Organizational Change: A Review of Theory and Research in the 1990s

Achilles A. Armenakis
Auburn University

Arthur G. Bedeian
Louisiana State University

This review selectively examines the theoretical and empirical organizational change literature over the past nine years (1990–early 1998). Four research themes or issues common to all change efforts are discussed: (a) content issues, which largely focus on the substance of contemporary organizational changes; (b) contextual issues, which principally focus on forces or conditions existing in an organization's external and internal environments; (c) process issues, which address actions undertaken during the enactment of an intended change, and (d) criterion issues, which deal with outcomes commonly assessed in organizational change efforts. Research dealing with monitoring affective and behavioral reactions to change is also reviewed. In closing, general observations and suggestions for future research are offered and it is concluded that the organizational change literature continues to be responsive to the dynamics of contemporary workplace demands. © 1999 Elsevier Science Inc. All rights reserved.

Three articles dealing with organization development (OD) or organizational change have been previously published in the *Journal of Management's Yearly Review* series. In the first, Sashkin and Burke (1987) discussed prospects for OD in the 1980s. In doing so, they identified five contemporary trends in the organization development (OD) field: (a) an increasing integration of task and process aspects of OD as revealed in studies exploring the implementation of new work structures; (b) a growing attention to developing OD theory; (c) an expanding interest in managing conflict as typically occurs in organizational mergers and acquisitions; (d) an advancing sophistication in OD research resulting from improved methodologies; and (e) an intensifying focus on designing organizational cultures as a means of managing change.

Writing two years later, Woodman (1989) summarized recent developments in OD and organizational change as occurring in seven categories. Four of the

Direct all correspondence to: Achilles A. Armenakis, Department of Management, Auburn University, Alabama, 36849; e-mail: achilles@business.auburn.edu.

293

categories paralleled the first four of the above trends identified by Sashkin and Burke (1987). The fifth category dealt with the then emerging interest in high performance-high commitment work systems. Woodman's sixth and seventh categories examined the applicability of change research in international arenas and social movements.

In the most recent review, Pasmore and Fagans (1992) identified and explored issues associated with the uses of participation and OD in introducing organizational change. In doing so, they (a) provided an historical perspective on participation, including its philosophic roots, dating back to Plato; (b) articulated the role of participation in individual development; (c) delineated the knowledge required for participation to be successful; and (d) outlined how to prepare individuals to participate. Thus, the Pasmore and Fagans review provided an in-depth treatment of various participative processes identified by Sashkin and Burke (1987) and Woodman (1989) as inherent in successful OD and organizational change efforts.

The Present Review

To make the present effort manageable, we made two decisions. The first dealt with the literature base to be surveyed. Given the breadth of the 1987 and 1989 yearly reviews as contrasted with the specialized focus of the 1992 review, we primarily consider theory and research on organizational change, in general, through early 1998, focusing on work since 1990. We do not, however, provide a comprehensive listing of all research published over this time period, because doing so would require citing hundreds of references without considering the import of individual contributions. Rather, we focus on publications particularly sensitive to the dynamics underlying organizational change. Although this greatly restricts the material reviewed, we believe that doing so provides a sharper indication of the major perspectives dominant in contemporary thinking on organizational change.

A second decision concerned how to organize the present review. Rather than following a topical scheme emphasizing specific topics such as transformational leadership, organizational culture, chaos theory, or complex systems, all of which could justifiably be the subjects of separate reviews, we elected to focus on three overarching research themes or issues common to all organizational change efforts, as well as to include as a fourth theme the nature of criterion variables commonly assessed as outcomes in organizational change research. Within each theme/issue we have specifically highlighted studies that demonstrate new methodologies for investigating change, presented new diagnostic models, proposed novel outcome variables, or offered refined explanations of reactions to organizational changes. Our organizing scheme, in part, parallels both Van de Ven and Poole's (1995) typology for describing the impact of change processes on the development of organizations across time, and Weick and Quinn's (1999) distinction between episodic and continuous change, but is more inclusive in also considering content and contextual considerations.

Research Themes

Our first research theme, dealing with *content* issues, largely focuses on the substance of contemporary organizational changes. Research in this category has typically attempted to define factors that comprise the targets of both successful and unsuccessful change efforts and how these factors relate to organizational effectiveness. Factors that have been investigated include alternative strategic orientations, organization structures, and performance-incentive systems. The research to be reviewed primarily centers on factors that underlie an organization's long-term relationship to its environment and, thus, define its overall character, mission, and direction.

The second research theme to be discussed, dealing with *contextual* issues, principally focuses on forces or conditions existing in an organization's external and internal environments. Forming the context in which an organization functions, external conditions include such factors as governmental regulations, technological advances, and forces that shape marketplace competition, whereas internal conditions include the degree of specialization or work specificity required by existing technology, level of organizational slack, and experiences with previous changes. The research to be reviewed below largely relates to the successfulness of various responses to changes in the internal and external components that comprise the contextual elements of differing organizational environments.

The third research theme to be considered, dealing with *process* issues, generally addresses actions undertaken during the enactment of an intended change. Such actions have been conceptualized as taking place at the external environment, firm, and individual levels. At the environmental level, for instance, various federal, state and local bodies engage in myriad activities that affect the external environment of all organizations. The scope of regulations enforced by federal agencies, for example, range from an organization's input markets (including regulation of employment practices and energy consumption), to conditions in production (including worker safety and health, and environmental pollution), to the nature of outputs (including product safety regulations). The impact of the changes required by such regulations, naturally, require that firms operating within targeted industries respond accordingly. In turn, actions must be initiated to change the behavior of individual employees so that desired outcomes are achieved. The process research to be reviewed below deals exclusively with actions taken to implement changes within organizations and the nature of employee responses to such efforts.

A final research theme to be addressed concerns the nature of criterion variables commonly assessed as outcomes in organizational change. Specifically, we describe research that has assessed organizational change efforts using affective and behavioral criteria. We note the importance of employing such criteria in conjunction with traditional outcomes, such as survival and profitability.

Content Research

For readers interested in historical background, Burke (1994) reviews and compares various content models dating from the 1960s through the 1980s. Of more recent interest are Burke and Litwin's (1992) content model of organizational performance and change and Vollman's (1996) model of the so-called transformation imperative. The Burke-Litwin (1992) model predicts individual and organizational performance and, thus, deals with organizational conditions (causes) and resultant effects. In doing so, it identifies *transformational* and *transactional* dynamics inherent in successful change efforts. Transformational factors deal with areas that require new employee behaviors as a consequence of external and internal environmental pressures. Such factors include leadership, culture, and mission and strategy. By contrast, transactional factors deal with psychological and organizational variables that predict and control the motivational and performance consequences of a work group's climate. These variables include management practices, structure, systems (policies and procedures), task requirements and individual skills/abilities. Accompanied by a 150-item diagnostic questionnaire, the Burke-Litwin (1992) model is novel in explicitly distinguishing between transformational and transactional factors requiring long- versus short-term attention. Thus, diagnostic feedback, organized according to useful categories, can be provided to aid change agents and managers in understanding which factors within their domains need attention and when. As is true of other diagnostic models, the Burke-Litwin (1992) model does have limitations. Burke (1994), however, acknowledges this fact and warns against being trapped by any one diagnostic model.

