated his candid assessment, I was intimidated by the challenge.

The second event was the loss of our third son, Scott, in a car crash in 1990. Scott, at 16, was more naturally self-confident, and therefore contributed more to others, than I was, despite my successful life. I had entered adulthood with a legacy of inaccurate self-images that did not serve me well. Like many of us, I was too insecure to take the personal risk to achieve the growth necessary for being a leader of this business. I was standing still and not reinventing who I was in relationship to other people. Scott was the kind of person who inspired me to challenge that.

Third, I could see that I was not smart enough and did not have enough time to manage, as in "control," an organization that would grow to 10,000 people. They would be people of European, Asian, Latin American, and US cultures who had to work closely together in a high-tech, high-change environment to achieve the required growth. Sites like these often become destructively competitive, as a matter of local survival. HP could not prosper in that kind of environment. I understood I could be successful only if I became more a leader and less a manager. We lead out of who we are, and I needed to become what the organization needed. I needed to lead an organization as a system in which the component parts act locally in an empowered way that is coherent with the larger organization's primary objectives. Having all information and decisions come back to the top in a large, distributed, changing environment would cripple our effectiveness.

In *On Becoming a Leader,* Warren Bennis, after shadowing leaders in many different venues, found a common trait—leaders learn from the experiences life brings them.[3] How simple! It sounds like EQ again. Arie de Geus describes the research of Wilhelm Stern, a psychologist, who coined the word *introception,* which conveys a similar idea.[4] The Chilean biologist, Humberto Maturana, says that reflection is the biological way of learning; that is, we learn capability only through experience that we become aware of.[5] In *The Inner Work of Leaders,* Barbara Mackoff and Gary Wenet state, "Leadership is not a role; it is a habit of mind—a point of view developed by creating meaning from experiences of a lifetime."[6] My favorite definition of leadership is Peter Senge's:

> Leadership is about creating a domain in which human beings continually deepen their understanding of reality and become more capable of participating in the unfolding of the world. Ultimately, leadership is about creating new realities.[7]

This definition implies discovery rather than adopting the hubris of "ordaining" what is reality. While this is clear in the physical world (we cannot make inkjet cartridges while violating the laws of Mother Nature), we often act as if we can decide what works in the social world, rather than discovering and abiding by laws in that arena as well. We gain new perspectives by continually learning about ourselves at the intersection of others' intentions, life principles, and circumstances.

Changes I Needed to Make

So how did I need to change?

I needed to be vulnerable in order to create trusting relationships. If you reflect on it, you realize your most powerful relationships are those in which you are the most exposed. For example, I took a risk once to compliment one of my boss's peers on something I respected him for. After an embarrassed thanks, he then surprised me by launching into a several-minute discussion on how much he had learned about my operations function in his new role as a general manager, what a challenging job it was, and how much he respected what I was accomplishing. We created a relationship in that brief interchange that lasts to this day.

I needed to quit competing with people. That kind of competition arises from insecurity and says that your gain is my loss. For example, we got a new comptroller years ago who took me off the financial-report distribution. I chose to take offense, perceiving this as a snub. He had no such intention.

I needed to learn how to collaborate more effectively. In an earlier role, I had done little to create collaborative value. I had a competitive win-lose view of the world. A peer told our boss he would not work with me anymore. He was surprised when the boss told him he could leave, instead of me. But I was part of the problem as well. Being right, and alienating, destroys rather than creates value.

I needed to become a more effective communicator to solve problems. I could tell many stories about communications breakdowns. I remember once listening so well that I was finishing a peer's sentences for him, only to discover that I was really listening for confirmation of what I already knew, rather than for what he might contribute. Another time, we had an issue that took too long to address, partly because people at different sites were taking offense as they accused each other and defended their positions. This experience prompted me to take the management team through training in a communication model that accelerates resolution, which has had a huge impact on results.

I needed to learn how to build more powerful relationships that would withstand the challenges of failure and problems and not break down when they were needed. For example, I have successfully solved difficult personnel situations with my direct reports because I have a strong relationship with each. They are firmly convinced I am committed to their success and to the success of the organization.

I needed to learn how to create an environment in which people would take a risk to accomplish the seemingly impossible. I needed to help them believe in themselves more fully so they would take on such risk, while knowing they were not yet competent! In the early nineties, we deliberately chose to create an organization that encouraged and sponsored personal development as a critical ingredient in our ability to meet increasing demands of growth. Among other things, we offered an introspective course in leadership to all employees. I introduced most of the courses so the participants could see the explicit connection I was making between operational results and personal development.

I personally needed to take more risk so I could contribute to the organization and to others.

I personally needed to take more risk so I could contribute to the organization and to others. In short, I needed to become the change I wanted to see in the organization, to paraphrase Gandhi. My talk here is an outgrowth of my taking personal risk and sharing some lessons I have learned in the advanced development training groups at HP. I invited myself to speak to high-potential middle managers about leadership.

I needed to change myself to change things "out there." I've realized that if something is not working, I need to change the way I look at it—my paradigm or structure of interpretation—in order to have a different impact. For example, from a manufacturing standpoint, my organization is pretty unique in HP. Contract manufacturing strategies that were applied in other parts of the company were not as applicable to my operations, although there was little acknowledgment of those differences. So I appeared defensive by not supporting those strategies. I had to change from feeling as if "they just don't get it" to finding a way they could see the differences, while also seeing something new myself. In that willingness to take a different view, we realized that we had insufficient credibility

as a management team for others to accept our strategies, but that we could establish credibility if we had a consultant confirm the distinctions of our strategy. I had to be willing to acquire a different viewpoint in order to progress.

How to Change

The question in front of me, and you, is how am I going to learn? How am I going to become a leader who is continually reinventing myself so that my best days are *ahead* of me? How can I become a leader who gets consistently great results? I will share with you what I have been doing, but you must find your own way, what works for you. At a minimum, I believe you must gain access to new distinctions that you don't currently possess, and you must relate those distinctions to your circumstances and behaviors through reflection.

My journey started with a leadership seminar I attended with coworkers shortly after our son's death. It gave me insight into how my self-image was not serving me well. I thought a lot less of myself than others thought of me. Do any of you perhaps struggle with that? It became clear that I needed to stop protecting my insecurities and contribute more effectively to others. In short, I had a lot of talent I was not using.

We formed a developmental group, which consisted primarily of my staff and me, that met one day every month or so with two coaches to address personal growth, team effectiveness, and leadership. We used current issues in the business as examples and worked on how we could change to have more impact on the business. This was a great learning experience.

I started reading a lot more. I've read more than 80 books (I travel frequently) in the past several years on philosophy, biography, culture, business, economics, religion, history, and so on. Each book has contributed to my life and to my job. If we are not gaining access to new ideas, especially outside our disciplines, we are likely to be stale thinkers, and our creativity will be greatly limited.

Finally, I spend more time learning from my experiences. I reflect on most of my conversations to learn what went well, what didn't, and how I could listen and speak differently the next time. I look both for things I might have said and didn't, and for ways I could have said something more effectively. I have *never* failed to learn something from these reflections. Don't we all do this? No! Think, for example, of Archie Bunker, the quintessential nonreflective person who knows everything and therefore learns nothing. The more we reflect, the more we increase our ability to act rather than to react.

What Am I Learning?

I am learning that a willingness to be vulnerable arises out of strength, not weakness. We protect ourselves out of fear, not confidence. And if we want those around us to learn, then we must be learning as well. A second-level manager told me that he saw me as vulnerable enough to be willing to be changed by him. That's very powerful.

I am learning that conversations, which accelerate resolution, follow certain principles. When we don't observe them, we make decisions slowly or not at all.

I am learning that trust based on mutual commitment and performance, not the expectations of others, determines both the size of the shared endeavor and its likely outcome. It is a mistaken notion that the highest performance arises from the boss's demands or expectations. People who are allowed to contribute to planning become more committed, and the solutions are more creative. The commitment of our *selves* is far more powerful than the expectations of others.

I am learning that forgiveness—letting go—is essential to personal and organizational health and effectiveness. If we don't forgive, we become tied to the past in a way that prevents us from being coherent with the present, which greatly limits our future. Renewing relationships, which often takes forgiveness, is critical to achieving and sustaining results.

I am learning that as a leader my vision of the organization is critical, but insufficient, that my perspective is both my greatest leadership asset and my greatest limiter, and that I'm always on stage, with an ever-present opportunity to contribute. One of my metaphors

for leadership is what I call the wagon wheel. The boss is the hub, the spokes are the staff or direct reports, and the rim is the quality of relationship and conversation among the staff members. If all decisions have to go through the hub because the peers cannot solve problems among themselves, then the organization's capacity to create value is limited by the brilliance, or lack thereof, of the boss and his or her availability. This does not result in the highest performing team. To create a ''rim'' conversation, the boss must be intentional about what comes to the hub and what gets solved by peers. Relationships must be cultivated and reinforced. For example, my staff from around the world recently met in London without me—the boss—to solve a thorny, controversial problem. They could do so because we have created the rim conversation. They also didn't want to come home without accomplishing the task, and the meeting was a success.

I am learning that people don't resist change; they resist being put at risk unilaterally. I must involve people and help them see their future in the change if I want it to occur effectively and quickly. And I must change myself or ossify.

I am learning that creating mutual conversations of possibility and integration is much more likely to lead to success than conversations of no possibility and disintegration. We often destroy what someone just said in order to make room for what we want to say. That destroys integration or synergy.

I am learning to learn from my experiences. It's easier to see the foibles of others than my own. Years ago, my boss Gary Egan wanted to reorganize in anticipation of the next wave of growth by trisecting my organization and giving me one of the three parts. I resisted this change because I thought it threatened my selection as Gary's replacement when he retired. Gary and I talked about this, but reached no shared understanding. He told me that it was important that I have my career inside the company and not vice versa. I replied, ''Right, I agree,'' not understanding what he was trying to tell me. My concerns were about my career, not what was best for the company. After the second discussion, which still didn't accomplish much, Gary summarized his position in a letter, which I took with me as I left for Singapore the next day. On that long flight, as I was reflecting on my response, I had an epiphany that illuminated how obtuse I was being. I had restructured organizations several times and expected others to understand and sign up, yet when it happened to me, I resisted it. I was embarrassed and chagrined. I wrote Gary a letter apologizing for my behavior and offering my unconditional support for what he was doing. Owning my misbehavior and giving support allowed me the confidence I needed to improve my effectiveness with his boss, which resulted in my being chosen to succeed Gary when he retired.

Conclusion

These past several years have been thrilling and rewarding. My career and contributions far exceeded my anticipations. I left a high-level job in the San Francisco Bay area so our family could move back to Oregon. I took on the management of a much smaller manufacturing organization than I had had in California, but it was in the area in which the inkjet product would be manufactured if it were successful. So, I was fortunate to hook up with a winner, but I also was willing to take a lot of risk and to change personally so I could keep pace with the growth of the business. We have had extraordinary results in many different areas, including growth, margin improvement, change management, system solutions, employee satisfaction, and productivity. We could not have done it without focusing on sharpening the saw, even when it seemed we didn't have the time. It has been a rare, incredible experience for which I am deeply grateful.

Finally, I am learning very profoundly that life is about growth and change. Stasis is an illusory, ultimately disappointing hope. If you are to lead the change required, first change yourselves. A favorite quote of mine is from W.H. Murray of the Scottish Himalayan Expedition:

> Until one is committed there is always hesitancy, the chance to draw back, always ineffectiveness. Concerning all acts of initiative (and creation), there is one elementary truth, the ignorance of which kills countless ideas and splendid plans; that the moment one definitely commits oneself, then providence moves too.

All sorts of things occur to help one that would never otherwise have occurred. A whole stream of events issues from the decision, raising in one's favor all manner of unforeseen incidents and meetings and material assistance, which no man could have dreamt would have come his way. I have learned a great respect for one of Goethe's couplets: "Whatever you can do, or dream you can, begin it. Boldness has genius, power and magic in it."[8]

Another favorite quotation, by Marianne Williamson, was used by Nelson Mandela in his inaugural speech:

Our deepest fear is not that we are inadequate; our deepest fear is that we are powerful beyond measure. It is our light, not our darkness, that most frightens us.

We ask ourselves, who am I to be brilliant, gorgeous, talented, and fabulous?

Actually, who are you not to be? You are a child of God. Your playing small doesn't serve the world. There's nothing enlightened about shrinking so that other people won't feel insecure around you.

We are born to make manifest the glory of God that is within us. It is not just in some of us; it's in everyone. And as we let our own light shine, we unconsciously give others permission to do the same. As we are liberated from our own fear, our presence automatically liberates others.[9]

Remember, we see the world not as it is, but as we are.

Acknowledgment

This article is derived from a speech Greg Merten gave at the National Security Agency on June 12, 2001, in Baltimore.

Notes

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Commentary

by Dennis Sandow

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We use the term *leadership* in many ways. Mostly, we use it to refer to the position of senior executives. This positional definition implies that only those close to the top of the organizational chart have leadership potential. Merten redefines leadership from a *position* to a *distributed function* so "all of us need to be leaders, especially when large-scale change is required."

Chilean biologist Humberto Maturana has written that love (the legitimacy of one by another) is the only emotion that leads to intelligent action and expansion of vision. We are emotional beings following the path of our desires (Maturana and Bunnell, 1999). Intertwining EQ with leadership, Merten points out the necessity of positional leaders to demonstrate their vulnerabilities. This might conflict with our image of the leader as strong and invincible, but are we not ready to discard the Marlboro Man as our icon of leadership? It is precisely Merten's willingness to express his vulnerability that allows others in his organization to lead.

Merten reminds us that Packard's "11 Simple Rules" are not about electronics, manufacturing, technology, or finance but about the quality of relationships. We live our lives through social rela-

tions, and Merten has renewed the relational imperative. Social, biological, and financial well-being cannot be improved without first attending to the quality of relationships in organizations. In this lies a powerful rule that Merten exemplifies—the quality of relations cannot be taught or trained; it can only be accepted or denied by each of us in our personal development.

Merten gives tremendous insights into social capital or the potential productivity of a group or social network. This productivity can be augmented or diminished. The inkjet business is a grand demonstration of social capital improvement, or as Merten says, "Relationships generate value." His basic principles of organization come from biology and living systems, not mechanical engineering. He reminds us that our organizations are composed of dynamic and self-organizing social networks that adapt to a continuously changing environment in order to generate value.

These are but a few of the rich insights in this article. Perhaps the most significant breakthrough is the speech itself. Merten does not write about "steps," "models," or other transcendent conceptions. His brilliant insight is that living systems cannot be decomposed into a fixed set of attributes. Instead, he writes about the experiences of daily life. I find this scientifically congruent with the history of learning organizations and an important reminder.

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Commentary

by Nick Zeniuk

Merten reflects on a "different kind of leadership" that is rooted in "living systems rather than mechanistic principles," that finds its strength in "willingness to be vulnerable," and that is willing to "listen to the others." For Merten, it was a personal journey of learning from the "experiences life brings us" and learning about the choices we continually make in our careers, family, and community. To become that leader, we each need to change our "structure of interpretation . . . to gain access to new distinctions" by learning "about ourselves at the intersection with others' intentions." Merten's words flow like poetry from Humberto Maturana's inspiration. He realizes that "relationships generate value" and "meaning from the experience of life."

Merten has demonstrated his leadership perspective by growing the most profitable division at Hewlett-Packard. He has engaged with the work force in collaborative reflection on the work and created an enabling environment for performance improvement.

We can reflect on this as concepts of a different kind of leadership or, as Merten suggests, we can live it in our life's work. Is there a choice?

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Commentary

by Edgar H. Schein

Among change theory principles, one that always is "discovered" to be universally true is that, if you want to influence someone else, you must be willing to be influenced yourself. How many leaders, consultants, salespeople, teachers, and others who purport to be change agents have failed utterly because they were not willing to be influenced, even to the extent of slightly modifying their perceptions of who their followers, clients, customers, or students were and what their needs were? One way to capture this is to assert that "you will never change someone until he or she becomes your client and seeks something from you." Great leaders understand this; hence, making themselves vulnerable is not a choice but a necessity.
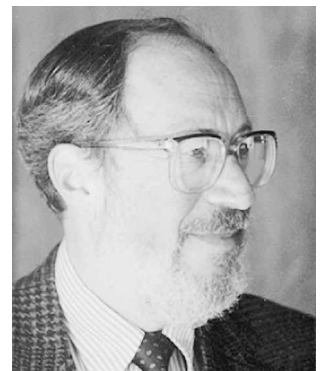
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Leadership When Events Don't Play by the Rules

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W e are all struggling with events that don't make sense. They don't make sense for at least two reasons, and those reasons are leverage points where leaders can make a difference. Two reasons why these are such trying times are signaled in the following quotations:

ωWe tolerate the unexplained but not the inexplicable (Goffman, 1974).

ωOur ability to deal with chaos depends on structures that have been developed before the chaos arrives. When the chaos arrives, it serves as ''an abrupt and brutal audit: at a moment's notice, everything that was left unprepared becomes a complex problem, and every weakness comes rushing to the forefront. The breech in the defences opened by crisis creates a sort of vacuum'' (Lagadec, 1993).

Things seem inexplicable. And to make it worse, many of our ways of making sense from the inexplicable seem to have collapsed. Our weaknesses come rushing to the forefront. The first impulse is to grasp any old explanation. And what we hold are the automatic explanations we have lived with longest and invoked most often. We often find the initial meaning of events by drawing inferences from how we feel. Since many of us feel frightened and out of control, then this must ''mean'' that whatever we face is something we need to flee or fight. Neither explanation is profound. But either explanation is better than nothing. Either explanation, oddly enough, is soothing, since the prospects of having no explanations at all and no ways to cope are even more frightening.

The combination of inexplicable events and weakened resources for sense making are part of the scenario that leaders face right now. If we pose the challenge in that manner, then there are things a leader can do.

First, it's important to emphasize that the leader is just as susceptible to the tendencies outlined as anyone else. Part of leading is to accept what has happened so that it is possible to take a small next step in the direction of recovery. And part of acceptance is the realization that people often go through at least three stages when they deal with the inexplicable: superficial simplicity, confused complexity, and profound simplicity (Schutz, 1979). The tendency to see inexplicable events as a time to flee corresponds to superficial simplicity. People soon realize that ''it's not quite that simple.'' But the moment they admit that, and the moment they start to build a more nuanced explanation, then confused complexity floods in. That's what makes it tough to lead. Leaders know they need to listen, tell, structure, and trust, but in what sequence? With what blend? What is really tough is that when things are inexplicable, superficial simplicities feel like solid explanations, at least for a short while. But as these superficialities begin to unravel, and as complexities and nuances begin to surface, the specter of an unwelcome return to the inexplicable resurfaces. That is the moment of truth for leaders dedicated to the repair of what has been brutally audited. The ''attack on America'' is complex in its origins, complex in its effects. The leader who struggles with those complexities, and who helps others struggle with those complexities, is helping people with the process of sense making.

On the far side of complexity lies profound simplicity. These simplicities may sound a lot like the near-side superficial simplicities that you and others started with. But that apparent similarity is deceiving. Profound simplicities mean something very different.

They are seasoned simplicities that have been tested by mentally simulating their consequences, simplicities that reaffirm what it means to be a human being.

What I have just described is part of what a leader needs to have in mind to lead in trying times. If the leader moves from the superficial to the profound, and does so publicly, so much the better. Public sense making demonstrates that the struggle for sense is shared, that there are no experts, and that there are no easy answers (Weick, 1995, 2001). But if public sense making is too much to ask, then before you tackle the tough task of helping others make sense, be sure privately that you're at least moving away from the superficial. Like all of us, you're probably struggling in the midst of confused complexity. But when you face the inexplicable, confusion is normal, natural

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trouble. The presence of confusion can be a sign of active sense making that is moving toward more profound simplicities. The skill of the leader involves not being paralyzed by confused complexity, not allowing others to give up when their confusions are complex, and providing resources that enable the recovery to keep moving.

And what resources can help? Crucial resources for sense making are summarized by the acronym SIR COPE: social, identity, retrospect, cues, ongoing, plausible, enactment (Weick and Sutcliffe, 2001). Those seven words point to ways in which one can lead when events don't play by the rules and people face the inexplicable.

Social—People don't discover sense; they create it, which means they need conversations with others to move toward some shared idea of what meanings are possible. As a leader, encourage conversations; don't treat them as malingering.

Identity—The first identities that surface in an inexplicable event, identities such as ''victim'' or ''fighter,'' lock people in to overly limited options. As a leader, help people solidify other identities such as sounding board, witness, source of resilience, information hub, storyteller, companion, caregiver, and historian, all roles that help people build a context that aids explanation.

Retrospect—Faced with the inexplicable, people often act their way out of their puzzlement by talking and looking at what they have said in order to discover what they may be thinking. How can I know what I think until I see what I say? As a leader, make it possible for people to talk their way from the superficial, through the complex, and on to the profound. Listen to the words people are saying; help them find other words that connect with human strengths rather than with darkness and evil. Help them talk their way into resilience.

Cues—People deal with the inexplicable by paying attention to a handful of cues that enable them to construct a larger story. They look for cues that confirm their analysis, and in doing so, they ignore a great deal. As a leader, help people expand the range and variety of cues they include in their stories. You know this will heighten confused complexity. But you also know that confusion can provide a transition between the superficial and the profound if people struggle with a wider range of issues and complexities before they settle for their ''answer.''

