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# Diagnosis: Approaches and Methods

This chapter examines the main features of diagnosis and its uses in consultations for organizational improvement and change. Three critical facets of diagnosis are introduced: (a) process—working with members of an organization to plan a diagnostic study, administer it, and provide feedback on the findings; (b) modeling using models to frame issues, guide data gathering, identify organizational conditions underlying problems, and organize feedback; and (c) methods techniques for collecting, analyzing, and summarizing diagnostic data.

In organizational diagnosis, consultants, researchers, or managers use conceptual models and applied research methods to assess an organization's current state and discover ways to solve problems, meet challenges, or enhance performance.1 Diagnostic practice applies ideas and techniques from a diverse range of disciplines within behavioral science and related fields, including psychology, sociology, management, and organization studies. Diagnosis helps decision makers and their advisers develop workable proposals for organizational change and improvement. Without careful diagnosis, decision makers may waste effort by failing to attack the root causes of problems (Senge, 1994). Hence, diagnosis can contribute to managerial decision making, just as it can provide a solid foundation for recommendations by organizational and management consultants.

The following are two examples of the use of diagnosis in consulting projects in which I took part:<sup>2</sup>

#### Case 1

In cooperation with the chief personnel officer in a branch of the armed forces, a human resources unit prepared a survey of organizational climate and leadership in field units. Repeat applications of the survey tracked developments within units over time and provided comparisons between functionally similar units at the same point in time. Members of the human resources unit provided commanding officers with periodic feedback containing both types of data. The feedback helped officers recognize problematic leadership and administrative practices and motivated them to take steps to improve these practices.

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#### Case 2

The head of training in a national health maintenance organization (HMO) received a request from the director of one of its member organizations—here called Contemporary Health Facility (CHF)—for an ambitious program that would train CHF employees to undertake a major organizational transformation. The transformation proposed by the director would radically redefine the goals and mission of CHF. Moreover, it would alter CHF's patient characteristics, personnel, size, structure, and its relations with other health-care organizations. The director of CHF was worried that his nursing staff and administrative employees would oppose the far-reaching changes he envisioned. Unconvinced that the training program was justified, the head of training in the HMO reached an agreement with the CHF director to ask an independent consultant to assess the situation. After discussions between the consultant, the head of training, and the top managers at CHF, all parties agreed to broaden the study goals to include assessment of the feasibility of the proposed transformation and the staff's readiness for the change. Training was to be considered as only one possible step that might facilitate the transformation.

Over a period of 3 weeks, the consultant conducted in-depth interviews with CHF's 3 top managers and 7 staff members who held positions of authority. In addition, he conducted focus group interviews with 12 lower-level staff members; made site visits; and examined data on CHF's personnel, patient characteristics, and administration. The consultant analyzed and presented these data within the context of a guiding model of preconditions for strategic organizational change. This model drew concepts from research on open systems, organizational politics, and leadership for organizational transformation. The major diagnostic finding was that the transformation was both desirable and feasible, but accomplishing it would be risky and difficult. In his report and oral feedback to the CHF management and the HMO's director of training, the consultant conveyed these conclusions and some of the findings on which they were based. Moreover, the consultant recommended steps that the director of CHF could take to overcome opposition and build support for the proposed transformation of CHF and suggested ways of implementing the transformation. The report also recommended ways to improve organizational climate, enhance staffing procedures, and improve other aspects of organizational effectiveness with or without implementing the program to transform CHF.

Diagnostic consultations such as the ones just described often begin when clients ask for advice from consultants. The main clients for a diagnosis are the people who bear most of the responsibility for receiving feedback, deciding what to do about it, and launching actions in response to it. These people are usually the ones who originally solicited and sponsored the study, but responsibility for sponsorship of a diagnosis and use of its findings may be divided:

In both Case 1 and Case 2, a national-level manager initiated the diagnosis, but heads of operating units (i.e., the commanders of the military field units and the director of CHF) were expected to act on the feedback.

Clients for diagnosis are often top administrators, as in the two cases presented previously. However, union management teams (Shirom, 1983), midlevel managers, entire working groups, owners, and supervisory agencies can also act as clients. In some change projects, special steering committees are set up that are parallel to, but outside of, the operating hierarchy of the organization (Rubenstein & Woodman, 1984). These steering groups define project goals, plan interventions, and supervise project implementation.

Clients play a critical role in defining the consultation's goals (see Chapter 6) and shaping relations between consultants and the focal organization. In the cases described previously, the clients turned to consultants trained in the behavioral sciences because the clients assumed that their organization's problems and challenges related to people, groups, and organizational arrangements rather than involving mainly business or technical issues. Clients seeking help managing and changing organizations often refer initially to problems such as the following:

- Poor quality, delays, crises, and other signs of ineffectiveness
- Declining demand or revenues, client/customer dissatisfaction, and criticism by external stakeholders
- Human resource problems, such as rapid employee turnover, stress and health problems, and low morale after downsizing; difficulties managing a multicultural workforce
- Challenges posed by radical changes in markets and government regulation
- Difficulties making major transitions—from family to professionally managed firms, mergers, reorganizations
- Trouble starting or completing complex projects (e.g., implementing new technologies and establishing product development teams)

In other instances, clients want an assessment of how well the organization functions in a specific area, such as staff development (e.g., Case 6, which is presented in Chapter 3). Also, they may seek advice on improving processes such as quality assurance or customer service. Such concerns have led to consultations and change projects in public-sector organizations, such as schools, hospitals, city governments, and the military; private firms in areas such as manufacturing, banking, and retailing; voluntary groups, including charities and religious groups; and cooperative businesses and communities.

The consultants (or practitioners) who specialize in planned change and applied research often develop skills in giving feedback and working with

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teams as well as in investigating and analyzing operating problems and challenges. These consultants can be located in external consulting agencies or universities, or they can act as internal consultants, who come from organizational units specializing in areas such as human resource management, quality, planning, or evaluation (McMahan & Woodman, 1992). In many instances, internal specialists in change come from fields such as information systems, industrial engineering, strategy, and marketing rather than behavioral science. Moreover, a growing body of business consultants now act as specialists in change management (Worren, Ruddle, & Moore, 1999), whereas other external consultants contribute expertise in particular industries or functional areas, such as information technology. Top executives and even middle managers and other line managers often drive changes in strategy, structures, staffing, technology, and culture. These managers may draw on specialists to facilitate change, but line managers retain responsibility for the overall direction and execution of the project (Kanter, Stein, & Jick, 1992; Sherman, 1995).