Vollman's (1996) model of the transformation imperative portrays the magnitude of the change process as confronted by many organizations. The model consists of an eight-by-six matrix detailing the myriad considerations potentially at play in a change effort. The rows of the matrix constitute eight facets: (a) strategic intent (e.g., addressing the correct issues); (b) competencies (e.g., linking current competencies to a desired transformation); (c) processes (e.g., establishing metrics for assessing efficiency and effectiveness); (d) resources (e.g., systematically deploying human resources); (e) outputs (e.g., identifying customer expectations); (f) strategic responses (e.g., planning action programs); (g) challenges (e.g., anticipating obstacles); and (h) learning capacity (e.g., identifying new required knowledge, skills and abilities). Each of these facets can serve to prompt essential questions. For example, "For this organization to implement a transformation: . . . What should be its strategic intent? . . . How can its current competencies be linked to the transformation? . . . What metrics are necessary for assessing its efficiency and effectiveness? Three columns of the matrix constitute organizational dimensions and three organizational resources. The dimensions and resources are (a) culture (e.g., shared values and beliefs); (b) configuration (e.g., organization design); (c) coordination (e.g., controls necessary to monitor progress); (d) people (e.g., new behaviors); (e) information (e.g., new data requirements); and (f) technology (e.g., new required equipment). An analysis of each column (i.e., the cultural implications of changing each facet) and each row

(i.e., the implications of changing strategic intent on configuration) is intended to reveal the magnitude of a proposed transformation. If conducted properly, such an analysis is intended to prevent underestimating the requirements necessary for a successful transformation effort.

Summary

The Burke-Litwin (1992) and Vollman (1996) models each focus on content factors (e.g., strategic orientation, organization structure, and organization-environment fit) that define an organization's overall character, mission, and direction, as well as underlie its long-term success. Both models are comprehensive in coverage and appropriate for conducting organizational diagnoses, as well as planning and evaluating the impact of an organizational change. One distinguishing feature of the Burke-Litwin model is an accompanying 150-item paper-and-pencil instrument that can be conveniently administered to large numbers of respondents. By underscoring the magnitude inherent in a change effort, the Vollman (1996) model is especially helpful in planning a transformation imperative. In this sense, it complements the Burke-Litwin (1992) model and would seem ideal for laying out the details of a desired change in discussions with groups of organizational participants. Depending on the participants' interests and levels of authority, different combinations of the model's 48 facets might be emphasized according to their relevance for varying constituencies.

Contextual Research

We selected eight studies to review as being especially notable for their representativeness of this category of change research. Each relates to the successfulness of various responses to changes in the internal and external components that comprise the contextual elements of differing organizational environments. The first four studies deal with the collective responses taken by organizations in reacting to external environmental changes. Each is representative of numerous other studies on the internal and external forces or conditions that shape an organization's environment (e.g., Finstad, 1998). The fifth study describes a meta-analysis of selected internal contextual, content, and process factors and deserves mention because of its uniqueness. The final three studies describe the application of mathematical techniques for modeling organizational responses to environmental pressures, and, thus, stand out because of their unusual methodology. All eight studies offer important insights for better understanding the contextual dynamics of organizational change. For a broader review of recent research seeking to explain the impact of contextual factors on organizational change, interested readers may wish to consult Barnett and Carroll (1995).

Meyer, Brooks, and Goes (1990) summarized industry- and organizational-level changes taking place in hospitals from the 1960s to 1980s, due to mounting competitive pressures. They show how in the 1960s, changes in the hospital industry were largely evolutionary, reflecting a stable external environment. During this period, hospitals grew by simply adding services. At the beginning of

the 1970s, however, hospitals began to strategically and structurally differentiate themselves as a means of justifying their expansion in view of concerns over mounting health-care costs. These concerns prompted revolutionary changes in the health-care industry as new government regulations intended to contain costs emerged in the 1980s. Health-care corporations and managed health-care plans were implemented at the firm-level as a complete metamorphosis took place in all aspects of the health-care industry. By exploring the various responses of health-care providers, Meyer et al. (1990) offered insights into how changes in the internal and external components that comprise the contextual elements of differing competitive environments are necessary for successful organizational adaptation across time.

Kelly and Amburgey (1991) investigated organizational inertia and momentum in the airline industry following its 1978 deregulation. Viewed as a discontinuous or second-order change, deregulation transformed the fundamental nature of the airline industry, as individual carriers were allowed to independently set fares and to enter and exit passenger markets at will. Kelly and Amburgey's (1991) analysis of this deregulation offers insights to complement those of Meyer et al. (1990). In particular, they draw five major conclusions that underscore the impact of context on varying organizational responses. First, environmental change does not necessarily increase the probability of strategic re-orientation. Second, older organizations are less likely than their younger counterparts to undergo change in their product-market strategy. Third, organizational size is not necessarily associated with a decrease in organizational responsiveness to change. Fourth, organizations are more likely to repeat changes they have previously experienced. And, finally, changes in product-market strategy do not necessarily contribute to organizational failure. A somewhat similar study by Amburgey, Kelly, and Barnett (1993) provides further support for some of these same conclusions.

In a third study representative of recent contextual research, Haveman (1992) investigated legislative and technological (i.e., the development of electronic data-processing systems) changes on the California savings and loan industry. Among the effects of these environmental changes were (a) a lowering of barriers to entry between industries in the financial services sector, (b) an increase in the complexity of financial products such as adjustable rate mortgages and mutual funds, and (c) an increase in the speed with which information could be processed. Among Haveman's (1992) conclusions were that in response to dramatic (i.e., second-order) environmental changes, a shift in organizational structures and activities will increase short-term financial performance and long-term survival chances, and, under conditions of second-order change, the more closely related new activities are to an organization's base domain, the more beneficial the subsequent effects on net worth and net income. Both conclusions dovetail with the Meyer et al. (1990) analysis of the health-care industry.

Fox-Wolfgramm, Boal, and Hunt (1998) analyzed the effects of the Community Re-Investment Act (CRA) on two Texas banks. The CRA mandated that banks not discriminate against consumers living in areas deemed high risk in terms of loan re-payment, irrespective of the consumer's creditworthiness. Using

Miles and Snow's (1978) adaptive strategy typology, one bank was labeled a *defender* and the other a *prospector*, given their previous methods of operating. The defender bank was required to undergo second-order change, but this was not sustained. The prospector bank underwent first-order change, and this was sustained. Fox-Wolfgramm et al. argue that the second-order changes required of the defender bank were inconsistent with its envisioned identity and image. Consequently, the change was ultimately rejected. The changes required of the prospector bank, however, were consistent with its envisioned identity and image and, therefore, were sustained. Drawing on their analysis, Fox-Wolfgramm et al. advanced various propositions and corollaries dealing with the notion that organizations will resist pressures for change that are inconsistent with their identity and image. They further proposed that to be sustainable, change must be consistent with an organization's current identity or envisioned identity and envisioned image. Indeed, they concluded that an organization's identity and image are more important in sustaining change than is success.

A meta-analysis by Damanpour (1991) merits mention because of its uniqueness. In brief, it focused on six internal contextual variables (*viz.*, specialization, professionalism, managerial attitude toward change, managerial tenure, technical knowledge resources, and slack resources), five content variables (*viz.*, functional differentiation, formalization, centralization, administrative intensity, and vertical differentiation), and two process variables (*viz.*, internal and external communications) that were expected to be positively or negatively related to organizational change (i.e., innovation). The principal finding of Damanpour's (1991) analysis is that a successful change effort may depend more on the congruency or fit between content, contextual, and process considerations than the nature of an intended change. As such, Damanpour (1991) provides a starting point for researchers interested in investigating relationships among other factors that are key to minimizing resistance to change.

