© Academy of Management Review
2000, Vol. 25, No. 1, 154–177.

STRATEGIZING THROUGHOUT THE ORGANIZATION: MANAGING ROLE CONFLICT IN STRATEGIC RENEWAL

STEVEN W. FLOYD
University of Connecticut

PETER J. LANE
Arizona State University

Strategic renewal consists of three subprocesses (competence definition, deployment, and modification). Within each subprocess, the roles of top-, middle- and operating-level managers differ in their time horizon, information requirements, and core values. Dissensus in managers' perceptions about the need for change creates strategic role conflicts within individual managers and between managerial roles. In this article we explain when and where strategic role conflict occurs and how organizational controls may be used to alleviate it.

Successful strategic renewal overcomes the inertial forces embodied in an organization's established strategy and closes the gap between its existing core competencies and the evolving basis of competitive advantage in the industry (Burgelman, 1991, 1994; Huff, Huff, & Thomas, 1992; Hurst, Rush, & White, 1989). To accomplish this, top management often must internalize, as part of the organizational knowledge base, information and initiative that diverge from its view of strategy and must use these to shape new competencies (Burgelman, 1991, 1994). This presents a challenge, because the shift from deploying existing competencies to developing new ones requires a shift in the roles that managers play, as well as in the relationships between those roles. Thus, a key problem in strategic renewal is the conflict between the need to institutionalize the managerial behavior associated with current competencies and current strategies and the need to encourage the behaviors necessary to develop new competencies and new strategies.

This problem is made more acute by the increasing pace of competition and the ever-tightening resource constraints facing managers. Shorter product life cycles and blurring industry boundaries increase the pressure to internalize new information. Many organizations no longer have sufficient slack resources to support parallel activities, such as skunkworks or new venture divisions, that speed internalization of new information and, hence, innovation. More and more, the problem of renewal manifests itself as *strategic role conflict:* managers facing inconsistent behavioral expectations based on the need to efficiently deploy existing competencies and the need to experiment with new ones.

Our purpose here is to describe strategic role conflict more precisely and to define the contingencies associated with its occurrence and the organizational responses associated with its resolution. Drawing on the broader domain of strategy process research, we identify ten managerial roles that are critical in the renewal process. We link these roles to specific phases of renewal and to one another by adopting MacNeil's (1974) relational exchange perspective. Combining the exchange perspective with insights from role theory, our argument highlights sources of strategic role conflict, role conflict's harmful effects on strategic renewal, and factors that may make its occurrence more likely. Viewing the renewal process as a system of relational exchanges also allows us to identify systematic ways that organizations seek to minimize the occurrence of strategic role conflict. In doing so, we explain how organizational controls align role expectations with the type and pace of change in the external environment.

We thank Blake Ashforth, Lynn Bowes-Sperry, Steve Corman, Marlena Fiol, Livia Markoczy, Barbara Ribbens, and the reviewers for their comments on earlier drafts of this article. Both authors contributed equally.

Our fundamental thesis is that strategic role conflict is an inevitable by-product of environmental change and that it can be minimized but not eliminated. We do not assume that individuals are passive objects whose roles can be manipulated by the organization for its own ends (Stryker & Statham, 1985). Rather, we assume that others' expectations provide broad imperatives within which the details of roles can be worked out (Ashforth & Saks, 1995; Biddle, 1986). Minimizing strategic role conflict requires identifying and managing those broad imperatives in order to improve the effectiveness of strategic renewal.

THE CONCEPT OF STRATEGIC RENEWAL

The term *strategic renewal* has come to be identified with evolutionary models of strategic change (Barnett & Burgelman, 1996; Burgelman, 1983b; Huff et al., 1992; Nelson & Winter, 1982). These models depict renewal as an iterative process of belief, action, and learning, with the purpose of aligning the organization's strategy with changing environmental circumstances (Doz, 1996; Huff et al., 1992; Johnson, 1988). Factors that challenge the viability of current strategy create stress, which interacts with inertial forces in the organization to produce a punctuated equilibrium pattern of change. Long periods of incremental adjustment (single-loop learning) are broken by bursts of revolutionary change (double-loop learning; Argyris, 1976; Gersick, 1991; Tushman & Anderson, 1986).

Burgelman's conceptualization (1983a, 1991, 1994, 1996) goes further than this. Burgelman explicitly adopts the variation-selection-retention framework from general evolutionary theory, thereby adapting the tenets of population ecology (Aldrich, 1979; Hannan & Freeman, 1989) to the intraorganizational environment. An organization's escape from the forces of environmental selection is possible only if the *internal* selection environment generates a sufficient variety of autonomous strategic initiatives. These experiments with new skills or market opportunities diverge from official strategy and are triggered by shifts in factor or product markets. Autonomous initiatives provide "early warning signals" of the need for change and simultaneously lay the foundation for the organization's response.

Our own definition of strategic renewal is consistent with Burgelman's view, but somewhat broader than his. *Strategic renewal is an evolutionary process associated with promoting, accommodating, and utilizing new knowledge and innovative behavior in order to bring about change in an organization's core competencies and/or a change in its product market domain* (Burgelman, 1991; Huff et al., 1992; Hurst et al., 1989). This definition builds on Burgelman's (1991) assertion that successful changes in organizational domain are preceded by bottom-up learning and internal selection. Unless preceded by learning, domain shifts increase the organization's vulnerability to external selection and expose it to significant survival risk (March, 1981; Singh, 1986). Making this connection explicit expands the concept of renewal to include both change in core competencies and change in strategic position. There are two principle reasons for expanding the definition in this way.

First, a theory of strategic renewal must recognize that maintaining adaptiveness requires both exploiting existing competencies and exploring new ones—and, more important, that these two facets of organizational learning are inseparable (Levinthal & March, 1993). Core competencies are socially complex combinations of assets, knowledge, and skills that underlie an organization's ability to deliver valued products and services, and help distinguish it from its competitors (Barney, 1991; Leonard-Barton, 1992; Prahalad & Hamel, 1990). Strategic position, however, refers to the space within the product market domain occupied by a firm, as determined by its product scope and resource deployments relative to its competitors (Porter, 1980). Although they differ in time horizon, these two sources of competitive advantage are linked, because core competencies develop through path-dependent interactions with factor and product markets as the firm seeks distinctive ways to create customer value or to deliver value efficiently (Dierickx & Cool, 1989; Prahalad & Hamel, 1990).

Second, a broad definition permits integration of recent conceptual developments in the strategy field (e.g., core competence and renewal) with the administrative systems and managerial behaviors required to support such concepts (Chakravarthy & Doz, 1992). Too often, strategy process theorists have "compartmentalized" key issues based on distinctions, such as formulation and implementation, that have proved troublesome (Chakravarthy & Doz, 1992: 9). In the present theory, however, we view the two sides of this dichotomy as interwoven aspects of the strategy process (Burgelman, 1983a; Mintzberg, 1978).

STRATEGIC RENEWAL SUBPROCESSES

Previous literature and our definition of strategic renewal suggest three subprocesses that can be differentiated according to their outcomes: competence deployment, competence modification, and competence definition. Each of these can be linked to a sequence of events and behaviors documented in the strategy literature.

Competence deployment is the synoptic process wherein managers deploy resources to venture into new product market arenas or to reinforce an existing product market position (Hamel & Prahalad, 1989; Levinthal & March, 1993; Mehra & Floyd, 1998). Managerial activity involves adjustments to organizational structure, systems, and people to fit the strategy. Change is based on an established strategic principle (Johnson, 1988) and is guided by an accepted definition of strategic ends and means (Hrebiniak & Joyce, 1984), often in the form of a formal strategic plan. First-order change (Argyris, 1977) is the rule, and the strategy itself remains substantially unquestioned. For deployment to occur, an organization must have already learned the necessary competencies (Nelson, 1991); otherwise, it faces the prospect of attempting to execute a strategy without needed resources (Cool & Schendel, 1988).

Competence modification is the process wherein managers recognize the need for change; question the organization's existing strategy and/or competencies; and encourage emergent, adaptive behavior (Huff et al., 1992: 61). Typically, the questioning begins with day-to-day decisions. Established routines and behaviors no longer seem to fit the circumstances in the external environment. Therefore, managerial attention shifts away from deploying existing competencies toward assessing the utility of the organization's resources or the desirability of the strategy itself. In this context members of the organization may raise a variety of issues (Dutton & Ashford, 1993; Dutton & Jackson, 1987), and individual perspectives toward the need for change may differ, depending on such factors as a manager's formal position (Floyd & Wooldridge, 1997). While strategy is in flux, managers may back off the formal plan, relax control systems, and encourage mutual adjustment as a means of coordination (Bower, 1970; Chakravarthy, 1982; Floyd & Wooldridge, 1992).

Although the modification subprocess produces organizational flexibility, it is not sustainable in the long run. Without a clear strategy and focused resource commitments, organizations fall behind on the learning curve, failing to take advantage of relevant economies and rapidly becoming less efficient than their competitors (Miles & Snow, 1978; Porter, 1980). Except in the most benign environments, therefore, managers in the dominant coalition must ultimately decide either to pursue major change or to redouble their commitment to the status quo ante (Cyert & March, 1963; Huff et al., 1992).

Competence definition is the subprocess wherein managers encourage experimentation with new skills and exploration of new market opportunities. Both the formal business definition (strategic position) and how the organization competes (core competencies) are contestable. In Burgelman's (1983a,b) terms, competence definition represents the *autonomous loop* of strategic behavior. A variety of initiatives may be explored, each of which may make different assumptions, identify different problems, and propose different resolutions (Huff et al., 1992). After a period of gestation, coalitions may form around certain alternatives, some of which may then be advocated as formal proposals (Narayanan & Fahey, 1982). Even before formal approval, members may begin to change their behavior in ways consistent with the proposed direction (Burgelman, 1996; Huff et al., 1992).

Ultimately, one or more of the initiatives are formally authorized. The process of selection and choice, however, is typically more incremental than rational (Huff et al., 1992; Quinn, 1980). Before accepting change, managers must come to appreciate the stresses in the environment or organization that create the need for change. Ideas come out over a period of time in formal and informal conversations (Westley, 1990), which leads to a shared interpretation of the key issues and action agenda (Daft & Weick, 1984; Weick, 1995). The fine points of the new direction are developed through interactions among many people, each of whom has a piece of the knowledge needed to construct new routines (Huff et al., 1992; Nelson & Winter, 1982). Beyond understanding what needs to be done, managers must be willing to abandon old routines and make commitments to the new course of action (Wooldridge & Floyd, 1989). Although they may be proactive in setting the agenda (Quinn, 1980), top management usually defers a decision until substantive and political uncertainties are resolved (Burgelman, 1994).

Mathematical models of strategic renewal suggest a natural sequence, beginning with the steady-state condition: competence deployment (Huff et al., 1992). As some members become dissatisfied with the status quo, the process moves to the competence modification phase. If the level of dissatisfaction increases sufficiently, the focus shifts to the competence definition phase, in which new competencies and/or strategies are envisioned and developed. Finally, this learning process provides the resource base for a renewed emphasis on competence deployment—perhaps with a "honeymoon" (competence modification) phase as the new strategy is tested prior to full-scale implementation.