In many diagnoses, as in Case 2, the consultant conducts a diagnosis to understand the nature and causes of the problems or challenges initially presented by clients, identifies additional organizational problems and opportunities, and seeks ways to solve these problems and improve organizational effectiveness.<sup>3</sup>

Both of the previous cases involved the common diagnostic practice of comparing the current state of the client system with some preferred state—improved relations between officers and subordinates in Case 1 and provision of a wider range of health services by a more professionalized staff in Case 2. Each of these diagnostic studies involved a search for ways to narrow gaps between the current and desired states. The consultants also assessed effectiveness in terms of a standard (e.g., ratings of officers in comparable units).

In light of the diagnostic findings, consultants often point to the need to change one or more key features of the organization, such as its goals, strategies, structures, technologies, or human resources. Moreover, consultants may recommend a wide range of steps (interventions) that management or other clients can undertake to bring about the desired improvements. Clients sometimes ask the practitioners who conducted the diagnosis or other consultants to help them implement these steps toward improvement.

#### USES OF DIAGNOSIS

Diagnosis can contribute to many types of consultations for organizational change. The following sections compare its use in different types of change projects.

## Diagnosis in Organization Development and Change Management

Diagnosis plays a role in both organization development (OD) projects and business-oriented change management projects. OD, which includes action research and planned change, involves systematic applications of behavioral science to the planned development and reinforcement of strategies, structures, and processes that lead to organizational effectiveness (Cummings & Worley, 2001, p. 1). Business-oriented projects aim more explicitly than OD at improving a firm's economic performance and its competitive advantage and rely more on techniques drawn from business, engineering, and other technical fields (Beer & Nobria, 2000).

OD projects can be thought of as moving through a series of stages (Kolb & Frohman, 1970; Waclawski & Church, 2002). Projects usually begin with an entry (or scouting) stage, in which clients and consultants get to know one another and consultants gain their first impressions of the client organization (Levinson, 1994). After consultants and clients clarify their expectations for the consultation and formalize them in a contract, the consultant conducts a diagnosis of the current state of the organization and provides feedback to clients on the findings. Thereafter, consultants and clients work together to define objectives for the change project and plan interventions that will promote desired changes. During the action stage, the consultants guide or actually conduct these interventions, sometimes gathering additional diagnostic data and providing additional feedback on the experimental or transitional phases of the change project. Thereafter, clients and consultants evaluate the results of the project. In practice, consultation in OD often shifts back and forth between these stages rather than following them sequentially (e.g., Case 4, below); some projects skip one or more stages (e.g., evaluation).

OD consultants may engage in diagnostic activities during several phases of a consultation. In particular, during entry, consultants may unobtrusively observe interactions between clients and other members of the organization to get a feel for interpersonal processes and power relations. At the same time, consultants may also conduct interviews or discussions with important members to become familiar with the organization and assess members' attitudes toward the proposed consulting project. Consultants will also read available documents on the organization's history, goals, and current operations. Based on this information, consultants usually make a preliminary diagnosis of the organization's needs and strengths and its capacity for improvement and change. In particular, experienced practitioners seek to determine as early as possible whether key members of an organization are likely to cooperate with a more formal and extended diagnosis and whether these people are able to make decisions and act in response to feedback. This preliminary diagnosis

can determine the subsequent development of the project. As consultants and clients discuss these preliminary assessments, they redefine their expectations for the consultation. This process increases the chances that the consultation will benefit the clients and helps both parties avoid entering a relationship that will become an exercise in frustration.

Diagnosis itself can be a form of intervention because it interrupts organizational routines, may affect members' expectations concerning change, and may influence how they think about themselves and their organization (Argyris, 1970). In process consultation (Schein, 1998), for example, the practitioner provides diagnostic feedback on group processes to heighten awareness of these processes and thereby help participants improve them. Similarly, practitioners sometimes conduct diagnostic workshops for management teams or steering committees responsible for change projects (e.g., see p. 113). The workshops are intended to promote teamwork and facilitate planning and decision making. During workshops, the consultants may help participants examine their organization's culture, clarify their goals and strategies, or consider ways to restructure the organization.

Traditionally, OD consultants assumed that organizations become more effective as they foster reductions in power and status differences, open communication, participative decision making, cooperation, solidarity, and development of their members' human potential (Strauss, 1976). Moreover, OD practitioners envisioned a broad role for consultants in helping organizations move toward this ideal type of structure and culture. To promote change and development, OD consultants developed a wide range of intervention techniques (Burke, 1993; Cummings & Worley, 2001; Porras & Robertson, 1987). Here is a summary of these interventions, grouped by the part of the organizational system that is most directly targeted:

- *Human resources:* changing or selecting for skills, attitudes, and values through training programs and courses; recruitment, selection, counseling, and placement; and stress management and health-maintenance programs
- Behavior and processes: changing interaction processes, such as decision making, leadership, and communication, through training, team building, process consultation, and third-party intervention for conflict resolution; and feedback of survey data for self-diagnosis and action planning
- Organizational structures and technologies: redesigning jobs, administrative procedures, reward mechanisms, the division of labor, coordinating mechanisms, and work procedures
- Organizational goals, strategies, and cultures: promoting goal clarification and strategy formulation through workshops and exercises; facilitating cooperative ties between organizations; and examining and changing corporate cultures (values, norms, and beliefs)

OD consultants rely on several sources of knowledge as they decide which intervention techniques are likely to produce the desired results. These sources include evidence gathered during diagnosis, the consultants' experience, books and papers by practitioners, behavioral science research on organizations and management, and a growing body of research on organizational change (Beer, Eisenstat, & Spector, 1990; Hackman & Wageman, 1995; Huber & Glick, 1993; Macy & Izumi, 1993; Porras & Robertson, 1992; Porras & Silver, 1991; Weick & Quinn, 1999).

Diagnosis can also make a vital contribution to more technical and business-oriented types of change management. Currently, even managers of not-for-profit organizations pursue financial and business-like objectives as they respond to tight budgets and competition from other organizations. Change management in pursuit of economic objectives is usually driven more by top managers and makes more use of business and technical tools than do OD projects. For example, business process reengineering (BPR) calls for the redesign of major functional areas within an organization so as to enhance the performance of core business processes, such as customer service, order fulfillment, and acquisitions (Hammer & Champy, 1993).