The final three studies to be considered presented mathematical models of organization—environment relations. Gresov, Haveman, and Oliva (1993) mathematically modeled the effects of inertia on an organization's responsiveness to changes in competitive pressures. Responsiveness was defined as the aggressiveness of an organization's marketplace strategy. The Gresov et al. (1993) model includes fourteen design variables; some of which are similar to those contained in Damanpour's (1991) meta-analysis. These include mission, technology, size, structure complexity, perception of change, and involvement of those affected by a change. Gresov et al. emphasize that such "design variables are antecedents to inertia, not inertia itself" (p.190). Thus, the manner in which design variables manifest themselves determines the extent to which inertia slowing competitive responses exists. This suggests that the process employed in implementing change can be an important determinant of an organization's responsiveness to competitive pressures. Indeed, the process followed in implementing change can influence not only the perception of change, but also the involvement of those affected and the sequencing of change enhancing activities.

In a second study presenting a mathematical model, Huff, Huff, and Thomas (1992) developed and then simulated a characterization of how organizations

renew their strategic direction. Underlying the model is the notion that strategic renewal is an evolutionary process that comes about through a juxtaposition of inertia (i.e., commitment to a current strategy) and stresses resulting from dissatisfactions that signal a need for change. The Huff et al. (1992) model details the nature of this evolutionary process by simulating alternative renewal paths and exploring the interaction of the cumulative stress and inertia that naturally develop in organizations over time. Of particular note for the present review are two observations based on repeated model simulations: (a) an organization's past experiences with strategic change have an influence on subsequent tendencies to change strategic direction and (b) the beginning levels of inertia and stress within an organization have a long-term bearing on the length of time it persists with its current strategy.

In the final study to be reviewed, Sastry (1997) also developed a simulation model for analyzing the dynamics of organizational change. The model focuses on four organizational variables: strategic orientation (i.e., what business is a firm in and how does it compete); inertia (i.e., resistance to environmental reassessment and to change in social and structural relationships); perceived performance by top managers (i.e., consistency of activities and organizational efficiency); and pressure for change (i.e., environmental changes that render an original strategic orientation ineffective). Sastry's (1997) findings suggest various insights into how organizations may fail in attempting to introduce change. Principal among these is that a change effort is likely to fail if an organization adopts a strategic orientation that does not match the requirements of its external environment. This, of course, is consistent with both prevailing theory and years of prior research into organization-environment fit. In closing, Sastry (1997) does propose additional explanations for the successfulness of varying organizational change processes (such as allowing time to elapse before initiating subsequent changes) and, thus, possible avenues for future research.

Summary

The contextual studies selected for review provide insights into the impact of internal/external factors (e.g., organizational age, size, and inertia/momentum) on an organization's effectiveness in responding to environmental (internal/external) changes. As in the health-care and airline industries, changes may be brought about by regulatory shifts, whereas in other instances (e.g., the health-care and S&L industries) change may be prompted by competitive forces manifesting themselves as technological advancements. The reviewed studies focused on the successfulness of various responses to shifts in the contextual elements existing in an organization's external/internal environments. Although it is not our intent here to offer broad generalizations, further meta-analyses, such as that conducted by Damanpour (1991), would permit the integration of findings that relate to the interactions of the components that comprise the contextual elements of contrasting organizational environments. Such knowledge now only resides in isolated investigations.

The three mathematical models reviewed, dealing with simulations of organizational-level responses to potential environmental events, are helpful in sug-

gesting plausible alternative paths for strategic renewal, as well as understanding the effects of considerations such as design variables, inertia and stress, and strategic orientation on an organization's operating systems as it attempts to shift strategic frameworks. Although the practical application of such methods is less direct than other approaches, they are undeniably helpful in articulating theoretical arguments that might otherwise be overshadowed in more hands-on applications.

Process Research

The research to be reviewed on change process issues is organized into two sections. The initial section considers four models that recommend various phases for change agents to follow in implementing change. The second section describes two models that have been advanced for understanding how organizational members experience change as it unfolds.

Phases in Implementing Change

Research on implementing change as a process has its roots in the early work of Lewin (1947), wherein he conceptualized change as progressing through successive phases called unfreezing, moving, and freezing. Building on this early work, Judson (1991), Kotter (1995), Galpin (1996), and Armenakis, Harris, and Feild (1999) have described multi-phase models for change agents to follow in implementing changes.

The Judson (1991) model of implementing a change is comprised of five phases: (a) analyzing and planning the change; (b) communicating the change; (c) gaining acceptance of new behaviors; (d) changing from the status quo to a desired state; and (e) consolidating and institutionalizing the new state. Within each phase, Judson (1991) discusses predictable reactions to change and methods for minimizing resistance to change agent efforts. Among the different methods Judson (1991) discusses for overcoming resistance are alternative media, reward programs, and bargaining and persuasion.

In contrast to Judson's (1991) five phases, Kotter (1995) recommended eight steps for change agents to follow in implementing fundamental changes in how an organization operates: (a) establishing a sense of urgency by relating external environmental realities to real and potential crises and opportunities facing an organization, (b) forming a powerful coalition of individuals who embrace the need for change and who can rally others to support the effort; (c) creating a vision to accomplish the desired end-result; (d) communicating the vision through numerous communication channels; (e) empowering others to act on the vision by changing structures, systems, policies, and procedures in ways that will facilitate implementation; (f) planning for and creating short-term wins by publicizing success, thereby building momentum for continued change; and, (g) consolidating improvements and changing other structures, systems, procedures, and policies that aren't consistent with the vision; and (h) institutionalizing the new approaches by publicizing the connection between the change effort and organizational success.

In a third attempt to offer guidance for successfully implementing change, Galpin (1996) proposed a model comprised of nine wedges that form a wheel. As a foundation for each wedge in the model, Galpin (1996) stressed the importance of understanding an organization's culture as reflected in its rules and policies, customs and norms, ceremonies and events, and rewards and recognition. The Galpin *wheel* consists of the following wedges: (a) establishing the need to change; (b) developing and disseminating a vision of a planned change; (c) diagnosing and analyzing the current situation; (d) generating recommendations; (e) detailing the recommendations; (f) pilot testing the recommendations; (g) preparing the recommendations for rollout; (h) rolling out the recommendations; and (i) measuring, reinforcing, and refining the change.

Armenakis et al. (1999) proposed two models that incorporate elements of both Lewin's (1947) work and Bandura's (1986) social learning theory. The first model considers creating readiness for change so that resistance is minimized. The objective of the second model is to facilitate the adoption and institutionalization of desired change. The operational mechanism underlying both models is the basic change message being conveyed. As argued by Armenakis et al. (1999), to be effective, such a message should incorporate five components: (a) discrepancy (i.e., we need to change); (b) self-efficacy (i.e., we have the capability to successfully change); (c) personal valence (i.e., it is in our best interest to change); (d) principal support (i.e., those affected are behind the change); and (e) appropriateness (i.e., the desired change is right for the focal organization). The logic behind both models is to convert the constituencies affected by a change into agents of change.

Of special interest to both change agents and change researchers are the influence strategies that Armenakis et al. (1999) identify as being useful for transmitting change messages. These include (a) persuasive communication (e.g., speeches by change agents and articles in employee newsletters); (b) active participation by those affected (e.g., vicarious learning, enactive mastery, and participative decision making); (c) human resource management practices (e.g., selection, performance appraisal, compensation, and training and development programs); (d) symbolic activities (e.g., rites and ceremonies); (e) diffusion practices (e.g., best practice programs and transition teams); (f) management of internal and external information; and (g) formal activities that demonstrate support for change initiatives (e.g., new organizational structures and revised job descriptions).