Ongoing—Sense making is dynamic and requires continuous updating and reaccomplishment. As a leader, don't let people languish in the feeling, ''Now we have it figured out.'' They don't have it figured out. Why? It's not that kind of an issue. Recovery is about workable, plausible stories of what we face and what we can do. But these are not final stories. They are stories that should be modified, based on new inputs and new opportunities and new setbacks.

Plausibility—What is unsettling when people face the inexplicable is that they tend to treat any old explanation as better than nothing. There's something healthy about that tendency because it provides a kernel around which people can organize a story. The initial story may be a stretch. But it makes some sense of the senseless. As a leader, don't let the first plausible account be the last possible story. The first plausible account is assembled to help people make meaning. It is not assembled
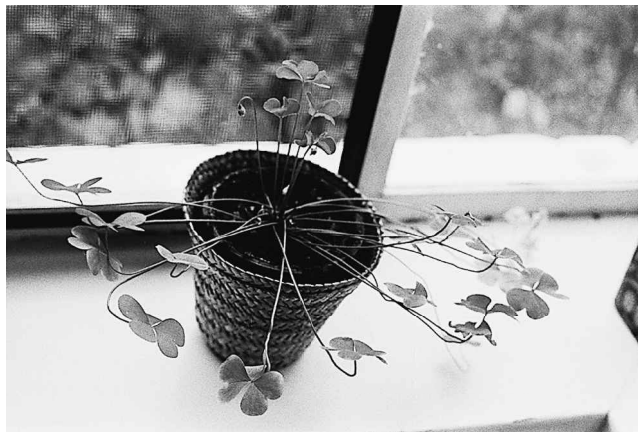
in the interest of accuracy. We seek swift plausibility rather than slow accuracy in inexplicable times simply because we need *an* explanation, not *the* explanation. Help people get that first story. But then help them revise it, enrich it, replace it.

Enactment—Most of all, in inexplicable times, people have to keep moving. Recovery lies not in thinking then doing, but in thinking while doing and in thinking by doing. No one has the answers. Instead, all we have going for us is the tactic of stumbling into explanations that work and talking with others to see whether what we have stumbled into is, in fact, part of an answer. As a leader, help people keep moving and keep paying attention. When people are animated, their actions are small experiments that help make sense of perilous times. Wise leaders protect that process and that truth.

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Young Leaders' Forum in Asia: Learning about Leadership, Abundance, and Growth

Karen Ayas and Philip H. Mirvis

L eadership is a choice. A spirit of abundance opens up new possibilities. To grow a business, you must grow the humanity of its leaders. These are some of the themes from biannual meetings of the Young Leaders' Forum (YLF) of Unilever Asia Pacific.

In early April 2001, some 25 young leaders, from different backgrounds and functions and based in Unilever country organizations throughout Asia, traveled from the meeting site (a comfortable resort along the South China Sea) to a small, impoverished hamlet near Danang, Vietnam, to visit an orphanage. The tour to the Village of Hope concluded a three-day meeting at which the young leaders had reflected on their personal development, reviewed the state of their businesses, and visited local markets and homes. Together, the participants, along with the authors and other facilitators, had seen how villagers live, cook, clean, and care for themselves and their children, what products they use currently, and what else they might need, want, and afford in the future. During this last day of the meeting, we planned to visit the home of 180 displaced and disabled children, play with them, meet their teachers, and talk about leadership with Van Tan Hoc, founder of the Village of Hope.

A Moment of Truth

As our troupe entered the village, young children dressed in white shirts and red ribbons greeted us with bouquets of colorful flowers. They ran to pair up with us, show us their lodging and environs, and introduce their friends and teachers. There was a lot of patting, smiling, and pointing—all nonverbal communication because we didn't speak a common language yet had so much to say. We were ushered into an assembly room fronted by a small stage where older children illustrated Vietnamese folklore and traditional dances and led the younger ones in song.

Next we heard from the village leader. Sitting on tiny chairs, we formed circles around Tan Hoc. One young Vietnamese leader offered to translate. We learned how the orphanage had formed after the ravages of war. It grew first through local initiative and then with modest international support. Tan Hoc had been a primary school teacher who had a ''big dream'' to build the village with few resources but ''an abundance of hope.'' He ran the village as a family. ''I am very grateful to the children because they have given so much to me,'' he said. ''It is from them that I learn every day.''

And as we asked questions, we all noted his humility. We asked what drove him. ''Faith and love,'' he answered. ''I have a dream that keeps me going, where I see each child is happy.'' When we asked how he could see that, with 180 children to watch over, he explained: ''I look in their eyes every day when they come back from school, and those eyes tell me who I should spend time with, to give more hope, and to give more love.''

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Young leaders and the children of the Village of Hope
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He also told us that he was reaching out to others to extend this work beyond his village, explaining: ''When you are 50 years old, you feel there is not much time left to do something worthwhile; one needs to share all he has.''

With every exchange, our listening intensified. Another translator took over. After an hour, it was the young leaders' turn to share what they had learned from Tan Hoc and their first glimpse of the village. After a moment of silence to reflect on our lessons, we noticed the children had quietly come back to join us. One by one, the young leaders spoke of their lessons: how passion can make the impossible possible, how one person can change the lives of so many, how one can get so much in return for so little, how giving can be rewarding, and so on.

The pace of the reporting escalated; the secrets of Tan Hoc's leadership seemed profound yet still elusive. One leader exclaimed in wonder about the unassuming, soft-spoken village leader: ''You are not someone special, yet you make such a big difference in the lives of these children.'' Then another questioned him: ''What would happen to the children if something were to happen to you?'' There was a moment of silence. Then we saw his inscrutable face overcome with emotion. He trembled and could not stop his tears. Seven or 70 years old, every person in the room cried with him. This was a moment of truth none of us would forget—a moment that we could characterize as ''looking humanity in the face.''

The Leadership Forum as a Learning Community

This moment of truth would be one of several soul-moving experiences intended to open the hearts and stretch the humanity of Unilever's young Asian leaders. The village was selected as a venue to help them widen their visions of leadership and calibrate their own developmental journeys. To learn more about the spirit of abundance, they listened to the village founder, a role model whom they would not encounter in their usual professional circles. Thoughts and feelings about the encounter would, in turn, be grist for personal reflection and collective sense making (see the sidebar, ''Reflections on a Leader's Tears'').

The president of the Unilever Asia Pacific region, Tex Gunning, had organized the forum to enable young leaders to ''move on to a higher level of consciousness . . . and make it part of your life.'' The 25 young leaders meeting in Danang—some in finance, others in production, marketing, or human resource management—had been chosen for their leadership potential. Gunning had asked each of his country chairmen to select up to three young candidates for a leadership development forum that would gather twice a year for a few days and operate as a network and support group. Gunning undertook their personal and professional growth as his mission. Having been a marketing manager in Thailand and business head in Australia earlier in his career, he had worked mostly for and with executives of European descent. His promised legacy as a regional president would be to create a cadre of Asian executives.

In November 2000, shortly after his appointment, he had convened the first YLF in Singapore. There he presented the idea that leadership is a choice. He challenged the participants to take full responsibility for their choice because, in his experience, not everyone is willing to make the sacrifices needed to be a leader. In February 2001, as a follow-up, he invited the group to join the top 200 of his Asian business leaders in a retreat to Sarawak, Malaysia. There they hiked in the rain forest, shared personal histories and visions, and participated in fishbowl discussions with top leaders from their own country and others in Asia. After the retreat, the young leaders spent a week together in training based on Stephen Covey's *The 7 Habits of Highly Effective People.* The YLF meeting in Danang in April 2001 was their third time together.

What is this leadership forum? In a sociological sense, it creates a *cohort* of young leaders within Unilever across Asia who would otherwise be separated by function and country organization. They read the same books, study the same business situations, and

Reflections on a Leader's Tears

"We heard a passionate leader talk about the orphanage. We witnessed a moment of truth. We learned that we have to be who we are, that we have to share all we have, and that we have to follow our hearts. The major lesson was to have the courage to lead what you believe in, share your gifts, and lead in abundance.

"This was a turning point. We truly fell into community, we truly felt responsible for reaching out to the orphanage, and suddenly we all felt we belonged to a group and grew very close to each other.

"We saw the founder of the village cry because we cannot be here forever; we will all have to leave this world some day. We realized that it is our responsibility to grow a new generation to carry out our legacy as leaders. Some of us were crying because we, supposedly the young generation of bright leaders, felt so helpless. We hadn't done enough. Compared to this leader who had given his whole life for such a wonderful cause, we fell so short."

—Young leader, Philippines

share common experiences in their periodic meetings and training. They are active, visible participants in strategic meetings and projects heretofore limited to more senior managers. All this has helped to create a strong sense of identity among them as future leaders. They see themselves, and others see them, as a distinct and identifiable group in the company.

Many large companies identify their ''high-potential'' young people and host programs for their continued development. But most firms groom their future leaders through more individualized curricula and experiences. Furthermore, the elite status of high-potential candidates in these companies is often kept secret, and there is ongoing grading of their individual progress. This often produces an undercurrent of competition among them in their separate drives to get ahead.

By comparison, membership in the YLF is wholly transparent, and the emphasis is on promoting cooperation among peers and their collective improvement. At once, this is a culturally appropriate ''Asian'' model of personal development and, at the same time, an intentional effort to develop a cadre of recognizably Asian leaders. The personal impact and recognition is notable. ''To be told that you are seen to be a high-potential manager is very inspiring. It really set me up to dream of what changes I could create in the company,'' reports one participant. He adds, ''Being introduced as a young leader in the presence of the top executives and senior management team was a definite morale booster. It makes working with them much easier.''

In our view, the YLF exemplifies a *learning community*. Personal inquiry, small-group dialogue, and communal reflection continuously broaden the curricula and deepen shared experiences. Participants are expected to reflect on and share deeply from their life histories and personal philosophies and to speak about the current state of their business lives and themselves. In addition, they are expected to teach one another about their respective markets and cultures, about their functions and disciplines, and about current business strategies and results—warts and all.

Other companies are creating their own brand of learning community to develop the talents of their managers and professionals. As an example, programs such as those run by Noel Tichy and his associates put teams of up-and-coming executives into temporary learning systems where they tackle real-time business problems, learn experientially about group processes and project management, and get constant feedback on their teamwork and interaction style. The programs by Peter Senge and his colleagues at the Society for Organizational Learning provide more in-depth exposure to the latest learning technologies and sustain community feeling through dialogues, seminars, and collective reflection. More broadly, the range of learning communities includes peer networks that connect, say, women or people of color in companies and offer coaching, mentoring, and peer support. And myriad ''communities of practice'' are forming within companies and across them where professionals can share knowledge and often address business needs.

The YLF incorporates elements of each of these kinds of learning communities: it applies the pedagogy and tools of action learning, it uses the principles and practices of community building, and it stresses peer development and networking. Furthermore, the forum has gained the institutionalized identity of an ongoing community of practice. But the strategic intent behind the YLF extends beyond knowledge sharing, networking, and the transfer of learning to practice.

Until now, Unilever, like many multinationals, has relied on an expatriate model to develop its next generation of leaders. Typically, high-potential candidates, in this instance mostly English or Dutch, attend university programs and take a series of ''foreign'' and home office assignments on their way to senior management posts. The process is run by corporate staff who more or less manage the expatriates' careers. At Unilever, as in other companies, those who get to the top are often similar to their predecessors—a process likened to managerial ''cloning.''

> *The strategic intent behind the YLF extends beyond knowledge sharing, networking, and the transfer of learning to practice.*

The intent of the YLF in the Asia Pacific region is to change the mind-set and makeup of Unilever's leadership. The pedagogy, for instance, emphasizes emotional intelligence as much as rational thinking and celebrates a more free-spirited style of operating than has been characteristic in the home office. The longer range intent is to fill the country management teams with Asian, rather than European, leadership. On this count, it is also notable that the forum in Asia has many more women in its ranks than the current profile of executives in the region.

There is nothing secretive or subterranean about these aims. At the meeting of current regional leaders in Sarawak, Asian women led a fishbowl discussion of their prospects and roles in the company, witnessed by the leaders attending. The young leaders led a discussion as well; one recalled: ''The fishbowl experience—with some of the young leaders at the center and all the board members outside looking in and listening to the dialogue on issues like women in the organization and expatriates—elevated our stature as young leaders and displayed our level of maturity.''

Design of the Forum Meetings: Pedagogy and Methods

The pedagogy of the forum involves a mix of business discussion and experiential learning, cognitive and emotional work, and physical movement and silent reflection. Activities at forum meetings are sequenced to promote individual, small-group, and collective engagement. Gunning, who acts as the host and master of ceremonies, designs the sessions with input from facilitators, including local staff, former Unilever executive Jan Peelen, and the authors.

Although each meeting has an initial design, the agenda is flexible, with space for improvisation and serendipity. Mirvis has worked with Gunning for several years and emphasizes the importance of setting the scene, storytelling, staging, sequencing, and other *performative* aspects, along with the usual *process facilitation*. The program for the YLF meetings in Danang shows the flow of activities (see the sidebars, ''Young Leaders' Forum in Danang'' and ''Young Asian Leaders Meet Again'').

Embedded in the program, and in the overall YLF agenda, are the following learning experiences.

Self-Assessment and Reflection

Young leaders complete a variety of self-assessment instruments about their emotional make-up, influence style, Myers-Briggs type, and competencies to grow a business. They also prepare and share their life stories with one another. At forum meetings, they discuss these observations and insights with peers in small groups. ''It's like a surgery of the soul. You begin to see the roots and patterns,'' says one young leader about her self-reflection, ''and you understand what truly moves you.'' Deep, intimate sharing in small groups empowers all to move beyond their comfort zone and opens up the introverts as well. As they find comfort and courage in each other's stories, the participants confront their own humanity—at its best and worst.

Readings, Cases, and Coursework

To deepen self-reflection, the participants read and discuss the existential writings of Frankl and Fromm, as well as the spiritual views of M. Scott Peck. Most have participated

Young Leaders' Forum in Danang

April 4, 2001—Leadership Is a Choice. We meet at 5:30 AM on the beach in front of a Danang resort. There are 35 of us, including the facilitators and coaches. After hiking for an hour, we reach Marble Mountain. Another half-hour climb brings us to the top. Here we reflect on the subject, "Leadership Is a Choice." While we eat breakfast, we listen to the story of a monk who climbs around a mountain and realizes that, with every level he has climbed, his view and understanding of the world enlarge.

The descent is a bigger challenge. Half-sliding, half-crawling, we find ourselves at a crevice. Passing through it requires a person at both ends to help. The passage leads to a small chamber, then to a larger one underground. This holy cave, a sanctuary filled with carvings and altars, has served for meditation and prayer for centuries.

For the next hour and a half, we break into groups to reflect on the past six months of the leadership journey. The young leaders share their promises from the first gathering and their accomplishments. We then reflect on learnings and common challenges. As we walk out of the cave toward the adjoining village, we pass through another chamber where some pay their respect to Buddha and others make wishes.

Back at the resort, a Covey exercise, a session on transformational leadership, a lecture on learning styles and effective coaching, and a presentation by the local chairman on the vision and challenges of his company fill the rest of the day. We end at 11:30 PM after an excursion and dinner in the neighboring port, Hoi Ann.

April 5—Growth Is a Choice. We start at 5:30 AM with a workout on the beach, followed by breakfast. By 7:30, we are in the bus heading to a local market that we visit to understand the current state of local commerce and consumption and to experience the culture. We smell and taste the foods, hear the talk and music, and get a feel for the place, but at the same time, we imagine how it could look in 10 years. We head to a small village in the midst of rice fields, separate into small groups (with a Vietnamese young leader in each group), and spend an hour at the house of a Vietnamese family to learn about daily living and lifestyles.

Back at the resort, we spend a brief time on visioning. First in small groups, then as a whole group, we reflect on vision 2010 for the company in Asia. After lunch, there is a session on strategy development, followed by a learning history session that highlights the lessons learned in the transformation of a Dutch food company's business—Gunning's previous assignment.* Discussions continue over a cookout on the beach, which later turns into a beach party.

April 6—Abundance Is a Choice. Again, a 5:30 AM wake-up call is followed by a workout and swimming, then breakfast. We leave for the orphanage described at the beginning of the article. Back at the hotel by 4:00 PM, we have time for closure before some of us leave for the airport.

*See P.H. Mirvis et al. "Learning in Performance: How a Dutch Company Transformed Itself." *Reflections* 2 (Summer 2001): 21–37.

in the Covey ''7 Habits'' course. Business reading and presentations on strategy, growth, and competitiveness counterbalance the introspection.

At YLF meetings, academic and business experts present concepts and case studies on leadership, best practices in product innovation and marketing, and trends in branding. There are several case studies on growing a business. In addition, the participants regularly report on their home-country markets and present case studies from their own businesses. These are not always best practices, as one young leader notes: ''She showed us that 'bad leadership is a crime.' Some leaders in her business could not work together and took the organization in different directions.''

Physical Activity

Every day of the forum, there is time for physical activity in the outdoors—an early morning walk or tai-chi exercises, hiking, boating, or biking. Often this is followed by a more contemplative experience, linking mind and body with the soul. One young leader reflects on his lessons from a strenuous hike: ''There was a seven kilometer trek uphill with very little rest or shade, and we had to climb over rocks under the scorching sun. We were organized as functional teams to climb the mountain, and we realized that we were only going to get through this as a team.''

Mentoring

Mentoring by senior figures is an explicit part of the young leaders' development agenda. Mentors include the president, Jan Peelen (Dutch), Felipe Alfonso (professor of

Young Asian Leaders Meet Again

November 20–22, 2001. We are back in Danang, Vietnam. We have a day and a half before the young leaders arrive. We are going through the details of the program design that Gunning has put together. There are five of us including the authors, a veteran board member, and the human resource manager for Asia. As always, the purpose of the tentative schedule is to make sure that the program's intent is clear and that the parts relate to each other. We each have different roles to play; the rest is improvisation. We will change and adapt what is in the program depending on the group and the moment.

We face a greater challenge this time, however. Ten participants who have been part of the forum since the beginning will not be here. Instead, there are 14 new young leaders joining the forum. The company has gone through global restructuring, and some of the young leaders who had been in the forum now work in divisions for which the regional president is no longer responsible. They have been invited to the meeting nevertheless. As a result of the restructuring, Gunning now has additional responsibility for operations in central Asia; hence, there are now new participants from China, Taiwan, and Pakistan.

The program we offer this time has to be equally challenging for the "old" young leaders and the "new" young leaders. The strong community feeling that developed during the past year could be threatened, or there could be a strong divide between old-timers and newcomers that prevents building the forum into a learning community. We are very aware of the challenge as we discuss the specifics of the program. At the end of the first day, we are restless and not confident that the three days ahead will be as effective as the past program. The fact that some former participants are not there makes us question the purpose and the reality of what's truly possible to achieve.

And we are proven wrong. The magic happens again. The shift begins to occur the next morning. In the hour and a half we have before beginning the program, we are able to pull to the whole thing together. There is coherence, clarity, and alignment among us. Meanwhile, as if planned, the wind from last week's typhoon has calmed and it has stopped raining. The sun is shining, and we are about to begin.

A solo walk on the beach sets the tone. All are asked to reflect once again on whether they choose to be top business leaders and on the consequences of that choice. The issue is not simple, and for the majority, it will be very present in the days to follow.

management at the Asian Management Institute and a Filipino), and the authors (Turkish and American). We present our research and experiences in various organizations, facilitate small-group work, and informally coach.

Clearly, our work has had an impact on the young Asian leaders who, perhaps more than their European and American counterparts, are more respectful of elders and their knowledge. For example, one remarked on the presence of Jan Peelen: ''What is striking is the fact that he is like a big, deeply rooted tree—old and wise after a long, successful career in the company, but also very passionate about young leaders. Trees can go through storms and lots of hardship when they are deeply rooted and strong. Trees plant the seeds for growth and enable other trees to grow. We were very inspired by him. And the seeds for this forum were planted.''

Service Learning

Service learning is an interesting and vital element of the programs. One example is the visit to the orphanage in Danang. At the regional meeting in Sarawak, an in-depth review of the state of the natural environment in Asia was followed by a clean-up of a refuse-strewn beach. Later, a visit to the indigenous Panan peoples and a hike through their increasingly deforested lands opened hearts and led to an earnest discussion of the cultural and environmental ''costs'' of economic growth in Asia. This, in turn, informed the debate about Unilever's ''vision 2010'' in Asia. One participant commented:

> We began the event by talking about the global impact of industries on the environment and what humanity has caused. Then we cleaned the beach with 200 other managers. This clearly sent the message that we as individuals can make a difference, and together we are very powerful. We continued the self-reflection process, and the beauty of nature and majesty of the place helped deepen our insights about our roles as leaders and individuals on this earth. To be in the jungles of Borneo helped us feel and see the potential in this region— almost feel and touch the vision. In short, this was a perfect setting to start creating vision 2010 for Asia. We were able to move from discovering self to building a mental picture about

the future with a clear direction of where to go and where to be. You can move toward your vision when you can see it clearly, are passionate about it, and want to share it. And it is extremely powerful when a lot of people share the same picture.