Some change projects seek to combine a focus on economic value with an OD-like concern for developing organizational and human capabilities (Beer & Nobria, 2000). Many current programs in strategic human resource management (Becker, Huselid, & Ulrich, 2001; Jackson & Schuler, 1995; Neill & Mindrum, 2000) contain this dual focus, as do some quality improvement programs.

Change management consultants can use diagnosis to help clients decide what changes in organizational features are likely to promote desired outcomes, how ready members are for these changes, and how managers can best implement changes and ensure their sustainability. Research on downsizing in the automobile industry provides one indication of the potential payoffs of carefully diagnosing the needs and prospects for change and developing interventions that are tailored to prevailing conditions within the focal organization. A 4-year study of downsizing among 30 firms in the automobile industry (Cameron, 1994; Cameron, Freeman, & Mishra, 1991) showed that firms that planned and designed downsizing moves through systematic analyses of jobs, resource usage, work flow, and implications for human resource management were more likely to attain subsequent improvements in performance. Furthermore, these firms were more able to avoid common negative consequences of downsizing, such as loss of valued employees and declining morale among remaining employees.

Unfortunately, many ambitious change projects that could benefit from careful diagnosis do not make much use of it (Harrison, 2004; Harrison & Shirom, 1999). For example, BPR requires a substantial investment on the part

of the organization, carries high risks (e.g., disruption of routine practices), and often leads to major personnel reductions. BPR projects have not usually achieved the ambitious objectives anticipated by reengineering's early champions for cost reduction, productivity gains, and faster cycling of core processes (Champy, 1995, p. 3). Nonetheless, during the heyday of BPR, its practitioners paid little attention to diagnosis (Harrison & Shirom, 1999, pp. 178–179). In addition, analyses of BPR failures (Clemons, Thatcher, & Row, 1995; Grey & Mitev, 1995) overlooked the possibility that project failures were partly precipitated by inadequate diagnosis of the organization's needs, its change options, and its capacity for implementing BPR.

## Freestanding Diagnostic Studies

In addition to forming a stage in a change project, diagnosis can take the form of an independent consulting project, in which practitioners contract with clients about the nature of the study, design it, gather and analyze data, provide written and oral feedback on their findings, and make recommendations. In these projects, as occurred in Case 2, formal relations between clients and consultants end with the delivery of the diagnostic report.

Consultants and clients often prefer this approach for studies that focus on a specific organizational problem. Freestanding studies are also popular when experts assess a specific set of administrative activities, such as an employee safety program, or when they help design new programs. For example, Case 6 describes how practitioners might assess the degree to which management training programs in a multinational firm build the skills needed for managing operations on a worldwide basis. An assessment study such as this could serve as the basis for developing recommendations for redesigning the firm's management training activities to meet challenges posed by globalization. Even if clients have already decided on a structural or technical design change, such as a new departmental structure or acquisition of new information technology, consultants can use diagnostic techniques to track progress toward implementation and provide early warning of unanticipated effects of the design change (Harrison & Shirom, 1999, chap. 7).

Freestanding diagnostic studies can also facilitate managerial efforts to bring about complex, far-reaching organizational transformations (Bartunek & Louis, 1988; Nadler, Shaw, Walton, & Associates, 1995). Transformations involve fundamental changes in organizational features, such as structures, technologies, goals, strategies, and culture (Kizer, 1999). Transformations usually require members of the organization to bend or break out of accepted ways of thinking and acting and develop new frames for understanding and evaluating their work. Such changes usually evolve over a period of several years under the

leadership of top management (Tichy & DeVanna, 1997). Efforts to accomplish transformations often occur after major shifts in power alignments within and outside of the organization or after organizations have undergone crises that threaten their survival. To accomplish fundamental changes, management may draw on the advice of consultants with expertise in many different areas. Diagnostic studies can help management assess the need for transformation and the best ways of accomplishing it. Moreover, consultants can help monitor the effects of managerial actions and other organizational changes as they occur. Similarly, consultants may help managers plan, conduct, and monitor downsizing activities so as to preserve their organization's core competencies (Nutt, 2001).

## Self-Diagnosis

Members of an organization can conduct a self-diagnosis without the aid of a professional consultant provided they are open to self-analysis and criticism and some members have the skills needed for data gathering and analysis. Here is an example of a modest self-diagnosis (Austin, 1982, p. 20):

## Case 3

The executive director of a multiservice youth agency appointed a program review committee to make a general evaluation of the services provided by the agency and recommend ways to improve service effectiveness. The committee included clinical case workers, supervisors, administrators, and several members of the agency's governing board. The director of the agency, who had the technical knowledge needed to conduct this type of study, served as an adviser to the committee. She asked the committee members to look first at the agency's intake service because it was central to the operations of the entire agency and suffered from high turnover among its paid staff. Besides examining intake operations, the committee members decided to investigate whether clients were getting appropriate services. They interviewed both the paid and the volunteer intake staff and surveyed clients during a 3-month period. Their main finding was that substantial delays occurred in client referral to counseling. They traced these delays to difficulties that the halftime coordinator of intake faced in handling the large staff of paid employees and volunteers; they also linked delays to the heavy burden of record keeping that fell on the intake workers. This paperwork was required by funding agencies but did not contribute directly to providing services to clients. To increase satisfaction among intake staff and thereby reduce turnover, the committee recommended that the coordinator's position be made full-time and paperwork at intake be reduced. The executive director accepted the first recommendation and asked for further study of how to streamline the record-keeping process and reduce paperwork.

As this case suggests, during self-diagnosis, members of the organization temporarily take on some of the tasks that would otherwise be the responsibility of a professional consultant. Many of the diagnostic models and research techniques described in this book and in other guides to diagnosis (Howard & Associates, 1994) could contribute to such self-studies. People who want to conduct a self-diagnosis or act as informal consultants to self-study groups should be skilled at handling the interpersonal relations that develop during a study, giving feedback to groups and individuals, and gathering and analyzing diagnostic data.

## **Comparisons to Other Types of Organizational Research**

Another way of understanding diagnosis is to contrast it to other forms of organizational research. As defined here, diagnosis does not include investigations of programs or entire organizations by external commissions of inquiry or governmental agencies (Gormley & Weimer, 1999). These investigations do not create client-consultant relations of the sort described previously and do not rely mainly on behavioral science methods and models. Nor does diagnosis refer to other forms of assessment and applied research designed to help decision makers assess specific programs and decide on ways to allocate funds (Freeman, Dynes, Rossi, & Whyte, 1983; Harrison & Shirom, 1999; Lusthaus, Adrien, Anderson, Carden, & Montvalvan, 2002; Majchrzak, 1984). These studies usually have a narrower research focus than diagnosis. For example, an applied research study may seek to identify the causes of an outcome of concern, such as alcohol abuse or work accidents.