Stages in Understanding Change

The general affect of change as a process has been conceptualized in two recent studies on employee behavior. Isabella (1990) has proposed a model of how (as change targets) organizational members interpret events as a change initiative unfolds. Based on interviews with 40 managers, the model suggests that organizational members construe key events linked to the process of change as unfolding in four distinctive stages. *Anticipation* occurs when individuals assemble rumors and tidbits of information into a construed reality. *Confirmation* involves the standardization of events into a conventional frame of reference used

to establish logical associations reflecting understandings that seemingly have worked in the past. *Culmination* results from a comparison of conditions before and after an event and at which time managers amend their frame of reference to either include new information or omit invalid information. The final stage, *aftermath*, occurs when focal managers review and evaluate the consequences of a change. Isabella's (1990) analysis is especially helpful to those attempting to understand resistance to change because it not only identifies the construed reality characteristic of each interpretive stage, but also describes processes that impel change targets between stages as change occurs. Löwstedt (1993) has also offered a similar cognitive approach to the analysis of change.

Jaffe, Scott, and Tobe (1994) have likewise advanced a four-stage model of how organizational members construe events as change unfolds. Although they label their stages somewhat differently, the Jaffe et al. (1994) and Isabella (1990) models are quite similar. *Denial* occurs as employees refuse to believe that a change is necessary or that it will be implemented. This is followed by *resistance*, as evidenced by individuals withholding participation, attempting to postpone implementation, and endeavoring to convince decision makers that the proposed change is inappropriate. *Exploration* is marked by experimentation with new behaviors as a test of their effectiveness in achieving promised results. And, finally, *commitment* takes place as change target members embrace a proposed change.

Summary

The various models reviewed in the preceding section all incorporate some form of on-going process. In reflecting upon the recommendations offered for implementing change and understanding its general effects on organizational members, it is obvious that the process used to plan and enact an organizational change is as important as the state of existing content and contextual factors. Two basic lessons underscored by all six of the implementation models reviewed are that (a) the change process typically occurs in multiple steps that take a considerable amount of time to unfold and efforts to bypass steps seldom yield a satisfactory result, and (b) mistakes in any step can slow implementation, as well as negate hard-won progress. Both lessons are valuable for all those involved in understanding and implementing change.

The implementation models of Judson (1991), Kotter (1995), Galpin (1996), and Armenakis et al. (1999) are similar in concept to and parallel the models of Isabella (1990) and Jaffe et al. (1994) for understanding the general effect of change as a process. Whereas Isabella (1990) describes the stages through which an individual progresses as change unfolds, Jaffe et al. (1994) provide an evaluative label for each stage. Thus, during anticipation individuals are likely to experience denial. At confirmation, they may experience resistance. For practitioners, these two stages imply that if organizational members are inappropriately prepared for the introduction of change, then denial and resistance will likely be initial and predictable consequences of a change process. During culmination, when organizational members compare the conditions before and after an event, exploration is under way. Thus, to counter possible resistance, efforts must be

made to assure that actions taken by decision-makers during this stage are viewed as positive. Aftermath is that time when organizational members decide the extent to which they will commit to a change process. By explaining potential reactions to change, both the Isabella (1990) and Jaffe et al. (1994) models offer practitioners guidance in what organizational members will likely experience during a change and offer insights into possible strategies and tactics for dealing with each stage in a change process.

In the form of a summary, and as a means of integrating the material that has been reviewed, Figure 1 combines the various models discussed in this section, as well as Lewin's three-phase change process. In doing so, it matches recommended phases/steps for change agents to follow in implementing change (i.e., phases within which change agents act) with stages in understanding change (i.e., stages through which change targets progress).

Research Involving Outcome Variables

Successfully implementing change inevitably requires encouraging individuals to enact new behaviors so that desired changes are achieved. The outcome or criterion variables described in the various studies reviewed in the preceding sections have primarily involved success/failure criteria such as profitability or market share. Likewise, the managerial actions described as being taken in response to contextual and content considerations were primarily intended to increase operational efficiency and effectiveness. As implied in the phase and stage models discussed above, attention to "bottom-line" criteria alone, however, is insufficient for gauging employee responses to actions undertaken during the enactment of an intended change. The actions required to implement a desired change may evoke unintended responses like denial and resistance, and further result in employees experiencing feelings of stress and cynicism, as well as reduced organizational commitment. Both research and practical experience suggest that such responses can serve as complementary criteria or *markers* for tracking the likelihood of employees enacting behaviors necessary for achieving desired changes.

Complicating this realization is research suggesting that despite recognizing a need for renewal, individuals may yet resist change. Support for this conclusion may be drawn from data collected by Clarke, Ellett, Bateman, and Rugutt (1996) on the receptivity/resistance to change of 799 faculty members and 79 academic heads located in 53 Carnegie Research I Universities. Although this may at first seem paradoxical, Clarke et al. (1996) reasoned that receptivity and resistance are change specific; that is, if an individual's self-interest is being threatened, a proposed change is likely to prompt resistance. Consequently, depending on the perceived likely effect, some changes are more tolerable than others are. Hence, although it is conceivable that redirection may be judged necessary, individuals are likely to resist changing if they believe they stand to lose something of value as a result. In such situations, individuals are likely to focus on their own self-interests and only incidentally on the overall good of their organizations.
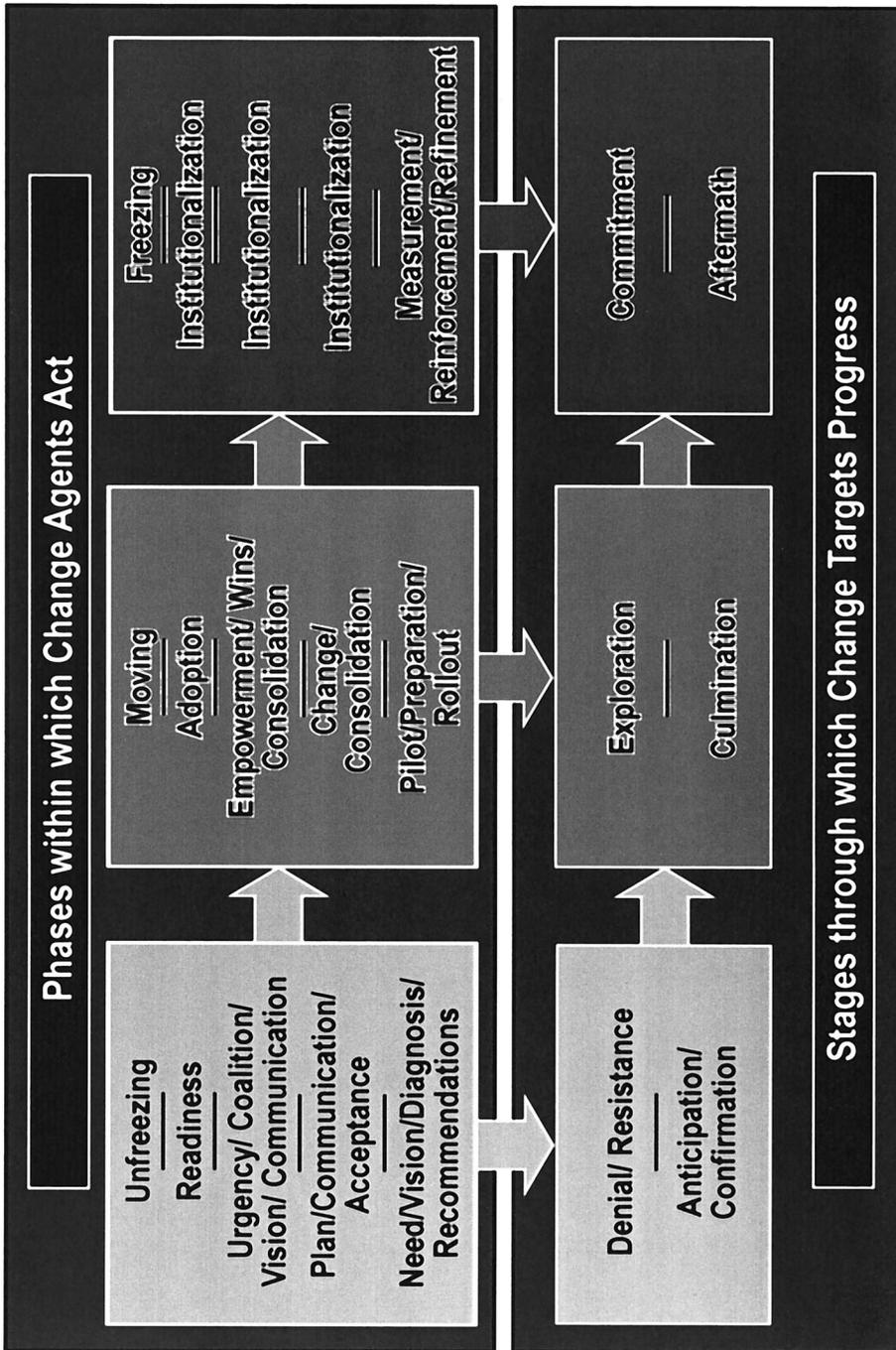
Figure 1. Change Agent Phases and Change Target Stages