As in most areas of organizational research, however, the reality of strategic renewal is far messier than its theoretical description. Empirical research shows that firms follow a variety of sequences and that the subprocesses occur simultaneously (Bower, 1970; Burgelman, 1991, 1994; Kanter, 1983; Kidder, 1981). Consider Burgelman's (1994) study of Intel. The firm's official strategy called for deploying its competencies to expand and defend its position in memory chips, and a substantial cadre of managers was engaged in that process. At the same time, other managers were exploring new opportunities and developing new competencies involving microprocessors. A long period of questioning (competence modification) arose as management confronted this challenge to the official strategy. Thus, the renewal process involved different, and sometimes conflicting, managerial behaviors. Although messiness may be inevitable, the potential for sharp conflicts in the behaviors expected of managers raises the possibility that they will misunderstand their roles, work at cross-purposes, and thereby undermine the effectiveness of the strategic renewal process.

MANAGERS' ROLES IN STRATEGIC RENEWAL

A role is the set of behaviors that others expect of individuals in a certain context (Friedman & Podolny, 1992; Katz & Kahn, 1978; Nandram & Klandermans, 1993). The expectations may be overtly stated in terms of demands for and assessments of specific behaviors that are formally written down (Biddle, 1979, 1986), or they may take the form of covertly held, prescriptive norms, descriptive beliefs, and priorities. Such expectations define the modal behaviors of a role and form the basis of individuals' unique role interpretations (Eisenstadt, 1965; Graen, 1976). However, the more clearly expectations are articulated, the more likely the individuals performing a role will conform to those expectations (Fishbein & Ajzen, 1975; Stein, 1982; van de Vliert, 1981). Expectations for a given role do not arise in a vacuum but, rather, develop in the context of other interdependent behaviors and expectations that make up a social system. The observable behaviors of any role reflect that social system's underlying conceptual structure (Biddle, 1979) and its mindset or dominant logic (Prahalad & Bettis, 1986).

Individuals play many roles in many contexts (Lobel, 1991; Lobel & St. Clair, 1992). However, the roles that emerge within organizations differ fundamentally from those arising from other social systems (Biddle, 1986; Katz & Kahn, 1978). Because organizations are task oriented, hierarchical, and preplanned, they tend to have a clearly defined formal structure (Biddle, 1979). Every organizational position is associated with certain roles and jobs that reflect expectations regarding the position's contribution to operational tasks and objectives (Merton, 1957). In most organizations, especially profit-oriented ones, these operational roles form a position's primary role set. Mintzberg suggests that managers' primary roles involve gathering and dissemination of information, making managers a nexus for information flows within the organization (1973: 56). Although these primary roles are common to all managers, the information content of the roles varies by hierarchical level, functional area, and business unit or department (Beyer, Chattopadhyay, George, Glick, &

Pugliese, 1997; Dearborn & Simon, 1958; Ireland, Hitt, Bettis, & De Porras, 1987; Walsh, 1988).

Organizational positions also have secondary roles: sets of behaviors that support the organization's objectives but that are less closely linked to the day-to-day operational functions of a position. Unlike primary role sets, secondary role sets are often neither explicitly defined nor overtly expected. Managers can have a variety of secondary roles, depending upon their area of expertise and position within the organization's hierarchy. However, every manager in an organization shares one related set of secondary roles: the roles they play in the organization's strategic processes. Here, too, the roles associated with a given management position will vary according to hierarchical level (i.e., operating management, middle management, or top management). However, unlike other secondary managerial roles, the strategic roles are linked across levels since they all involve the acquisition and exchange of information related to environmental change and the organization's response to it.

Managers' Strategic Roles

A major component of strategy process research to date has been the identification of the strategic roles played by each level of management. Initially, this research consisted of field observations of managers in various strategic processes (e.g., Bower, 1970; Burgelman, 1983a,b; Kanter, 1983). More recently, strategy process scholars have begun to integrate these observations into theoretical models of strategic roles and strategy processes (e.g., Bartlett & Ghoshal, 1994, 1995a,b; Floyd & Wooldridge, 1992, 1997; Hart, 1992; Nonaka, 1994; Wooldridge & Floyd, 1990). Various modes or types of strategy processes have been identified, but researchers have not linked strategic roles to the subprocesses of strategic renewal.

In Table 1 we present a distillation of previous findings in the form of ten specific roles that top, middle, and operating management perform as part of strategic renewal. While the role titles are our own conventions, they represent congruent sets of behaviors documented in prior research. Consistent with Mintzberg's (1973) and Kiesler and Sproull's (1982) findings, each of the ten roles involves processing information and taking action that facilitates organizational change. The top management roles (ratifying, directing, and recognizing) are decision-making roles. The middle management roles (championing, facilitating, synthesizing, and implementing) focus on communicating information between the operating and top levels of management. The operating management roles center on reacting to information from the factor and product markets (experimenting), from higher levels of management (conforming), or from both (responding).

Clearly, there are elements of decision making, communicating, and reacting at every level, and there is often considerable overlap. Indeed, the operational definition of top-, middle-, and operating-level management varies considerably across organizational settings (Dutton & Ashford, 1993; Floyd & Wooldridge, 1992). Existing theory and the evidence from the studies cited in Table 1 suggest, however, that levels of management fundamentally differ in the type of information processed and the type of behavior expected. Although other strategic roles may exist, the extant literature suggests that these ten roles provide a grounded account of the managerial activities most salient to strategic renewal.

Note that each set of the strategic roles depicted in Table 1 is fulfilled by a given level of management. An individual manager may play one or more strategic roles within a set at a given point in time. As managers progress in their careers, they are more likely to play multiple strategic roles. Indeed, it is through experience with a range of strategic roles that managers acquire the understanding of competencies and strategies needed for career advancement (Floyd & Wooldridge, 1996).

Strategic Roles, Renewal Subprocesses, and Organizational Learning

The literature describes renewal as an intensely social process, involving certain crucial interactions between levels of management. At the broadest level such interactions are intended to improve individual role performance and contribute to the organization's adaptability. Internalization of external information occurs as managers in operating roles encounter external circumstances in the course of experimenting with or responding or conforming to the requirements of a given strategy. Information from these bound-

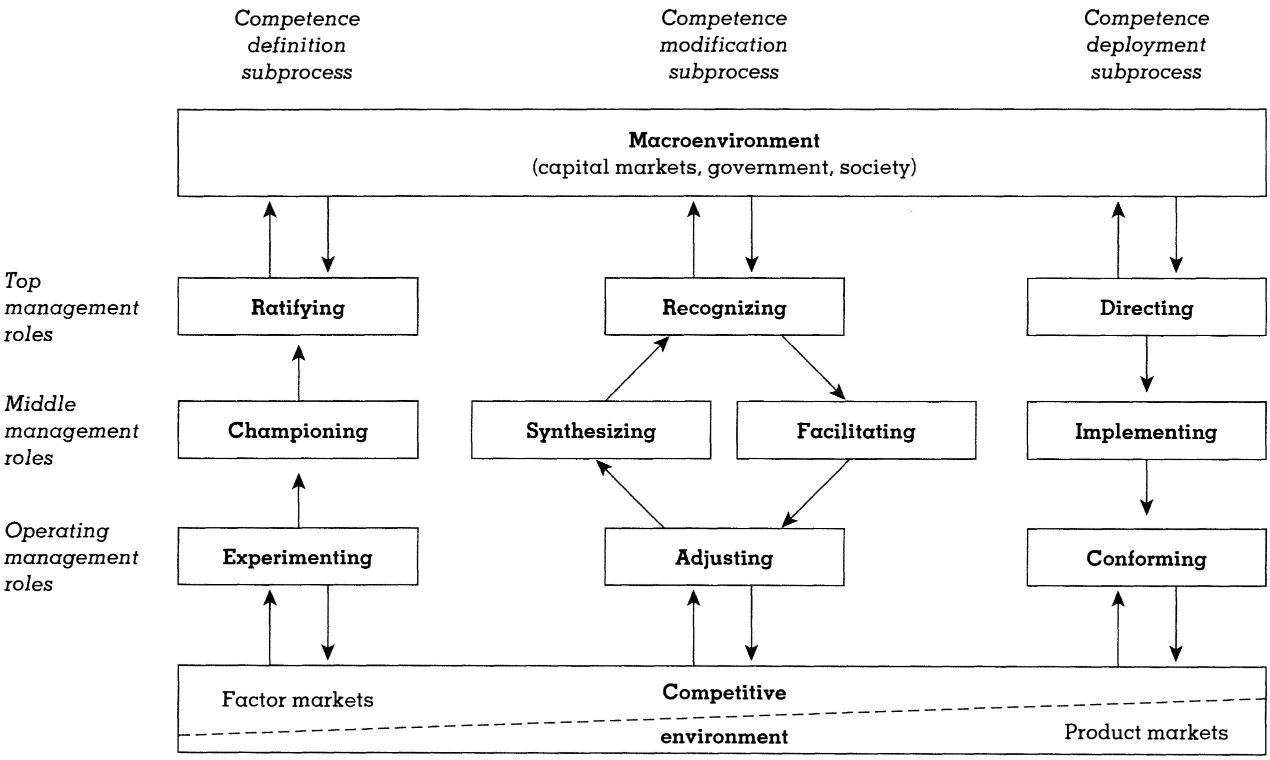
TABLE 1
The Strategic Roles of Managers

Roles	Behaviors	Documenting Studies
Top management		
Ratifying	Articulate strategic intent	Hamel & Prahalad (1989)
	Monitor	Burgelman (1983a)
	Endorse and support	Hart (1992)
Recognizing	Recognize strategic potential	Burgelman (1991)
	Set strategic direction	Mintzberg (1983)
	Empower and enable	Hart (1992)
Directing	Plan	Ansoff (1987)
	Deploy resources	Schendel & Hofer (1979)
	Command	Bourgeois & Brodwin (1984)
Middle management		
Championing	Nurture and advocate	Bower (1970)
	Champion	Burgelman, (1983a,b; 1991)
	Present alternatives to top management	Wooldridge & Floyd (1990)
Synthesizing	Categorize issues	Dutton & Jackson (1983)
	Sell issues to top management	Dutton & Ashford (1993)
	Blend strategic and hands-on information	Nonaka (1988)
	Synthesize	Floyd & Wooldridge (1992)
Facilitating	Nourish adaptability and shelter activity	Bower (1970)
	Share information	Mintzberg (1978)
	Guide adaptation	Chakravarthy (1982)
	Facilitate learning	Chakravarthy (1982)
Implementing	Implement	Schendel & Hofer (1979)
	Revise and adjust	Nutt (1987)
	Motivate and inspire; coach	Hart (1992); Quinn (1980)
Operating management		
Experimenting	Learn and improve	Argyris & Schön (1978)
	Link technical ability and need	Burgelman (1983a,b)
	Initiate autonomous initiatives	Burgelman (1991)
	Experiment and take risks	Hart (1992)
Adjusting	Respond to the challenge	Hart (1992)
Conforming	Be a good soldier	Bourgeois & Brodwin (1984)
	Follow the system	Hart (1992)

ary-spanning interactions is a source of learning for the individual managers involved.