Diagnosis has more in common with evaluation research (Patton, 1999; Rossi, Freeman, & Lipsey, 1999), in which behavioral science research contributes to the planning, monitoring, and assessment of the costs and impacts of social programs in areas such as health, education, and welfare (e.g., the impact of a standards assessment program on pupils' reading skills). Like diagnosis, evaluation is practically oriented and may focus on effectiveness. Diagnostic studies, however, often examine a broader spectrum of indicators of organizational effectiveness than do summative evaluations, which assess program effects or program efficiency. Diagnostic studies also differ from most formative evaluations, which monitor program implementation. Most diagnostic studies examine a broader range of organizational features, whereas formative evaluations usually concentrate on the extent to which a project was conducted according to plan. An additional difference is that diagnoses are often conducted on much more restricted budgets, within shorter time frames, and must rely on less extensive forms of data gathering and analysis.

Despite these differences, many of the models used in diagnosis can contribute to strategy assessments and program evaluations (Harrison & Shirom,

1999), and diagnostic practitioners can benefit from the extensive literature on evaluation techniques and processes. Practitioners of diagnosis can also incorporate concepts and methods from strategic assessments of intraorganizational factors shaping performance and strategic advantage (Duncan, Ginter, & Swayne, 1998; Kaplan & Norton, 1996).

Diagnosis differs substantially from nonapplied, academic research on organizations in its emphasis on obtaining results that will be immediately useful to members of a client organization (Block, 2000). Unlike academic researchers, practitioners of diagnosis

- concentrate on finding readily changeable factors that affect an organizational problem or condition, even if these factors do not explain most of the variance and are not the most important or interesting from a researcher's point of view;
- may encourage the members of the organization under study to become involved in the research:
- may use less complex research designs and methods (e.g., simpler sampling procedures, a few open-ended observational categories instead of many precoded ones, and fewer control variables);
- need to rely more on hunches, experience, and intuition as well as on scientific methods when gathering and analyzing data and formulating conclusions and recommendations:
- cannot remain neutral about the impact of their study on the organization and the needs and concerns of members of the organization.

#### THREE KEYS TO SUCCESSFUL DIAGNOSIS

Diagnosis can succeed only if it provides its clients with data, analyses, and recommendations that are useful and valid. To meet these dual standards, the diagnostic practitioner must fill the requirements of three key facets of diagnosis—process, modeling, and methods—and needs to ensure good alignments among all three.

#### **Process**

The texture of client-consultant relations poses clear requirements for successful diagnosis: To provide genuinely useful findings and recommendations, consultants need to create and maintain cooperative, constructive relations with clients. Moreover, to ensure that their study yields valid and useful results, practitioners of diagnosis must successfully negotiate their relations with other members of the focal organization during all phases of the diagnosis.

## Phases in Diagnosis

Diagnostic studies typically include several distinct phases (Nadler, 1977). As the following description shows, diagnostic tasks, models, and methods shift within and between phases, as do relations between consultants, clients, and other members of the client organization:

- Entry: Clients and consultants explore expectations for the study; the client presents
  problems and challenges; the consultant assesses the likelihood of cooperation with
  various types of research and probable receptiveness to feedback; and the consultant makes a preliminary reconnaissance of organizational problems and strengths.
- *Contracting:* Consultants and clients negotiate and agree on the nature of the diagnosis and client-consultant relations.
- *Study design:* Methods, measurement procedures, sampling, analysis, and administrative procedures are planned.
- Data gathering: Data are gathered through interviews, observations, questionnaires, analysis of secondary data, group discussions, and workshops.
- Analysis: Consultants analyze the data and summarize findings; consultants (and sometimes clients) interpret them and prepare for feedback.
- Feedback: Consultants present findings to clients and other members of the client organization; feedback may include explicit recommendations or more general findings to stimulate discussion, decision making, and action planning.

As Case 4 suggests, these phases can overlap in practice, and their sequence may vary.

## Case 4

The owner and chief executive officer (CEO) of 21C, a small high-technology firm, asked a private consultant to examine ways to improve efficiency and morale in the firm. They agreed that staff from the consulting firm would conduct a set of in-depth interviews with divisional managers and a sample of other employees. The first interviews with the three division heads and the assistant director suggested that their frustrations and poor morale stemmed from the firm's lack of growth and the CEO's failure to include the managers in decision making and strategy formulation. In light of these findings, the consultant returned to the CEO, discussed the results of the interviews, and suggested refocusing the diagnosis on relations between the managers and the CEO and the firm's processes for planning and strategy formation.

In the 21C project, analysis, and feedback began before completion of data gathering. Moreover, the diagnosis shifted back into the contracting phase in

the midst of data gathering, when the consultant sought approval to redefine the diagnostic problem and change the research design.

#### Critical Process Issues

The relations that develop between practitioners and members of a client organization can greatly affect the outcomes of an organizational diagnosis, just as they affect other aspects of consulting (Block, 2000; Turner, 1982). Although clients and practitioners should try to define their expectations early in the project, they will often need to redefine their relations during the course of the diagnosis to deal with issues that were neglected during initial contracting or arose subsequently. To manage the consulting relation successfully, practitioners need to handle the following key process issues (Nadler, 1977; Van de Ven & Ferry, 1980, pp. 22-51) in ways that promote cooperation between themselves and members of the client organization:

- *Purpose:* What are the goals of the study, how are they defined, and how can the outcomes of the study be evaluated? What issues, challenges, and problems are to be studied?
- *Design:* How will members of the organization be affected by the study design and methods (e.g., organizational features to be studied, units and individuals included in data gathering, and types of data-collection techniques)?
- Support and cooperation: Who sponsors and supports the study, and what resources will the client organization contribute? What are the attitudes of other members of the organization and of external stakeholders toward the study?
- *Participation:* What role will members of the organization play in planning the study and gathering, interpreting, and reacting to the data?
- Feedback: When, how, and in what format will feedback be given? Who will receive feedback on the study, and what uses will they make of the data?