In perhaps the most ambitious effort to assess the personal turmoil resulting from organizational change, Kanter (1991) reported on the views of nearly 12,000 managers surveyed in 25 countries on six continents. Survey respondents reported a substantial shift in loyalty over the decade ending in 1990, with loyalty for both senior managers and other employees apparently shifting from employers to professional associations. The effect of this shift in worker attitudes on an organization's ability to successfully confront change is suggested by other research.

For instance, research by Becker (1992), Becker, Billings, Eveleth, and Gilbert, (1996), and Meyer and Allen (1997) has produced a compelling rationale for using commitment (i.e., loyalty) as a criterion variable in assessing the impact of organizational change on employee-organization relations. In particular, *compliance commitment* (i.e., an individual's willingness to comply with the organization's rules, policies, and reward structures), *identification commitment* (i.e., attachment one feels to being socially affiliated with an organization and its members), and *internalization commitment* (i.e., institutionalization of values inherent in a change), have been argued to influence the psychological attachment employees feel toward an organization and, in turn, the extent to which they will both perform their jobs and experience swings in stress, cynicism, and forms of workplace withdrawal (e.g., absenteeism and lateness), and, ultimately, employee turnover (cf. Becker et al., 1996).

Dean, Brandes, and Dharwadkar (1998) have recently reviewed the research on employee cynicism. Conceptualizing cynicism as an attitudinal construct comprised of beliefs, affect, and behavioral tendencies, they considered cynicism to be based on specific organizational experiences and argue that it is likely to change across time as one encounters new experiences. Comparing cynicism with organizational commitment, trust, alienation, and job satisfaction, Dean et al. (1998) concluded that while cynicism may be related to these and other constructs, it is an independent concept. Consistent with this view, Reichers, Wanous, and Austin (1997) argued that cynicism is important because change efforts are likely to fail if employees responsible for an organization's success lose faith in senior management as change agents. Factors they identify as contributing to the development of such cynicism include a history of failed change programs and inadequate sharing of information about intended changes. Reichers et al. (1997) concluded that cynicism about changes has detrimental consequences for such employee outcomes as commitment, satisfaction, and motivation.

Stress caused by demands that are placed on individuals charged with enacting new behaviors might also serve as a barrier to change. In explaining why people experience stress, Schabracq and Cooper (1998) argued that individuals develop general automatic responses to work and life events. These responses enable them to meet recurring needs in set ways that permit them to evolve necessary skills, thus, providing a sense of control and a source of positive reinforcement. This way of functioning is described as being inherent in specific situations and as comprising a set of *situated roles* that reduce uncertainty in everyday interactions. When an organizational change is initiated, however, an individual's situated skills may become invalid. The more dramatic a change, the

less effective established situated skills are likely to become and the greater the experienced uncertainty. As changes begin to mount, coping and adapting are likely to become more difficult. The feelings of uncertainty, the potential likelihood of being unable to cope, and the difficulty inherent in developing revised situated skills, the greater the stress. Whereas different individuals have varying ability to learn new roles, stress is expected in the face of change as new skills and behaviors are required (Callan, 1993).

As is evident from many of the studies reviewed, it is common practice to assess organizational members' reactions to change using self-report methodologies. Golembiewski, Billingsley, and Yeager (1976) introduced the alpha, beta, and gamma change typology to operationalize the kinds of changes that can be experienced as a result of an intervention. In such situations, in contrast to experiencing affective/behavioral or alpha change, participants may redefine (gamma change) and recalibrate (beta change) their meanings of organizational constructs. Prior to 1990, the change typology stimulated a number of studies to identify a suitable methodology for detecting and correcting for beta and gamma change (see Armenakis, 1988, for a review). Since 1990, however, few studies have been conducted along these lines. One notable exception is Thompson and Hunt's (1996) investigation of the cognitive processes hypothesized to result in attitude changes corresponding to the alpha, beta, and gamma typology.

Summary

Receptivity, resistance, commitment, cynicism, stress, and related personal reactions are clearly relevant criterion variables to be considered in the framework of planning and implementing an organizational change. As the research reviewed in this section suggests, such reactions can complement bottom-line measures (such as profitability) in assessing the likely success of contextual and content changes. Inherent in both bottom-line and process criteria for assessing the viability of an intended change is the realization that, as open systems, organizations depend on human direction to succeed.

The extant research on the usefulness of criterion variables in monitoring the implementation process meshes nicely with the various models for implementing and understanding reactions to change summarized in Figure 1. For example, Clarke et al.'s (1996) research on receptivity and resistance as implementation criteria is useful in assessing the denial and resistance stages described in the Jaffe et al. (1994) model. The research summarized on organizational commitment (e.g., Meyer & Allen, 1997) offers insights into determining whether organizational members have reached the Jaffe et al. (1994) commitment stage. Both Clarke et al.'s (1996) research and the aforementioned research on commitment are congruent with the logic embodied in the various process models summarized. In fact, the Armenakis et al. (1999) and the Galpin (1996) models include an assessment function to enable change agents to monitor and manage the readiness-adoption-institutionalization phases of the change process. The research on cynicism (Dean et al., 1998) and stress (Schabracq & Cooper, 1998) is likewise consistent with the process models. Change can obviously cause cynicism and stress, thereby inhibiting success. Understanding gained from efforts to deal with

such affective reactions may offer explanations for the status of a change initiative and alert change agents to the need for modifying selected implementation procedures necessary for the adoption and institutionalization of change.

Assessing Affect and Behavior in Organizational Change

The research reviewed in the previous sections focused on content, contextual, process, and outcome issues. One implication of this work is that whereas change efforts may produce desired results (at least in the short-run), the reactions they elicit in organizational members may be quite mixed. Indeed, in an analysis of the side effects incurred in the intended cultural transformations of 530 firms, Gilmore, Shea, and Useem (1997) found both positive and negative results occurring concurrently. Where typically improvements were achieved in criteria such as quality, service, productivity, and risk taking, affective outcomes such as organizational commitment, workplace climate and employee morale substantially worsened. Gilmore et al. (1997) warned that unanticipated side effects in affective outcomes can undermine—even defeat—an intended change.