Collective Reflection

Finally, there is periodic cataloguing of experiences and lessons learned by the young leaders and whole-group reflections on the work of the learning community. This was an explicit part of the agenda at the November 2001 meeting.

Visiting the Panan people
© Philip Mirvis

Telling Our Story

As at the former meetings, the first part of the program in the November 2001 YLF in Danang was dedicated to connecting to self and others. There were solo, group, and plenary sessions, but we mostly worked in small groups (four or five participants). We stayed with our groups for deeper sharing.

Late into the night on the first day, we shared personal life stories. The emphasis was on ''what has shaped me as a person and as a leader, and what you need to know about me to understand me better.'' We concluded the evening with a discussion on the power of storytelling as a process and what we have learned from the stories we heard. ''The more you tell your story, the more you are peeling the onion,'' said a previous participant.

To make sense of our collective experiences, reflect, and learn from them, we designed a session as an action-learning effort, with the intent to cocreate a ''living'' learning history for the young leaders. We told the story of the YLF, inviting newcomers to the forum into the story and developing ownership of it. This built commitment and enhanced the sense of belonging to the community. As the story continues to unfold, everyone will be in the same chapter, regardless of when they entered the story. The intent of the learning history was to look at the key events since the inception of the YLF and codify the significant learnings. Assessing what has happened and reflecting on lessons learned also inform its overall direction and future.

Before the meeting, we asked the ''old'' participants (those who had been with the forum since the beginning) to reflect on positive and negative experiences in the past year and what they've learned. In the session, they each posted their ''highs'' and ''lows'' and learnings on a timeline marked by key events. The ''new'' participants, briefed and guided to assume the role of researchers and learning historians, paired with the ''old'' and interviewed them. After the old-new pairs walked through the chapters of their history, groups formed to develop the title, theme, and script for one chapter of the story. We then sat in a circle as if around a campfire and told our collective story, chapter by chapter.

The formal part of the November meeting closed with an evening of community reflection. After some time for self (writing in journals, if desired) and sharing key learning points with one partner, the participants sat in a circle marked by torches on the beach. Following a minute in silence with the sounds of the waves in the background, the young leaders shared what they learned.

''With your help, not only I was able to get to know a great number of enlightened souls, but I also discovered myself,'' said one young leader. ''I think we paved the way to create a humane business community. Living the values we learned from each other together, we can lead the sharing of love in this company.''

Remarked another: ''We started this session knowing that it was about business, but somewhere along the way, we forgot about that and instead learned about humanity. It's all about realizing that you want to make something out of your life and knowing what you want to make out of your life and that you want to touch other people's lives. When you connect with others here and share amazing experiences and you learn about humanity, you become a better person. That remains with you.'' (See also the sidebar ''Leadership as a Choice.'')

**Official opening ceremony,
Village of Hope**
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Gunning concluded the gathering with his reflections: ''I have reflected a great deal on my own life and on my struggles in the past. I get great strength to be here and to help you to have a better life than I have had. I've seen many of your struggles these past few days. And I've also seen your courage. It gives me tremendous energy to see how brave you are and to see your aspirations and ambitions. And it gives me huge hope. I have no doubt that you will get there. Ultimately, I know that if the will is there, you can overcome anything. I see that in you. In a year's time, so much has happened to you. I am very hopeful and grateful to be confronted with humanity in such a deep and profound way with you.''

Revisiting the Village of Hope

The follow-up meeting of the forum, originally scheduled for China, returned to Danang to recognize the Village of Hope and the tragic death in an auto accident of one young Vietnamese leader, Harry Nguyen. After the formal part of the meeting, we were to revisit the Village of Hope. This day was planned not by Gunning and the facilitators, but by the young leaders themselves. Many had kept in touch with the children they had spent time with six months earlier. The young Vietnamese leaders had done much more than that:

Leadership as a Choice

"The first day, as we walked on the beach, we had to reflect once again if we wanted to be top leaders or not. Until then, I hadn't thought we really needed to make that choice. I also realized this choice means commitment, and that I am making a decision that can affect my future."—Young leader, Thailand

"When we were asked to identify three words that describe best our mission, my choices were love, inspire, and explore. I came to realize how much these words capture my mission. When you love life, it allows you to do anything you want. When you inspire and explore, you bring excitement to all your relationships. The same applies to business: loving your consumers, inspiring your team, exploring new opportunities. And I am really confident that I can succeed in my mission."—Young leader, Philippines

"I also had two big revelations. I have noticed that it doesn't take me as long to answer the leadership question anymore. I know that I can do it and that I want to take the lead. And I know this company is very serious about bringing change and it feels good. On the personal side, I found the courage to look back and say that I made a mistake and dealt with it the best way I could and that it has made me a better person. Having the courage to admit that gave me a very powerful feeling, almost like being liberated. I am a stronger person now."—Young leader, Indonesia

"The experience we are having right now as we are sitting on this beach is something I have never had. Had I not come here, I would have missed a great opportunity in my life. This is a difficult journey, but I have to be a successful leader, I have to build on my strengths, and I have to leave a legacy."—Young leader, Pakistan

"I am the youngest of you all. At first, I was afraid to confront myself. But I realize that you cannot escape yourself. I sit here with a strange feeling that I have been reborn with all of you coming into my life. It's really like I have unlocked part of myself that I didn't know I had. I used to think that leadership was completely intellectual, brainy stuff. And initially I said yes to the question because of that. But after these few days of connecting with people like you, I know I have to go a long way, because it has so much to do with humanity. In the past, I have been so selfish. I have been so focused on how to make my business plan successful regardless of its consequences, and now I am so ashamed of this. I know it's all because of the pain I have gone through in my past. To travel on the road less traveled, you have to go through pain, and you have to connect with your true self. When you deeply connect, you will live with not only your own pain but also the pain of others. But this is my choice, I decided to go for it, no matter how painful. And at the end, I know I will have lived true to my beliefs."—Young leader, Vietnam

"I will always remember that leadership is a choice. My mind-set was that leadership is a task. After this meeting, I have so much power, like a fully charged battery, in my mind and heart to achieve what I want. I can sit in front of anyone in the company. I can challenge anyone, even the president. And I know how to unlock myself. So many don't have the opportunity to attend meetings like this."—Young leader, Korea

they took on a community service project to create a better home for all the children and successfully completed an upgrading of the village.

The local subsidiary of Unilever contributed US$40,000 to the upgrade project, completed at a total cost of US$120,000. The president of the global group, Niall FitzGerald, donated another US$50,000; other donations came from subsidiaries across Australia, Indonesia, Japan, the Republic of Korea, Malaysia, the Philippines, Singapore, and Thailand.

This day was the reopening of the village, a huge celebration with the aim of creating a memorable experience for the children and a memorial for Nguyen. After an official ceremony, a memorial service, and planting trees, we headed out with everyone from the village for a bus ride, stroll in the nearby town, and three-hour boat ride. We ended at a restaurant for a small feast and a crazy party that brought out the child in everyone: dancing between tables and around a huge campfire, singing with the children, and starting a fight with a giant creamy birthday cake for the 180 children.

What was meant to be a memorable experience for the children turned out to be more so for the young leaders. And the lessons learned would not be forgotten. One said: ''I've learned that when a young child from the Village of Hope holds your little finger in his fist, you're hooked for life.'' Said another: ''Normally one would think that it's church or whichever religion you embrace that would teach you about humanity or about love and care. I never thought that an organization could care for you. I thought they give you a salary. It's a simple business transaction; you work and get money. Well, after one year, I am proud to say that's not how it works. Ten years from now, we will not just have become business leaders, but we will have had an impact on a lot of other people's lives.''

Commentary

by Tex Gunning

Facing humanity has a profound effect on you as a person. We all have an enormous need for humanity. That includes love, recognition, ability to grow, friendship, fun, affection, and so on. Increasingly, we seek and choose our social and business environments with these human factors in mind.

Why is being confronted with your own humanity such a profound, moving experience? And why do we need a ''reminder'' to feel our own humanity? If this is so human, so innate, why did we lose this capability?

When faced with our own humanity, we become aware of all the love and pain we carry. We reconnect to our souls, and we meet again our true selves. Love, pain, birth, death, and beauty (human and artistic) make us face humanity. When we see authenticity or indigenous peoples, when we connect with nature, observe animals, play with children, and talk to the elderly, we can have such experiences. But how do you make such experiences meaningful? How do you capture those feelings and move on to a higher level of consciousness and make it part of your life? Do you start to feel your own need for love, the need to give love, and the need for a safe and meaningful environment and create a better life for yourself and those around you?

A business should be able to create a community that appeals to innate human needs. An environment that true communities characterize is one in which we find safety, caring, and compassion. In the ''humane'' organization, people connect more deeply to themselves (and others) and integrate their intellectual and emotional competencies in a very profound way. They can experiment and explore both competencies (as it is safe to do) and, in this exploration, find the opportunity for growth and self-realization. When they relate to others in an explorative and safe environment, people build on each other's talents. The resulting synergies create the ''miracle'' energies that characterize winning companies and teams.

Reflection is one of the most powerful tools for learning and, therefore, for growth. In the humane organization, because it is safe, people may share feelings and thoughts for compassionate reasons, or may test their intuitive feelings with others. Reflection, both individually and collectively, finds a fertile environment if people truly live in community.

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Commentary

by Edgar H. Schein

The story of how Tex Gunning has chosen to provide a set of deep learning experiences for his future leaders is a remarkable example of "coercive persuasion" used to benign ends and should remind us all that it is pointless to condemn "manipulation" or even "brainwashing" until we have truly understood just exactly what happened and for what purposes. By coercive persuasion, I mean simply that many efforts to educate or indoctrinate occur in a context in which it is physically, socially, or psychologically difficult to leave. In other words, the education or persuasion is directed at a basically captive audience. When we take groups into remote environments, we are de facto creating such a situation; all institutions engage in this form of education all the time. The learning that occurred in training groups in two- or three-week workshops at Bethel, Maine, fitted this concept, just as well as the formal indoctrination that takes place in a variety of company-sponsored "training" programs. All society is a complex mix of coercion and freedom. Coercion is not in and of itself "bad," just as "manipulation" is not in and of itself "bad." It all depends on who is doing it, for what ends, and how free are the participants to leave the situation (see Schein, 1999). Hence we must always ask the tough questions: (1) coercive persuasion for what ends? and (2) coercive persuasion at what price?

The price one should not be willing to pay is physical, social, or psychological coercion in the sense that if the learner does not want to learn what the teacher is teaching, he or she must be free to leave, to exit the situation. And in order to have the necessary information on whether or not to exit, the learner must have access to valid information about what is being done, why, and what alternatives exist. The question to the future leaders of "do you really want to do this?" and the nonpunitive offer of "leave without penalty if this is not for you," become the crucial elements in making this kind of process "legitimate" and useful.

A final point concerns whether the leadership learning is for the benefit of the corporation, the benefit of the individual, or, as is reality, for the benefit of both. If some young leaders want to build their careers in this corporation and if they have a free and informed choice to do that, more power to them. If some want no part of such an intense and personal program, and, therefore choose to exit, that is good for them and also for the corporation that would not want potential dissidents. Many will not be sure, so future choice points have to be made available, and the program as described clearly has that kind of contingency built into it.

I think readers should study carefully what is being done here and examine their own feelings about it before making any glib judgments as to whether this is admirable or appalling. As I have tried to indicate in my comment, the answer to this question is in the goals of the program and the details of how it works. In any event, this is an absolutely fascinating account of a fascinating program.

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When Culture Matters: Processes of Organizational Learning and Transformation

Cristiano Busco, Angelo Riccaboni, and Robert W. Scapens

How do systems of accountability evolve across time and space and thereby contribute to the ongoing creation and redefinition of shared organizational knowledge? By drawing on insights from a case study, we combine empirical evidence and theoretical analysis to explore the interactions between performance measurement systems and the processes through which organizational cultures change. We focus on the underlying nature and processes of learning and change.

In a longitudinal study, we combined the roles of researcher and helper-consultant to achieve what Schein (1992) calls a clinical perspective. Our contacts with the company, Nuovo Pignone, which was acquired by General Electric, began in 1995. Since September 1996, we made site visits almost monthly until 2000. Our activities ranged from research interviews and observations to internal training. This dual role provided wide-ranging access to the organizational setting and allowed us to participate actively in the process of organizational transformation, taking part in workshops, seminars, and courses; collecting a large quantity of internal material; and conducting more than 70 interviews by the end of 1999 (for further details, see Busco, Riccaboni, and Scapens, 2000).

Established in 1842 in Florence, Italy, Pignone was originally a cast-iron foundry that developed the world's first gas-powered internal combustion engine, along with other products. In 1954, it was incorporated into ENI, the Italian agency for hydrocarbons, and renamed Nuovo (new) Pignone (hereafter, NP). As NP, it began designing and manufacturing electrical turbines and rapidly achieved a reputation as a high-quality manufacturer of specialized equipment for process-based and energy-related industries. NP compressors, pumps, and turbines are now world-class product leaders. Although, over the years, NP has had a ''fairly relaxed management style'' (according to a senior manager at NP for more than 20 years), it has continued to be very profitable because of its excellent products and production systems. For example, it secured a major contract to supply 19 compression stations and 57 centrifugal compressors, driven by gas turbines, for the Trans-Siberian pipeline. Nobody was surprised when GE was attracted by the market share and technical abilities of NP—a major competitor in the oil and gas market. As part of the Italian government's wide-scale program of privatization in the early 1990s, GE acquired more than 80% of NP equity shares in 1994. This percentage eventually increased to 91% in 1998, when a second major contract was signed for the Trans-Siberian pipeline.

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The Role of Accountability Systems

Our case study focuses on the integration of NP into the global GE organization. Following the GE acquisition, NP implemented various restructuring programs.[1] However, the major change involved the concept of measurement. Whereas NP had had no tradition of widespread performance measurement, GE's management and organizational style relies extensively on measurement systems.

We do not suggest that NP had no measurement systems before the GE acquisition. Previously, NP had been a stated-owned and largely bureaucratic company. It had had to produce budgets and various reports for both the head office and the state. But the systems it used were not integrated into its management processes. NP was quite profitable, due largely to excellent products and production systems rather than to management and accounting controls. As an accounting manager pointed out, using a naval metaphor: ''To be a bureaucratic state ship, we were adequately equipped and armed. We didn't need to shoot, nobody asked us to find our limits, and there were no wars to fight.''

Changing NP

The situation did not last long, however. A project engineer explained, ''When, in 1994, GE's integration team started to arrive in Florence . . . one thing was clear to everybody: a revolution was going to happen.'' A finance manager sitting next to him added, ''We knew the world was going to change. And the world has changed totally!'' It was immediately clear to everybody at NP that the company was undergoing a twofold cultural change: not only from an Italian to an American company, which was itself a big step, but also from a bureaucratic state-owned company to one of the most intense, business-oriented corporations in the world. It was also clear that, although the process was described to the Italian staff as *integrating* NP within GE—introducing GE's values while respecting NP's capabilities and promoting change rather than forcing it—it was GE that was ultimately the new boss.[2] Although a former ENI director remained as NP's chairman, it is not surprising that a ''GE man'' was installed in the powerful position as NP's CEO.

''GE is a language—it is a word—and at the beginning, it is difficult,'' admitted NP's chairman.[3] GE is a global company that is integrated and managed through a *common organizational language*. To integrate its diverse businesses, GE is constantly seeking to share knowledge worldwide. For this reason, there were two major components to the organizational change that took place within NP, both supplemented by intensive and extensive training programs. The first component was the redesign of the company's systems of accountability, and the second was the subsequent implementation of a new measurement-based quality program—the six-sigma program.

The Accountability Revolution

Redesigning NP's systems of accountability involved both major extensions of the company's financial systems and a restructuring of the accounting and finance function. This restructuring, which was essential for enabling the financial systems to be extended, comprised a reorganization of the department traditionally responsible for cost accounting, setting up a new department of financial planning and analysis for NP as a whole, and creating a new cadre of finance managers. These managers were placed in the individual divisions and were responsible for the supervision of budgeting and reporting at the operating level, as well as providing financial support to the operating managers. As such, they were able to help managers cope with the new systems of accountability and performance measurement. In addition, managers at all levels were intensively trained in the new systems to ensure that both the accountants and managers understood them thoroughly.

''Nuovo Pignone is a very strong company, but it made its success more on *people* than on *processes*,'' explained an NP procurement manager. In this respect, a huge cultural change was about to occur. A finance manager who joined NP at the time of the acquisition explained:

There had been no culture of measurement; at least, the attention towards those aspects was very poor. It wasn't a mere tools problem. Of course, several instruments were not adequate to the new requirements, but that didn't look like the key problem. . . . There was no emphasis on performance control mechanisms. . . . If no one asks you to make proper numbers, if no one checks your performance, you don't do it. You know you should achieve the targets, you try, but you are fairly relaxed. . . . It was a question of management, a question of leadership. Ultimately, it was a question of culture.

Despite statements from GE's CEO, such as: ''Don't focus on the numbers. . . . Numbers aren't the vision; numbers are the product. . . . I never talk about numbers,''[4] it was immediately clear within NP that financial measures and metrics of accountability had become crucial. ''Numbers became the core of our organizational life. . . . You need to achieve the targets, you need to show the numbers, and you must do it on a quarterly basis,'' explained a financial analyst. Now, reports, data, information, charts, and so on flow continuously around the company, largely in response to the pressure to produce numbers, and good numbers, every three months. As a business analyst remarked, while nervously consulting his calendar, ''GE's headquarters need numbers to show to Wall Street. Consequently, we need to be fast, reliable, and profitable. If not, the week after, tough inquirers start to cross the Atlantic.''

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The importance of producing the numbers has increased the status of the personnel directly or indirectly involved in finance and accounting. Furthermore, the need to incorporate operating processes into the accounting systems has prompted an extension of those systems. For example, a recent innovation has enabled these systems to permeate to the shop floor, which has allowed finance managers, who are physically located in the production sections, to monitor their operations daily. A project manager commented:

By empowering engineers with financial systems of accountability, they [NP management] didn't create new figures; they didn't reproduce accountants. On the contrary, they have infused operating roles with a broader view of the business. They created a minimum common base of knowledge to talk about contents, without losing any time arguing about meanings.

Wearing the Finance Hat

To facilitate communication between accountants and engineers, and between finance and project managers, the organization implemented a massive training program. Thus, it trained all NP engineers and skilled operatives in the fundamentals of financial measurement.[5] In addition, it persuaded sales managers and other sales personnel to think in financial terms and to consider their customers as ''financial entities.''

Communication and training were essential first to challenge and then to change the old ways of thinking about the business by infusing NP with a new measurement-driven organizational culture. An internal training booklet declares:

Financial solution selling will be a strategic weapon in our sales arsenal. . . . [As] sales and sales support professionals, you ''wear many hats'' and possess many skills that keep our corporation at the sales and support forefront. . . . Now, you're being asked to wear one more hat—probably the most important and powerful one in your career—that of a ''financial consultant.''. . . You will be increasingly challenged to know and assist your accounts better than ever—to look for every opportunity to improve their financial condition by selling

General Electric solutions that truly affect their ''bottom line.''. . . Financial selling . . . is a *universal* language that decision makers around the world speak and understand.[6]

An expressed concern for measurement and customer satisfaction were at the fore-front of NP's cultural transformation. Management and control systems, comprising specific metrics of accountability and performance indicators, were essential tools for making the business measurable. ''Such an approach was . . . very different from the past, but it was convincing. . . . At the end, it enhanced feelings of trust and respect,'' explained a salesman, who then pointed to the relevant sections of an internal training manual on ''how to master financial selling.'' ''If you're relatively new to finance, *relax*—it's not that difficult or complicated to get started. No, you don't have to be a CPA or financial wizard to use some of the fundamentals of finance in selling,'' reassures the introduction. The booklet emphasizes the importance of showing customers how GE solutions can affect the financial results of major segments of their business, and how GE solutions can realize the customers' visions, directions, and goals. The objective is to illustrate that finance is crucial to adding value, cost savings, and financial benefits, which customers really care about:

> Force yourself to continually think of your account as a ''financial entity'' whose only goal is making greater profits, and your only goal is to help them do that via implementing GE solutions. . . . Stress GE's unique or powerful features as part of the financial selling process, then *translate* them into competitive financial reasons to buy. . . . We need to show our customers how these features translate into operational benefits—how they perform faster, more accurately, are less costly, and more efficient. Then, we can translate these features into *quantifiable financial benefits* with the help of our customers.

Communication and training were essential first to challenge and then to change the old ways of thinking.

An emerging sense of security was rooted in and supported by the new organizational language that, by empowering individuals, stimulated feelings of trust in the change process. Grounded in practice, such cognitive experiences are important for overcoming the learning anxieties that people experience when departing from existing routines. By ''wearing the hat of finance,'' people were able to cope successfully with their anxieties. As an NP salesman argued, ''Such an approach . . . implied a new mentality, a new series of attitudes. . . . . Again, it was challenging, but the direction to follow and the objectives to achieve were always clear, as well as the means and tools to be employed.''