The process of organizational learning occurs as novel information is communicated from operating-level managers to middle managers, whose strategic roles (championing, synthesizing, facilitating, and implementing) serve to mediate between divergent inputs, situational demands, and the existing strategy. This is a critical set of interactions, for middle managers are uniquely positioned to evaluate the value of information to the firm (Floyd & Wooldridge, 1992; Kanter, 1983). They have more knowledge of the firm's strategic situation than operating managers, as well as more familiarity with operational matters, factor markets, and product markets than top managers (Walsh, 1995). Middle managers are able to evaluate new information in the context of the firm's strategy, operations, and markets and thereby direct top managers' attention to and understanding of strategic issues (Dutton & Ashford, 1993; Dutton, Ashford, O'Neill, Hayes, & Wierba, 1997). As information moves upward within the hierarchy, therefore, it may be ratified by the power structure, recognized as the basis for change, or directed into official strategy (Burgelman, 1994).

FIGURE 1
Managerial Roles, Information Exchanges, and the Strategic Renewal Subprocesses



Note: Arrows represent primary information exchanges within each subprocess.

Describing renewal in these terms suggests that the managerial strategic roles can be mapped onto the renewal subprocesses. The key interactions between the roles and their correspondence to the renewal subprocesses are shown as arrows in Figure 1. The figure emphasizes vertical exchanges in order to capture the three subprocesses of renewal: core competence definition, deployment, and modification. Following Commons' (1934) approach, we depict the interactions in the model as linear and sequential. In reality, social exchanges occur laterally as well as hierarchically, and simultaneously as well as iteratively, between managers acting within these roles. The purpose of the model is not to represent all possible information exchanges but, rather, to capture those interactions most critical to the renewal process within an organization at the business-unit level of analysis. We describe these further in Table 2, which presents a brief narrative description of each subprocess, emphasizing the most salient strategic roles and information exchanges.

The system of roles and exchanges in Figure 1 offers a description of how organizations create, transfer, and coordinate knowledge (Grant, 1996; Nonaka, 1994; Spender, 1996). As Nonaka observes, "Although ideas are formed in the minds of individuals, interaction between individuals typically plays a critical role in developing these ideas," and it is through "communities of interaction" that new organizational knowledge is developed (1994: 15). The substance of each role is significant, because it represents the knowledge and information that managers accumulate and communicate in the renewal process. Importantly, this view portrays organizational knowledge essentially—although not exclusively—as a socially constructed phenomenon (Weick, 1995), "resting in the organizing of human resources" (Kogut & Zander, 1992: 385). However, the socially constructed nature of organizational knowledge does not rule out the existence of an objective reality (Weick, 1995). This ontological assumption is important, given the strategy literature's focus on objective environmental conditions.

TABLE 2
Strategic Roles Within the Strategic Renewal Subprocesses[a]

The Competence Definition Subprocess

At any point in time, it is difficult to predict which competencies will be valuable in future competitive environments. Top management, therefore, is not in a position to make major commitments for developing future competencies. Decisions to acquire needed assets and skills are initiated at operating levels by managers **experimenting** with novel solutions to emerging problems. Based on their greater knowledge of the organization's strategic context, middle managers are able to evaluate the long-term implications of such experiments, and they become advocates by **championing** the most promising ones as initiatives to top management. Top management possesses the most complete understanding of the strategic context. This allows them to evaluate the initiatives that emerge from across the organization and shape new competencies by **ratifying** the initiatives that together have the most potential to meet the challenges emerging from the competitive environment. As the set of available resources expands, top management is likely to redefine the official strategy in pursuit of opportunities to leverage the expanding knowledge base.

The Competence Deployment Subprocess

The deployment of organizational competencies begins with top management's **directing** the allocation of resources in pursuit of or to reinforce a particular strategic position. Top management's approval is required prior to the commitment of significant resources. Top managers are called on to decide which competencies from the accumulated resource stocks are needed to achieve a given strategy. Once the commitment is made, middle managers are expected to put into place the necessary structure, people, and systems needed for **implementing** the strategy. This may involve the acquisition of additional resources, but within strategy deployment, these decisions mainly concern increasing the scale of an existing competence, rather than the development of a new competence. Operating managers, then, are expected to adapt their operating procedures and policies to ensure that their units are **conforming** to the chosen direction.

The Competence Modification Subprocess

Top management ratifies initiatives and provides direction based on a set of assumptions about conditions in the environment. Changes that violate these assumptions cause established routines to break down and, accordingly, lead operating managers to **adjust** their own behavior and that of their subordinates. Middle managers may need to shelter these unplanned activities by modifying formal controls and by relying on mutual adjustment as means of coordination, thereby **facilitating** the needed organizational flexibility. If circumstances continue to defy established routines, managers may begin to question the viability of the existing strategy. Middle managers, in particular, are in a good position to see the pattern of events and are likely to play a critical role in **synthesizing** relevant information for top management. Top management's role under such circumstances involves **recognizing** whether the situation calls for structural realignment or for significant strategic change.

[a] The strategic roles most salient to each subprocess are in boldface.

Strategic Renewal As a System of Relational Exchanges

Given the importance of social interactions to knowledge development and organizational learning, we believe that renewal can be understood best as a system of relational or social exchanges (Commons, 1934; Dwyer, Schurr, & Oh, 1987; MacNeil, 1974; Ring & Van de Ven, 1989, 1994; Rousseau, 1990). The concepts of exchange and transaction are not synonymous but refer to interactions in different contexts. MacNeil, for example, argues that in *transactional* exchanges, current events will be "viewed separately from events preceding and following [them], indeed from other events accompanying them temporally" (1974: 694). Conversely, an exchange that is part of "an ongoing dynamic state, no segment of which—past, present, future—can sensibly be viewed independently from other segments" (1974: 695) is said to be *relational*.

We adopt the exchange perspective, rather than the more common bounded rationality or political decision-making views of the strategy process, because those frameworks offer little explanation for how organizations develop new competencies. Making exchanges the unit of analysis also helps to explain how information from an operating- or middle-level manager becomes a part of the firm's knowledge base and influences its strategy. Finally, because the concept of exchange is compatible with both the social and economic perspective on organizations, a theory built on that perspective is more likely to recognize both equity and efficiency as important outcomes.

STRATEGIC ROLE CONFLICT

The variety of roles that individuals hold may entail a wide range of behaviors, owing to differences in context and differences in the expectations of the people with whom the individual interacts—the role senders (Gross, Mason, & McEachern, 1958; Nandram & Klandermans, 1993; Van de Vliert, 1981). In some cases this results in sets of behavioral norms that conflict in minor or even amusing ways (e.g., "Southerners" versus "Yankees" in the United States; Biddle, 1979: 196). In other cases, however, the differences in expectations are more extreme, and no clear commonality can be found. Biddle terms such conditions *polarized dissensus* (1979: 196–200). When dissensus poses problems for individuals holding multiple roles, it creates role conflict. Role conflict can occur from dissensus within an individual who holds multiple and conflict goals (*within-individual* or intrasender role conflict) and from dissensus between two or more individuals about which of multiple roles is appropriate (*between-individual* or intersender role conflict; Biddle, 1979: 197–200). Role conflict researchers have emphasized conflicting expectations regarding behavioral norms, but polarized dissensus also can arise from disparate beliefs or priorities. Biddle (1979, 1986) argues that all three types of dissensus may create conflict and calls for holistic examinations of the problem.

Whatever its locus (conflicts within individuals or between individuals) or its focus (norms, beliefs, or priorities), role conflict creates distress for the individual experiencing it. In their meta-analysis of ninety-six studies, Jackson and Schuler (1985) found role conflict to be negatively associated with six different aspects of job satisfaction and positively associated with tension, anxiety, propensity to leave the organization, and individual productivity. Research has not emphasized the implications of role conflict for organizational processes, such as strategic renewal, however. This is not surprising, since the theory and vocabulary in role research are focused less on social systems than on the "problems that must be faced by individuals who participate in them" (Biddle, 1979: 277).

The exchange perspective can help identify the organizational implications of role conflict by making explicit the critical links between a role and its social system. Relational exchanges depend on reciprocity (Blau, 1964): an individual who supplies services to another obligates that person, and, to reciprocate, the second person furnishes benefits to the first. Thus, a system of relational exchanges like a strategic renewal subprocess constitutes a role-making system that defines a group's expectations of one another (Ashforth & Saks, 1996; Jones, 1986; Van Maanen & Schein, 1979).

When individuals interact within well-defined roles, their interactions become more predictable, which increases the level of trust in the organization (Mayer, Davis, & Schoorman, 1995). Because trust leads to greater openness, information sharing, and learning (Argyris, 1976), high trust makes relational exchanges more efficient. In the absence of clear roles, however, interactions are less predictable, and the trust needed to facilitate exchange within the group is more difficult to develop. Furthermore, the less clearly defined the roles, the greater the stress created by role conflict and the more likely it is that individuals will use avoidance, lying, or organizational exit to cope with the stress (Biddle & Thomas, 1966; Gross et al., 1958; Grover, 1993; Hirschman, 1970; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; van de Vliert, 1981). These three coping behaviors deprive the organization of timely access to needed information and, therefore, have the potential to disrupt organizational processes, such as strategic renewal.

Role Conflict in Strategic Renewal

Each renewal subprocess is associated with a set of strategic roles that differ in their relationship to the firm's existing strategy, as well as in their time horizon, core values, information requirements, and emotional tone. Put differently, the three subprocesses are distinguished by three internally consistent sets of norms, beliefs, and priorities (see Table 3).

The competence deploying roles reinforce the existing strategy. They require leadership, followership, and a commitment to established norms. This leads to maximizing firm performance over the short run. Conversely, the competence defining roles seek to replace the existing strategy with a new vision of the firm. These roles depend upon innovation, risk taking, and impassioned exploration of new ideas to maximize firm performance over the long run. Falling in between these two extremes, in the competence modifying roles, managers attempt to assess the utility of the existing strategy and encourage emergent behavior. This subprocess lacks both the focus of competence deployment

TABLE 3
Sources of Strategic Role Conflict:
Critical Differences Between the Strategic Renewal Subprocesses[a]

Dimension	Competence Definition Subprocess	Competence Modification Subprocess	Competence Deployment Subprocess
Relationship to current strategy	Divergent	Questioning	Convergent
Time horizon	Long term	Immediate	Short term to intermediate
Core values and beliefs	Innovation Risk taking Externally focused learning	Pragmatism Flexibility Action taking	Leadership Variance reduction Internally focused learning
Information requirements	Top: Vision of the future Middle: Political and substantive parameters of the strategy	Top: Information on change Middle: Substantive information on environment, organization, and performance; political and social information about the organization	Top: Goals and strategies Middle: Current organizational capabilities
	Operating: What works and what does not	Operating: Developments in technical and customer communities	Operating: Action plans
Emotional tone	Impassioned exploration	Tolerance for ambiguity	Focused commitment

[a] Descriptions of role requirements based on the studies summarized in Table 1.

and the open-ended nature of competence definition. Competence modifying roles require a high tolerance for ambiguity and an acceptance of the need for pragmatism and flexibility in decision making. Such differences result in distinct role-making systems for each subprocess, thereby creating the potential for conflict between their role sets.

In stable situations a high level of clarity and consensus about managers' competence deployment roles is likely to evolve. Consistency in the pattern of these exchanges over time substantially reduces interpersonal uncertainties, enhances trust, and minimizes the potential for opportunistic behavior. When environmental conditions change, however, managers are likely to feel pressure to meet the performance standards of two or more different role sets. This is because changes in the environment become cues for change inside the organization (Weick, 1995). Depending on how managers notice and interpret such cues, they may be uncertain about whether change is appropriate; what kind of change is appropriate; and, therefore, which strategic role is expected.