Evidence has accumulated over the past decade that the successfulness of change efforts is due to not only their content or substantive nature, but also the processes followed or actions undertaken during their implementation (e.g., Hendry, 1996). Content and process considerations must thus be viewed as complementary elements in planning and monitoring an organizational change. Based on both experience and research, it can be anticipated that organizational members will generally attempt to cope with the uncertainty of change by going through the denial (e.g., this change is not needed) and resistance (e.g., stalling, sabotage, absenteeism, turnover) stages identified by, among others, Jaffe et al. (1994). As suggested above, process models such as those proposed by Judson (1991), Kotter (1995), Galpin (1996), and Armenakis et al. (1999) offer valuable insights for monitoring and minimizing the likelihood of unfavorable employee reactions to change interventions. A consideration of research that deals with monitoring affective and behavioral reactions to change follows.

Monitoring Affective Reactions to Organizational Change

As will be discussed, affective reactions to change may take many forms. The actual measurement of affective reactions to change has been attempted by Mossholder, Settoon, Harris, and Armenakis (1995). Using computer-aided text analysis software, they content analyzed open-ended survey responses of 173 upper-level managers of a *Fortune* 100 firm undergoing an attempted cultural transformation. Words used by the respondents to describe the manner in which the transformation was implemented were content analyzed using the *Dictionary of Affect in Language* (Whissell & Dawson, 1986). This analysis permitted the researchers to determine the favorableness and strength of the respondents' feelings toward the transformation and, thereby, gain insights into their likely emotional reactions.

Schweiger and DeNisi (1991) investigated the effect of various communication media on the attitudes of employees in two separate units of an organiza-

tion that had announced a merger. Their methodology incorporated a two group (i.e., experimental and comparison groups) design to investigate the impact of a realistic merger preview (RMP) on the employees' attitudes. In this context, the RMP could be considered a component of a readiness-creating program in a process model, described above. For the experimental group, the RMP consisted of a merger newsletter, telephone hotline, and weekly group meetings with managers, and personal meetings with individual employees affected by the merger decision. Employees in the comparison group simply received a letter from the organization's chief executive officer announcing the merger. Schweiger and DeNisi (1991) found that uncertainty increased with the initial merger announcement, increasing stress and decreasing satisfaction, commitment, intentions to remain, perceived trustworthiness, honesty, and caring. Realistic communications (as practiced in the experimental group), however, helped employees cope with the announced merger. Moreover, the beneficial effects of such communications became more pronounced over time.

Employee stress levels, particularly caused by workplace demands, are further change-induced affective reactions that have received research attention. McHugh (1997) studied employee stress in an organization that was part of the Swedish social insurance system. The organization had undergone several years of changes designed to increase accountability, efficiency, and effectiveness. Employee stress was assessed in terms of factors such as job demands, depression, anxiety, exhaustion, and tension. As expected, McHugh (1997) concluded that a climate of constant change is a major source of disaffection for many employees. Beyond providing support for what many would consider to be an obvious conclusion, McHugh's (1997) methodology provides an exemplary model for studying stress as a consequence of change.

In a final study, Wahlstedt and Edling (1997) studied the impact of a change in work practices on the job satisfaction, psychosomatic complaints, and sick leave of 100 postal employees in Sweden. They found that a carefully crafted intervention succeeded in reducing sick leave and that increases in perceived skill discretion and in authority over decisions were correlated with fewer reported sleep disturbances and gastrointestinal complaints. The results of this study are important because they indicate that with proper foresight the corrosive effects of change-associated stress can be ameliorated.

Monitoring Behavioral Reactions to Organizational Change

Looking past affective responses, behavioral reactions to change have also been recently investigated. Orlikowski (1996) analyzed interview transcripts, observation notes, and archival records in identifying behavioral issues related to the introduction of a new technology to track telephone calls received by 50 technical support specialists in the customer support department (CSD) of a software company. Her analysis revealed five *metamorphoses* over two years in the texture of work, nature of knowledge, interaction patterns, mechanisms of coordination and so forth as experienced by the CSD specialists. Questioning the superiority of planned change (cf. Robertson, Roberts, & Porras, 1993), she proposed a new perspective labeled *situated change* (á la Schabracq & Cooper,

1998), which is described as an ongoing incremental adjustment and adaptation process by target group members. This is considered to be a coping strategy enacted by individuals so that they don't become overwhelmed by the challenges faced in adopting and institutionalizing organizational change. Thus, situated change is viewed as an ongoing improvisation enacted by the specialists as part of their everyday experiences in adopting the new software. In addition to doubting the notion that change must be deliberate, Orlikowski (1996) also challenged the wisdom that radical changes should always occur rapidly and discontinuously.

Beer and Eisenstat (1996) offered a lesson in understanding behavioral reactions to change. They reported the results of an organization-wide intervention, referred to as Strategic Human Resource Management Profiling (SHRMP), designed to enhance the strategic and learning abilities of a global technology company. A team of internal and external consultants trained an employee task force (ETF) to conduct interviews with internal and external constituencies. The consultants interviewed the company's top management team (TMT). The interviewers (i.e., the ETF and the consultants) collected data on the company's strengths and deficiencies as they related to (a) organizational capabilities; (b) stakeholder satisfaction; (c) strategic tasks; (d) external context; and (e) organization design and human resource practices. The data gathered by the ETF were fed back to the TMT with adequate dialogue to clarify any misunderstanding. The TMT then developed and shared with the ETF a broad vision of what organizational changes were needed. After arriving at a consensus regarding the needed changes, implementation began. SHRMP's short-term objective was to uncover and improve organizational deficiencies. Its long-term objective, however, was to become an institutionalized program so that organizational changes would be initiated as needed. Based on information from task-force reports, interview transcripts, questionnaire responses, and participant-observation field notes, Beer and Eisenstat (1996) concluded that although SHRMP achieved its short-term objective, it had very little sustained impact over the long term, ultimately being abandoned. Beer and Eisenstat (1996) reasoned that the SHRMP process was resisted because it was seen as "overly personal and too negative" and that "managers may have wanted to distance themselves and others from a process that caused pain" (p. 612). This result underscores a common occurrence in change initiatives—temporary adoption, but ultimate rejection of the new behaviors necessary to achieve lasting success.

Summary

The foregoing research on monitoring affective and behavioral reactions to organizational change leads to various conclusions. First, affective and behavioral reactions to organizational change can be assessed using a variety of methodologies ranging from computer-aided text analysis to experimental designs, to participant observation to archival records. Second, in addition to *traditional* affective criteria (e.g., organizational commitment, job satisfaction, and cynicism), less-used criteria (e.g., depression, anxiety, and exhaustion) offer alternative insights into affective reactions to change. Third, communication media, as

shown in Schweiger and DeNisi (1991), offer promise for helping organizational members cope with change. Fourth, research employing a situated perspective (Orlikowski, 1996) casts doubt on the notion that radical change should always occur rapidly and discontinuously. And, finally, despite gaining initial (i.e., short-term) success, a change initiative may nonetheless be ultimately rejected because top managers desire to distance themselves from the *pain* experienced by organizational members.

Conclusion

In reviewing the change literature since 1990, several observations present themselves. First, whereas research on content, contextual, and process considerations related to change continues to be responsive to contemporary organizational demands (and valuable insights have, thereby, been gained into change per se), analyses of organizational change have generally tended to be limited in scope, focusing on one set of considerations or another. As we conclude the 1990s, enough research has been conducted to make it clear that future studies should evaluate content, contextual and process issues so as to make predictions about how and why organizations change. Doing so will no doubt require great effort, but should aid in unifying the field (Barnett & Carroll, 1995).