Following the massive training program, a new financial awareness emerged across the company. Describing NP's control systems before GE's acquisition, a management accountant emphasized, ''There were no pressures for financial improvements. . . . *The tools were there, the data were there, but they didn't look so interesting or ''burning'' as now.* I still have doubts that anyone bothered to read those documents carefully,'' he continued. But now, there are no such doubts.

The Six-Sigma Program

The six-sigma program played a major role in bringing about cultural change at NP. Six-sigma is a business philosophy, grounded in a quality improvement initiative, that has had a major impact on many large businesses during the past decade. Motorola first implemented it in 1987, and such companies as Texas Instruments, ABB, and Allied Signal have since used it. *Sigma* is a measure of the number of mistakes per million discreet operations, with six-sigma representing only 3.4 mistakes per million. The program comprises a vast range of tools, techniques, and processes for achieving its target. At the core of the program is the process of *defining, measuring, analyzing, improving,* and *controlling* all operations of the business—support operations as well as production operations. Furthermore, there are various six-sigma ''players,'' with titles such as *champions* (leaders who promote, approve, and facilitate projects within their area of responsibility), *master black belts* (full-time six-sigma experts who manage various projects and train other players), *black belts* (full-time quality managers who lead teams dedicated to specific projects),

and *green belts* (who work part-time on specific projects, while continuing their normal activities in the company).

NP implemented the six-sigma program at the end of 1996; it had an immediate impact on the company's organizational structure and human resources management. NP established a quality team, reporting directly to the CEO, to help the product divisions and functions implement their quality improvement plans and specific six-sigma projects, and appointed a master black belt for each business process or function. In addition, there was an extensive internal training program, with 1,500 white-collar workers (of 3,000) becoming green belts by the end of 1999. The emphasis on six-sigma was huge. It was considered the key common language to drive GE globally. As clarified by GE's vice president for the program:

> Without six-sigma, if you run a plant and I run a plant, it's tough to understand your numbers. Then you can say, ''Your ideas won't work, because I am different.'' Well, cry me a river. The commonalities are what matter. If you make the metric the same, we can talk.

To implement a program of this nature requires a considerable amount of measurement, both to identify areas for improvement and to monitor progress. As such, the program reinforced the importance of measurement, and being grounded in a quality improvement philosophy, it fit well with the culture of excellence in production and products, which had been a tradition at NP before its acquisition. However, the systems that were needed to successfully implement the program required the measurement of a vast array of both financial and nonfinancial factors, integrated into a holistic system of performance measurement and accountability, something that had not traditionally been NP's strength.

Six-Sigma in the Parts and Service Division

The parts and service division pioneered the implementation of six-sigma within NP. The response time in ITO processes (that is, the time from an initial inquiry to receipt of an order) was identified as a major issue affecting customer satisfaction. By the end of 1996, a team of eight people (the champion, the process leader, a master black belt, a black belt, and four other employees) concluded the definition phase of the project. The team identified the critical-to-quality (CTQ) characteristics and then developed an activity-based analysis of the various processes involved in producing an initial quotation, focusing on the metrics necessary to evaluate potential improvements. ''In these phases, we employed for the first time those specific six-sigma tools we learned during the intense periods of training—instruments such as a CTQ tree, process map per product, structure tree, fishbone diagram, who-what-when chart, CTQs validation against customer survey, flow chart, and so on,'' one team member proudly explained.

Such a measurement-based approach first questioned and then modified traditional views about the way the division produces quotations. As the analysis started, it became immediately clear that various projects—tackling specific problems and deficiencies—would be necessary. Consequently, during 1997, a large number of specific projects were set up with the aim of reaching five-sigma in 1998. ''Pretty impossible, but this was the stretching philosophy at work,'' claimed a member of the team.

For each service and type of product, the division undertook a process and activity analysis, defined a time sequence of operations, and produced a process map. For example, in the case of a spare-part quotation, it broke the process down into four steps: request for a quotation, technical analysis, pricing, and issuing the quotation. Each step was then the subject of a specific six-sigma project. The CTQ characteristics were identified as cycle-time reduction and customer satisfaction. But the division encountered a major problem when trying to calculate the potential financial benefits from a process of continuous improvement in these characteristics. An NP engineer responsible for a specific six-sigma project remarked:

> One day, we suddenly realized the strength of financial numbers within six-sigma. We were nearly closing the project, all the improvements were there, expressed in technical terms, but we were still struggling to translate them into financial benefits and cost savings. We still missed the bloody numbers to validate and close the project. We did not want to bother the

accountants more than necessary. Rather, we felt that we could close the project and show our improved financial understanding. We took our training notes from the shelves, and we did it ourselves. Later, during the presentation of the project results, we knew they were waiting for the ''bottom line.'' The last page of other small projects was still blank. Well, the presentation of those numbers excited me as much as dozens of early successful designs. Looking at the faces of the people, I realized the importance of those numbers. I felt the power of having them and presenting them.

The division calculated the financial benefits by applying the expected contribution margin to the anticipated increase in sales. Yet, despite many process improvements and potential cost savings, it did not achieve the targeted five-sigma level. ''But this wasn't the point,'' argued a green belt involved in the project, who continued:

> In a short period, six-sigma should lead NP towards a new operational and managerial methodology. Its tools, together with parallel initiatives, such as the best-practice diffusion and the workout meetings, should enable the generation of a new, measurement-focused way to participate and live in the business. . . . This is what has truly happened: six-sigma has been spread throughout the company, which is now strongly integrated and bound by this modus operandi. Now, when we think, discuss, or communicate, we do it in terms of CTQs and contribution margin. It doesn't matter if we are talking to the accountants or among engineers. It doesn't matter if we are ringing Talamona [a decentralized NP division] or the States.

Thus, along with improvements measured on the sigma scale, greater productivity, and customer satisfaction, there have also been important intangible outcomes of the six-sigma program. ''They are cultural. . . . Indeed, they cannot be always synthesized in impressive numbers, but they represent potential future achievements,'' argued a human resources manager. Furthermore, in a global company such as GE, there are potential benefits stretching far beyond the boundaries of the division or subsidiary that implemented them, as was the case with the ITO processes project. It was acclaimed the best six-sigma project within GE at the 1998 Quality Rally in Atlanta, Georgia, and its benefits have spread throughout GE. ''The sharing of these measures allowed our outcomes to be understood and appreciated worldwide,'' claimed an engineer a few months later, waving a folder containing six-sigma training material.

The six-sigma program has extended the culture of measurement, the "GE way," to all parts of NP.

The integration of financial and nonfinancial performance indicators requires a corporatewide information system. But being grounded in a quality-based philosophy, consistent with the traditional production-based values of NP, has meant that the six-sigma program has extended the culture of measurement, the ''GE way,'' to all parts of NP. As a result, NP managers are now able to communicate with other GE managers, wherever they are located, in the terms and language of six-sigma. As such, there has been a major cultural change within NP.

Processes of Cultural Change

NP's organizational transformation went very deep, involving complex processes that combined rationality, successful experiences, and feelings of trust. GE was so totally different from ENI that a massive cognitive redefinition was required. It was a matter of first unlearning the old culture and then relearning a new one. In general terms, people tend to resist profound cultural changes because the unlearning process is uncomfortable and produces anxiety (Schein, 1999: 115). Nevertheless, possibilities for change increase when three factors are balanced: the mechanisms of disconfirmation, the creation of survival anxiety (or guilt), and the subsequent creation of psychological security to overcome learning anxiety (Schein, 1999: 117).[8] These factors contribute to *unfreezing* the values that inform the institutionalized organizational culture, and as a result, cultural change becomes possible (Lewin, 1947). In particular, ''change then occurs through *cognitive redefinition of key concepts*, and the resulting behavioral changes become *refrozen* in the personalities of the individuals and in the norms and routines of the group'' (Schein, 1992: 312, emphasis added).

Unfreezing the Old Culture

From the outset, the GE philosophy was imposed very aggressively throughout the company. GE's CEO, talking to a meeting of operating managers, categorized managers and employees in the following terms: *A players*, who subscribe to the company's values and who have to be kept and rewarded; *B players*, who still deserve to be trusted because they have the potential to improve their skills and productivity; and *C players*, who do not subscribe to the company's values and, without remorse, deserve to be fired.

The changes at NP occurred quickly, and, despite its undoubted technical competence, speed was not a typical characteristic of the old NP. According to a B-ranked engineer, ''It wasn't a normal change; it was a shock! An earthquake in our daily way to think and behave. Take the example of human resource management; from a rather relaxed system mainly based on egalitarian principles, we suddenly faced the A, B, C ranking theory. I am not arguing it was right before, but this was scary.''

Within NP, the charismatic leadership of GE's CEO and the measurement-based training program were sources of disconfirmation, to which even the unions unintentionally contributed. As a result, all levels of the company recognized the need for change, which represented a new organizational credo. Although union leaders regarded local management's conduct as opportunistic and a betrayal ''by someone who has suddenly lost his memory due to being well paid!''[9] it cannot be interpreted simply as a matter of bonuses and stock options (that is, being well paid). The reasons were more complex, and a fuller explanation is needed.

Combining Rationality and Trust . . .

The ''GE way'' seriously threatened the psychological security built during the era of ENI management. Most people at NP were aware of the company's past and present characteristics and knew its strengths and weaknesses. In view of GE's reputation, it was not difficult to predict the intensity of the integration process. Everyone was aware that ''scary'' claims (like the A, B, C rankings) could and indeed would become reality.

The stories and the rhetoric that contributed to creating the myth of the ''GE way'' had a powerful impact on established frames of meaning. The unions stated they were ready to fight the changes, but NP was already changing. Furthermore, workers' reactions to GE's values were quite rational. Interviews of lower level employees, while cataloguing the usual complaints, revealed quite clearly how much they cared about being part of a world-famous company. Thus, after initially creating survival anxiety or guilt, continuous waves of communication and training promoted an emerging sense of psychological security. The diffusion of a new business credo reinforced this feeling, which empowered people and gave them the trust needed to overcome learning anxiety.

> *After initially creating survival anxiety or guilt, continuous waves of communication and training promoted an emerging sense of psychological security.*

. . . With Successful Experiences

After the unfreezing of NP's established frames of meaning, people's perception of ''new knowledge'' was at a conscious level. Thus, possibly as a consequence of the need to align personal and collective values, beliefs, and patterns of behavior with the new owner's vision, a certain degree of rational awareness characterized their motivations. ''We are building up the necessary kit for survival, aren't we?'' asked a project engineer at the end of a financial training session.

Nevertheless, as organizational members gained experience in coping with the events that stimulated these conscious reevaluations, their rational patterns of behavior tended to transform into more tacit, routinized behavior. More specifically, as the redesigned cognitive schema that underpin such routines work repeatedly over time (for example, in the six-sigma projects), they provide a sense of psychological security and are taken for granted. Furthermore, as the routines become socially validated, they become institutionalized and part of the stock of mutual knowledge.

Change through Conservation

The process of learning and transformation within NP was deeply rooted in the difference between the polarities represented by the former organizational culture and GE. Certainly, NP was urged to integrate quickly into the new business environment. However, GE's interest in NP's products and production systems was driven by a significant respect for NP's technical abilities. Accordingly, although the pressure for and the magnitude of change made the process of transformation very intense, change did not happen without conservation. ''The story has to contain a continuity,'' suggest Maturana and Bunnell, who continue, ''When in a collection of elements, some configuration of relations begins to be conserved, a space is opened for everything to change around what is conserved'' (1999: 83). Remarkably, this seems to have happened even in the radical transformation experienced at NP. As the company enters the third millennium, two major events characterize the outcome of NP's intense change *through conservation*: the new, market-oriented, business-unit reorganization and the creation of the Florence Learning Center.

A major program of organizational restructuring took place in 2000 to strengthen NP's position of leadership in the supply of equipment and services for the oil and gas market. NP organized its internal structures around the various segments of the oil and gas market in which it competes: upstream (wellhead and production), midstream (transportation and storage), downstream (refineries and petrochemical), and distribution (wholesale and retail)—with a separate business unit for each segment. Now, instead of individual products, NP offers integrated solutions for each market segment—''one-stop shopping.'' In addition, the individual business units are supported (and integrated) by a global service division, which offers maintenance and services across all the segments to ensure the reliability and performance of the products delivered. This restructuring encompasses a portfolio of world-class market solutions organized and managed in accordance with the new customer-driven perspective.

NP's rapid and successful growth, together with its extensive investment in learning, encouraged GE to designate NP's Florence facility as a key training center for Europe. Whereas, in 1995, personnel development courses and learning initiatives were held in-house or in major hotels, in 1998, NP rented space to provide a temporary training center. Since January 2000, a new and larger Florence Learning Center has been offering a wide range of programs in finance, human resources, law, marketing/sales, project management, technical courses, and total quality management. These courses, given both internally and externally for suppliers, customers, and other businesses, represent the combined outcome of the two cultures that contributed to the company's redefinition.

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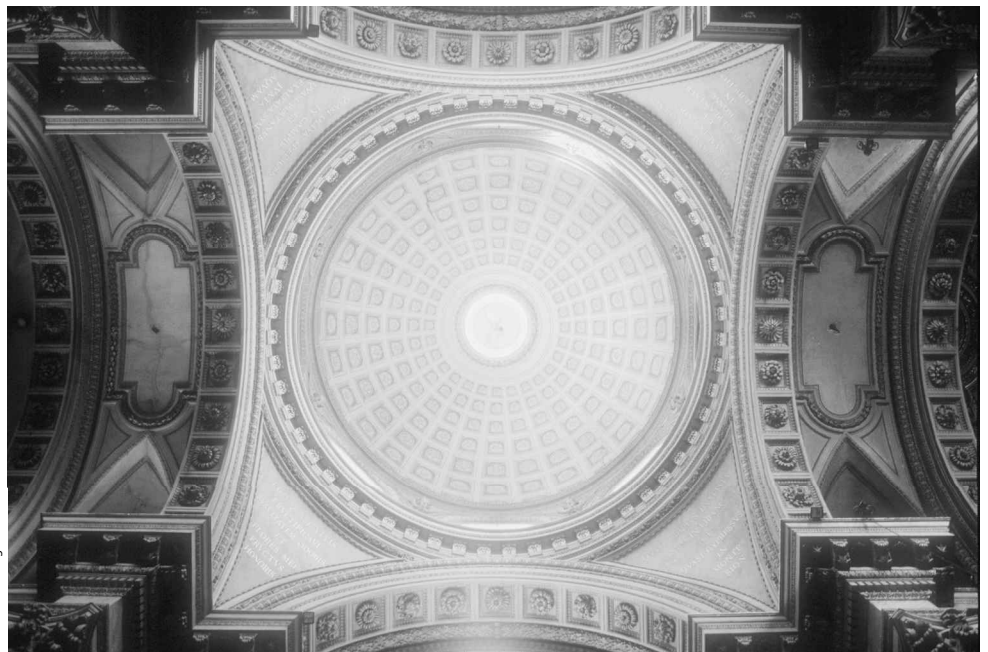
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They synthesize the historical, technical talents of NP and the rigorous, measurement-driven ''GE way.''

Conclusion

Managing organizational complexity is undoubtedly one of the main challenges facing corporate leaders. In order to cope with problems of external adaptation and internal integration, many corporations are increasingly relying on measurement-based systems of management to align business processes with corporate strategy. In so doing, they are infusing organizational culture with metrics of performance measurement and accountability. In this article, we have illustrated how organizational culture and measurement-based systems can evolve simultaneously.

By translating external market-driven pressures into internal financial and nonfinancial targets, linked to specific production processes and business practices, these systems enable organizational leaders to transform broad, abstract strategies into visible (quantifiable and measurable) tasks, even at the lowest operational levels. As such, they provide objectives that individuals and groups can understand and enhance their identification with the organization's cultural values expressed by its leaders. From this perspective, the emerging systems of measurement and performance accountability can be seen as socially constructed, validated practices through which organizational culture is created, stored, and transmitted across space and time.

Management accounting and other performance measurement systems cannot be regarded as objective and value-neutral tools. By carrying, diffusing, validating, and institutionalizing the taken-for-granted assumptions that constitute organizational culture, they can be seen as technologies deeply implicated in the production and reproduction of shared organizational knowledge and values. As in the NP case, implementing such systems can improve communication and integration by giving engineers and other nonfinancial personnel a common language of accountability based on financial and nonfinancial metrics. Furthermore, this shared vocabulary (the accounting language, the six-sigma metrics, and so on) can overcome the communication, cultural, and operational boundaries between subsidiaries and divisions located in different parts of the world. For these reasons, we conclude that at NP, while the change of ownership opened the possibilities for organizational transformation, a measurement-based revolution gave it direction.

Former CEO of GE, Jack Welch, has described deals like the acquisition of NP as the seeds of GE globalization strategy that are now blooming into a garden (2001). He acknowledged that ''one of our most satisfying accomplishments was taking over . . . government-owned companies . . . and transforming them into highly energized organizations and profitable companies'' (Welch, 2001). These comments have certainly been heard across the Atlantic, and NP-GE people in Tuscany are celebrating a successful integration, probably in front of a *Fiorentina* steak and a glass of Chianti. Eventually, this is what globalization is all about!

Notes

1. For an overview of GE's programs of restructuring and change see, among others, R. Ashkenas and T.D. Jick. ''From Dialogue to Action in GE Work-out.'' *Research in Organizational Change and Development* 6 (1992): 267–287; R. Ashkenas, D. Ulrich, T. Jick, and S. Kerr. *The Boundaryless Organization: Breaking the Chains of Organizational Structure* (San Francisco: Jossey-Bass, 1995); R. Slater. *The New GE: How Jack Welch Revived an American Institution* (Homewood, IL: Irwin, 1993); R. Slater. *Jack Welch and the GE Way* (New York: McGraw-Hill, 1999).
2. ''If you don't want to change, don't be acquired,'' argued a GE manager in T. Stewart. ''See Jack. See Jack Run Europe.'' *Fortune* (September 1999).
3. Ibid.
4. C.R. Day and P. LaBarre. ''GE: Just Your Everyday $60 Billion Family Grocery Store.'' *Industry Week* (May 1994).
5. Since 1996, 250 to 300 nonfinance employees (especially engineers) have been trained each year in the understanding of financial fundamentals.
6. Internal document.

7. T. Stewart. ''See Jack. See Jack Run Europe.'' *Fortune* (September 1999).

8. For further insights into such anxieties, see E.H. Schein. ''How Can Organizations Learn Faster? The Challenge of Entering the Green Room.'' *Sloan Management Review* 34 (Winter 1993): 85–92.

9. Union statement that appeared on a canteen notice board.

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Commentary

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Busco, Riccaboni, and Scapens have written a very nice and clear "change" story. It is an interesting, inspiring, and enjoyable story. But a story of what? Stories, of course, are powerful ways to circulate and share what we know exactly because they are inherently ambiguous and open-ended. You can recognize a good story because it invites the reader to do some of the work, to fill in the inevitable gaps, to enter the story, and to appropriate it by relating its content to his or her experience of the world. A commentary on a story is hence necessary to creating another story. These are some of the stories that I read into this article.

First, this is a tale of an ancient dream come true. It is the dream of numbers as a universal language, dreamed already at the very outset of our modern era by such great thinkers as Gottfried Leibniz. It is a dream that, as the story reminds us, modern multinationals have exploited. Of course, you'd expect me, as a continental scholar, to reiterate that establishing numbers as the "GE language'' is a way of establishing the conditions for extending the control of GE's headquarters to the Tuscany foothills. Yet, the story is a reminder that the issue is more complex than that, because control is also communication, and exercising power always implies applying constraints and opening new possibilities, eliminating uncertainty and establishing new ways of doing things.

Second, this is a story of change as invasion and colonization. Of course, the story is told from the perspective of the colonizers and the winners—the blood spilled is hardly mentioned, resistance is treated only in passing, and coercion is significantly downplayed. Yet what makes this story so enlightening is that we are reminded how modern colonization and change often do not rely on brute force but on seduction, on the desire of the periphery to become part of the center, and on the pleasure to achieve this. I couldn't refrain from thinking of the NP story in relation to the horrible events of September 2001. Such deep hatred can stem only from the fear raised by desire and from the dread to succumb to temptation, knowing that once you give in, there is very likely just a different you, but one for whom there is no looking back.

Finally, this is a story about the word *culture.* In the US, it is customary to think of culture as the web of meanings people live in, the sense and feeling of things and people around us. The authors offer ammunition for a different take. Culture could also be understood first and foremost as a collective name for the distinctive ways we do things, if we include *talking* as something that we do. Culture, in other words, is a different way to describe the total set of practices by which we live. It is because we do similar things that we understand each other.

Not all practices are the same, however. Some practices are more "equal than others.'' These "core'' practices keep in place many others, and when we try to change them, the whole gamut moves. After that, things are never the same again, and above all, they do not make the same

sense. Because these core practices are so entrenched and the effect spilling from their change is so far reaching, we refer to these events as culture changes. But if you scratch the surface, what has mainly changed is "the way we do things here"—if you still include *talking* as something we do. As the article aptly demonstrates, and as other research confirms (including some of my own), accounting practices are unfailingly among the core organizing practices—difficult to get at, but critical in changing things in a radical and persistent way.