What managers extract as a cue and how they interpret it depend on their socialization and the current context (Ashforth & Fried, 1988; Ashforth & Saks, 1996; Weick, 1995). The context includes organizational-level factors, such as control systems and formal strategies, that induce managers to notice the same cues and to develop similar interpretations (Walsh, 1988). The variety of contexts faced by managers in large organizations (e.g. divisional, functional, or hierarchical), however, is likely to cause managers to notice different cues or to interpret the same cues differently (Weick, 1995).

For example, when customers make unexpected demands, middle-level managers may be exposed to operating-level managers' calls for increased flexibility; seen from the operating-level perspective, the customers' demands may be signals of the need for permanent changes in strategy. Internally, however, top management's cues tend to come from middle management, and middle managers are likely to "filter" cues from the operating-level environment to suit their own interpretation or promote their own agenda (Dutton & Duncan, 1987; Dutton & Jackson, 1987; Floyd & Wooldridge, 1992; Ranson, Hinings, & Greenwood, 1980). Thus, whether top managers perceive the need for change and what kind of change they think is appropriate may depend on how middle managers interpret the situation. This interpretation may or may not be consistent with operating-level perceptions, and these differences in perception increase the potential for role dissensus between levels of management.

Under conditions of environmental change, therefore, managers are likely to have different perceptions about the need for organizational change and varying expectations about which renewal subprocess is appropriate (Huff et al., 1992). This leads to dissensus over which roles to enact and, as a result, inconsistent role-sending behavior. Indeed, the literature suggests that top managers send confusing signals about what strategic behavior is expected (Burgelman, 1983b; Kanter, 1983). When rapid technological change causes organizations to shift frequently in and out of the competence defining roles, top managers may expect one set of roles (e.g., implementing and conforming) while operating- and middle-level managers expect another (e.g., experimenting and championing). In such situations the role-making system may no longer provide predictability in relational exchanges. The difference in the norms, beliefs, and priorities associated with each renewal subprocess creates tension over which role to enact. This tension is what we term *strategic role conflict*.

The role dissensus caused by environmental change undermines predictability in relational exchanges and weakens interpersonal trust. Lower levels of trust, in turn, increase the risk of opportunism among managers—in the form of dishonesty, infidelity, or shirking (Griesenger, 1990). Note that opportunism need not be real to be disruptive. Just the risk of opportunism can be enough to reduce the amount of information shared (Lane, Lyles, & Salk, 1998). Well-intended but unexpected behavior may be misinterpreted as opportunistic (Ghoshal & Moran, 1996). When members of a relational exchange system begin to perceive that others are acting opportunistically, trust breaks down even further, and the cycle of misinformation therefore tends to become negatively self-reinforcing.

The greater the degree of change in the definition of competencies, or the more frequently the organization considers modifying them, the greater the potential for role dissensus, opportunism, and damage to relational exchanges (Dunnette, 1972). Thus, as environmental dynamism and the frequency of transitions between renewal subprocesses increase, the probability that strategic role conflict will occur also increases.

Strategic Role Conflict Within Individuals

Research on the role conflicts experienced by managers has produced somewhat contradictory results. On the one hand, there is empirical evidence that managers in boundary-spanning positions are more likely to experience role conflict (Friedman & Podolny, 1992; Kahn et al., 1964; Miles & Perreault, 1976; Whetten, 1978). On the other hand, there is no consistent evidence that role conflict is a problem for managers, especially top managers (Hamner & Tosi, 1974; House & Rizzo, 1972; Schuler, 1975, 1977). Thus, it is not readily apparent which managers are at the greatest risk of experiencing strategic role conflict.

There is evidence from a number of nations that the potential for role conflict within managers is, in part, a function of the number of roles they are expected to play (Nandram & Klandermans, 1993; Peterson et al., 1995). When a manager fulfills only one strategic role, shifts between strategic renewal subprocesses may change the importance of that role but not lead to within-individual strategic role conflict. For example, the management of a research unit is primarily an experimenting role. If the organization shifts from competence definition to deployment, the experimental nature of research management does not change fundamentally, even though it may become less important. Conversely, when a manager plays multiple strategic roles, within-individual role conflict is more likely.

As Figure 1 shows, middle management forms the hub through which most strategic information flows (Burgelman, 1994; Dutton & Ashford, 1993; Floyd & Wooldridge, 1992; Nonaka, 1991). This level of management fulfills the broadest range of strategic roles. In order to interact with operating management, middle managers must maintain a degree of technical competence and a detailed understanding of the organization's capabilities. To interact with top management, they must also understand the organization's goals and competitive strategy, as well as the political context in which these are developed. The complexity of information and number of potential interactions, therefore, are greater for middle managers than for top- or operating-level managers.

Although not all middle managers engage in the full range of roles and behaviors, the complex set of expectations juggled by them creates an increased risk of within-individual role conflict, compared to other levels of management. Note that downsizing concentrates the required strategic roles among a smaller pool of managers and increases the likelihood they will experience strategic role conflict. This may, in part, explain the stress felt by middle managers in the aftermath of downsizing (Brockner, Grover, Reed, DeWitt, & O'Malley, 1987; Floyd & Wooldridge, 1994, 1996).

> *Proposition 1: Middle managers are more likely to experience within-individual strategic role conflict than managers at other levels.*

Strategic Role Conflict Between Individuals

As Biddle (1979) suggested, strategic role conflict results not only from role uncertainty within individuals but also from differing expectations held by individuals who interact (between-individual role conflict). In the present context between-individual role conflict may occur across two kinds of relationships: (1) exchanges between individuals of different managerial levels and (2) exchanges between individuals of the same management level. This distinction is important, because different factors affect the nature and extent of role conflict in vertical and horizontal relationships.

Role conflict in vertical exchanges. The model of strategic renewal in Figure 1 suggests that the orientation of managers at different levels may help explain why role conflict occurs in vertical exchanges. Individuals in lower-level management tend to have knowledge related to newer areas of technical expertise, for example, and, therefore, are more likely to interpret cues in light of these issues. Top managers, however, tend to have expertise related to established technologies and are more likely to interpret cues from that perspective (Burgelman, 1991; Weick, 1995). In the context of strategic renewal, different types of technical expertise create differences in the mental frameworks held by managers at different levels. Different mindsets, in turn, cause managers to notice different cues, create different interpretations of these cues, and develop different expectations for strategic change.

Externally, the subenvironments associated with boundary-spanning activity at the three levels also may vary (Katz & Tushman, 1979; Thompson, 1967; Tushman & Scanlan, 1981). Boundary-spanning interactions at the operating level tend to focus on factor markets (technical concerns) or product markets (customer concerns; Friedman & Podolny, 1992; Thompson, 1967). Boundary spanning within top management, however, primarily focuses on the capital markets (shareholder concerns; Pfeffer & Salancik, 1978). Middle managers are expected to mediate between the two levels, and in this role they may focus on cues from any one or a combination of the three subenvironments. Thus, because operating-level managers are closer to customer concerns, they may be more likely to see the need for investing in new competencies sooner than top managers, who, taking their cue from capital markets, are more likely to prefer the status quo strategy (Burgelman, 1994).

Thus, given different technical and environmental orientations, it is likely that managers from different levels will be likely to notice different environmental cues (Beyer et al., 1997; Dearborn & Simon, 1958; Ireland et al., 1987; Tushman & Romanelli, 1983; Walsh, 1988) and that they will have difference perceptions of the need for strategic change. Although such differences may cause friction—even when the environment is relatively stable—when conditions are dynamic, these differences are more likely to manifest themselves in the form of strategic role conflict between managers at different levels.

> *Proposition 2: Strategic role conflict between individuals of different management levels is more likely to occur when environmental conditions are dynamic.*

Role conflict in horizontal exchanges. Although the primary information flows within renewal are vertical, information also flows laterally within management levels to coordinate both operational and strategic activities. Middle managers attempting to champion a strategic initiative, for example, may need to develop political support from other middle managers in advance of making a formal proposal to top management (Bower, 1970; Floyd & Wooldridge, 1996; Kanter, 1983). Therefore, exchanges may involve managers at the same level in different parts of the organization. In some cases differences in the orientation of subunits may cause different perceptions about the need for change (Dearborn & Simon, 1958; Walsh, 1988), which increases the uncertainty surrounding exchanges between managers in these subunits (Lewis & Weigert, 1985), thereby heightening the risk of role conflict.

Another influence on managers' interpretation of events is the functional expertise that defines their primary organizational roles (Leonard-Barton, 1992; Starbuck & Milliken, 1988). Education and training can instill in individuals a strong identification with the specific expectations of their professional or occupational subcultures (Salaman, 1974; Trice & Beyer, 1993; Van Maanen & Barley, 1984). Occupational self-identity is especially likely at the operational level, where managers' technical skills are most highly valued (Katz, 1974) and incentive systems typically reward effective supervision of technical or operational employees (Gomez-Mejia, McCann, & Page, 1985). Thus, operational managers in functional areas will tend to interpret environmental cues through their professional or occupational lenses and reach different conclusions as to appropriate roles and actions. Conversely, top management positions place little emphasis on narrow technical and operational skills and more on general conceptual and interpersonal skills (Katz, 1974). This weakens top managers' identification with their occupational subculture and lessens the risk of strategic role conflict.

Proposition 3: Strategic role conflict between individuals is more likely to occur in exchanges within operating-level management than in exchanges within top management.

Strategic role conflict appears to be less problematic for managers at the top of the organization, for several reasons (Shenkar & Zeira, 1992). First, there are fewer strategic roles for top management than for middle managers. This reduces the odds of different managers choosing different roles and increases the chances that they will have similar expectations about which roles are appropriate. Second, the number of top managers is far smaller than the number of middle- and operating-level managers, and this further reduces the potential for variations in role behavior. Third, as the most powerful managers, top managers are less likely than middle managers to feel the tension created by strategic role conflict.

Strategic role conflict at the top is not nonexistent, however. In fact, research suggests that a heterogeneous set of perspectives within the top team should be expected in dynamic environments (Bourgeois, 1985; Dess & Origer, 1987; Priem, 1990), and the literature confirms a relationship between top managers' perceptions, their behavior, and strategic change (Ginsberg & Abrahamson, 1991; Gioia & Thomas, 1996; Thomas & McDaniel, 1990; Wiersema & Bantel, 1992). Importantly, when top managers' perceptions are in disagreement about the need for strategic change, it is likely that these role uncertainties will cascade to middle and operating levels. Failing to live up to top managers' expectations often carries with it some form of formal sanction, and this means that other managers are likely to pay particular attention to role-sending behavior emanating from the top. When such signals are mixed, one can expect inconsistent perceptions among lower-level managers.

Proposition 4: Strategic role conflict within top management is likely to be associated with increased strategic role conflict at the middle and operating levels of management.

MANAGING STRATEGIC ROLE CONFLICT TO FACILITATE STRATEGIC RENEWAL

Prior research provides limited guidance on how organizations can manage strategic role conflict. Some studies encourage organizations to create an informal, flexible, and autonomous work environment to reduce role conflict (e.g., Katz & Kahn, 1978; Raphael, 1965), whereas others suggest that increased formalization is appropriate (e.g., Kahn et al., 1964; Rizzo, House, & Lirtzman, 1970). More recently, Ashforth and Saks (1996) found evidence that organizations can reduce the role conflict experienced by newcomers through the use of systematic socialization tactics. The expectations communicated by such socialization are rooted in an organization's current context, and, over time, the expectations presented to newcomers also will change. This creates the potential for role conflicts between individuals who were socialized for different contexts. Thus, socialization by itself has limited potential to reduce strategic role conflict across cohorts of managers socialized at different times.