Second, it has long been argued that organizational change research should be conducted longitudinally. Van de Ven and Huber (1990) and Pettigrew (1990), writing in a special issue of *Organization Science* devoted to longitudinal methods for studying change, are among many whom have emphasized this point. As Van de Ven and Huber (1990) noted, the question of "how" change emerges, develops, continues, and terminates over time remains largely unanswered. Future research into "the temporal sequence of events that unfolds as an organizational change occurs" would provide a deeper understanding of the dynamics of change and permit the testing of current and new theories addressing "why" organizations change (p. 213).

In this regard, Pettigrew (1990) has addressed the value of research on content-based organizational change research that allows the change process to reveal itself in a contextual manner. Among the studies selected for inclusion in the present review, several offer content lessons that unfold across time and are both *contextualist* and *processual* in character. The Fox-Wolfgramm et al. (1998) comparative study of both defender and prospector banks' strategic adaptations to increasing regulatory pressure extended across seven years. By considering both immediate and more distant antecedents that gave form, meaning, and substance to the events they investigated, Fox-Wolfgramm et al. (1998) were able to advance propositions applicable across time relating to how and why organizations exhibit different modes of change in response to environmental pressures. Simply studying such pressures in an episodic fashion would not have enabled Fox-Wolfgramm et al. (1998) to uncover the mechanisms through which changes are created and sustained (Pettigrew, 1990).

The work of Beer and Eisenstat (1996) and Orlikowski (1996) further underscores why longitudinal research is fundamental for understanding the

dynamics of organizational change. Beer and Eisenstat's (1996) report on an organization-wide intervention covered a six-year period. Although judged over the short term, the intervention seemingly achieved its intended objectives. Beer and Eisenstat (1996) disappointingly concluded that, over the long term, the intervention had little sustained impact on the target organization. Indeed, this realization led some in the target organization to refer to the intervention as a "swindle," failing to deliver what it promised. Obviously, if Beer and Eisenstat (1996) had limited themselves to an analysis of snapshot data, they would have been unable to offer a true picture of the intricacies inherent in the dynamic analysis of change. One wonders how common, but unrecognized, such an outcome may be as change initiatives in many organizations seem to take on a *program of the month* aura.

Orlikowski's (1996) examination of the use of new technology in a software company complements Beer and Eisenstat's (1996) experience by downplaying the strong assumptions of rationality that characterize existing change models. Using a situated perspective, she was able to show that successful change may involve moving away from patterns of bureaucracy and control to those of flexibility and self-organizing. The subtle changes underlying this movement, however, were only evident over a two-year period of intense study. Thus, like those of Beer and Eisenstat (1996), her findings spotlight the importance of "temporal interconnectedness," or the "locating of change in past, present, and future time" (Pettigrew, 1990, p. 269). Finally, this line of reasoning is consistent with the contextual research we summarized suggesting the benefits of a *grace period* between successive change efforts (cf. Huff et al., 1992; Sastry, 1997). Not only will such respites permit organizational members to develop requisite skills, but (as suggested by Schabracq & Cooper, 1998) serve as a stress-reducing tactic.

It should be noted that an incremental approach to introducing change is consistent with Bandura's (1986) social learning theory and is aptly labeled *enactive mastery*; that is, the gradual accumulation of successively more complex skills. This gradual accumulation maximizes feelings of self-efficacy and minimizes stress resulting from the realization that established (automatic) responses are no longer effective in a new setting. Adopting an incremental approach also has implications for planning and implementing change. If a change agent draws on social learning theory and implements change following a process model (incorporating enactive mastery), unintended outcomes may be minimized.

A third observation that presents itself relates to increasing the likelihood of individuals enacting behaviors necessary for successful change. Additional studies dealing with the behavioral and attitudinal reactions of organizational members to change are needed to further define its human costs and how best to cope with its seemingly inevitable downside. Research reporting what processes have been used to implement change should be extended to include how well and when specific tactics and strategies for introducing change have been successful. Schweiger and DeNisi's (1991) investigation into the effects of various communication media on the attitudes of employees to an announced merger and Mossholder et al.'s (1995) study of affective reactions to change offer direction in

this regard. Recent work by Dirks, Cummings, and Pierce (1996) underscores the importance of psychological ownership in promoting change.

A fourth observation that presents itself is that current research in the field of organizational change has yet to draw on findings in cognate areas. Paralleling the work of Clarke et al. (1996) on receptivity and resistance to change, research on readiness for change conducted in other fields may well offer valuable insights. For instance, research on readiness associated with adopting health-related behaviors (Fleury, 1994) and enrolling in smoking cessation programs (Morera, Johnson, Freels, Parsons, Crittenden, Flay, & Warnecke, 1998) potentially offers additional data on affective and behavioral reactions to change.

A final observation that presents itself is that the use of qualitative methods in conducting organizational change research has grown in the last ten or so years. This growth is likely due, in part, to the mounting availability of reference materials (e.g., Denzin & Lincoln, 1998a, 1998b, 1998c; Lee, 1998; Seidman, 1998), as well as the increasing receptivity of journal editors in the organizational sciences to look favorably upon non-quantitative research. Additionally, at least three technological advancements show promise for facilitating qualitative data collection and analysis. First, content analysis can be performed using newly developed software (cf. Qualitative Solutions and Research Pty Ltd., 1997). Second, video technology is being increasingly used to collect data from employees experiencing change. Krug (1998), for example, has demonstrated the benefits of video technology for simple data collection, as well as for visually analyzing non-verbal reactions to change. And finally, although not yet completely functional, software is currently being developed that will enable a researcher to record interviews and simultaneously create a database (cf. IBM, 1997) that can be content analyzed using manual or computer-aided methods.

In sum, our examination of the past nine years of research and theory on organizational change clearly indicates that the field is robust and that it continues to be responsive to contemporary organizational demands. As was true of our predecessor contributors in the *Yearly Review of Management* series on organizational change, we likewise continue to be excited by the field's past accomplishments and future promise. Much has been learned; much remains to be learned.

References

Amburgey, T., Kelly, D., & Barnett, W. 1993. Resetting the clock: The dynamics of organizational change and failure. *Administrative Science Quarterly*, 38: 51–73.

Armenakis, A. 1988. A review of research on the change typology: Measuring alpha, beta, and gamma change. *Research in Organizational Change and Development*, 2: 163–194.

Armenakis, A., Harris, S., & Feild, H. 1999. Paradigms in organizational change: Change agent and change target perspectives. In R. Golembiewski (Ed.), *Handbook of organizational behavior*. New York: Marcel Dekker.

Bandura, A. 1986. *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Barnett, W., & Carroll, G. 1995. Modeling internal organizational change. *Annual Review of Sociology*, 21: 217–236.

Becker, T. 1992. Foci and bases of commitment: Are they distinctions worth making? *Academy of Management Journal*, 35: 232–244.

Becker, T., Billings, R., Eveleth, D., & Gilbert, N. 1996. Foci and bases of employee commitment: Implications for job performance. *Academy of Management Journal*, 39: 464–482.

Beer, M., & Eisenstat, R. 1996. Developing an organization capable of implementing strategy and learning. *Human Relations*, 49: 597–619.

Burke, W. 1994. Diagnostic models for organization development. In A. Howard & Associates (Eds.), *Diagnosis for organizational change: Methods and models:* 53–84. New York: Guilford Press.

Burke, W., & Litwin, G. 1992. A causal model of organizational performance and change. *Journal of Management*, 18: 523–545.

Callan, V. 1993. Individual and organizational strategies for coping with organizational change. *Work & Stress*, 7: 63–75.

Clarke, J., Ellett, C., Bateman, J., & Rugutt, J. 1996. Faculty receptivity/resistance to change, personal and organizational efficacy, decision deprivation and effectiveness in research I universities. Paper presented at the Twenty-first Annual Meeting of the Association for the Study of Higher Education, Memphis, TN, October 31-November 3.