Commentary

by Edgar H. Schein

Infusing the Money Gene into the Cultural DNA of Nuovo Pignone

Organizations are created by founders and leaders with particular values and assumptions. When those values and assumptions produce a successful organization, they become the DNA of the organization's culture. Individual values or assumptions can be thought of as the genes in that DNA. But not all successful organizations have the genes necessary for commercial success, the "money gene." They can be successful because of their product quality, their monopolistic position, or their secure role in a government-supported industry. During rapid growth periods, organizations can be very inefficient financially yet succeed because the growth rate covers up the inefficiency.

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If the money gene is missing in the cultural DNA, the organization will experience difficulty in midlife as competition grows, patents run out, government supports are withdrawn, and technology changes. In the case of the Italian company described in this fascinating story, we do not know whether or not NP would have run into those difficulties, but when GE bought it and began to infuse NP with the GE culture, it is evident that GE was forcefully engaging in genetic manipulation—it was introducing the money gene into the NP culture.

The manifest process was to introduce "measurement" and to force more attention to quarterly reporting of various numbers. The deeper assumption was clearly that unless you measure you won't manage the finances well enough. This assumption was clearly behind the decision by GE to train everyone in financial analysis. Concern about financial results not only was relevant to measuring NP's own performance, but was crucial as a sales strategy in "showing customers how GE solutions can affect the financial results of major segments of their business."

NP managers had to learn not only the technical side of finance and the importance of tracking relevant numbers, but a whole new way of thinking and talking among themselves and with customers. GE's introduction of the six-sigma program of perpetual improvement added still another language and set of parameters to measure yet, at the same time, reinforced preoccupation with financial results. In a sense, what managers had learned in the financial area made it easier to learn the new methodologies of six-sigma.

What makes this story important is that the culture change appeared to be successful. Given the frequency of failures of change in acquisitions, it is interesting to see how GE's approach, in spite of the massive change it was introducing, managed to pull it off. As the authors point out, the restructuring did not change everything but preserved some important values that served as a security blanket while other things changed drastically. The lesson here is that when we "change culture," we are typically only introducing one or two new genes, or destroying one or two dysfunctional genes, while the basic DNA remains intact.

There is a deeper lesson here for many organizations in how GE approached this acquisition. Whatever might have been the basis of NP's success over the previous 100 or so years, it was not safe to assume that its cultural DNA contained the genes needed to survive financially in a deregulated, open-market environment. Typically, what is required to survive in a mature, competitive market is an ability to make tough trade-offs among products and markets, and to become extremely cost conscious.

Many successful organizations have never had to make those trade-offs or learned how to become cost conscious because they have had other advantages. They do not become aware that they are missing the money gene, and may actually deplore the kinds of actions that would be required to survive financially. This problem is especially acute in high-tech industries that grow on product innovation and are run by entrepreneurial managers who do not really value money and

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commercial success in its own right. And that leaves us with a larger question. Should every company survive? Should every organization insure that, in its cultural DNA, the money gene exists? And if financial survival requires the compromising of other cultural values, what then?

Commentary

by Ranieri de Marchis

I had the privilege to participate in the early stages of the Nuovo Pignone (NP) acquisition and then return to NP as CFO almost four years later. The first three GE individuals to arrive at NP were the chief financial officer, the financial planning and analysis manager, and me as a corporate auditor.

GE knew it was buying a state-run company with good product technology, poor measurement systems, and little financial management. Very early in the process, a significant effort was put into creating a measurement system aligned with the business goals capable to provide timely and accurate information. Within the first six months, NP went through a metrics revolution—from closing the books twice a year with a four-month lag to closing the books each quarter with a one-week lag. The finance organization changed its mission from just being a general accounting operation with obsolete legacy systems, mostly concerned with complying with local laws and regulations, to being a more contemporary organization with financial analysis skills, new accounting systems, and mostly concerned with driving shareholder value.

The article captures the essence of what has been and still is a significant company transformation. The focus on the objectives and the institution of pay-for-performance in lieu of the seniority-based system have been the catalysts for a massive cultural change. Originally, the focus was to make the product work with little understanding of how and if the company was making money. Even cash was not a measurement, with the result that working capital management was neglected.

After the company put in place a robust measurement system, a second wave of transformation came to fruition with the launch of the six-sigma program. This initiative, sponsored at the corporate level, is a numerical quality initiative that requires a heavy use of statistical tools. NP, with its engineering culture, was ready to embrace such a program. The management systems were also ready to support the initiative providing the necessary data to drive the process-improvement actions. Here again, there was a strong focus on measuring the impact of the quality initiatives by tracing the benefits up to the "general ledger."

These programs, coupled with the financial rigor necessary to drive and track the impact to the bottom line, has transformed the role of finance within NP. The finance organization, in addition to the classic controllership role, is now much more involved in the operations of the company, partnering with the operating leaders. This partnership has also facilitated the dissemination of the common financial language throughout the company. The operating leaders are as involved in understanding and driving the financial performance of the company as the finance community. This common language is also a bridge to communicate effectively across GE and thus facilitate the integration across the different companies.

Currently, NP is involved in several acquisitions. It's now the turn of NP management to take the lessons learned from the original integration and drive this common financial language to the newly acquired companies.

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Living–Asset Stewardship: How Organizational Learning Leads to Exceptional Market Returns

Jay Bragdon and Richard Karash

[We] found that investor loyalty was heavily dependent on customer and employee loyalty, and we understood that we were dealing not with tactical issues but with a strategic system.
—Frederick Reichheld (1998)

The more the mind is fathomed in its own right, as an organ of survival, the greater will be the reverence for life for purely rational reasons.
—Edward O. Wilson (1984)

D oes a corporation's investment in learning pay off? Or are such actions, despite their appeal, just an inefficient diversion of profits? We believe it is useful to examine two opposing mental models. One is a ''fixed pie'' or ''zero sum'' model—in which any increase in the returns for one group comes at the expense of other groups (management versus labor versus shareholders, and so on). In this model, if learning benefits the individual, how can the corporation benefit? In the opposing model, there are synergies by which organizational learning generates factor efficiencies—the ability to offer more and better quality output with fewer demands on nature and society (Hawken et al., 1999). We believe that thinking affects reality. If companies think ''fixed pie,'' that is what they will get—a self-fulfilling prophesy—because they will hold back on investments that might otherwise produce excellent returns.

We begin this article with a brief tour of economic history and our argument for the synergy model. Then, we support our argument with an analysis of 60 corporations that are global leaders in living-asset stewardship (see the sidebar). We close with surprising evidence that investing in the companies that are exemplars in living-asset stewardship appears to produce superior investment returns.

Our belief in synergy draws heavily on the works of two men: management consultant Frederick Reichheld, who describes the synergies inherent in loyalty, and biologist Edward O. Wilson, who describes both the spiritual and economic values of biodiversity. Wilson gives us the analytic tools to see a strong, reinforcing cycle in which living-asset stewardship strengthens Reichheld's model. ''Humanity needs a vision of an expanding and unending future,'' says Wilson (1993: 39). When that vision is encouraged, people become inspired; when it is suppressed, they feel despair.[1] We submit that the very human quest for living-asset stewardship *inspires* thinking and solutions that transcend mere loyalty. We present evidence to suggest that stewardship improves corporate results, the lives of employees and customers, shareholder returns, and the possibilities for a better world.

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Living–Asset Stewardship

Living-asset stewardship (LAS) is a respect for life. It is expressed in the ways companies treat people and nature—the web of life that supports all commercial activity. The power of LAS is the power of inspiration. Companies that practice good LAS tend to attract the best employees, the most committed strategic partners, the most loyal customers, and the most patient investors. They are more trusted and more energetic than their peers, and more likely to succeed in the infinite game of sustainability.

Until recently, analysts, lenders, and investors have been unable to describe the growing power and influence of stewardship companies. Their analytic model sees people and nature in a mechanistic context, as quantifiable and manageable tangibles, "factors of production," as consumers, waste sites, and so on, that exist mainly to serve the end of profitability. This limited vision misses the larger truth that companies are a part of nature and society and must ultimately serve life to survive.

The most successful companies see profit not as a separate end but as a means to the end of serving, achieving a transcendent mission. Their skills are more harmonic than mechanistic. They are more adept than their peers at listening, feeling, accepting, improvising, and thinking contextually. The harmonies they create, like those of a good orchestra, touch our spirits and emotions—the source of our most creative instincts, where the real leverage of LAS exists.

Edward O. Wilson says this desire to live in harmony is an expression of our biological heritage. For thousands of generations, our ancestors lived close to the earth. Those who survived to pass on their genes to future generations learned to cooperate with nature and each other. Our genetic coding therefore predisposes us toward a reverence for life. Wilson calls it "biophilia . . . the innately emotional response of human beings to other living organisms." Humberto Maturana's "biology of cognition and love" is yet another expression.

When companies practice good LAS, they transcend eco-efficiency, TQM, six-sigma, and other measures of operating effectiveness. They engage the hearts and the minds of their employees and partners. People begin to collaborate, learn, experiment, and innovate more spontaneously. Their capacity for organizational learning jumps. Although the financial markets may not yet understand this process, they usually recognize the superior capacity of stewardship leaders. These companies tend to have better credit ratings than their peers, higher margins, and better stock market returns.

From Obstructed Learning to Awakening—A Systemic Overview

The modern investor-owned corporation was born roughly a century ago when it gained limited liability status.[2] This legal protection accelerated an economic reinforcing cycle of capital investment and economic activity. (Freed from personal liability for corporate misdeeds, investors poured equity capital into industry.) However, it also created a lagged balancing cycle of systemic resistance because it allowed firms to ignore their social and environmental impact, thereby reducing their capacities to learn and adapt (see figure 1).[3]

After about six decades, the balancing cycle became a significant economic force. During this time, a critical mass of corporate and consumer waste accumulated, degrading nature's capacity. The relational equity (social capital) of corporations also degraded, producing a social backlash that eroded the trust and loyalty of employees and customers.

As the effects of dysfunctional corporate behavior built up in the economic system, the wall of limited legal liability crumbled. Companies' operating costs increased due to rising employee turnover rates, critical bottlenecks in energy resources, regulatory friction, customer defections, and, eventually, weather-related calamities.[4] Society demanded that firms take responsibility for their misdeeds and backed up the demands with boycotts and shareholder lawsuits. Investors became cautious, diverting more of their capital to short-term trading and hedging than to long-term investment.[5] As these negative feedbacks gained strength, companies had to find new ways of learning and adapting or risk extinction. Most were slow to see this negative feedback because their accounting systems treated the environment and society as ''externalities.'' They also devalued the corporation's most important assets—its living assets—relative to its nonliving (capital) assets (Bragdon, 1998).

Figure 1 The dysfunctions of the capital investment model
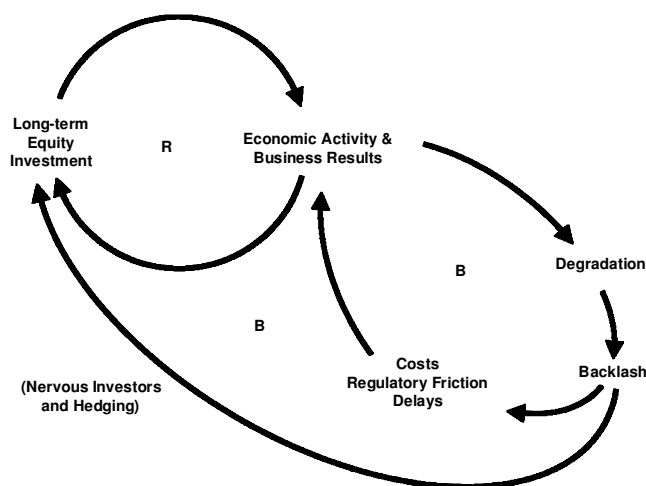
Long-term equity investment fuels a reinforcing spiral of growing economic activity. But with growth comes other issues. Environment degradation brings costly backlash. Investors become nervous.

The living assets of a corporation are *people* and *nature.* These are distinct from the nonliving assets because they can learn, adapt, reproduce, and intelligently organize themselves. They are symbiotically connected to one another through an intelligent network we call the ''web of life.'' All living assets, even single-cell organisms, instinctively monitor the web's health because it affects their own health and productivity. Companies that understand these instinctive connections strive to live in harmony with the web. Those that find the right balance prosper because they deeply inspire their employees and customers.

Astute managers were quick to see these advantages. In collaboration with employees, they evolved cultures of living-asset stewardship (LAS)[6] that actively engaged the adaptive instincts of everyone along the value chain. In doing so, they discovered that people care passionately about learning that strengthens the web and their connections to it.[7] This discovery led to a new reinforcing cycle (R-2) that connects living-asset stewardship to economic activity and business results, outlined in figure 2.

Figure 2 The new reinforcing cycle of living-asset stewardship

Living-asset stewardship and organizational learning can improve business results and environmental/community results, weakening the degradation loop.

This new reinforcing cycle of living-asset stewardship is a constructive response to the balancing cycle of degradation and cost escalation. A powerful and adaptive engine, it inspires inquiry, generates learning, energizes innovation, and attracts long-term investment. The solutions that arise from it drive a third reinforcing cycle of economic, social, and environmental remediation (R-3).

These two new reinforcing cycles are natural adaptive responses—conceptually similar to the responses of any stressed ecosystem—and their importance will grow as the deleterious, delayed effects of the balancing cycle accumulate in nature and society. For this reason, LAS first-movers cannot be complacent. At best, they have a head start on a long, evolutionary path. Where are they headed? That's a question for scenario planners, but the best practices of exemplar companies give some clues (see table 1).

Perceptions That Drive the Balancing Cycle

How managers and society perceive corporations matters greatly because deeply held perceptions affect corporate cultures and governance. Most people see companies in the traditional mold described in the left column of table 1. Few, however, see its potential as the organic entity described on the right—a community of interest that thrives on living-asset stewardship and organizational learning. Holding such limited expectations, and failing to see the potential, society too often acquiesces to the worst behavior of corporations.

Similarly, the mental models of traditional corporations limit their choices and predispose them to poor decisions. Believing their world is governed primarily by *physical* rather than by *biological* laws, they tend to see resource supplies as relatively fixed and therefore scarce. Such beliefs are rooted in fear and expressed via an obsession with control: ''The faster we can control scarce resources, to the exclusion of others, the wealthier and more powerful we will become.''

This model sees mainly trade-offs, not synergy. If workers get paid more, then profits and shareholder returns will suffer. If companies invest in social capital (community education, environment, health, and safety), they will have less to spend on ''productive'' capital (plant and equipment).[8] With this perspective, each stakeholder group—employees, customers, the environment, shareholders, community—assumes an adversarial relationship with the others. Because the firm sees each decision as zero sum, resolution of differences is almost always through power. This dreary view dampens the only corporate resource that is truly infinite—creativity.

So prevalent has this physical fixed-pie view of business become that few people question it. Peer pressure and inertia keep the mechanical/industrial model of the firm

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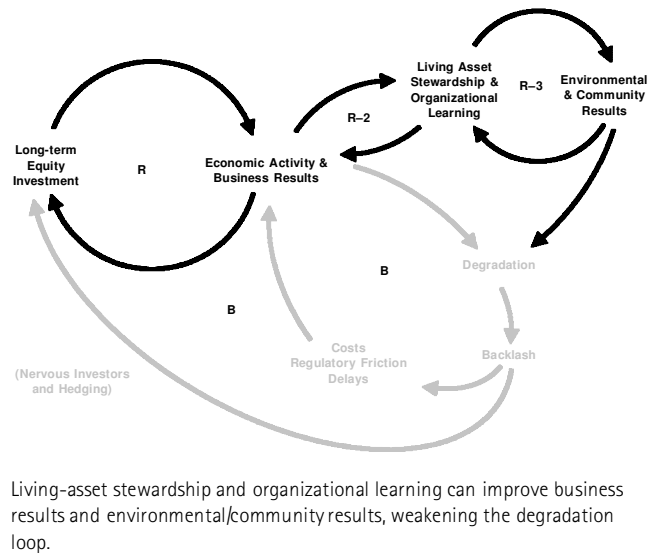
Table 1 Two approaches to management

Traditional		Stewardship
Top-down		Bottom-up
Focus on capital assets		Focus on living assets
Newtonian physics/predictability	*Mental*	Biology/randomness
Firm is a machine and is isolated	*Model*	Firm is integral to the web of life
Self-centered		Symbiotic/collaborative
Resources are limited (fixed pie)		Intelligence is unlimited
Competition is primary		Cooperation is primary
Finite game of quick returns		Infinite game of sustainability
Only the firm matters		Living relationships matter
Profit as the primary end		Profit as means to higher end
Financial success		Mission to serve
Employees are replaceable	*Principles*	Employees are precious assets
Employees care about paycheck		Employees care about web of life
Employees are passive		Employees want to make a difference
Employees need to be directed		Employees can self-organize
Learning is *ordered* by management		Learning is *served* by management
Learning is best prescribed		Learning is best self-directed
Learning is focused	*Policies*	Learning is contextual
Learning is a cost		Learning is an opportunity
Employees are programmed		Employees are mentored
Wait until you are told		Experiment/take initiative
Must add value now	*Unwritten*	Okay to think long-term
Don't screw up	*Rules*	Mistakes are part of learning
We're watching you		We trust you
Hoard information (power)		Share information (power)
Defend your turf/get ahead		Teamwork/sharing
Minimum training		Continuous training
Periodic reviews		Continuous feedback
Training is focused	*Practices*	Training is open-ended
Measure for output		Measure for learning
Monitor progress		Inspire progress
Your ideas belong to us		We recognize your ideas
Passive employees		Inspired employees
Uncaring customers	*Outcomes*	Loyal customers/repeat sales
Impatient investors/traders		Patient investor-partners

Note: The framework is taken from M.W. McElroy. ''Social Innovation Capital.'' *Journal of Intellectual Capital* 3 (2002): 30–39.

alive, even though its weaknesses have been exposed and new, more successful conceptual models have been tested. Entrenched beliefs, no matter how disproved, die hard.

The New Symbiotic Reinforcing Cycle

The symbiotic stewardship model described in the right column of table 1 presents the firm as a tightly coupled biological system composed of humans and nature. As partners in the web of life, we share a common biological heritage, continually exchange information, and cooperate to ensure our mutual survival. These exchanges—which occur randomly, instinctively, and consciously in countless ways—have enabled nature to cre-

ate, over 4.5 billion years, ever greater diversity, complexity, and value from a fixed base of physical matter. The LAS model is simply a human adaptation of this natural model.

The microprocessor—a symbiotic coupling of human ingenuity and silica—both is a product of the LAS model and reinforces it. Although made from one of nature's cheapest and most abundant materials, it is a valuable learning tool. It enables us to produce more with less impact on nature, to think more systemically about the feedback from commercial activity, and to remedy some of the damage done.

The reinforcing cycle of LAS is much more powerful than the predecessor cycle of capital flows and investment in industrial capacity (figure 1). Rather than leveraging the finite capacities of nonliving (capital) assets, living-asset stewardship leverages the infinite learning and adaptive capacities of people and other living assets. Like the microprocessor, LAS catalyzes quantum efficiency gains.

Evolutionary science reveals that complex systems are more adaptable and stable than simple ones, because they are more diversified. The tight coupling of humans and nature via living-asset stewardship strengthens companies because it inspires both innovation and diversity. When corporations see themselves as integral parts of a larger, continually evolving biological system, they tend to become better stewards of their living assets.

Synergies within the Firm

Consider how living-asset stewardship works within the firm. Figure 3 shows relationships among three of its most important living assets—employees, customers, and shareholders. Each link is a causal connection, and together they explain the mutually reinforcing nature of employee value, customer value, and shareholder value. The rationale of each linkage is straightforward.

The strength of the links depends on the stewardship demonstrated. Effective stewardship—respecting the lives and needs of all three stakeholder groups—strengthens these links while increasing the value of the firm for *all* its participants.[9] As in nature, such synergies within the firm compound to make the whole more than the sum of its parts.

Synergies with Society and Nature

The partnership between a firm and its living assets strengthens as it reaches out to embrace nature and host communities. Again, as figure 4 demonstrates, each link is a causal connection; together the links explain the mutually reinforcing nature of values for the firm, for the community, and for the ecosphere. In this network of relationships, the rationale for each link derives from the premise that value for the firm can create value for the community and nature (and vice versa).[10] Stewardship is the catalyst that enables this positive feedback, and the reinforcing nature of the system depends on the stewardship demonstrated.

Looking at figure 4 from top to bottom, we see the potentially reinforcing linkages between the firm and society.[11] Firm value creates value for society. The word *health* in this context broadly encompasses personal happiness, growth, and fulfillment, the feeling of connection between people's work lives and their most deeply held beliefs and values. This type of health enables people to open their hearts and minds to learning, to constructive problem solving, and to strengthening the ties between the firm and its stakeholders. Such healthy, reinforcing behavior

**Figure 3** Stakeholders have mutual interests that reinforce one another
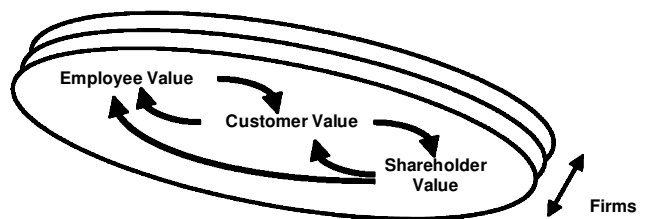
Each link is a causal connection. Together, the links explain the mutually reinforcing nature of employee value, customer value, and shareholder value. Each link has a rationale. Employee values create customer value because customers respond to happier employees. Customer value creates shareholder value because customers buy more and are less price sensitive. Shareholder value creates customer value because the firm with high shareholder value has more options for investment to create additional customer value. Customer value creates employee value because employees are more satisfied when dealing with happy customers. Shareholder value creates employee value because, in the modern firm, the employees are themselves shareholders; even if they are not shareholders, they have more security and opportunity for advancement.