As these questions suggest, clients and consultants must make difficult and consequential decisions concerning participation in the study by members of the focal organization. Freestanding diagnostic studies are usually consultant centered because the consultant accepts sole or primary responsibility for conducting all phases of the diagnosis. After the clients approve the proposed study, they and other members of the organization may not take an active role in it until they receive feedback on the findings. Practitioners often prefer this type of diagnosis because it seems simpler and more suitable to objective, rigorous research. Clients too often prefer to limit their investment in diagnosis and wait for the results of the study before committing to additional interventions.

A frequent result of this separation of diagnosis from action is that clients do not act on the consultant's recommendations because they view them as irrelevant or unworkable (Block, 2000; Turner, 1982). Skillful consultants may partially overcome this problem by meeting periodically with clients to provide interim feedback and encouraging clients to evaluate the feedback and consider its implications for action. In this manner, consultants increase the chances that their findings will reflect the experiences and perceptions of key clients and will therefore be believable to clients. Moreover, periodic discussions of the study may encourage clients to feel more responsibility for diagnostic findings and recommendations.

In contrast to consultant-centered studies, diagnosis within OD projects is often highly client centered—in the sense of involving clients or members appointed by them in as many phases of diagnosis as is feasible (Lawler & Drexler, 1980; Turner, 1982). This approach encourages members of the client organization to contribute their insights and expertise as they share in data gathering and analysis. Participation in diagnosis often enhances the credibility and salience of diagnostic findings. In addition, involvement in diagnosis may help members develop the capacity to assess their own operations. This capacity for routine self-assessment can help members develop the ability to cope continually with social, technological, and economic changes.

Despite these advantages, client-centered diagnosis has serious limitations and drawbacks. First, it is likely to have the sought-after effects only when the culture of the client organization supports open communication, respect for divergent viewpoints, and honest confrontation of organizational and individual limitations. Many national and organizational cultures do not value these conditions highly. Moreover, these conditions are typically lacking in organizations undergoing decline or divided by serious conflicts. Second, client-centered diagnoses may fail to yield valid conclusions because participants are biased in favor of a particular diagnosis and set of action recommendations. In other instances, participants may lack the data and skills needed to identify forces that are producing symptoms of ineffectiveness or other system problems. Third, client-centered diagnosis works best in face-to-face problem-solving groups. To participate successfully in such groups, participants require prior training or experience in teamwork. Moreover, participants in diagnostic teams need to be empowered to act on their findings. These requirements usually restrict the application of client-centered approaches to top managers or heads of semiautonomous units. Fourth, client-centered diagnoses may actually reduce the prospects for organizational change by giving opponents of change additional opportunities to delay or divert steps toward change.

#### Modeling

The success of a diagnosis depends greatly on the ways that practitioners handle the analytic tasks of framing and defining diagnostic problems, analyzing

results, and providing feedback.<sup>4</sup> Behavioral science models and the broader orienting metaphors (Morgan, 1996) and frames (Bolman & Deal, 2003) from which models derive can help practitioners decide what to study, choose measures of organizational effectiveness, and identify conditions that promote or block effectiveness.

#### Models

Many practitioners use models developed by experienced consultants and applied researchers to guide their investigations (for reviews, see Appendix B; Faletta & Combs, 2002; Harrison & Shirom, 1999; Howard & Associates, 1994). These models specify organizational features that have proved critical in the past. Standardized models also help large consulting practices maintain consistency across projects. Unfortunately, work with available models runs the risks of generating much data that are difficult to interpret, failing to address challenges and problems that are critical to clients, and not reflecting distinctive features of the client organization. To avoid these drawbacks, consultants often tailor standardized models to fit the client organization and its circumstances (Burke, Coruzzi, & Church, 1996).

Another way of addressing these issues is to develop grounded models that emerge during initial study of the organization and focus more directly on client concerns. For example, in "sharp-image diagnosis" (Harrison & Shirom, 1999), the practitioner uses one or more theoretical frames as orienting devices and then develops a model that specifies the forces affecting the problems or challenges presented by clients. This model also guides feedback. In the CHF case (Case 2), the diagnosis drew on two frames. The first applied open systems concepts to the analysis of strategic organizational change (Tichy, 1983). This frame guided analysis of the capacity of CHF's proposed strategy to revitalize the organization and help it cope with external challenges. Second, a political frame guided analysis of the ability of CHF's director to mobilize support for the proposed transformation and overcome opposition among staff members. For feedback, elements from both frames were combined into a single model that directed attention to findings and issues of greatest importance for action planning.

As they examine diagnostic issues and data, practitioners often frame issues differently than clients do. The director of CHF originally defined the problem as one of resistance to change, whereas the HMO's director of training phrased the original diagnostic problem in terms of assessing the need for the training program. The consultant reframed the study task by dividing it in two: assessing feasibility of accomplishing the proposed organizational transformation and discovering steps that CHF management and the HMO could take to facilitate the transformation. This redefinition of the diagnostic task thus included

an image of the organization's desired state that fit both client expectations and social science knowledge about organizational effectiveness. Moreover, this reformulation helped specify the issues that should be studied in-depth and suggested ways that the clients could deal with the problems that initially concerned them. The consultant's recommendations took into account which possible solutions to problems were more likely to be accepted and could be successfully implemented by the clients.

#### Diagnostic Questions

The following set of diagnostic questions capture critical analytical themes facing consultants and highlight the ways that consultants frame issues and conditions that are presented to them:<sup>5</sup>

- 1. *Interpreting the initial statement of the problem:* How does the client initially define the problems, needs, and challenges facing the organization or unit? How does the client view the desired state of the organization?
- 2. Redefining the problem: How can the problem be redefined so it can be investigated and workable solutions can be developed? What will be the focal points of the diagnosis? What assumptions about the preferred state of the organization and definitions of organizational effectiveness will be used in the diagnosis? How will solving the problem improve effectiveness?
- 3. *Understanding the current state:* What individuals, groups, and components of the organization are most affected by this redefined problem and most likely to be involved in or affected by its solution? How is the problem currently being dealt with? How do members of the relevant groups define the problem and suggest solving it?
- 4. Identifying forces for and against change: What internal and external groups and conditions create pressure for organizational change, and what are the sources of resistance to it? How ready and capable of changing are the people and groups who are most affected by the problem and its possible solutions? Do they have common interests or needs that could become a basis for working together to solve the problem?
- 5. Developing workable solutions: Which behavior patterns and organizational arrangements can be most easily changed to solve problems and improve effectiveness? What interventions are most likely to produce these desired outcomes?