The primary means used by organizations to clarify and align role expectations across their units and groups and to reduce opportunism are organizational controls (Green & Welsh, 1988; Hoskisson & Hitt, 1988; Hoskisson, Hit, & Hill, 1993; Merchant, 1985). By creating consistency in behavioral expectations, controls help to resolve the differences in perception associated with environmental change. Controls signal which cues are important, which behaviors are appropriate, and what kind of result is valuable. This, in turn, reduces ambiguity about each role's importance and the kind of information that is valued. The limits imposed on opportunism by organizational controls helps to reduce threats to the broader relational system. In keeping with Ashforth and Saks's (1996) findings, we believe socialization can support this effort by introducing newcomers to the control system, role expectations, and the relationship between the two.

Approaches to organizational control can be described as a choice between market devices, bureaucratic mechanisms, and clan controls (Ouchi, 1980). These controls vary in the information they require, as well as in their vulnerability to uncertainty and opportunism. They are not, however, mutually exclusive, and an organization may make use of more than one type of organizational control.

Market control occurs when price competition is used to evaluate opportunities and outcomes within the organization. In this setting individuals view their environment as objective and reduce uncertainty by evaluating passively observable data (Daft & Weick, 1984). Thus, market control has the minimum information and social requirements. Although markets rely on a certain degree of reciprocity, they are the most vulnerable to opportunism and uncertainty because they presume self-interested actors. For market control to be effective, there must be minimal goal incongruity between the parties and minimal equivocality of information.

Bureaucratic control entails the use of rules, policies, hierarchical authority, and written documentation to standardize behavior and assess performance. A bureaucracy is characterized by a discovery mode of interpretation (Daft & Weick, 1984) in which staff specialists methodically probe the environment to determine the "correct" answer to a well-specified question. Bureaucracy is less vulnerable in terms of opportunism, but it has the most demanding information requirements. Reliance on rules means that detailed behaviors must be specified in advance, which, in turn, requires a high level of environmental probing to ensure that the behaviors are aligned with the organization's objectives.

Clan control conveys information through traditions and assumes that members' commitment is driven by organizational identification and common culture. Rather than analyzing data or methodically searching for the one right answer, clans reduce uncertainty by inventing both the questions and the answers within their view of the world (Ouchi, 1980). This communality reduces opportunism and equivocality due to the greater similarity of norms, beliefs, and priorities between members. Clan controls create the maximum tolerance for ambiguity in social arrangements, making them appropriate for conditions where behavioral specificity or output measurement is not possible.

REDUCING CONFLICT BY ALIGNING CONTROLS WITH ENVIRONMENTAL DYNAMISM

An organization cannot definitively manage each member's expectations, behaviors, and choices. However, it can shape its members' collective tendencies by clarifying the broad priorities and expectations considered fundamental to organizational effectiveness. In the case of strategic roles, we contend that such clarification may be achieved through the alignment of organizational controls with strategic renewal subprocesses.

The relative importance of the three renewal subprocesses turns on the degree of environmental change and whether such change emanates from factor or product markets. Competence deployment affects changes in positioning strategy and, thus, responds primarily to product market dynamism. Competence definition affects changes in core competencies and, thus, responds primarily to factor market dynamism. Competence modification creates organization-

FIGURE 2
Reducing Strategic Role Conflict: Environmental Contingencies and Organizational Controls

		Factor market dynamism: Low	Factor market dynamism: High
Product market dynamism	Low	**Stable competition** • Renewal as deployment • Reliance on bureaucratic controls	**Emergent competition** • Renewal as definition and deployment • Reliance on market and bureaucratic controls
	High	**Mature competition** • Renewal as deployment and modification • Reliance on bureaucratic and clan controls	**Hypercompetition** • Renewal as continuous redefinition and modification • Reliance on market and clan controls

al flexibility and, thus, responds to change in either of these markets. By using controls to enact particular subprocesses, therefore, organizations may increase the likelihood that managers receive cues from within the organization that are congruent with cues from the external environment.

Figure 2 combines product and factor market dynamism in order to describe four environmental conditions: stable competition, emergent competition, mature competition, and hypercompetition. This description is consistent with others in the literature (e.g., Abernathy & Clark, 1985; D'Aveni, 1994) and corresponds to differences in renewal subprocesses. In the following section we show how organizational controls may be used to improve the alignment between environmental conditions and the renewal process, thereby reducing strategic role conflict.

Stable Competition

When conditions in the factor and product markets are relatively stable, strategic renewal becomes a matter of deploying existing competencies according to a well-defined strategy. The uncertainties that exist derive from the search for optimal solutions to well-defined problems. Thus, the strategic roles for middle- and operating-level managers can be specified with some degree of certainty.

Unlike either market or clan controls, bureaucratic controls take full advantage of the available information by translating it into rules, procedures, and formal structures. Formal strategic planning, for example, provides behavioral guideposts for middle management. Budgets and action planning provide a similar function at operating levels. Furthermore, bureaucratic controls socialize managers to a common perspective on what the key problems are and how they should be addressed. This significantly reduces uncertainty within individuals about what is expected, increases trust in relational exchanges, and decreases the risk of opportunism. Thus, bureaucratic control reduces strategic role conflict primarily by reducing uncertainty and secondarily by reducing opportunism.

> *Proposition 5: When factor and product markets are stable, the use of bureaucratic controls decreases strategic role conflict.*

Mature Competition

In mature competition the core technologies underlying the product and production process remain essentially unchanged. Output market dynamism may be high, however, as incumbents compete intently on cost reduction and customer segmentation. Bureaucratic controls remain in place, because at this stage the organization has not abandoned the existing strategy or sought to redefine its competencies.

As the product market environment becomes more dynamic, there may be a need for flexibility, and as the existing routines become more problematic, firms may enter the questioning (modification) phase of strategic renewal. At this point, management recognizes that precise execution of an established strategy is no longer enough. Top managers are unsure about direction, middle managers are uncertain about what to implement, and operating-level managers no longer know what standards define conformance. Since factor markets remain relatively stable, however, the situation calls for the modification rather than the redefinition of firm competencies. To accomplish this, organizations rely on informal guidance for managerial behavior, such as empowering operating-level managers to respond to changing conditions, without specifying their behavior in advance.

Uncertainty about when to be flexible and when to adhere to formal controls creates the need for voice in how managers resolve strategic role conflict (Hirschman, 1970). Voice has the greatest potential to resolve such role conflict constructively because it forces top managers to reconcile the conflict, potentially causing them to recognize the need for change. Without some additional form of control, however, voice may not be selected. Instead, the ambiguity in the situation may lead to opportunistic behavior, such as avoidance or lying (Grover, 1993). Confronted with a conflict between bureaucratic incentives and the need for change, for example, middle managers may choose to ignore pleas for flexibility from operating levels and to lie to top management about the need for additional resources.

Wilkins and Ouchi (1983) suggest that clan control addresses such problems by reinforcing the belief that (1) shared efforts are the best way to realize one's own efforts and (2) both honest and dishonest people will be treated appropriately in the long run. Shared values, traditions, and beliefs foster trust and dedication to common goals among managers. This increases the likelihood that choices between strategic roles will serve the organization and that such choices will not be made opportunistically. Moreover, a shared mindset permits managers to approach exchange relationships secure in the belief that their partners share the same goals and norms of reciprocity. Clan control reduces strategic role conflict by increasing the likelihood that people see their interests as convergent.

> *Proposition 6: When product markets are dynamic and factor markets are stable, a combination of bureaucratic and clan controls decreases strategic role conflict.*

Emerging Competition

The opposite competitive environment—low product market and high factor market dynamism—is most commonly found in emerging, technology-intensive industries. The needs of the new market are relatively undifferentiated, and firms compete by leapfrogging competitors. The goal is to develop and deploy a new competence before rivals make it obsolete. This requires the ongoing definition of new competencies and their swift deployment to seize windows of opportunity.

Of the two subprocesses needed in emerging competition, competence definition involves the greatest level of uncertainty. Strategic role conflict arises from uncertainty about which resources to accumulate and about the match between existing competencies and those needed for future competition (termed *strategic risk* by Cool & Schendel, 1988). The time lag between accumulation in factor markets and deployment in product markets (the source of strategic risk) makes it difficult or impossible to specify behavior in the definition roles and, therefore, obviates the development of bureaucratic controls as a coping mechanism. Moreover, clan controls are ill suited to the necessary level of autonomy and diversity needed in the competence definition process (Burgelman, 1991, 1994). In fact, the definition subprocess may be substantively undermined by the ideological element of clan controls.

Instead, the firm resolves uncertainties about resources and competencies in the definition subprocess by nurturing a broad range of ideas and proposals. These compete in a behaviorally ambiguous, intraorganizational market, where they are weighed against one another and selected based on their perceived relationship to accepted criteria (Burgelman, 1991). The "market value" of initiatives within the organization is measured by how well they perform against the criteria. When managers share the belief that the market for ideas and resources operates fairly, then the requisite trust in exchange partners and commitment to the market process will be maintained. This reduces conflict both within individual managers and conflict between roles engaged in relational exchanges. Thus, market control reduces strategic role conflict through a leveling of expectations.

But, if the socialization is incomplete and only some managers understand the "rules of the game," differing expectations will lead to conflicts between managers. The potential for misunderstanding is exacerbated in emerging industries by the need to combine competence definition with competence deployment, often in rapid sequence. These two are the subprocesses with the most divergent set of values, and conflicts between them are likely to be particularly stressful. Moreover, the process of second-order learning associated with the competence definition process makes the choice managers face between deploying and redefining competencies very ambiguous. Managing strategic role conflict, therefore, requires definitional exchanges that are governed by clear financial criteria or other objective standards against which divergent ideas and initiatives can be valued. Widely understood criteria serve to define the value of specific outcomes in the experimenting and championing roles, which helps managers understand when to pursue efficiency in the deployment process and when to foster divergence. Thus, market controls may be combined effectively with bureaucratic controls only in the context of a well-accepted intraorganizational "pricing" mechanism (Ouchi, 1980).

> *Proposition 7: When factor markets are dynamic and product markets are stable, a combination of market and bureaucratic controls decreases strategic role conflict.*

Combining market and bureaucratic controls in this way is not easy. Research suggests that firms often separate competence definition and competence deployment activities by creating parallel organizations (Kanter, 1983), such as new venture divisions (Burgelman, 1983b) or product development teams (Leonard-Barton, 1992). Indeed, the potential for role conflict in such situations may be one reason that firms in emergent industries frequently specialize in either competence definition or deployment activities, but rarely master both. The proliferation of alliances between biotechnology (definition) and pharmaceutical (deployment) firms is one manifestation of this phenomenon.

Hypercompetition

When dynamism is high in both factor and product markets, a firm faces a hypercompetitive environment (D'Aveni, 1994). Under hypercompetition, firms cannot produce a sustainable source of competitive advantage and, instead, compete by creating a series of short-lived advantages. Firms actively work to make all existing positions in their product markets obsolete, including their own. Only by being willing to cannibalize their own positions can they hope to stay ahead. This means that not only success but survival depends on modifying existing competencies while a firm tries to define new competencies that can temporarily differentiate it from its rivals. As one manager observed, managing renewal under these circumstances is like trying to overhaul an airplane while it cruises at 36,000 feet.