These links, and the mutually reinforcing nature of the system, depend on the stewardship demonstrated. Effective stewardship makes all these links strong and increases the success and value for *all* the participants at the same time. Weak or ineffective stewardship weakens the links, and then it's more of a "zero-sum" game with trade-offs.

The overall result is "firm value," which accrues to all three stakeholder groups.

Figure 4 Living-asset stewardship drives a reinforcing cycle that benefits the firm, society, and nature
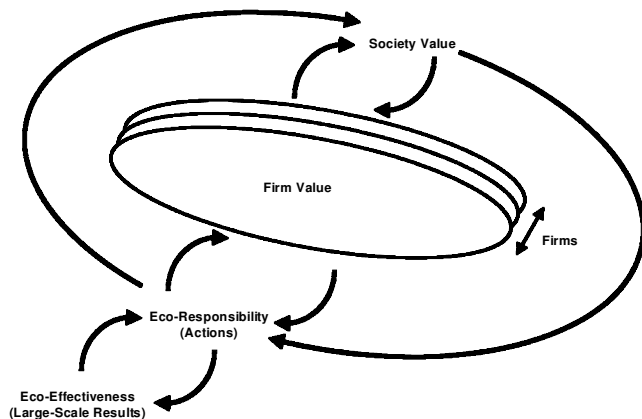
Each link is a causal connection. Together, the links explain the mutually reinforcing nature of values for the firm, for the community, and for the ecosphere. Each link has a rationale, "Value for the firm creates value for the community because . . ." Again, there is a question of stewardship; these links and the reinforcing nature of the system depend on the stewardship demonstrated. Without stewardship, the links are weak, the reinforcing possibility is overshadowed by the "zero-sum" nature, and it is an impossible trade-off.

feeds success. It is generative because it strengthens the partnership between humans and nature.

Increasing value to society cycles back to firm value. A prosperous firm and its employees feed the community's tax base and support opportunities for better education and health. Stewardship firms also encounter less crime and regulatory friction. In such communities, firms benefit from greater trust, a stronger social-economic infrastructure, and a rising tide of income—the building blocks of strong franchises.

Moving down the figure, we see further synergies between the firm and nature. Ecologically responsible firms are more aligned with the values of their stakeholders, generate less waste, and are usually more innovative than their peers. Corporations that recognize the tight coupling of humanity and nature—that respect life and strive to emulate waste-free natural systems—tend to be more profitable than those that continue to view themselves as disassociated from nature. Employees feel inspired to learn, share ideas, and innovate because their values are honored. Customers are more eager to buy because they welcome solutions that are friendly to nature and the environments in which they live. Distributors and others who add value to a firm's offers are encouraged to collaborate and add further value because they want to be connected with companies that are productive, respected, and trusted. Their reputations are enhanced in doing so.

As the ecologically responsible firm's value grows, so does its potential for effectiveness in partnering with nature.[12] It has both the financial resources to invest in more evolved solutions and the innovative spirit to make those investments pay. In short, it enjoys a virtuous cycle of innovation, trust, and financial return that continually feeds its effectiveness with regard to ecology.

As this cycle of effectiveness becomes a more dominant feature of corporate strategy, and as the synergies of ecologically responsible firms become more apparent and emulated, the adverse impacts of corporations on nature should begin to diminish. It will, of course, take time to restore the damage already done to the web of life due to the delayed effects of current environmental degradation. Leadership companies understand that they have a lot to learn about harmonious coexistence with nature. This adds urgency to their organizational learning programs and gives them further opportunities to assert their leadership and win public confidence.

The outer rim of figure 4 shows the mutually beneficial effects of a healthier society and ecosphere. When the interaction between firms and citizens becomes more aligned, respectful, and trusting, perceptions and expectations will shift. The virtuous cycle of inspiration, trust, innovation, and profit will grow. Companies will move beyond individual stewardship to more active collaboration, as demonstrated by Denmark's Kalundborg eco-industrial park (Ehrenfeld and Gertler, 1997).

The dialogue that arises from these healthier relationships between citizens and companies, between companies themselves, and among all members of society will be more inclusive and insightful than it is today. People want to learn when they feel engaged and when they believe their participation counts for something.

In sum, the LAS model is a powerful tool because it produces so much positive feedback both within and outside the firm. It is synergistic because it builds strength on strength. Employees become happier, healthier, and more productive. Customers get better value. Corporations enjoy more sustainable profit. Shareholders get better performance. Society and the environment become healthier and more supportive of corporations. The feedback is generative because they reinforce one another. The beneficial effects are compounded.

The Limits for Any Reinforcing Loop

This conceptual blueprint for synergistic growth runs into two constraints: (1) limits on how quickly the average corporation is willing and able to adapt, and (2) limits to the earth's ability to keep up with the growing population's demand for more resources. The first is a problem of inertia and lack of strategic vision. Most companies believe that stewardship costs more than it provides in benefits, a belief we refute. The second addresses the more intractable problem of earth's capacity and is harder to solve. For example, if we double the fuel efficiency of cars, but triple their production, the environmental impact can only worsen.

The best we can do in such a world is to rapidly dematerialize production—to increase the amount of recycled, reusable, and renewable materials; to increase the usefulness of these materials through better design; and to eliminate the need for nonrenewable energy to produce, market, operate, and dispose of them. This goal is well within our intellectual and learning capacities, and it is where the corporate world is heading.

To some, the foregoing paragraph will appear speculative. Yet, such adaptation is happening now. The impetus comes from within corporations as they learn more about the synergy (and limits) of natural systems, and from citizens as they learn how corporations can become more harmonious with the living systems that embrace them (nature, society, free markets). Peter Senge describes the success of this colearning and coevolution process as generative learning.

Generative learning is powerful because it continually reinforces itself. It is passionate because it flows from our deepest beliefs and values. It is connected and relevant because it responds to real-world challenges. It is cumulative because we can store it and reuse it in books and databases, and it compounds because we continually build on it. These attributes enable us to adapt quickly.

In companies where generative learning is encouraged and allowed to flourish, it becomes deeply insightful and innovative. It leads to quantum jumps (Zohar, 1997) in efficiency and utility with decreasing material input, what Hawken et al. call ''factor efficiencies'' (1999). The Internet and fiber-optic cable are good examples of such efficiencies.

Testing Our Theory

To test our theories, one of us (Bragdon) has identified and examined exemplar companies that demonstrate living-asset stewardship, which we call the global living-asset management performance (LAMP) index.™ The index is a barometer of living-asset stewardship, which measures the financial performance of 60 stewardship pioneers. The index covers a broadly based list of industries that roughly corresponds to the Morgan Stanley Capital International (MSCI) World Index.[13] In terms of living-asset stewardship, the 60 LAMP companies are, in our opinion, the ''best of class'' within their industrial sectors. LAMP companies are also industry leaders in organizational learning and systems thinking, the essential tools of good stewardship. Although some might define their cultures in other terms, LAMP companies are often described as visionary because they aspire to serve higher goals than profit alone. In fact, most behave as if profit is a means to the end of their stated mission, their reason for being, rather than an end in itself. In each of these ways, these companies stand out from their peers.

We selected LAMP companies by using various tests and analytic techniques. To be included, companies passed diverse screens to evaluate their respect for life and their capacity to remain good stewards. They also had to show continual evolution toward better stewardship practices. We included only those with the highest scores in each industry in the index. We measured their behavior as stewards partly by their own stated objectives and internal accounting methods.[14] However, we also used third-party evaluations from social research firms and nongovernmental organizations concerned with corporate performance in human rights, workplace practices, environmental responsibility, product stewardship, and community service.[15]

As a result of this research, each LAMP company has a dossier that covers: (1) its stated mission, vision, and values, (2) an evaluation of its commitment to and clarity on

stewardship derived from the corporate website and annual reports, (3) an annotated bibliography of third-party opinion on its stewardship practices, and (4) an annotated bibliography of its organizational and systems thinking practices derived from leading consultants and academics in this field, when available.[16] This dossier not only covers current stewardship practices, but attempts to track their evolution. It offers a broad overview of a company's culture and performance relative to industry best practices.

We also tested each LAMP company for financial stewardship, an important factor in carrying out its stated mission. These tests cover three broad areas: (1) *transparency* to ensure that a company's mission fundamentally respects life, that it regularly monitors its financial, social, and environmental performance, and that it clearly reports this performance to employees and the public; (2) *financial strength* to ensure it can continue its mission and protect stakeholders, even in troubled times; and (3) commitment to *employee growth* to ensure that it has the skills and motivated teamwork to carry out its mission and to continually improve the quality of its offers. We did not give sales and earnings growth a high priority in the selection process because LAMP companies frequently sacrifice near-term sales and earnings for long-term sustainability.

Investment Performance

The conventional wisdom within most publicly owned, limited liability corporations is that money spent on stewardship and organizational learning is either wasted or destined to produce a low return. The LAMP index strongly challenges this view. In fact, it finds that stewardship and organizational learning reinforce one another to form an energetic cycle of inspiration and innovation. That is why they produce such exceptional results.

Table 2 shows that the equity returns of the LAMP index companies were substantially above those of the MSCI World Index (its closest proxy) and the popular S&P 500 Index on a five-year test covering calendar years 1997 through 2001. This test is consistent with others we have run over different periods, and its results are of roughly similar magnitude. We use the stock market as a measure because it is the most holistic barometer available. It represents a global consensus of informed buyers and sellers and continually arbitrages their knowledge. It is also a measure that corporations understand and follow. By affirming so strongly the value of living-asset stewardship and organizational learning, the global LAMP index calls attention to these evolved management practices.

The LAMP index finds that stewardship and organizational learning reinforce one another to form an energetic cycle of inspiration and innovation.

The case for living-asset stewardship and organizational learning should not, however, rest on stock market performance alone because market prices occasionally go to extremes. On our financial stewardship screens, LAMP companies also stood far above their peers on financial strength tests. Their bond ratings (Moody's) were predominantly in the A/Aa range, two or three grades above average. Those that were unrated by Moody's generally had no net debt and huge interest coverage ratios. Most LAMP companies also outperformed their peer groups on free cash flow and on various measures of profitability (five-year averages). Precise comparisons in these areas were difficult to make, however, because LAMP companies are, by definition, emergent and innovative (hence, always changing). In the aggregate, these data suggest that LAMP companies have exceptional staying power, no matter what happens to the stock market.

Table 2 Global LAMP Index versus MSCI benchmark (1997–2001)

	CAGR	Cumulative return
Global LAMP Indexε	116.1%	16.7%
MSCI World	21.4	4.0
S&P 500	50.4	8.5

Conclusion

In this article, we summarize a major shift in corporate strategic thinking—from controlling finite resources to releasing the infinite growth potential of human ingenuity. The engine of this learning process is the reinforcing cycle of living-asset stewardship. Corporations that pioneered this strategic shift have gained financial strength and market share as their stewardship practices have evolved. Although they still have a long way to go on the road to sustainability, LAMP companies now have distinct advantages. They are the fastest learners in a world where rapid adaptation and innovation are the only paths to survival.

We cannot overemphasize the notion of survival. Corporations and the global markets in which they operate are at a crossroad as nature's capacity nears its limits. The reinforcing cycle of living-asset stewardship offers a solution to the lagged balancing cycle of environmental and social degradation that increasingly threatens our markets. It is a powerful solution because it leverages human potential, our only unlimited resource.

Notes

1. Increasingly, psychology is exploring biophilia, what Erich Fromm refers to as their ''passionate love of life and all that is alive.'' Albert Schweitzer called it ''a reverence for life.'' Theodore Roszak calls it ''the ecological unconscious.'' David Orr speaks of the isolation people feel when ''hermetically sealed'' from the natural world, ''the demented image of the mind imprisoned within itself.'' See D.W. Orr. ''Love It or Lose It: The Coming Biophilia Revolution.'' *The Biophilia Hypotheis* (Washington, DC: Island Press, 1993): 415–437.

2. Corporations evolved from unlimited liability to limited liability in the late nineteenth century mainly through state law. In 1875, New Jersey passed the first relatively nonrestrictive (or enabling) corporation statute. During the next two decades, the New Jersey legislature amended its statute to carry the enabling philosophy further, with the process culminating in a revised and full-blown enabling statute adopted in 1896. As these statutory developments progressed, the New Jersey corporation became the vehicle of choice for large businesses. See L.D. Soderquist, ed. *Corporations and Other Business Organizations,* 4th ed. (Charlottesville, NC: Michie Law Publishers, 1997): 17, 18.

3. Firms that don't recognize their role in the web of life are less likely to learn from and adapt to information coming from nature and society (because they are considered ''external'' to the corporation).

4. According to SwissRe, the costs of natural calamities began to accelerate in the late 1980s. SwissRe attributes most of this to global warming, which is caused by burning unsustainable quantities of fossil fuels. Increasingly, companies must bear the costs of reinsurance premiums and absorbing the damages they have done to the earth's resources. For more on this, see SwissRe's 1999 annual report.

5. Frederick Reichheld has commented on the economic disadvantages of investor disloyalty and high common-stock turnover rates. We also believe the increasing use of equity hedging and derivative securities is consistent with this. See F. Reichheld. *The Loyalty Effect* (Boston: HBS Press, 1998).

6. Lester R. Brown, chairman of World Watch Institute, supports this view: ''I believe that there are now some clear signs that the world does seem to be approaching a kind of paradigm shift in environmental consciousness. . . . A growing number of high-profile CEOs have begun to sound more like spokespersons for Greenpeace than for the bastions of global capitalism of which they are a part.'' See his article, ''Threshold—Early Signs of an Environmental Awakening.'' *World Watch* (March-April 1999).

7. The following global R&D leaders are openly committed to transcendent life-affirming goals: ABB (EcoLab), Canon (Kyosei), Hewlett-Packard (HP Way), Johnson & Johnson (Credo), Novo Nordisk (bio-ethics policy).

8. This line of reasoning led to the popular view that ''the business of business is business'' and nothing else. Milton Friedman, a Nobel Laureate in Economics, once said the only responsibility of a business was to turn a profit. It was commonly believed that corporations could be responsible citizens only through charity, giving back to the community a small portion of their profits.

9. For additional background, see F. Reichheld. *The Loyalty Effect* (Boston: HBS Press, 1998). Reichheld makes similar arguments, although he does not make them in the context of living-asset stewardship. The ''synergy model'' has appeared in the corporate world. The diagram in figure 4 was drawn, more or less, by an executive at AT&T/Lucent in the early nineties.

10. It is important to note here that firms contribute to nature only as they remedy their damage to it and learn to live in harmony with the web of life. They can't improve natural systems because

they don't control them. Nature is the universe in which the firm (and everything else) functions. Nature can live without companies, but companies cannot live without nature.

11. What we are describing here is a composite model based on corporate best practices. We know of no single corporation that satisfies all the model's requirements.

12. "Eco-effectiveness" is a condition in which a company's products and processes have no adverse effects on nature. "Partnering with nature" is a concept, introduced by Novo Nordisk, in which the company tries to enhance nature's carrying capacity and diversity via its products and processes.

13. LAMP companies were selected in every major industrial sector (including old economy industries such as autos, chemicals, forest products, primary metals, and steel). In major industries where stewardship standards are in a relatively early stage of evolution (especially banking), there is less representation than in the MSCI benchmark; and in industries where stewardship is more evolved (especially information technology), there is stronger representation. Geographically, LAMP companies are concentrated mainly in North America, Northern Europe, and Japan, where stewardship practices have been in place for decades. The LAMP index has a bias toward large capitalization stocks because, in selecting companies for it, we sought the early pioneers in living-asset stewardship.

14. Companies count what is important to them. LAMP companies, such as Toyota and Analog Devices, have systems that measure learning and teamwork (process effectiveness), rather than simply output. Most LAMP companies publish annual environmental reports that track effluent and set targets for more ecologically efficient production.

15. Some of the most useful third-party sources that we used include: KLD's "Socrates" database (www.kld.com); SustainAbility's surveys on "Engaging Stakeholders" and related materials (www.sustainability.com); Environmental Data Interactive Exchange Weekly www.edie.net; sustainablebusiness.com; business-ethics.com; and wbcsd.org. When available, we also used business school case studies and books and articles by authorities on corporate stewardship for verification.

16. Primary sources include books and articles by members of the Society of Organizational Learning (SoL) on corporate learning practices. While these are too numerous to mention here, a good sample can be found on SoL's website (www.SoLonline.org).

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Commentary

by Bettye Pruitt

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As a historian, I confess that I am predisposed to be skeptical of the explanatory power of a few causal loops purporting to capture the dynamics of more than 100 years of business history. That said, I greatly value the steps Jay Bragdon and Richard Karash have taken to place the phenomenon of living-asset stewardship in historical perspective. The article raises a number of provocative questions. Here are two that came to my mind.

First, is the looming environmental crisis somehow fundamentally different from earlier crises that might be seen as comparable? For example, the Great Depression of the 1930s also produced a major backlash against corporate practices that seemed to sacrifice public well-being for private gain. Among other New Deal legislation regulating various aspects of business, the Wagner Act of 1935 guaranteed the rights of unions to organize and bargain collectively, pointedly establishing a counterbalance to the uninhibited exercise of corporate control over human "assets." Companies changed the way they operated as a result. Yet neither the crisis nor the reaction produced the

kind of shift in mental models represented by the practice of living-asset stewardship. The competitive crisis of the 1980s, on the other hand, brought about some dramatic mental model shifts in the corporate world. The change in manufacturing from thinking of quality and low cost as either-or choices to thinking of them as complementary bears some similarity to the shift that Bragdon and Karash describe from a zero-sum game model to a synergy model in corporate thinking about people and the environment. In management thinking, command and control gave way, at least in principle, to employee "empowerment"—another momentous shift that might be seen as a precursor to living-asset stewardship.

Perhaps we should think of these prior crises and the responses to them as laying the foundation on which living-asset stewardship could arise—a gradual, cumulative rethinking of established ways of doing things prompted by episodes of negative feedback from the outside world. But could it be that the crisis of environmental degradation could be something truly different, something capable of provoking more radical shifts in perspective? Maybe the prospect of large-scale climatic change is just more sobering than anything businesses and society have faced before: a prospect that makes people feel, as nothing else can, that we are all in this together, opening us up to the sense of connectedness that is the heart of living-asset stewardship.

Second, what will it take for living-asset stewardship to become widely accepted and widely practiced? Certainly, Bragdon and Karash must get the message out about the global LAMP index and what it signifies, and the companies in the index must, collectively, continue to perform well. But I believe there must also be major shifts in thinking outside the corporate community, particularly in the investment community, given the important role that capital markets play in shaping corporate behavior. This relationship, too, has a long history worth considering. In the formative period of large-scale enterprise in the US, from roughly 1890 to 1920, federal and state laws prohibiting bank mergers and branching kept capital markets from expanding to match industrial growth, with the result that the cost of capital was high. In the development of mass production industries, this situation helped to foster a bias in technology choices favoring high-volume output, which was resource intensive, over efficiency in production, which required a greater fixed-capital investment in the form of more efficient machines. From the late nineteenth century on, the natural resource content of US-manufactured products was higher than that of goods produced in countries where the cost of capital was lower, for example, Germany, which had the model national banking system (Calomiris and Ramirez, 1996). We are more familiar with the post-World War II influence of the capital markets, especially in promoting the waves of mergers and acquisitions that have reshaped the corporate landscape since the 1960s. This example from an earlier time points up more subtle but no less profound impacts.

All of which is simply to suggest the importance of keeping in mind the larger context in which corporate decision making takes place. In the current business context, given the intense short-term pressures imposed by the market's preoccupation with quarter-to-quarter earnings growth, the prospects for widespread living-asset stewardship seem highly uncertain. What may need to change is the mental model in the investment community that the unbridled pursuit of individual gain in the market will ultimately produce a good outcome for all. This brings me back to my first question, to wonder if the environmental crisis that will produce that kind of shift will awaken a much wider group of decision makers to the recognition that we are all in this together. These are questions that future historians will have to answer.

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"I Don't Have Time to Think!" versus the Art of Reflective Practice

Joseph A. Raelin

"Susan, you're next. As you know, we figure the Cadlink merger is going ahead. They expect their Wentworth localization unit to be merged with your marketing group. What do you think?"

"No problem, Charlie," Susan replied. "We can integrate them, no sweat."

"Wait a second," Charlie said, looking a little uneasy. "I heard they use an entirely different CRM model. Don't you want to think about this a little?"

"Charlie," Susan insisted. "I'm working on a news release on the merger. I don't have time to think!"

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Managers like Susan and Charlie live in a world of frenetic activity. Reflective practice is hardly possible or practical in this age of the busy corporate executive who is socialized to be a person of action, not of reflection. Action is required. Delaying decisions is seen as a sign of weakness, even if the delay may subsequently produce a better decision. CEOs want an answer rather than a question; they are looking for solutions rather than problems. Yet, is it possible that the frenetic activity of the executive is a drug for the emptiness of our organizational souls, that constant action may merely serve as a substitute for thought?