To increase the chances that clients will understand, accept, and act on feedback, successful consultants try to remain aware of gaps between their own analyses and members' interpretations. Moreover, practitioners challenge client views only in areas that are crucial to organizational improvement.

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## Level of Analysis

A major interpretive issue facing consultants concerns the level of analysis at which they will examine a problem and suggest dealing with it. Questions about people's attitudes, motivations, and work behavior focus on the individual level. Those dealing with face-to-face relations are at the interpersonal level. At the group level are questions about the performance and practices of departments or work units, such as those raised in Case 3. Next are questions at the divisional level about the management of major subunits (divisions, branches, and factories) within large organizations and about relations among units within divisions. Some investigations, such as the study of CHF, examine the organization as a whole and its relations to its environment. Finally, diagnosis sometimes examines a network of interacting organizations or an entire sector or industry, such as the health-care sector (Harrison & Shirom, 1999, chap. 14).

Many important phenomena show up at more than one level of analysis. In a manufacturing division, for example, the main technology (work tools and techniques) might be computer-aided manufacturing, which uses robots and flexible manufacturing systems (Sussman, 1990). At the group level, each work group would have its own techniques and equipment for monitoring the highly automated operations. At the individual level are specific equipment and control procedures at each work station. Certain other phenomena can best be observed at one particular level. For instance, the speed with which the firm decides to make new products, develops them, and brings them to market can best be examined at the level of the total organization.

The choice of levels of analysis in diagnosis should reflect the nature of the problem, the goals of the diagnosis, and the organizational location of clients. In choosing levels of analysis, consultants need to consider whether higher-level phenomena support or block change in lower-level ones. Hospital payment systems, for example, may not provide sufficient incentives and may even create disincentives for organizational-level quality improvement (Ferlie & Shortell, 2001). To facilitate diagnosis and increase the chances that clients will implement recommendations, practitioners usually concentrate on organizational features over which their clients have considerable control. Changes in the departmental structure of an entire division, for example, can occur only with the support of top management. Furthermore, diagnosis is more useful when it examines levels at which interventions are most likely to lead to organizational improvement. Suppose, for example, that managers asked for a diagnosis of problems related to employee performance. Consultants would examine the rules and procedures for monitoring, controlling, and rewarding performance if these design tools could be readily changed by managerial clients. Other influential factors, such as workers' informal relations and their

work norms and values, might not be examined in detail because they would be more difficult to change.

By changing the level of analysis, consultants and clients can sometimes discover relations and possibilities for change that were not previously apparent (Rashford & Coghlan, 1994). For instance, rather than concentrating exclusively on administrator-subordinate relations within an underproductive department in a public agency, consultants might examine the group's location within the work flow of the entire division. This shift in level of analysis might point to coordination problems within the division as a whole that must be solved before work group productivity can be improved.

## Scope

Practitioners must also decide on the scope of their study. An individual-level diagnosis of broad scope would try to take into account the major factors related to the performance and feelings of the people within a focal unit (see Chapter 3). In contrast, a more narrowly focused diagnosis in the same unit and at the same level of analysis might examine only factors related to job satisfaction. Studies with a broad scope may uncover sources of problems or potential solutions that were not evident to clients and consultants at the start of the diagnosis. Consultants conducting broad studies, however, risk spending much time gathering and analyzing data that are not useable or directly relevant to client concerns. Instead, by focusing directly on the forces underlying problems and challenges presented by clients, consultants can provide more rapid feedback and more useful and actionable findings (Harrison & Shirom, 1999).

In summary, models and analytical frames based on current research can serve as guides to diagnosis, but they cannot tell practitioners in advance exactly what to study, how to interpret diagnostic data, or what interventions will work best in a particular client organization. Research shows that managerial practices and organizational patterns that promote effectiveness in one type of organization (e.g., new family businesses) will not necessarily contribute to effectiveness in another organization faced with different conditions (e.g., mature, professionally managed firms). The chapters that follow note some of the important conditions or contingencies that help determine which facets of organizational effectiveness are most important and which managerial practices and organizational forms contribute most to effectiveness.<sup>7</sup>

#### Methods

Successful diagnosis also requires methods that ensure valid findings and contribute to constructive relations between consultants and members of the client organization.

## Choosing Methods

To provide valid results, practitioners should employ the most rigorous methods possible within the practical constraints imposed by the nature of the assignment. Rigorous methods—which need not be quantitative—follow accepted standards of scientific inquiry (King, Keohane, & Verba, 1994). They have a high probability of producing results that are valid and reliable (i.e., replicable by other trained investigators) (Trochim, 2001). Nonrigorous approaches can yield valid results, but these cannot be externally evaluated or replicated. In assessing the validity of their diagnoses, practitioners need to be aware of the risk of false-positive results that might lead them to recommend steps that are unjustified and even harmful to the client organization (Rossi & Whyte, 1983).

To achieve replicability, practitioners can use structured data-gathering and measurement techniques, such as fixed-choice questionnaires or observations using a standard coding scheme. Unfortunately, it is very difficult to structure techniques for assessing many complex but important phenomena, such as the degree to which managers accurately interpret environmental developments.

To produce valid and reliable results, investigators often must sort out conflicting opinions and perspectives about the organization and construct an independent assessment. The quest for an independent viewpoint and scientific rigor should not, however, prevent investigators from treating the plurality of interests and perspectives within a focal organization as a significant organizational feature in its own right (Hennestad, 1988; Ramirez & Bartunek, 1989).

Whatever techniques practitioners use in diagnosis, it is best to avoid methodological overkill when only a rough estimate of the extent of a particular phenomenon is needed. In Case 4, for example, the investigators needed to determine whether division heads were frustrated and dissatisfied and to find the sources of the managers' feelings. The practitioners did not need to specify the precise degree of managerial dissatisfaction, as they might have done in an academic research study.

Consultants need to consider the implications of their methods for the consulting process and the analytic issues at hand, as well as weighing strictly practical and methodological considerations. Thus, consultants might prefer to use less rigorous methods, such as discussions of organizational conditions in workshop settings, because these methods can enhance the commitment of participants to the diagnostic study and its findings. Also, they might prefer observations to interviews so as not to encourage people to expect that the consultation would address the many concerns that might be raised during interviews.

The methods chosen and the ways that data are presented to clients also need to fit the culture of the client organization. In a high-technology firm, for

example, people may regard qualitative research as impressionistic and unscientific. Volunteers at a hospice, however, might view standardized questionnaires and quantitative analysis as insensitive to their feelings and experiences.