In this environment efficient deployment is far less important than managing continual change. Newly defined strategies or competencies begin to be questioned almost immediately. Questioning, however, must develop without stifling entrepreneurship, and the need for competition among ideas must be balanced by the need to work for the common good. Clan controls create an atmosphere of trust, thereby increasing the willingness of managers to use voice as a means to reduce role conflict. Clan controls also provide some assurance that arguments and disputes over competencies or strategies will be settled based on the organization's interests, rather than the interests of particular individuals or groups. Thus, when markets are hypercompetitive, the combination of market and clan controls is best suited to the ongoing need for competence definition and modification.

Proposition 8: When factor and product markets are dynamic, a combination of market and clan controls decreases strategic role conflict.

The associations proposed between environmental conditions, types of organizational control, and strategic role conflict are not intended to suggest that firms easily change or combine control systems. Indeed, managers tend to prefer certain forms of control, and many behaviors within an organization are guided by the execution of role scripts that may limit or prevent the recognition of the need to change controls (Ashforth & Fried, 1988). The firm's competitive environment, however, influences the type of uncertainty created in role exchanges and, hence, the type of controls needed to reduce strategic role conflict. Thus, the effective management of strategic renewal requires the ability to recognize what forms of control are appropriate and to implement the needed organizational arrangements.

Proposition 9: The ability to adapt organizational controls to environmental conditions and to combine multiple forms of control is associated with effective strategic renewal.

DISCUSSION AND CONCLUSION

We have argued that understanding the sources of, and remedies for, strategic role conflict is essential for effectively managing strategic renewal. Each renewal subprocess has a different relationship to the firm's existing strategy, which leads to different values, emotional requirements, and time horizons for the associated roles. Environmental change may create role conflicts when individual managers are required to play multiple strategic roles or when change erodes the trust needed for relationships between managers playing different roles. Both forms of strategic role conflict increase uncertainty about managers' actions, and this increases the risk of opportunistic behavior, damages the quality of information shared between managers, disrupts the firm's knowledge development, and hinders the adaptive process. Shifts between renewal subprocesses are necessary and unavoidable, however, owing to changes in factor and product markets. A firm can minimize the strategic role conflict experienced by its managers by recognizing the implications of external conditions for managerial behavior and by adopting organizational controls to support appropriate renewal subprocesses.

Limitations

Although the ten strategic roles represent the cumulative wisdom of a number of scholars and appear to capture the most salient strategic behaviors, the list may not be exhaustive. On balance, however, a more parsimonious and generalizable theory is appropriate for exploring a new construct, such as strategic role conflict.

The present effort is also limited by its exclusive focus on managers. Clearly, other organization members contribute to the strategy process and therefore may be susceptible to strategic role conflict. This is especially likely in organizations that have embraced worker empowerment, self-managed work teams, or other techniques that reduce the distinction between managers and nonmanagers.

Another limitation may be the implicit assumption that in designing organization controls, managers accurately estimate the nature and magnitude of environmental change. Perceptions may be at odds with objective circumstances, and differing environmental assessments between management levels may exacerbate strategic role conflict (Ireland et al., 1987). Additional research is needed to examine the impact of inaccurate or divergent environmental assessments on the renewal process.

Finally, although the model most clearly is applicable at the business unit level, where the differences in the roles of operating, middle, and upper management are the most pronounced, it may also have application at the corporate level. In this context, division heads will play the middle management strategic roles, and, rather than in a single-product market domain, the firm will be competing in multiple-product markets.

In addition, at the corporate level the competence definition subprocess could be organized within a separate unit, such as a new venture division, while operating divisions could become the locus of competence deployment and modification. This would be consistent with the description of strategic renewal in Burgelman's (1983a,b) earlier research. In fact, one of the justifications for new venture divisions may be the reduction of strategic role conflict.

Implications for Theory and Research

Here, we have integrated insights from the strategy process, strategic renewal, and role theory literature and, in doing so, have made contributions to all three areas. Our model suggests a different view of how strategy is made. Established strategy process models stress the need to cultivate cooperation and commitment among organization members through the bureaucratic mechanism of articulating a common goal (Guth & MacMillan, 1986; Hart, 1992; Nutt, 1987). Our model suggests that the process also requires coordination among actors who may not always share goals. Instead of goals, they may coordinate their activity under a system of market or clan controls. Reducing the need for bureaucratic control, this coordinative capability may contribute to the internalization of information and organizational learning (Grant, 1996).

In prior research on strategic renewal, scholars have taken the organization as their unit of analysis. Although this perspective is important, it has resulted in a body of literature that is largely descriptive. By focusing on the alignment of environmental conditions and organizational controls, the model presented here permits a more normative theory. Moreover, in keeping with a basic tenet of strategic management, the model suggests how managerial behavior affects organizational performance (Chakravarthy & Doz, 1992).

Strategic renewal researchers also have relied mainly on case studies (e.g., Johnson, 1988) and mathematical models of organizational change (e.g., Huff et al., 1992). We owe a debt to this work for the roles and processes in our model, but the deductive, normative nature of the propositions and the broad range of firm characteristics (organizational controls, managerial roles, exchanges, trust) make large sample empirical research possible. Indeed, an essential next step will be to test empirically the propositions on the environment, controls, role conflict, and effective renewal.

In the strategic renewal literature researchers have emphasized the influence of rate of environmental change on organizations and have tended to overlook differences between types of environmental change. Our model adds to that literature by considering changes in two sectors of the environment—factor markets and product markets—and by identifying the organizational implications of each type of change. This results in a more complex and, we believe, more accurate depiction of longitudinal strategic management—one that emphasizes the unique situation each firm faces. In future strategic renewal research scholars should consider the source and type of environmental change, as well as its magnitude.

Our article contributes to role theory by examining in more detail the organizational-level problems created by role conflict and how organizations attempt to resolve them. Uncertainty about managerial behavior is increased and trust decreased not only by conflicts between strategic roles but, potentially, by conflicts between other kinds of managerial roles. Similarly, organizational controls may ameliorate conflicts between other types of roles by clarifying behavioral expectations. The multilevel perspective in this article complements role theory's traditional focus on individuals and provides a basis for examining differences in role conflict across organizations and industries.

Implications for Other Areas of Strategic Management

The concept of strategic role conflict also has implications in areas of strategy beyond renewal. First, the adoption of new management or compensation practices will be effective only when these organizational controls fit the type of environmental change faced by the firm. This is an important insight, given the tendency of large firms to follow the fashions in management and compensation (Abrahamson, 1991; Micklethwait & Wooldridge, 1996). Our model provides an explanation for why these broad-brush prescriptions often fail to deliver promised performance improvements: both the source and rate of environmental change influence the efficacy of specific organizational controls.

Second, organizations need to be sensitive to the risk of strategic role conflict when implementing major changes. In the growing literature on change management, researchers view resistance as fear of the unknown, an attempt to protect status under the old order, or a failure by top management to communicate the necessity of change

(Kotter, 1995). Our model suggests another explanation: change may create strategic role conflicts that disrupt information exchange and interpersonal trust. Thus, traditional remedies for resistance to change, such as better education and communication, may be ineffective if the value and behavior conflicts of the old and new roles are not addressed. Change initiatives need to be evaluated a priori for their potential to create strategic role conflict and for the adjustments to organizational controls that may be needed.

Third, interorganizational collaboration will be limited by the strategic role conflict within and between the managers assigned to a shared endeavor. Each firm may have a different objective for the collaboration, which may create differing behavioral expectations among managers from the two firms. Our theory suggests that the more similar the environmental change faced by each firm and the more similar the controls used by each firm, the more predictable the role behaviors and exchanges within the alliance will be. This, in turn, will lead to greater trust and more effective collaboration. This reasoning is in keeping with findings regarding national culture similarities in international joint ventures (Lyles & Salk, 1996; Salk, 1996) and similarities in organizational structure and compensation in research and development alliances (Lane & Lubatkin, 1998). Similarly, interorganizational strategic role conflicts may also influence the implementation of mergers and collaborations between units of multinational corporations.

Fourth, the difficulties created by shifts between renewal subprocesses have implications for the life cycles of industries and firms. Frequently, a new industry experiences a shakeout or loss of entrants as it matures. This is due, in part, to the emergence of industry standards that help certain firms while hurting others (Rosenbloom & Cusamano, 1987; Tushman & Anderson, 1986). Our argument suggests that another factor may be strategic role conflict. As an industry matures, the type of change a firm must cope with changes (e.g., from factor market to product market dynamism), requiring a shift in its strategic process. Entrepreneurship theorists long have recognized problems related to a founder's intransigence (e.g., Greiner, 1972). We suggest that the problem may be more widespread—that the shifts in strategic renewal subprocesses needed to maintain firm growth may create role conflicts for *all* managers. Additional research in this area could add to the literature on entrepreneurship and industry evolution.

Finally, our model and the concept of strategic role conflict add to the growing literature on knowledge management. Figure 1 suggests that the renewal process is itself a form of organizational learning and that the roles it creates, along with the relationships between those roles, influence how knowledge is developed and utilized. Furthermore, when managers seek to influence a firm's development and use of knowledge through changes in its control systems, they should take into account the relationships between controls, environmental change, and strategic role conflict.

REFERENCES

Abernathy, W. J., & Clark, K. B. 1985. Innovation: Mapping the winds of creative destruction. ***Research Policy,*** 14: 3–22.

Abrahamson, E. 1991. Managerial fads and fashion: The diffusion and rejection of innovations. ***Academy of Management Review,*** 16: 586–612.

Aldrich, H. E. 1979. ***Organizations and environments.*** Englewood Cliffs, NJ: Prentice-Hall.

Ansoff, I. 1987. The emerging paradigm of strategic behavior. ***Strategic Management Journal,*** 8: 501–515.

Argyris, C. 1976. Single- and double-loop models in research on decision-making. ***Administrative Science Quarterly,*** 21: 363–375.

Argyris, C. 1977. Doubleloop learning in organizations. ***Harvard Business Review,*** 55(5): 115–125.

Argyris, C., & Schön, D. 1978. ***Organizational learning.*** Reading, MA: Addison-Wesley.

Ashforth, B., & Saks, A. M. 1995. Work-role transitions: A longitudinal examination of the Nicholson model. ***Journal of Occupational and Organizational Psychology,*** 68(2): 157–175.

Ashforth, B., & Saks, A. M. 1996. Socialization tactics: Longitudinal effects of newcomer adjustment. ***Academy of Management Journal,*** 39: 149–178.

Ashforth, B. E., & Fried, Y. 1988. The mindlessness of organizational behaviors. ***Human Relations,*** 4: 305–329.

Barnett, W. P., & Burgelman, R. A. 1996. Evolutionary perspectives on strategy. ***Strategic Management Journal,*** 17(Special Issue): 5–20.

Barney, J. B. 1991. Firm resources and sustained competitive advantage. ***Journal of Management,*** 17: 99–120.

Bartlett, C., & Ghoshal, S. 1994. Changing the role of top management: Beyond strategy to purpose. ***Harvard Business Review,*** 72(6): 79–88.

Bartlett, C., & Ghoshal, S. 1995a. Changing the role of top management: Beyond structure to processes. ***Harvard Business Review,*** 73(1): 79–88.