Damanpour, F. 1991. Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34: 555–590.

Dean, J., Brandes, P., & Dharwadkar, R. 1998. Organizational cynicism. *Academy of Management Review*, 23: 341–352.

Denzin, N., & Lincoln, Y. 1998a. *Collecting and interpreting qualitative materials*. Thousand Oaks, CA: Sage.

Denzin, N., & Lincoln, Y. 1998b. *Strategies of qualitative inquiry*. Thousand Oaks, CA: Sage.

Denzin, N., & Lincoln, Y. 1998c. *The landscape of qualitative research*. Thousand Oaks, CA: Sage.

Dirks, K., Cummings, L., & Pierce, J. 1996. Psychological ownership in organizations: Conditions under which individuals promote and resist change. *Research in Organizational Change and Development*, 9: 1–23.

Finstad, N. 1998. The rhetoric of organizational change. *Human Relations*, 51: 717–740.

Fleury, J. 1994. The index of readiness: Development and psychometric analysis. *Journal of Nursing Measurement*, 3: 143–154.

Fox-Wolfgramm, S., Boal, K., & Hunt, J. 1998. Organizational adaptation to institutional change: A comparative study of first-order change in prospector and defender banks. *Administrative Science Quarterly*, 43: 87–126.

Galpin, T. 1996. *The human side of change: A practical guide to organization redesign*. San Francisco: Jossey-Bass.

Gilmore, T., Shea, G., & Useem, M. 1997. Side effects of corporate cultural transformations. *Journal of Applied Behavioral Science*, 33: 174–189.

Golembiewski, R., Billingsley, K., & Yeager, S. 1976. Measuring change and persistence in human affairs: Types of change generated by OD designs. *Journal of Applied Behavioral Science*, 12 (2): 133–157.

Gresov, C., Haveman, H., & Oliva, T. 1993. Organizational design, inertia, and the dynamics of competitive response. *Organization Science*, 4: 181–208.

Haveman, H. 1992. Between a rock and a hard place: Organizational change and performance under conditions of fundamental environmental transformation. *Administrative Science Quarterly*, 37: 48–75.

Hendry, C. 1996. Understanding and creating whole organizational change through learning theory. *Human Relations*, 49: 621–641.

Huff, J., Huff, A., & Thomas, H. 1992. Strategic renewal and the interaction of cumulative stress and inertia. *Strategic Management Journal*, 13 (Special Summer Issue): 55–75.

IBM 1997. *Voice type: Simply speaking* [Computer software]. White Plains, NY: Author.

Isabella, L. 1990. Evolving interpretations as a change unfolds: How managers construe key organizational events. *Academy of Management Journal*, 33: 7–41.

Jaffe, D., Scott, C., & Tobe, G. 1994. *Rekindling commitment: How to revitalize yourself, your work, and your organization.* San Francisco: Jossey-Bass.

Judson, A. 1991. *Changing behavior in organizations: Minimizing resistance to change*. Cambridge, MA: Basil Blackwell.

Kanter, R. 1991. Transcending business boundaries: 12,000 world managers view change. *Harvard Business Review*, 69 (3): 151–164.

Kelly, P., & Amburgey, T. 1991. Organizational inertia and momentum: A dynamic model of strategic change. *Academy of Management Journal*, 34: 591–612.

Kotter, J. 1995. Leading change: Why transformation efforts fail. *Harvard Business Review*, 73 (2): 59–67.

Krug, K. 1998. *A hypermediated ethnography of organizational change*. Unpublished doctoral dissertation. University of British Columbia, Vancouver.

Lee, T. 1998. *Using qualitative methods in organizational research*. Thousand Oaks, CA: Sage.

Lewin, K. 1947. Frontiers in group dynamics. *Human Relations*, 1: 5–41.

Löwstedt, J. 1993. Organizing frameworks in emerging organizations: A cognitive approach to the analysis of change. *Human Relations*, 46: 501–526.

McHugh, M. 1997. The stress factor: Another item for the change management agenda? *Journal of Organizational Change Management*, 10: 345–362.

Meyer, A., Brooks, G., & Goes, J. 1990. Environmental jolts and industry revolutions: Organizational responses to discontinuous change. *Strategic Management Journal*, 11: 93–110.

Meyer, J., & Allen, N. 1997. *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage.

Miles R., & Snow, C. 1978. *Organizational strategy, structure, and process*. New York: McGraw-Hill.

Morera, O., Johnson, T., Freels, S., Parsons, J., Crittenden, K., Flay, B., & Warnecke, R. 1998. The measure of stage of readiness to change: Some psychometric considerations. *Psychological Assessment*, 10: 182–186.

Mossholder, K., Settoon, R., Harris, S., & Armenakis, A. 1995. Measuring emotion in open-ended survey responses: An application of textual data analysis. *Journal of Management*, 21: 335–355.

Orlikowski, W. 1996. Improvising organizational transformation over time: A situated change perspective. *Information Systems Research*, 7: 63–92.

Pasmore, W., & Fagans, M. 1992. Participation, individual development, and organizational change: A review and synthesis. *Journal of Management*, 18 (2): 375–397.

Pettigrew, A. 1990. Longitudinal research on change: Theory and practice. *Organization Science*, 1: 267–292.

Qualitative Solutions and Research Pty Ltd. 1997. *QSR NUD*IST 4*. Thousand Oaks, CA: Sage.

Reichers, A., Wanous, J., & Austin, J. 1997. Understanding and managing cynicism about organizational change. *Academy of Management Executive*, 11 (1): 48–59.

Robertson, P., Roberts, D., & Porras, J. 1993. Dynamics of planned organizational change: Assessing empirical support for a theoretical model. *Academy of Management Journal*, 36: 619–634.

Sashkin, M., & Burke, W. 1987. Organization development in the nineteen-eighties. *Journal of Management*, 13: 393–417.

Sastry, M. 1997. Problems and paradoxes in a model of punctuated organizational change. *Administrative Science Quarterly*, 42: 237–275.

Schabracq, M., & Cooper, C. 1998. Toward a phenomenological framework for the study of work and organizational stress. *Human Relations*, 51: 625–648.

Schweiger, D., & DeNisi, A. 1991. Communication with employees following a merger: A longitudinal field experiment. *Academy of Management Journal*, 34: 110–135.

Seidman, I. 1998. *Interviewing as qualitative research*. Williston, VT: Teachers College Press.

Thompson, R. & Hunt, J. 1996. Inside the black box of alpha, beta, and gamma change: Using a cognitive-processing model to assess attitude structure. *Academy of Management Review*, 21: 655–690.

Van de Ven, A., & Huber, G. 1990. Longitudinal field research methods for studying processes of organizational change. *Organization Science*, 1: 213–219.

Van de Ven, A., & Poole, M. 1995. Explaining development and change in organizations. *Academy of Management Review*, 20: 510–540.

Vollman, T. 1996. *The transformation imperative*. Boston, MA: Harvard Business School Press.

Wahlstedt, K., & Edling, C. 1997. Organizational changes at the postal sorting terminal: Their effects upon work satisfaction, psychosomatic complaints, and sick leave. *Work & Stress*, 11: 279–291.

Weick, K., & Quinn, R. 1999. Organizational change and development. *Annual Review of Psychology*, 50: 361–386.

Whissell, C., & Dawson, M. 1986. A dictionary of affect in language: III. Analysis of two biblical and two secular passages. *Perceptual and Motor Skills*, 62: 875–888.

Woodman, R. 1989. Organization change and development: New arenas for inquiry and action. *Journal of Management*, 15: 205–228.