## Research Design

Three types of nonexperimental designs seem most appropriate for diagnosis. The first involves gathering data on important criteria that allow for comparisons between units or between entire organizations (e.g., Case 1). Comparisons may focus on criteria such as client satisfaction, organizational climate (e.g., perceptions of peer and subordinate-supervisor relations and identification with unit and organizational goals), personnel turnover, costs, and sales. Sometimes, practitioners can analyze available records or make repeated measurements to trace changes in key variables across time for each unit or for an entire set of related units.

The second design uses multivariate analysis of data to isolate the causes or predictors of variables linked to a particular organizational problem, such as work quality or employee turnover, or to some desirable outcome, such as product innovation or customer satisfaction. The third design uses qualitative field techniques to construct a portrait of the operations of a small organization or subunit and obtain in-depth data on subtle, difficult to measure features that may be lost or distorted in close-ended inquiries. Among such features are members' perceptions, hidden assumptions, behind-the-scenes interactions, and work styles (see Chapter 4). In such qualitative studies, investigators use data-gathering techniques and inductive forms of inference such as those used in nonapplied qualitative research (Denzin & Lincoln, 2000; Dougherty, 2002; Miles & Huberman, 1994; Van de Ven & Poole, 2002; Yin, 2002). To ensure quick feedback, however, diagnostic studies usually seek less ethnographic detail than nonapplied qualitative research and use less rigorous forms of recording and analyzing field data.

#### Data Collection

Table 1.1 surveys and assesses data-collection techniques frequently used in diagnosis. Additional details on these techniques appear in the chapters that follow, texts on research methods (Miller & Salkind, 2002; Trochim, 2001), the references to the table, and Appendixes A, B, and C. No single method for gathering and analyzing data can suit every diagnostic problem and situation, just as there is no universal model for guiding diagnostic analysis or one ideal procedure for managing the diagnostic process. By using several methods to gather and analyze data, practitioners can compensate for many of the drawbacks associated with relying on a single method (Jick, 1979). They also need

# Table 1.1

## Comparison of Methods for Gathering Diagnostic Data\* Advantages Disadvantages

#### Questionnaires

Method

Self-administered schedules, fixed choices (Chapter 3 and Appendix B, this volume; Church & Waclawski, 1998; Faletta & Combs. 2002; Kraut, 1996)

Easy to quantify and summarize; quickest and cheapest way to gather new data rigorously, neutral and objective; useful for large samples, repeat measures, and comparisons among units or to norms; standardized instruments contain pretested items, reflect diagnostic models, and are good for studying attitudes Difficult-to-obtain data on structure and behavior: little information on how contexts shape behavior; not suited for subtle or sensitive issues; impersonal: risks: nonresponse, biased or invalid answers, and overreliance on standard measures and models

#### Interviews

Open-ended questions based on fixed schedule or interview guide (Chapters 2, 3, and 5 and Appendix A, this volume: Greenbaum. 1998: McCracken. 1988; Wacławski & Rogelberg, 2002)

Can cover many topics; modifiable before or during interview; can convey empathy, build trust; rich data, allows understanding of respondents' viewpoints and perceptions

Expensive and difficult to administer to large samples; respondent bias and socially desirable responses; noncomparable responses; difficult to analyze responses to open-ended questions; modification of interviews to fit respondents reduces rigor

## Observations

Structured or open-ended observation of people and work settings (Chapters 2 and 3 and Appendix C, this volume; Lofland & Lofland, 1995; Weick, 1985)

Data independent of people's self-presentation and biases: data on situational, contextual effects: rich data on difficult-to-measure topics (e.g., emergent behavior and culture); data yield new insights and hypotheses

Constraints on access to data; costly and time-consuming; observer bias and low reliability; may affect behavior of those observed; difficult to analyze and report; less rigorous, may seem unscientific

(Continued)

#### Table 1.1 (Continued)

Method	Advantages	Disadvantages
Workshops, Group Discussions		
Discussions on group processes, culture, environment, challenges, strategy; directed by consultant or manager; simulations, exercises (Chapter 5, this volume; Biech, 2004; Schein, 1998)	Useful data on complex, subtle process; interaction stimulates creativity, teamwork, planning; data available for immediate analysis and feedback; members share in diagnosis; self-diagnosis possible; consultant can build trust and empathy	Biases due to group processes, history, and leader's influence (e.g., boss stifles dissent); requires high levels of trust and cooperation in group; impressionistic and nonrigorous; may yield superficial, biased results and unsubstantiated decisions

\*SOURCES: Earlier versions of this table derived in part from Bowditch and Buono (1989, pp. 32–33), Nadler (1977, p. 119), and Sutherland (1978, p. 163).

to choose methods that fit the diagnostic problems and contribute to cooperative, productive consulting relations.

## DIAGNOSIS IN TURBULENT TIMES

Managers today operate in uncertain economic and political environments. Globalization, shifting alliances among firms, intense competition, and customization of products and services place a premium on responding quickly to market forces. Managers of not-for-profits face tight budgets, along with growing demands for accountability and responsiveness to client concerns. Information technologies are gradually changing the way people organize businesses, do their work, communicate, and spend their leisure time (O'Mahoney & Barley, 1999), and the pace of technological change seems to be increasing.

Is it reasonable to expect managers and other decision makers (e.g., board members, government administrators, and leaders) to engage in systematic diagnosis and decision making when they face such unfamiliar and rapidly changing situations? Does it make sense to plan systematically for organizational changes that will rapidly become outmoded? When external turbulence reaches a state of "permanent white water" (Vaill, 1989), can decisions about

organizational change still proceed through the classic sequence of diagnosis, planning, action, and evaluation?

The answer to these questions is that the very conditions that create barriers to diagnosis and systematic decision making also render them essential. Diagnosis can help managers avoid two types of risky response to uncertainty—avoiding change and acting inappropriately. Managers in organizations that have performed well in the past often become resistant to change. Past attainments create a "success trap" by reinforcing the incorrect and ultimately dangerous assumption that the best way to handle future challenges is to rely on strategies and tactics that worked well in the past (Nadler & Shaw, 1995). Managers facing external threats and declining revenues may also avoid change just when the need to move in new directions is greatest (McKinley, 1993). Diagnosis can make the risks of inaction evident to managers in both situations and can help them choose more appropriate responses to their environment.