So society gives reflection and its counterpart—listening—short shrift. We don't seem to be interested in the whole story. We even perfect the art of interruption so that we can show our "proactivity" and gain the boss's attention. There was a time before instant replay when humans had to get the whole message or it would be lost forever. We seem to be unwilling to perfect the art of public reflection, in which we show a willingness to inquire about our own and our colleague's assumptions and meanings.

What Is Reflective Practice?

Reflective practice, as I define it in this article, is the practice of periodically stepping back to ponder the meaning of what has recently transpired to ourselves and to others in our immediate environment. It illuminates what the self and others have experienced, providing a basis for future action. In particular, it privileges the process of inquiry, leading to an understanding of experiences that may have been overlooked in practice. In its public form, it is associated with learning dialogues. These types of discussions, rather than constituting an exchange of statements of viewpoints, bring to the surface—in the safe presence of trusting peers—the social, political, and emotional data that arise from direct experience with one another. Often these data are precisely those that might be blocking operating effectiveness. Learning dialogues also are concerned with creating mutual caring relationships.

Reflective practice tends to probe to a deeper level than trial-and-error experience. It typically is concerned with forms of learning that seek to inquire about the most fundamental assumptions and premises behind our practices. It is thinking about our thinking. Consider that the brain, as a sophisticated information-processing organ, can handle some

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50,000 to 60,000 thoughts per day. Unfortunately, as we encounter problems in our work, we tend to go no further than consulting our "solution database" (depicted in figure 1) to find an answer.[1] Our solution database contains all the standard answers and assumptions we have used in our past to solve our problems.

In thinking about thinking, we are actually able to reflect together about our solution databases and add to them or alter them entirely. In this way, we reflect together with trusted others in the midst of practice. Plato had relationships in mind when, in *Apology,* he quoted Socrates's now famous phrase: "The unexamined life isn't worth living." This phrase has often been misinterpreted as a call for additional introspection. Although this might be useful, the actual meaning is that we need to include others in the examination of experience in our life. Plato's idea resonated with Aristotle, who recognized that human beings are social animals whose good is bound up with the good of the *polis*. Underpinned by these Greek roots, the egalitarian tradition in Western thought has long since recognized that the dignity of human persons is achieved only in community with others.

So, reflective practice, though recognizing the value of private reflection, opens up for public scrutiny our interpretations and evaluations of our plans and actions. We subject our assumptions, be they personal or professional, to the review of others. We do this not only before or after an event, but learn to inquire even in the heat of the moment.
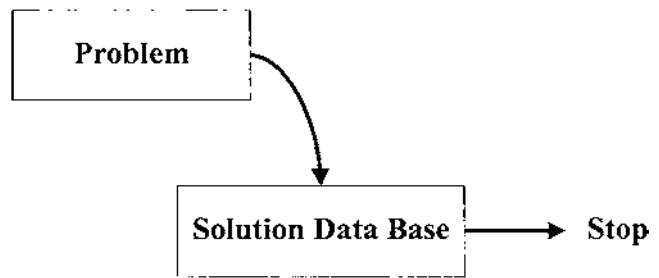

Figure 1 Our normal problem-solving pattern

Rationale for Reflective Practice

Reflection must be brought out in the open for many reasons:

1. At times, we are, unfortunately, unaware of our behavior and its consequences. To complicate matters, our unawareness occasionally does not allow us to be open to new data or information that would help us learn from our actions. We may even be unaware that the questions we ask might be producing defensiveness in others, closing off the possibility of generating new information, even new questions. Often, only through the support of and feedback from others in an open dialogue can we become receptive to alternate ways of reasoning and behaving.

For example, Claire, a research director at a pharmaceutical firm, had advanced to her position after being mentored by the foremost biochemistry guru in the company. His approach was to try to poke holes in every proposal on which Claire had been working. Now in management, she saw her role as "grilling" her subordinates, not only privately but in public during and after their research briefings. She was surprised when three of her subordinates requested a transfer out of her group, claiming that she was too much of a perfectionist to work with. Why couldn't they understand that she was just trying to be helpful and that her interrogation at the end of the day always led to a better project?

2. There is an unfortunate gap between what many of us say we will do and what we actually do. We are simply guilty of deceiving ourselves that we can practice what we preach, though what we preach may be very difficult to accomplish in particular organizational cultures. How many readers have submitted to the game called "Yes, but . . ." with a boss? "Yes, but . . ." bosses typically start out by proclaiming that they have an open-door policy. "If you ever have a problem or a question for me or about our operation, you should feel free to come to me at any time," they proudly avow. A series of conversations with the boss ensue during the next several months and may go something like this:

> [One month later] "Boss, I would like to propose that we adopt the balanced scorecard approach to measuring our outcomes." "Yes, good idea, but we actually tried it 14 months ago and it didn't work. But keep those great ideas coming!"
>
> [Two months later] "Boss, rather than paying out so much overtime, what would you say to hiring Tim Evans part-time to help us out. I know he's available." "Yes, that might work, but Tim didn't get along well with Sara, so I think we best continue as we have been."
>
> [Three months later] "Boss, I know the group can increase its efficiency if we purchase and then receive some training in the software program, PROJ-ACT. I know a great supplier;

they do a great job and can convert us in under two weeks.'' ''Yes, but Marcia proposed that we try out the exact same program, and it was voted down just before you joined us.''

[Four months later] ''Boss, what would you say to all of us going out to see the latest Spielberg flick?'' ''Yes, he's great, and his current movie has an important message for our group, but you can't force these social outings on people. We each have our own lives.''

[Five months later] No more ideas are forthcoming. Case closed.

3. Most of us are biased in how we obtain information that, in turn, produces cognitive ''errors'' in our perceptions of reality. Errors constitute such practices as collecting data superficially, ignoring certain pieces of information, making assumptions about data rather than investigating them, or using self-confirming reasoning. However, if we are interested in improving our managerial practices, we have to become aware of these so-called errors. Such an awareness is extremely difficult to awaken without the involvement of peers who can detect the use of untested assumptions and raw biases.

In the game of professional baseball, some managers employ a so-called ''platoon'' system in which they use certain left-handed players against right-handed pitchers, but replace them for a right-handed batter when the pitcher happens to be left-handed. The reason for platooning is that it is merely easier for batters to face opposite-handed pitchers. However, this general statistical rule breaks down at the level of the specific case, where more reflective practice may be called for. Some batters, for example, do just as well against same-sided as opposite-sided pitchers. Others seem to bat well against particular pitchers, regardless of their throwing arm. Some situations, such as a bunt, may call for a play that may not depend on the hand dominance of the batter.

4. Although intuition and past practices can give us very cogent clues in deciphering future situations, often the new situation presents itself in a different context. Prior solutions may not fit, even if the situations appear alike. We tend to look, however, for the similarities between the situations rather than differences. This type of normal cognitive processing can play tricks on us. Even when we consult a repertoire of available responses, we may not find one that fits the new situation. Consider the business strategy of mergers and acquisitions (M&As). From most accounts, it appears that more often than not M&As fail to generate the synergistic value expected from the combined entities.

We need managers who can inspire reflection to the extent of generating new ways of coping with change.

Take the case of Quaker Oats, which has recently merged with Pepsi Co. In 1994, nearly 10 years after the incredibly successful acquisition of Gatorade, Quaker Oats completed a $1.7 billion merger with Snapple. Three years later, it had to unload Snapple for $300 million. Given their previous success with Gatorade and their preconceived sense of the cultural norms within the industry, it appears that Quaker's principals may have critically overestimated the more particular cultural differences between the prospective partners. On one hand, Quaker was known for its highly focused, mass-marketing operating style, whereas Snapple was considered to be quirky, entrepreneurial, and distribution oriented. Was it possible that the principals may not have sufficiently reflected on what Robert Thomas (2000) likes to refer to as ''cultural due diligence''?

The Practicality of Reflective Practice

Is reflective practice possible or practical in this age of the busy corporate executive who is socialized to be the person of action, not of reflection? In our turbulent global environment, it appears almost definitional that we need managers who can inspire reflection to the extent of generating new ways of coping with change. A reflective culture makes it possible for people to constantly challenge without fear of retaliation. Yet, a culture that permits questioning of assumptions is difficult to tolerate because it requires that people in control lose their grip on the status quo.

In actuality, inspiring reflective practice in an organization does not have to be an onerous task, even for top managers. Although they are, by definition, people of action, they are also people who, when given a hospitable environment, like to compare expe-

riences and, moreover, to help one another. They may also crave the opportunity to share their insights, questions, and even failures with others, if given a climate receptive to open discourse. Indeed, they might appreciate an opportunity to replay their plans and actions in front of like-minded colleagues who are not assembled to take advantage politically of their faults, but who want to help. They realize that they, too, need the understanding of others.

Accordingly, there are some strategies that organizations might endorse to encourage more widespread use of reflective practice even in the face of unrelenting pressure for action (Haggerty, 2001; Raelin, 2000).

ω*Reflective actions*—Just one person demonstrating the value of inquiry generates interest in reflection among members of a team or work unit. A team may be introduced to reflective activities and processes such as journals, postmeeting e-mail minutes, reflective note taking, learning histories, and "stop and reflect" or debriefing episodes held during or at the end of meetings (Castleberg, 2001; Kleiner and Roth, 1997).

ω*Building communities*—Individuals may be encouraged to network with fellow employees who, though not necessarily in the same work unit, may have a shared interest in a craft or job. Other small groups, even dyads, could form for mentoring or support purposes, for sharing and testing ideas, or merely for feedback and exchange on initiatives and performance.

ω*Process improvement*—Although quality improvement approaches, such as total quality management, may not critically probe to the deeper levels of reflection alluded to earlier, they reinforce the value of learning from experience, whether before, during, or after the practice in question.

ω*Learning teams*—Whether constituted to support individuals working on their own projects, in the form of work or of self-discovery, or to support task teams working on meaningful action-learning projects, learning teams represent a vehicle to merge theory and practice. Participants, with assistance from their peers and qualified facilitators, use the learning team to help them make sense of their experiences in light of relevant theory. They discuss not only the practical dilemmas arising from actions in their work settings but also the application or misapplication of concepts and theories to these actions.

ω*Culture of learning*—Reflective practice tends to flourish in learning and collaborative environments. Senior managers have a particularly important role in modeling a learning orientation, in particular, a culture that values continuous discovery and experimentation. Reflective practice can become a way of life when organizational members feel free to challenge the governing values of their practice and where structures and standards can change to accommodate new requirements.

The Skills of Reflective Practice

Having considered some organizational strategies to orient firms in the direction of reflective practice, we now drill down to the level of skill to identify specific practices, notwithstanding the basic skills of communication. In particular, beyond the contribution of active listening competencies and the value of feedback, there are five advanced skills that, used together, can contribute to reflective discourse.

Although trained facilitators often introduce these skills, other facilitating members of any work or learning team can also initiate them. The model in figure 2 shows the five principal skills: being, speaking, disclosing, testing, and probing. They are also displayed in the sidebar, including their definitions, some prompting questions along with associated behaviors, and an example. I examine them here in more detail.

Figure 2 The five skills of reflective practice
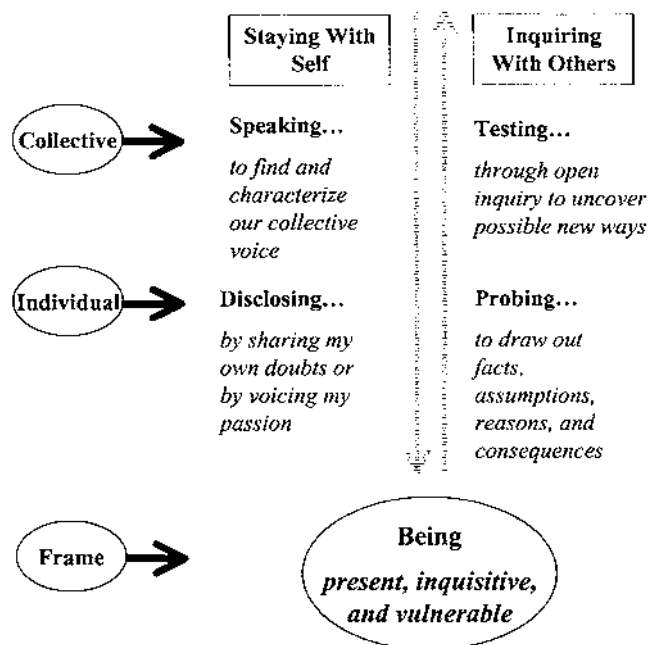
Descriptions of the Reflective Skills

Being

Definition
Creates a climate for reflection in the group; asks that we experience or describe situations, even our own involvement in them, without imputing meaning.

Ask
What can I learn here?
How am I acting to constrain what is possible?

Behavior
View with empathy and with open-hearted acceptance.
View as strange, display deep interest and curiosity.
Invite questions and comments.
Acknowledge our own and others' vulnerability.
Consider positions as hypotheses to be tested.
Pause, reflect, contemplate.

Example
"It looks like we have pretty much endorsed the direct marketing approach for this advertising campaign. As you know, I have pushed for it as well, but we all remember what happened on the Do-op project. I have to admit that it still feels right to me, but to be honest with you, I still have some reservations. Do you think we should take one more look at this? I'm afraid I might have overlooked something."

Speaking

Definition
Calls for speaking with a collective voice to find collective meaning in the group. It attempts to characterize the state of the group at a given time.

Ask
What can I say to help the group understand itself?
What social practices is the group engaging in right now?
What is emerging in our collective consciousness that I can articulate?

Behavior
Suggest group norms.
Articulate meaning, such as by summoning an image.
Be willing to bring out uncertainties and unfounded assumptions.

Example
"James, your concern left me with an image that seems to characterize our effort right now. It is like we're a cargo plane having to make our destination in Istanbul, but with one engine knocked out."

Disclosing

Definition
Asks that members find and speak with their own voice in order to disclose their own doubts and assumptions and to voice their impatience and passion.

The skill of *being* is central and pervasive, cutting across the other skills, because it represents our presence and vulnerability in creating a reflective climate. Recalling that reflection represents a stepping back to ponder meaning, the first reflective skill is to experience or, even more simply, to be. In accomplishing *being,* we try to experience and describe situations, even our own involvement in them, without imputing meaning to them or without evaluating them. We learn to explain with others.

As the most unusual yet potentially powerful of the skills, the skill of being can place us in a vulnerable state because we do not rely on defending ourselves against experience. The object is rather on opening up to experience and to our interpersonal environment. We engage in such practices as suspending certainty, externalizing our thoughts, and exploring the tension of the opposites. This produces a reflective response that can be characterized by a number of attributes (from Bell, 1998) that directly contrast to the defensive posture:

ωInstead of maintaining unrealistic standards, we set realistic expectations.
ωInstead of expressing trepidation, we display tolerance.
ωInstead of concentrating on self-expression, we listen.

Ask

What am I holding back that needs to be aired?

What might I say to help the group know me better?

Behavior

Disclose feelings at a given moment, based on what has transpired.

Present a story to reveal the depth of experience.

Example

"I wasn't planning on telling you about this. I know I have seemed distracted lately, and the way I just dealt with Linda is a case in point. Well, frankly, I am having some marital problems. I've moved into an apartment and can't get my mind off my kids."

Testing

Definition

Makes an open-ended query to the group to attempt to uncover new ways of thinking and behaving. It asks the group to consider its own process, including its norms, roles, and past actions.

Ask

Are we helping each other right now?

What can I ask to help us all focus on our process?

Behavior

Attempt to make a "meta-inquiry," to focus on where the group is right now.

Ask if the group would be willing to test some taken-for-granted assumptions.

Example

"I guess we're at an impasse. In fact, it looks like we're split right down the middle on this one. Can we come up with some way to resolve this to everyone's reasonable satisfaction? What do you all think?"

Probing

Definition

Inquires directly with a group member in order to understand the facts, reasons, assumptions, inferences, and possible consequences of a given suggestion or action. Commits to a nonjudgmental consideration of another's views.

Ask

What is the basis for another's point of view and feelings?

Can I explore with others even though their position may be different from my own?

Behavior

Ask about impressions and perceptions.

Inquire about attributions of others' behavior.

Explore the consequences of an alternative.

Example

"Frank, you've said several times that you believe that the workers in your unit should take the ball and run with it. Yet, you say they are dependent and continue to check with you on every new initiative. Is there anything you might be doing or saying that might be blocking their sense of independence? Might you be unwittingly giving them the sense that you'll be critical if they screw up?"

ωInstead of being self-absorbed, we convey humility.

ωInstead of feeling out of depth, we feel open to learn.

ωInstead of feeling out of context, we become open to experience.

Bell's reflective response suggests that, at times, we may engage our empathy with others by viewing them and listening to them as we wish to be treated. At other times, we may wish to view others as ''strange'' (Isaacs, 1999), people so unlike ourselves that they require even deeper respect and attention so that we may learn to know them. Using language from Buddhist insight meditation, *being* can also be referred to as mindfulness, which represents knowing what is arising in the moment without losing track of the knower. Gregory Kramer (1998), through the practice of ''insight dialogue,'' has explored the potential of maintaining a meditative state of being while engaged in relationship with others. Developing the discipline of folding action and reflection into one requires a good deal of skill and patience but can be learned, according to Kramer, using these guidelines:

ω*Commit to the process*—We bring full presence to the group and commit not out of obligation but out of wisdom and compassion, allowing us to connect with one another.

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ω*Trust emergence; have no goals*—The universe of possibilities is not limited by a preconfigured agenda. There is no goal but to rest in the moment from which might ensue an emotional and spiritual release or an intellectual breakthrough. These are natural results, not goals.

ω*Balance affirmation and investigation*—We practice deep listening and maintain an attitude of inquiry. We affirm, not from a separate, limited self, but from the circle emerging within the group. We feel at ease with ourselves, confident of the group's "lovingkindness."

ω*Pause, reflect, contemplate*—We pause after hearing a statement, reflect on what has been said, and contemplate our feelings, the motivation for speaking, and the richness of the moment. By providing space in interactions, we can begin to understand their nature.

ω*Free up roles*—In the group, there is no hierarchy. We attempt to avoid the tendency to put people into pigeon holes. An open-hearted acceptance of ourselves and of others yields freedom and spontaneity to all.

ω*Seek out assumptions*—We actively explore the moment, searching for assumptions in our own thinking and in what others have said.

ω*Observe judgments*—We allow judgments to rise to consciousness in order to gain a window into our reactive nature and to open the possibility of a more even-handed way of being.

ω*Share parallel thinking*—Parallel thoughts are those that arise in the background as other things are expressed. In the safety of the group, we bring these forth, be they judgments, feelings of inadequacy, or observations about the processes arising in the group.

Referring to the dimensions of the model, *being* itself occupies the dimension called the *frame* mode. Framing refers to how we think about a situation, more specifically, how we select, name, and organize facts to tell a story to ourselves about what is going on and what to do in a particular situation. In the collective mode, we extend our contributions and inquiry to all members of the community, whereas in the individual mode, we hear our own voice or address one individual at a time. The cross-dimensions are "staying with self" and "taking action toward others." At times, we make personal contributions to the group or focus attention on ourselves. At other times, we extend and dedicate attention to others.

Being, as a central skill, may entail staying with oneself or taking action toward others. It is most concerned with exploring differences and diverse experiences apart from members' preconceived notions. The being skill models an inquisitive, nonjudgmental attitude toward group phenomena. Some of its components are: inviting questions and comments, considering one's own positions as hypotheses to be tested, acknowledging expressions of vulnerability by others. Consider this excerpt from a supervisor's journal as an example of being:

> Sam began to challenge our very purpose. He questioned not only why we needed to meet so often, but once he got going, he seemed to be questioning why we even needed to meet at all! I had formed our team and felt a spontaneous urge to counter his negativity. But I caught myself and decided to pause and continue to listen instead. Perhaps it was good that Sam was getting his feelings out on the table. Any knee-jerk reaction by me would likely shut him down. Maybe he had a few good points? At that moment, Linda and then Paul began to share their vision for our task force, yet they did it displaying profound respect for Sam's challenge. I found myself appreciating that Sam brought his objections to the team and said so. We began to work on some of our deficiencies as a group. I think it was our best meeting.

The second reflective skill of *speaking,* at the upper left in figure 2, seeks to articulate a collective voice from within ourselves. In speaking, we attempt to characterize the state

of the group or its meaning at a given time. It may entail summoning an image to articulate meaning, suggesting group norms, or bringing out uncertainties or unfounded assumptions. In speaking, it is not necessary to prepare words in advance. We craft our message in the moment as the meaning unfolds. Consider an example from the world of symphonic music:

Michael Tilson Thomas, the famous and still relatively young American conductor, was observed, perhaps unwittingly, using the collective speaking skill when he served as guest conductor with the Chicago Symphony. Although the role of symphonic conductor is often interpreted as a directive practice in which members of the orchestra are asked to follow carefully the direction of the conductor, Thomas used a more collective approach in his rehearsal with the orchestra of Tchaikovsky's Sixth. ''Of course, they had played the *Pathétique* hundreds of times,'' recounted Thomas. ''[But] when we got to the second theme, instead of beating it note by note in the typical schoolmaster way, I raised my hands into the air and gently indicated a breathing space that would precede this phrase. At first they were baffled,'' but I urged, ''Let's breathe together, hold the first note slightly longer, and then let the melody gracefully fall away from it.'' In explaining what happened next, Thomas recalled, ''I couldn't make the music happen alone. We needed to share the feeling, we had to find that shape together, and we did. It was miraculous.''[2]

In the third skill of *disclosing,* we stay within ourselves and, at the same time, share our doubts or voice our passion. By disclosing, we may unveil feelings at a given moment based on what has transpired, or we may present a story to reveal the depth of our experience. As people disclose more about themselves, the group learns more about its membership. Another cue to promote disclosing is to ask myself what I might say to help the group know me better. A story about George Washington reveals the power of disclosing.