Bartlett, C., & Ghoshal, S. 1995b. Changing the role of top management: Beyond systems to people. **Harvard Business Review,** 73(3): 132–142.

Beyer, J. M., Chattopadhyay, P., George, E., Glick, W. H., & Pugliese, D. 1997. The selective perception of managers revisited. **Academy of Management Journal,** 40: 716–737.

Biddle, B. J. 1979. **Role theory: Expectations, identities, and behaviors.** New York: Academic Press.

Biddle, B. J. 1986. Recent developments in role theory. **Annual Review of Sociology,** 12: 67–92.

Biddle, B. J., & Thomas, E. J. 1966. **Role theory: New concepts and research.** New York: Wiley.

Blau, P. M. 1964. **Exchange and power in social life.** New York: Wiley.

Bourgeois, L. J. 1985. Strategic goals, perceived uncertainty, and economic performance in volatile environments. **Academy of Management Journal,** 28: 548–573.

Bourgeois, L. J., & Brodwin, D. 1984. Strategic implementation: Five approaches to an elusive phenomenon. **Strategic Management Journal,** 5: 241–264.

Bower, J. L. 1970. **Managing the resource allocation process.** Boston, MA: Graduate School of Business Administration, Harvard University.

Brockner, J., Grover, S., Reed, T., DeWitt, R., & O'Malley, M. 1987. Survivor's reactions to layoffs: We get by with a little help for our friends. **Administrative Science Quarterly,** 32: 526–541.

Burgelman, R. A. 1983a. A model of the interaction of strategic behavior, corporate context, and the concept of strategy. **Academy of Management Review,** 8: 61–70.

Burgelman, R. A. 1983b. A process model of internal corporate venturing in the diversified major firm. **Administrative Science Quarterly,** 28: 223–244.

Burgelman, R. A. 1991. Intraorganizational ecology of strategy making and organizational adaptation: Theory and field research. **Organizational Science,** 2: 239–262.

Burgelman, R. A. 1994. Fading memories: A process theory of strategic business exit in dynamic environments. **Administrative Science Quarterly,** 39: 24–56.

Burgelman, R. A. 1996. A process model of strategic business exit: Implications for an evolutionary perspective on strategy. **Strategic Management Journal,** 17(Special Issue): 193–214.

Chakravarthy, B. S. 1982. Adaptation: A promising metaphor for strategic management. **Academy of Management Review,** 7: 35–44.

Chakravarthy, B. S., & Doz, Y. 1992. Strategy process research: Focusing on corporate self-renewal. **Strategic Management Journal,** 13(Special Issue): 5–14.

Commons, J. R. 1934. **Institutional economics.** Madison: University of Wisconsin Press.

Cool, K., & Schendel, D. 1988. Performance differences among strategic group members. **Strategic Management Journal,** 9: 207–223.

Cyert, R. M., & March, J. G. 1963. **A behavioral theory of the firm.** Englewood Cliffs, NJ: Prentice-Hall.

Daft, R. L., & Weick, K. E. 1984. Toward a model of organizational interpretation systems. **Academy of Management Review,** 9: 284–295.

D'Aveni, R. A. 1994. **Hypercompetition.** New York: Free Press.

Dearborn, D. C., & Simon, H. 1958. Selective perception: A note on the departmental identification of executives. **Sociometry,** 21: 140–144.

Dess, G. G., & Origer, N. K. 1987. Environment, structure and consensus in strategy formulation: A conceptual integration. **Academy of Management Review,** 12: 313–330.

Dierickx, I., & Cool, K. 1989. Asset stock accumulation and sustainability of competitive advantage. **Management Science,** 35: 1504–1511.

Doz, Y. L. 1996. The evolution of cooperation in strategic alliances: Initial conditions or learning processes. **Strategic Management Journal,** 17(Special Issue): 55–84.

Dunnette, M. D. 1972. Research needs of the future in industrial and organizational psychology. **Personnel Psychology,** 25: 31–40.

Dutton, J. E., & Ashford, S. J. 1993. Selling issues to top management. **Academy of Management Review,** 8: 397–428.

Dutton, J. E., Ashford, S. J., O'Neill, R. M., Hayes, E., & Wierba, E. E. 1997. Reading the wind: How middle managers assess the context for selling issues to top managers. **Strategic Management Journal,** 18: 407–425.

Dutton, J. E., & Duncan, R. B. 1987. The influence of the strategic planning process on strategic change. **Strategic Management Journal,** 8: 103–116.

Dutton, J. E., & Jackson, S. E. 1987. Categorizing strategic issues: Links to organizational action. **Academy of Management Review,** 12: 76–90.

Dwyer, R. F., Schurr, P. H., & Oh, S. 1987. Developing buyer-seller relationships. **Journal of Marketing,** 51: 11–27.

Eisenstadt, S. 1965. **Essays on comparative institutions.** New York: Wiley.

Fishbein, M., & Ajzen, I. 1975. **Belief, attitude, intention, and behavior: An introduction to theory and research.** Reading, MA: Addison-Wesley.

Floyd, S. W., & Wooldridge, B. 1992. Middle management involvement in strategy and its association with strategic type. **Strategic Management Journal,** 13: 153–167.

Floyd, S. W., & Wooldridge, B. 1994. Dinosaurs or dynamos? Recognizing middle management's strategic role. **Academy of Management Executive,** 8(4): 47–57.

Floyd, S. W., & Wooldridge, B. 1996. **The strategic middle manager.** San Francisco: Jossey-Bass.

Floyd, S. W., & Wooldridge, B. 1997. Middle management's strategic influence and organizational performance. **Journal of Management Studies,** 34: 465–485.

Friedman, R. A., & Podolny, J. 1992. Differentiation of boundary spanning roles: Labor negotiations and implications for role conflict. **Administrative Science Quarterly,** 37: 28–47.

Gersick, C. 1991. Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. **Academy of Management Review,** 16: 10–36.

Ghoshal, S., & Moran, P. 1996. Bad for practice: A critique of the transaction cost theory. ***Academy of Management Review,*** 21: 13–47.

Ginsberg, A., & Abrahamson, E. 1991. Champions of change and strategic shifts: The role of internal and external change advocates. ***Journal of Management Studies,*** 28: 173–190.

Gioia, D. A., & Thomas, J. B. 1996. Identity, image and issue interpretation: Sensemaking during strategic change in academia. ***Administrative Science Quarterly,*** 41: 370–403.

Gomez-Mejia, L. R., McCann, J. E., & Page, R. C. 1985. The structure of managerial behaviors and rewards. ***Industrial Relations,*** 24(1): 147–154.

Graen, G. 1976. Role-making processes within complex organizations. In M. D. Dunnette (Ed.), ***Handbook of industrial and organizational psychology:*** 1201–1245. Chicago: Rand McNally.

Grant, R. M. 1996. Toward a knowledge-based theory of the firm. ***Strategic Management Journal,*** 17(Winter Special Issue): 109–122.

Green, S. G., & Welsh, M. A. 1988. Cybernetics and dependence: Reframing the control concept. ***Academy of Management Review,*** 13: 287–301.

Greiner, L. E. 1972. Evolution and revolution as organizations grow. ***Harvard Business Review,*** 50(4):37–46.

Griesenger, D. W. 1990. The human side of economic organization. ***Academy of Management Review,*** 15: 478–499.

Gross, N., Mason, W. S., & McEachern, A. W. 1958. ***Explorations in role analysis: Studies of the school superintendency role.*** New York: Wiley.

Grover, S. L. 1993. Lying, deceit, and subterfuge: A model of dishonesty in the workplace. ***Organization Science,*** 4: 478–495.

Guth, W. D., & MacMillan, I. C. 1986. Strategy implementation versus middle management self-interest. ***Strategic Management Journal,*** 7: 313–327.

Hamel, G., & Prahalad, C. K. 1989. Strategic intent. ***Harvard Business Review,*** 67(3): 63–76.

Hamner, W. C., & Tosi, H. L. 1974. Relationship of role conflict and role ambiguity to job involvement measures. ***Journal of Applied Psychology,*** 59: 497–499.

Hannan, M. T., & Freeman, J. 1989. ***Organizational ecology.*** Cambridge, MA: Harvard University Press.

Hart, S. 1992. An integrative framework for strategy-making processes. ***Academy of Management Review,*** 17: 327–351.

Hirschman, A. O. 1970. ***Exit, voice, and loyalty.*** Cambridge, MA: Harvard University Press.

Hoskisson, R. E., & Hitt, M. A. 1988. Strategic control systems and relative R&D intensity in large multiproduct firms. ***Strategic Management Journal,*** 9: 605–621.

Hoskisson, R. E., Hitt, M. A., & Hill, C. W. L. 1993. Managerial incentives and investments in R&D in large multiproduct firms. ***Organization Science,*** 4: 325–341.

House, R. J., & Rizzo, J. R. 1972. Role conflict and ambiguity as critical variables in a model of organizational behavior. ***Organizational Behavior and Human Performance,*** 7: 467–505.

Hrebiniak, L. G., & Joyce, W. F. 1984. ***Implementing strategy.*** New York: Macmillan.

Huff, J. O., Huff, A. S., & Thomas, H. 1992. Strategic renewal and the interaction of cumulative stress and inertia. ***Strategic Management Journal,*** 13: 55–75.

Hurst, D. K., Rush, J. C., & White, R. E. 1989. Top management teams and organizational renewal. ***Strategic Management Journal,*** 10: 87–105.

Ireland, R. D., Hitt, M. A., Bettis, R. A., & De Porras, A. 1987. Strategy formulation processes: Differences in perceptions of strength and weaknesses indicators and environmental uncertainty by managerial level. ***Strategic Management Journal,*** 8: 469–485.

Jackson, S. E., & Schuler, R. A. 1985. A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. ***Organizational Behavior and Human Decision Processes,*** 36: 16–78.

Johnson, G. 1988. Rethinking incrementalism. ***Strategic Management Journal,*** 9: 75–91.

Jones, G. R. 1986. Socialization tactics, self-efficacy, and newcomers' adjustments to organizations. ***Academy of Management Journal,*** 29: 262–279.

Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. 1964. ***Occupational stress: Studies in role conflict and ambiguity.*** New York: Wiley.

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

Katz, D., & Kahn, R. L. 1978. ***The social psychology of organizations*** (2nd ed.). New York: Wiley.

Katz, R., & Tushman, M. L. 1979. Communication patterns, project performance and task characteristics. ***Organizational Behavior and Human Performance,*** 23: 139–162.

Katz, R. L. 1974. Skills of an effective administrator. ***Harvard Business Review,*** 52(5): 90–102.

Kidder, T. 1981. ***The soul of a new machine.*** Boston: Little, Brown.

Kiesler, S., & Sproull, L. 1982. Managerial response to changing environments: Perspectives on problem sensing from social cognition. ***Administrative Science Quarterly,*** 27: 548–570.

Kogut, B., & Zander, U. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. ***Organization Science,*** 3: 383–397.

Kotter, J. P. 1995. Leading change: Why transformation efforts fail. ***Harvard Business Review,*** 73(2): 56–67.

Lane, P. J., & Lubatkin, M. 1998. Relative absorptive capacity and interorganizational learning. ***Strategic Management Journal,*** 19: 461–477.