The other possibility, which also carries great risks, is that as external conditions worsen, managers will act blindly without carefully analyzing the likely effects of their decisions (Weitzel & Jonsson, 1989). These unsystematic actions have low chances of success and can actually weaken an organization's capacity for recovery. Even managers in successful organizations need to be cautious about action that is not grounded in careful analysis. Uncritical imitation of fashionable practices, which offer quick fixes to fundamental problems, can waste resources and delay effective actions (Abrahamson, 1996; Abrahamson & Fairchild, 1999; Harrison, 2004). Diagnosis can help managers decide whether popular techniques and new organization designs are likely to help them meet the challenges at hand. If the techniques seem appropriate, managers and consultants can plan action steps and follow-up that will help them learn from experience and avoid the pitfalls that often accompany the unsystematic implementation of new structures and management practices.

When managers face rapidly changing and uncertain conditions, they need to act quickly and flexibly—diagnosing their situation, developing strategies, planning actions, and initiating them. Moreover, they need to constantly track environmental and internal changes and assess the results of their actions. Then, they can modify their actions or shift course altogether. Rather than relying on elaborate decision processes and time-consuming strategic planning programs, decision makers facing dynamic and turbulent conditions must move through this type of diagnostic inquiry quickly and experimentally—continually formulating, checking, and reformulating their interpretations and explanations (Schon, 1983). Frequent feedback on previous actions provides the basis for this learning process. When feedback or additional data fail to support managers' expectations about the environment and about their own organization, or when new opportunities arise, the managers can reassess their

guiding strategy and rediagnose their operations (Huber & Glick, 1993; Pascale, 1984; Quinn, 1980).

#### CONCLUSION AND PLAN OF THE BOOK

This chapter located diagnosis within organization development and more business-oriented change management projects and presented methodological, analytic, and processual issues that affect the success of diagnostic consultations. To link this introductory chapter with the ones that follow, several generalizations, which inform the presentation of diagnosis throughout this book, are presented here. First, organizations can best be examined as open systems in which there are interactions between organizations and their environments and among internal system components (human and material resources, structures, technologies, processes, and culture). Gradually, system components become aligned with one another. Incremental (small-scale and gradual) changes can take place without disturbing prevailing system features and connections among them; radical change, however, requires realignments of major system features (Romanelli & Tushman, 1994). Second, the people and groups who influence organizational decisions often pursue divergent interests and develop divergent views of how the organization operates and what is best for it. As a result, political processes play a crucial role in organizational consultation and change (Greiner & Schein, 1988; Harrison, 1991; Harrison & Shirom, 1999). Third, consultants can facilitate major organizational changes and transformations, but managers typically drive them (Kilmann, Covin, & Associates, 1988; Tichy & DeVanna, 1997). Fourth, consultants enhance an organization's capacity to deal with future challenges when they help clients develop their own ability to diagnose and act on problems and facilitate development of structures and processes capable of sustaining organizational learning (Argyris & Schon, 1995; Block, 2000).

Chapter 2 shows practitioners how to use open systems models, along with an understanding of organizations as political arenas, to attain an overview of the functioning of a client organization, choose topics for further diagnosis, assess organizational effectiveness, and decide what steps will help clients solve problems and enhance effectiveness. Chapters 3 through 5 present diagnoses of individual and group behavior, fit among system features, organizational politics, and organization design conditions. Emphasis is placed on understanding emergent practices and assessing how organizations deal with environmental constraints and challenges. Exercises for students and practitioners-in-training appear at the end of Chapters 1 through 5. Chapter 6 treats ethical and professional dilemmas confronting practitioners. The appendixes give more details on diagnostic instruments and provide resources for

readers seeking to develop background and skills in diagnosis and consultation. The summaries at the beginning of each chapter provide a more detailed view of the book's contents.

#### **EXERCISE**

You will probably find it easier and more satisfying to base all the exercises in this book on the same organization. Consider studying an organization in which someone you know can help you gain access to information and influential members. After you have located an organization or unit (e.g., department and branch), discuss the possibility of studying it with a person who could give you permission to do so and could help you learn about the organization. Explain that you want to do several exercises designed to help you learn how consultants and researchers help organizations deal with issues and challenges confronting them and contribute to organizational effectiveness. Promise not to identify the organization, and explain that your reports will be read only by your instructor.

If your contact expresses interest in becoming a client—in the sense of wanting to get feedback from your project—explain that you will be glad to provide oral feedback to the contact person only, provided that the anonymity of the people studied can be preserved. During these discussions, try to learn as much about your contact person's job, views of organizational affairs, degree of interest in your project, and capacity to help with your project. Ask for a tour of the organization's headquarters or physical plant and an overview of the organization's operations.

Next, imagine that you are going to conduct an organizational diagnosis. What have you learned during the entry period that relates to items 1, 2, and 3 in the Diagnostic Questions listed previously in this chapter. Pay particular attention to the way your contact person defined the organization's problems and challenges (threats and opportunities), along with its strengths and weaknesses (see also Exercise 3 in Chapter 5). Do any alternative ways of framing problems and challenges occur to you? Summarize your preliminary experiences and understandings in a report on the following topics:

- Description of the organization and the contact person (including source of access to them)
- Initial contacts, including your feelings and behavior and those of the contact person
- Your contact person's view of the organization's strengths, weaknesses, current problems, challenges, and desired state

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- Your understanding of these issues
- Preliminary thoughts about conducting a diagnosis—topics, methods, individuals, and groups to be included

#### NOTES

- Models focus on a limited number of concepts and relations among them and may specify variables that operationalize concepts.
- Unless otherwise noted, the cases are based on my own experiences or those of my colleagues.
- 3. For the sake of brevity, I often use the term effectiveness to include ineffectiveness. Nonetheless, the two phenomena are not strictly comparable. For example, reducing a specific form of ineffectiveness (e.g., production errors) may or may not contribute much to improving a particular measure of effectiveness, such as productivity.
- 4. *Framing* refers to the ways that theories shape analysis (Bolman & Deal, 2003; Schon & Rein, 1994).
- The questions are based partly on Beckhard (1969, p. 46) and Block (1981, p. 143).
- 6. "Problem" refers here to any kind of gap between actual and ideal conditions, including challenges to enter new fields and raise performance standards.
- Extended treatments of these issues appear in Harrison and Shirom (1999) and in texts on organization design (Daft, 2004) and organizational behavior (Gordon, 2002).