Unknown to all but the most astute historians, there was a substantial movement during the waning years of the American Revolutionary War for the military to take over the civilian government and install Washington as king. At one historic point, Washington appeared before some of these military officers to condemn this affront to democracy, the cornerstone of the entire revolutionary movement. However, his speech was falling on deaf ears. Then, at one point, as he helplessly attempted to read a missive from a member of Congress, he paused to reach for a pair of glasses, something only his closest aides had known that he needed. Then he quietly confessed to his officers: ''Gentlemen, you will permit me to put on my spectacles, for I have not only grown gray but almost blind in the service of my country.'' The men wept. It was thought that his statement of vulnerability nipped this movement in the bud: How could the men ignore this selfless commander who reminded them that he was one of them?[3]

> *As people disclose more about themselves, the group learns more about its membership.*

Testing, the fourth reflective skill, is an open-ended query directed toward the group as a whole that attempts to uncover new ways of thinking and behaving. When testing, we may ask the group to consider its own process or may attempt to explore underlying assumptions previously taken for granted. In testing, we are trying to promote a process of collective inquiry. As a tester, we may occasionally ask for a process check or ask if someone might act out a scenario to explore an option. Perhaps readers are familiar with the ''Abilene Paradox,'' an interpersonal dynamic described by Jerry Harvey (1988). Harvey coined the terms when pondering why he and some family members took an exhausting trip in a dust storm to Abilene, 53 miles away, when not one person in their party actually wanted to go there. Because we have an unfortunate tendency in everyday life to communicate the very opposite of our wishes based on our assumptions of the desires of others, the testing skill can become indispensable. We need to develop the courage to inquire about our mutual desires and actions if we are to successfully manage agreement.

Finally, in *probing,* we make a direct inquiry, typically to one member at a time, to find out the facts, reasons, assumptions, inferences, and possible consequences of a given suggestion or action. For example, probing might attempt to point out inconsistencies in members' reasoning patterns, perhaps helping them to uncover the assumptions and

beliefs behind particular actions. When probing, however, we need to be careful not to interrogate or make any member feel he or she has been put on the spot or on the defensive. On the other hand, probing may initially make some members uncomfortable if they are asked to consider assumptions that had been hidden even from their own consciousness. As an example, consider a frank inquiry posed to a group member, Mark: ''Mark, every time that I can recall when we've thought about broaching our plans with Lisa, you chime in saying that she is someone whom no one can work with and a person to be avoided at all costs. I wonder if you've had some experiences with her you can share that would help us, and perhaps you too, understand what seems to be making Lisa such an obstacle. Maybe there *is* a way that would make it possible for one of us to approach her.''

So, how would Susan and Charlie from the initial vignette interact under reflective practice conditions? Let's see how the conversation might have changed. See if you can detect Susan's interest in building a reflective community and more specifically in her use of the *being* skill, followed by Charlie's use of the *disclosing* and *probing* skills:

> ''Susan, you're next. As you know, we figure the Cadlink merger is going ahead. They expect their Wentworth localization unit to be merged with your marketing group. What do you think?''
>
> ''Charlie, thanks for giving me your confidence. Frankly, I'm concerned. Even though I had earlier been pretty vocal about my support of the merger and had told Jeff that I believed we could assimilate Wentworth, I have new data suggesting that their work methods might not converge with ours. We need to get them in the room, but I'm not sure how to broach the matter. You've had conversations with them before. What do you suggest?''
>
> ''Susan, I'm somewhat fearful that they might think we're back-pedaling here, and my word is on the line. But I appreciate your frankness. By being up-front, I think I can show Jeff why this matter is too important to rush. I also know their marketing VP. But before we approach her and her group, let's hear about the new data that you have. What operating methods of theirs do you anticipate to be problematic?''

Acknowledgment

Notes

1. I am grateful to David Hardy, of the Bank of Montreal, for demonstrating the concept of the ''solution database.''
2. The Thomas account is from D. Schiff, ''An Older, Wiser, Humbler Wunderkind.'' *New York Times Magazine* (August 20, 1995): 31.
3. This story of Washington was described in O. Guinness, ed. *Character Counts: Leadership Qualities in Washington, Wilberforce, Lincoln, and Solzhenitsyn* (Grand Rapids, MI: Baker Books, 1999): 37.

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Commentary

by Phillip DiChiara

In the mid and late 1990s, abundant venture capital catalyzed the rapid growth of fledgling organizations, many of which placed great emphasis on market share, virtuality, personal fulfillment, and overall staff satisfaction. Technology firms in particular proudly provided space for recreation with the hope of encouraging dialogue and teamwork. Many new ventures assumed that highly motivated employees would view work as play, play as work, and professional fulfillment as essential to their continued commitment to the often-entrepreneurial task at hand. The spoken intent was to recruit the best talent at any cost, to provide a nurturing environment for innovation, and to create teams that would succeed.

In fact, there is evidence to suggest that "safe space," physical or otherwise, for individual or group reflection was often less a reality than an optimistic promise. Joseph Raelin's article reminds me that, for many practitioners, the concept of reflective practice is essentially unknown.

As Raelin notes, there are many reasons why reflection should be brought out in the open, and there are strategies to encourage its use. Within the efforts of The Boston Consortium for Higher Education, a young collaborative focused on addressing the shared problems faced in the administration of member colleges, we believe reflective practice has been an essential part of our success thus far.

As our groups evolve from informal meetings within a discipline, but across several different school organizations, community building is not left to chance. A clear sense of shared interest and vision is essential, and creates the fertile ground on which reflective practice can be nurtured. Encouragement from senior staff may catalyze initial involvement, but few managers can afford, or want, to spend time in meetings that do not provide a return on their investment of time. Additionally, they value sessions that allow them to engage their peers in settings that are relaxed but clearly focused on how their collective knowledge can reduce workload or enhance the quality and sophistication of their respective operations.

Facilitating the correct balance between "getting down to business" and nurturing an environment that permits reflection is not easily accomplished. It is however, necessary, as too little of either will discourage further involvement in a newly formed group. It is modulated differently from group to group, within a group, and often within a topic. The skills of reflective practice, detailed in the article, can be readily observed in sessions involving our more matured communities of practice.

The consortium initially employs a coordinator, who, with solid facilitation skills, assists a group in discovering and sharing their common concerns. As dialogue leads to relationships, time for reflection is created by simple but effective tools such as collective review of previous meeting notes or informal updates on the seemingly unrelated problems they have had to tackle in order to move the effort ahead.

In some cases, casual dialogue before and after meetings involves sharing of often-humorous episodes encountered in merely finding the time to attend a group meeting. We suspect that this is evidence that value is placed on attending the meeting. It would also appear to resonate with the value we discover in stepping back and observing our activities, as conditioned as we may be to doing otherwise. Public reflection in a trustful environment brings attention to the flurry of activity that often acts as a substitute for thoughtful analysis. An individual's ability to observe his or her approach apart from and outside of the traditional organizational setting is an important benefit of reflective practice within consortia, and we believe, very much a part of the attraction of participating in a community of practice.

Unfortunately, not all communities evolve at the same pace, and some, despite able assistance, do not achieve their full potential. What would appear to distinguish them is the degree to which the group becomes comfortable with observing itself and others. Groups that are hell-bent on achievement often meet their objective, but seem to cycle out of productive existence. Other groups, frequently populated with two or more personalities that are biased toward inquiry, typi-

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cally find the ability to re-engage continuously. Is it that the relationships created have become so trusting that the vulnerability often associated with reflection is no longer a concern? We believe that is the case, but are not sure.

If communities of practice in collaborative environments tend to encourage reflection, then interorganizational communities of practice would appear to require it. There is rarely a clear line of authority on joint projects. A compelling argument for project completion must be adopted and internalized by all participants in order to achieve success. Absent facilitated reflection, failure to appreciate the whole story and understand the unique perspective of several organizations will increase the likelihood of a failed effort. The creation of "safe space" becomes the critical element in successful consortia and the communities of practice they seek to produce. Without that space, reflection is less likely to occur. Shared reflection, even in modest quantities, is part of every successful effort within our consortium and often absent in those that do not meet our hopes and expectations.

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Commentary

by Philip W. McArthur
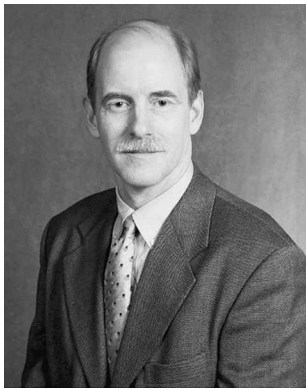
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As the title of Joseph Raelin's article captures, reflection in organizations, while so necessary for the reasons he articulates, is often resisted because people think they don't have time. What leads us to think this? What are the implications for people who wish to foster more reflection? As Raelin points out, we can think of reflection as occurring in three distinct moments: (1) before we act, (2) after we act, and (3) in the heat of the moment. I would venture a guess that when people think they don't have time to reflect, they are referring to the *before-* and *after-action* types of reflection. This puts a premium on understanding how to optimize reflection in the heat of the moment, or what Donald Schön (1983) in his seminal book, *The Reflective Practitioner,* called *reflection-in-action*.

Schön used the term reflecting-in-action to describe the process professionals implement to develop practical knowledge in unique, surprising, and puzzling situations. As Schön explained, much of professional knowledge is tacit. Expertise leads to a dilemma. The better you get at what you do, the less able you are to say what you know. You "just do it." The process of reflecting-in-action involves "turning thought back on action and the implicit knowing in the action" (Schön, 1983), making your tacit knowledge explicit, reflecting on your assumptions, so that you can entertain fundamentally new options.

Reflection, in this sense, is not divorced from action. It is about applying learning to one's performance in the current situation. As Schön noted, we can think about what we are doing, even as we are doing it, but this requires that we embrace uncertainty rather than see it as threatening or a sign of weakness. The barrier to reflecting-in-action is not necessarily time, but our willingness and ability to engage each other effectively in reflecting on our thoughts, feelings, and actions. When Charlie says to Susan in the opening vignette, "Don't you want to think more about it?" Susan may understandably see this as a delaying tactic. When she responds, "I don't have time," what she may really mean is, "I don't find this conversation helpful."

I agree with Raelin that reflective practice is powerful because it is public. But, to leverage this power, there is a dilemma with which we must contend. As we engage in reflection with others, there are usually two conversations going on simultaneously: a public one and a private one (Argyris and Schön, 1974). The private conversation is a function of our ability to observe both others and ourselves. Unfortunately, in difficult conversations, our internal observer can become quite reactive. We think to ourselves, "What an idiot!" "How can he possibly believe that!" "I better not rock the boat." Our reactive observer is judgmental in ways that are not useful and leads us to protect others and ourselves rather than promote learning. Yet, our judgments may be accurate and necessary for change. The solution to this dilemma is not to be nonjudgmental, but to be aware of our judgments and communicate them in ways that promote mutual learning.

Table 1 Developing a reflective observer

Reactive observer (from supervisor's journal)	Reflective observer (my examples of second-order reflection)
"Sam [is challenging] our very purpose. He [is questioning] not only why we need to meet so often. . . . He [seems] to be questioning why we even [need] to meet at all!"	"What is it about Sam questioning this group that I find difficult?" "These are my interpretations. I need to test them publicly."
"Perhaps it [is] good that Sam [is] getting his feelings out on the table. Any knee-jerk reaction by me would likely shut him down."	"I understand Sam thinks we shouldn't meet. I'm glad he's raised this, but I don't yet understand his thinking. I need to ask." "I am assuming I would shut him down if I respond. If I just say he is wrong that won't help. If he doesn't find my inquiry helpful I need to learn why not."
"I think it was our best meeting ever."	"That is my assessment. Feeling good can be a trap. Did we miss any opportunities for learning? I need to check with others."

Given that our reactive observer does not disappear overnight (if ever), as we learn to reflect-in-action in tough situations, we have to develop a *reflective observer* that can help us make sense of and manage our reactive observer. What might this look like in action? Let me use as an example the supervisor's journal entry from Raelin's article (see table 1). In the left column, I have placed those comments of the supervisor that contain untested hypotheses and assumptions, which are characteristic of our "reactive observer." We need to become aware of these reactions, and further reflect on them, as we are acting. Examples of second-order reflection are in the right column under the heading "reflective observer."

In Raelin's model of reflective practice, his use of examples to illustrate the skills of reflective practice at the level of what you would actually say or do is one of the article's particular strengths. I have done the same in the table. Having examples at this level allows us to reflect on our causal reasoning and identify any gaps or inconsistencies in how our ideas might be put into practice (Argyris, 1982).

Raelin's model for reflective practice is composed of five core skills: being, disclosing, speaking, testing, and probing. I agree that the framing skill he identifies (*being*) underlies the effective use of the other four skills. What I find novel, but not yet convincing, is the idea that these skills apply distinctly to either the collective or the individual level.

Regarding the skills of testing and probing, in my practice, I don't make a distinction between using these skills at the individual or group levels. I apply them to both. Let me use Raelin's example of probing to illustrate. Here is a statement made by one group member to another.

> Mark, every time that I can recall when we've thought about broaching our plans with Lisa, you chime in saying that she is someone that no one can work with and a person to be avoided at all costs. I wonder if you've had some experiences with her you can share that would help us, and perhaps you too, understand what seems to be making Lisa such an obstacle. Maybe there *is* a way that would make it possible for one of us to approach her.

First, the use of words such as "chime in" could lead Mark to feel his concerns are being dismissed (and suggest that the speaker has work to do on his frame of Mark). That aside, from my perspective, this comment would be more effective if it included more explicit testing. The first place I would test with Mark is after I state my recall of his response to working with Lisa. I would ask, "Do you see that differently?" or "What's your recollection?" Second, when the speaker says, "Maybe there *is* a way . . . for one of us to approach her," this is, implicitly, suggesting a test. It would be a more explicit test if the speaker were to say, "I'd like to figure out a way to test if it is possible."

Regarding the skill of speaking, I do not understand what it means "to articulate a collective voice from within ourselves." I understand in the example that the orchestra found the shape of the music together, and that Thomas, the conductor, could not make the music happen on his

own. But, how did the orchestra do this without hearing their own "voices" in the process? Schön also distinguished between reflecting-in-action at the individual level, as when a baseball pitcher makes adjustments to his delivery, and at the collective level, as when jazz musicians improvise. But in Schön's description of the collective music-making process, the individual continues to be very present (1983: 56).

> As the musicians feel the direction of the music that is developing out of their interwoven contributions, they make new sense of it and adjust their performance to the new sense they have made. They are reflecting-in-action on the music they are collectively making and on their individual contributions to it, thinking what they are doing, and in the process, evolving their way of doing it.

In Schön's example, the jazz musicians are hearing the collective voice and their own voices. There is no blurring of the boundary between the individual and the collective. A key challenge in reflecting-in-action is being able to shift one's focus fluidly between the action you observe "out there" and your own internal experience and sense making. This is why it is important to combine productive advocacy and inquiry (speaking, disclosing, probing, and testing) whether at the individual or group level.

These distinctions aside, the final vignette between Susan and Charlie is a good illustration of reflecting-in-action. They are asking for help, making their thinking and concerns more explicit, asking questions that lead to more informed action, rather than indirect questions that appear to delay action. Notice that this conversation is longer than their first. But it is more helpful. People generally invest their time where they think they will get the most return. "I don't have time" may really mean "I don't see the value," or "You aren't being helpful." The key barrier to reflection-in-action is not time but skill.

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Response

by Joseph A. Raelin

As I prepare to write my response to DiChiara's and McArthur's thoughtful commentaries, I am struck that our journalistic practice with its artifact of objectiveness may itself miss the mark on full reflective practice since the three of us and our managing editor are hardly reflecting together in action. But we are stepping back to ponder meaning and perhaps are likewise engaging our readers, who may in turn bring up some of these reflections with others in their respective communities.

Two themes and one new thought emerge for me as I read both commentaries. The first theme is the sheer need to expose one's fragile self if reflection is going to occur publicly at all. It is hard enough just to ask others to slow down, let alone question self and others in front of the assembled. We need to ask each other how we can establish a climate for *being* in a world of acting. Perhaps it ultimately boils down to an existential courage, as or Paul Tillich put it, "the courage to accept oneself, in spite of being unacceptable" (Tillich, 1952).

The second theme that I derive from the commentaries is how critical it is that reflective practice occur at all levels of experience. Phil McArthur is mostly concerned with the individual and team levels of discourse. At the individual level, we need to make a discernible effort to understand our own assumptions and feelings (our "left-hand column") and how to communicate some of these constructively to others so as not to block productive personal and professional relationships. At the team level, we need to decide how to counter centrifugal forces that lead us to protect our identities rather than commit to one another. Using the speaking skill, for example, one doesn't necessarily "speak for the group," as McArthur aptly questions, but seeks to express a collective voice that helps the team find meaning as a working and learning unit.

Phil DiChiara is more concerned with reflective practice at the organizational and interorganizational levels of experience. Organizationally, our moments of reflection can help us probe beyond

the strategic imperative of "what business are we in," to questions of "what we stand for." The value dimension suggested here applies as well to our stakeholder relationships as we seek collaborative opportunities that consider not just the economic benefits to be gained from other parties but our mutual sustainability. Indeed, in *Work-Based Learning,* I propose that critical consciousness through public reflection might begin to lead to a better world when we recognize the connection between our individual problems and the social context within which they are embedded.

Finally, is there a link between reflective practice and the attention of the Society for Organizational Learning on leadership and personal development? If we expect people with working ties in our organizations to reflect together, it may be counterproductive to send them away individually to training programs. One alternative is to send them away together to the training. Another is to bring learning into the community itself. How do we do this? I have coincidentally worked with DiChiara and McArthur on this very issue. In an ongoing executive development program with Di-Chiara's Boston Consortium for Higher Education, we have assembled a handful of administrative executives from area colleges and universities. Although we started using a traditional format of lecture and discussion, we have since evolved into a reflective learning team. There is now sufficient trust in this network group that at each session, members take turns disclosing to each other some pivotal problems of leadership occurring in their respective work settings. The ensuing dialogue is dedicated toward helping individuals make sense of their leadership interventions in light of relevant academic and practice theories, but most particularly, in light of our profound respect of each other's courage to be.

Reference

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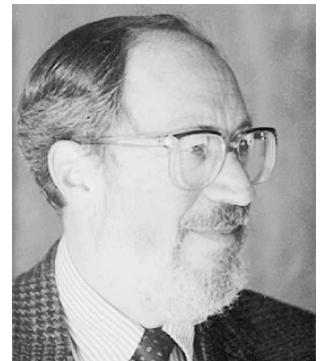
Commentary

by Edgar H. Schein

Raelin's call for developing the skills of reflection and finding the time to reflect is very timely as we get more and more frantic in this complex world. When I say to companies that learning requires "slack" time, I get outraged responses that not only is there no slack time anymore, but even if there were, the stakeholders would never approve of time being used unproductively. So how do we "find" time in a world that claims there is no time to be found?

I would suggest that if we view time as a cultural invention rather than a physical abstraction, we might discover that there are all kinds of time for personal reflection if we choose to use it. The best example is "commuting time." If we walk or take public transportation instead of driving, we have untold hours per week to devote to reflection. A second example is "walking the dog." This is an ideal time to think, either alone or with one's significant other. It is also an ideal time for reflective conversation. A third example is "between events, meetings, and so on." If I have to walk 10 minutes from one building to another to get to the next meeting, I have 10 minutes to reflect on what has just gone on and what is about to happen.

In a very provocative study, Marcie Tyre, former MIT professor, studied what we do when external circumstances force a "time out." For example, on the football field when a player is injured and the doctor is out on the field, what do the other players do during this time out? When the power goes off for a few minutes or hours, what do we do if we cannot continue our normal work? Most of us do not smoke anymore, but maybe the "smoke break" should be brought back as an institution to provide 5 to 10 minutes of reflection time out on the balcony. Instead of bringing our coffee back to the desk, what about taking a coffee break to walk around the block or to sit alone staring at the landscape and reflecting?

The point is that slack time is a sociological definition, not an absolute category. What we need to find are adequate excuses for reflection that others will accept as legitimately fitting into our busy lives. The absurdity of how we are driven by the norms of busyness is best exemplified in Cambridge at the outdoor teashop on Brattle Street. Many people will not stop for a relaxing tea and pastry (and a bit of reflection) because they may be seen as "wasting time" sitting at a café. Let's begin by reflecting on why we don't reflect more.

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