Lane, P. J., Lyles, M. A., & Salk, J. 1998. Relative absorptive capacity, trust, and interorganizational learning in international joint ventures. In M. A. Hitt, J. E. Ricart, & R. D. Nixon (Eds.), ***Managing strategically in an interconnected world:*** 374–397. New York: Wiley.

Leonard-Barton, D. 1992. Core capabilities and core rigidities: A paradox in managing new product development. ***Strategic Management Journal,*** 13(Special Issue): 111–125.

Levinthal, D. A., & March, J. G. 1993. The myopia of learning. ***Strategic Management Journal,*** 14(Special Issue): 95–112.

Lewis, J. D., & Weigert, A. 1985. Trust as social reality. ***Social Forces,*** 63: 967–985.

Lobel, S. A. 1991. Allocation of investment in work and family roles: Alternative theories and implications for research. ***Academy of Management Review,*** 16: 507–521.

Lobel, S. A., & St. Clair, L. 1992. Effects of family responsibilities, gender, and career identity salience on performance outcomes. ***Academy of Management Journal,*** 35: 1057–1069.

Lyles, M. A., & Salk, J. E. 1996. Knowledge acquisition from foreign parents in international joint ventures. ***Journal of International Business Studies,*** 27: 877–904.

MacNeil, I. R. 1974. The many futures of contract. ***Southern California Law Review,*** 47: 691–816.

March, J. G. 1981. Footnotes to organizational change. ***Administrative Science Quarterly,*** 26: 563–577.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. 1995. An integration model of organizational trust. ***Academy of Management Review,*** 20: 709–734.

Mehra, A., & Floyd, S. W. 1998. Product market heterogeneity, resource imitability and strategic group formation. ***Journal of Management,*** 24: 511–532.

Merchant, K. A. 1985. Organizational controls and discretionary program decision making: A field study. ***Accounting, Organizations and Society,*** 10(1): 67–85.

Merton, R. K. 1957. The role-set: Problems in sociological theory. ***British Journal of Sociology,*** 8: 106–120.

Micklethwait, J., & Wooldridge, A. 1996. ***The witch doctors: Making sense of the management gurus.*** New York: Times Books (Random House).

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

Miles, R. H., & Perreault, W. D. 1976. Organizational role conflict: Its antecedents and consequences. ***Organizational Behavior and Human Performance,*** 17: 19–44.

Mintzberg, H. 1973. ***The nature of managerial work.*** New York: Harper & Row.

Mintzberg, H. 1978. Patterns in strategy formation. ***Management Science,*** 25: 934–948.

Mintzberg, H. 1983. Crafting strategy. ***Harvard Business Review,*** 65(4): 66–75.

Nandram, S. S., & Klandermans, B. 1993. Stress experienced by active members of trade unions. ***Journal of Organizational Behavior,*** 14: 415–431.

Narayanan, V. K., & Fahey, L. 1982. The micropolitics of strategy formulation. ***Academy of Management Review,*** 7: 25–34.

Nelson, R. 1991. Why do firms differ and how does it matter? ***Strategic Management Journal,*** 12(Special Issue): 61–74.

Nelson, R., & Winter, S. 1982. ***An evolutionary theory of economic change.*** Cambridge, MA: Harvard University Press.

Nonaka, I. 1988. Toward middle-up-down management: Accelerating information creation. ***Sloan Management Review,*** 29(3): 9–18.

Nonaka, I. 1991. The knowledge-creating company. ***Harvard Business Review,*** 69(6): 96–104.

Nonaka, I. 1994. A dynamic theory of organizational knowledge creation. ***Organization Science,*** 5: 714–737.

Nutt, P. C. 1987. Identifying and appraising how managers install strategy. ***Strategic Management Journal,*** 8: 1–14.

Ouchi, W. G. 1980. Markets, bureaucracies, and clans. ***Administrative Science Quarterly,*** 25: 120–142.

Peterson, M. F., Smith, P. B., Akande, A., Ayestaran, S., Bochner, S., Callan, V., Cho, N. G., Jesunino, J. C., D'Amorim, M., Francois, P.-H., Hoffman, K., Koopman, P. L., Leung, K., Lim, T. K., Mortazavi, S., Munnene, J., Radford, M., Ropo, A., Savage, G., Setiadi, B., Sinja, T. N., Sorenson, R., & Viedge, C. 1995. Role conflict, ambiguity, and overload: A 21-nation study. ***Academy of Management Journal,*** 38: 429–452.

Pfeffer, J., & Salancik, G. 1978. ***The External control of organizations: A resource dependence approach.*** New York: Harper & Row.

Porter, M. E. 1980. ***Competitive strategy.*** New York: Free Press.

Prahalad, C. K., & Bettis, R. A. 1986. The dominant logic: A new linkage between diversity and performance. ***Strategic Management Journal,*** 7: 485–501.

Prahalad, C. K., & Hamel, G. 1990. The core competence of the corporation. ***Harvard Business Review,*** 68(3): 79–91.

Priem, R. L. 1990. Top management team group factors, consensus, and firm performance. ***Strategic Management Journal,*** 11: 469–478.

Quinn, J. B. 1980. ***Strategies for change: Logical incrementalism.*** Homewood, IL: Irwin.

Ranson, S., Hinings, B., & Greenwood, R. 1980. The structuring of organizational structures. ***Administrative Science Quarterly,*** 25: 1–17.

Raphael, E. E. 1965. Power structure and membership dispersion in unions. ***American Journal of Sociology,*** 71: 274–283.

Ring, P. S., & Van de Ven, A. H. 1989. Formal and information dimensions of transactions. In A. H. Van de Ven, H. L. Angle, & M. S. Poole (Eds.), ***Research on the management of innovation:*** 171–192. New York: Harper & Row.

Ring, P. S., & Van de Ven, A. H. 1994. Developmental processes of cooperative interorganizational relationships. ***Academy of Management Review,*** 19: 90–118.

Rizzo, J. R., House, R. J., & Lirtzman, S. L. 1970. Role conflict and ambiguity in complex organizations. ***Administrative Science Quarterly,*** 15: 150–163.

Rosenbloom, R. S., & Cusamano, M. A. 1987. Technological pioneering and competitive advantage: The birth of the VCR industry. In M. L. Tushman & W. L. Moore (Eds.), ***Readings in the management of innovation:*** 3–22. New York: Harper Business.

Rousseau, D. M. 1990. New hire perceptions of their own and their employer's obligations: A study of psychological contracts. ***Journal of Organization Behavior,*** 11: 389–400.

Salaman, G. 1974. ***Community and occupation: An exploration of the work/leisure relationship.*** London: Cambridge University Press.

Salk, J. E. 1996. Partners and other strangers: Cultural boundaries and cross-cultural encounters in international joint venture teams. ***International Studies of Management and Organization,*** 26(4): 48–72.

Schendel, D. E., & Hofer, C. E. 1979. ***Strategic management.*** Boston: Little, Brown.

Schuler, R. S. 1975. Role perceptions, satisfaction, and performance: A partial reconciliation. ***Journal of Applied Psychology,*** 60: 683–687.

Schuler, R. S. 1977. Role perceptions, satisfaction, and performance moderated by organizational level and participation in decision making. ***Academy of Management Journal,*** 20: 159–165.

Shenkar, O., & Zeira, Y. 1992. Role conflict and role ambiguity of chief executive officers in international joint ventures. ***Journal of International Business,*** 23(1): 55–75.

Singh, J. V. 1986. Performance, slack, and risk-taking in organizational decision making. ***Academy of Management Journal,*** 29: 562–585.

Spender, J.-C. 1996. Making knowledge the basis of a dynamic theory of the firm. ***Strategic Management Journal,*** 17(Winter Special Issue): 45–62.

Starbuck, W. H., & Milliken, F. J. 1988. Challenger: Fine-tuning the odds until something breaks. ***Journal of Management Studies,*** 25: 319–340.

Stein, R. T. 1982. High status group members as exemplars: A summary of field research on the relationship of status to congruence conformity. ***Small Group Behavior,*** 13(1): 3–21.

Stryker, A., & Statham, A. 1985. Symbolic interaction and role theory. In G. Lindsey & L. Arosnsen (Eds.), ***Handbook of social psychology*** (3rd ed.), vol. 1: 311–378. New York: McGraw-Hill.

Thomas, J. B., & McDaniel, R. R. 1990. Interpreting strategic issues: Effects of strategy and the information-processing structure of top management teams. ***Academy of Management Journal,*** 33: 286–306.

Thompson, J. D. 1967. ***Organizations in action.*** New York: McGraw-Hill.

Trice, H. M., & Beyer, J. M. 1993. ***The culture of work organizations.*** Englewood Cliffs, NJ: Prentice-Hall.

Tushman, M., & Anderson, P. 1986. Technological discontinuities and organizational environments. ***Administrative Science Quarterly,*** 31: 439–465.

Tushman, M., & Romanelli, E. 1985. Organizational evolution: A metamorphosis model of convergence and reorientation. In L. L. Cummings & B. M. Staw (Eds.), ***Organizational behavior,*** vol. 14: 311–347. Greenwich, CT: JAI Press.

Tushman, M. L., & Scanlan, T. J. 1981. Characteristics and external orientations of boundary spanning individuals. ***Academy of Management Journal,*** 24: 83–98.

van de Vliert, E. 1981. A three-step theory of role conflict resolution. ***Journal of Social Psychology,*** 113(1): 77–83.

Van Maanen, J., & Barley, S. R. 1984. Occupational communities: Culture and control in organizations. ***Research in Organizational Behavior,*** 6: 287–365.

Van Maanen, J., & Schein, E. 1979. Toward a theory of organizational socialization. In B. M. Staw (Ed.), ***Research in organization behavior,*** vol. 1: 209–264. Greenwich, CT: JAI Press.

Walsh, J. P. 1988. Selectivity and selective perception: An investigation of managers' belief structures and information processing. ***Academy of Management Journal,*** 31: 873–896.

Walsh, J. P. 1995. Managerial and organizational cognition: Notes from a trip down memory lane. ***Organization Science,*** 6: 280–321.

Weick, K. 1995. ***Sensemaking in organizations.*** Thousand Oaks, CA: Sage.

Westley, F. R. 1990. Middle managers and strategy: Microdynamics of inclusion. ***Strategic Management Journal,*** 11: 337–351.

Whetten, D. A. 1978. Coping with incompatible expectations: An integrated view of role conflict. ***Administrative Science Quarterly,*** 23: 254–271.

Wiersema, M. F., & Bantel, K. A. 1992. Top management team demography and corporate strategic change. ***Academy of Management Journal,*** 35: 91–121.

Wilkins, A., & Ouchi, W. G. 1983. Efficient cultures: Exploring the relationship between culture and organizational performance. ***Administrative Science Quarterly,*** 28: 468–481.

Wooldridge, B., & Floyd, S. W. 1989. Strategic process effects on consensus. ***Strategic Management Journal,*** 10: 295–302.

Wooldridge, B., & Floyd, S. W. 1990. The strategy process, middle management involvement and organizational performance. ***Strategic Management Journal,*** 11: 231–241.

Steven W. Floyd is an associate professor of management and an Ackerman Scholar at the University of Connecticut. He received his Ph.D. from the University of Colorado. His current research interests include idea generation and capability development in the process of strategic renewal.

Peter J. Lane is an assistant professor of management at Arizona State University. He received his Ph.D. from the University of Connecticut. His current research interests include the development of capabilities and competencies as part of strategic renewal and the use of scientific knowledge and interorganizational learning in that process.