Toward a Theory of Strategic Change: A Multi-lens Perspective and Integrative Framework

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TOWARD A THEORY OF STRATEGIC CHANGE: A MULTI-LENS PERSPECTIVE AND INTEGRATIVE FRAMEWORK

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We provide a comprehensive review of the strategic change literature from the perspective of three theoretical lenses: the rational, learning, and cognitive lenses. We identify empirical patterns and discuss the theoretical and methodological contributions and limitations of each lens. We address the key methodological issues that hamper integration of these lenses and develop an integrative framework that builds on their theoretical synergies. We note this framework's contributions and present two research questions that provide an agenda for future research.

The literature on strategic change can be classified into two schools of thought based on underlying research questions and specific methodologies. Researchers in the first school, the "content" school, have focused on the antecedents and consequences of strategic change, utilizing large samples and statistical methods (e.g., Gibbs, 1993; Ginsberg & Buchholtz, 1990; Oster, 1982). In contrast, researchers in the second school, the "process" school, have focused on the role of managers in the strategic change process, utilizing in-depth case studies spanning several years (e.g., Webb & Dawson, 1991; Whipp, Rosenfeld, & Pettigrew, 1989).

Although potentially relevant to one another, the two schools of thought have evolved independently with little theoretical or empirical synergy, resulting in theoretical and practical gaps in researchers' understanding of strategic change. After two decades of research, perhaps the most telling effects of the divide are a set of contradictory findings, highlighted next, on the antecedents and consequences of strategic change. First, organization size has been found to have positive (e.g., Zajac & Kraatz, 1993) and negative (e.g., Fombrun & Ginsberg, 1990) effects on the likelihood of strategic change. The theoretical quandary of whether

firm size is a source of inertia or a source of resources for strategic flexibility remains unanswered. Second, when faced with changes in environmental conditions such as munificence, some organizations change their strategies (e.g., Wiersema & Bantel, 1993) and others do not (e.g., Goodstein & Boeker, 1991). This apparent contradiction leads to the following question: What role do managers play in deciding whether to initiate strategic changes? Third, strategic change leads to improved performance (e.g., Haveman, 1992) in certain contexts, whereas similar change in different contexts increases the likelihood of organizational failure (e.g., Singh, House, & Tucker, 1986). These ambiguous findings raise an important issue: How can managers influence the change process to realize desired outcomes? Because of the divide between content and process studies, these questions regarding strategic change remain largely unanswered.

The continued accumulation of contradictory findings adds little to researchers' understanding of strategic change. Instead, an overarching theoretical framework is needed to integrate the process and content schools of thought, to take stock of the current body of knowledge, and to provide an agenda for future research. In this endeavor, we first define the domain of strategic change. We then organize and review the extensive literature on strategic change across three theoretical perspectives: the rational, learning, and cognitive lens perspectives. We identify key theoretical linkages, empirical conclusions, and overall strength and weaknesses of each perspective. We provide guidance on the key methodological issues pertinent to the study of strategic change. After integrating the contributions of the three perspectives, we develop a framework that represents a promising beginning toward building a theory of strategic change. Finally, we discuss the theoretical contributions of the integrative framework and offer two questions that shape an agenda for future research on strategic change.

LITERATURE REVIEW: THEORY AND EMPIRICAL EVIDENCE

Strategic Change: Defining the Domain

Strategic change can be defined as a difference in the form, quality, or state over time (Van de Ven & Poole, 1995) in an organization's alignment with its external environment. An organization's alignment with its external environment is defined as the "fundamental pattern of present and planned resource deployments and environmental interactions that indicates how the organization will achieve its objectives" (Hofer & Schendel, 1978: 25). Changes in this alignment encompass (a) changes in the *content* of a firm's strategy as defined by its scope, resource deployments, competitive advantages, and synergy (Hofer & Schendel, 1978) and (b) changes in external environment and organization brought about to initiate and implement changes in the *content* of strategy. Furthermore, changes in such alignment can occur at the business, corporate, and

collective levels of the organization (Fombrun, 1993; Ginsberg, 1988). However, organizational changes that do not result in changes in the content of a firm's strategy are not included within the domain of strategic change.

Our definition of strategic change draws upon the perspective of three distinct theoretical lenses: the rational, learning, and cognitive lenses. In general, the rational lens perspective captures the theoretical models implicit in the content school, whereas the learning and cognitive lens perspectives are found primarily in the process school of strategic change. Furthermore, although these three perspectives reflect the underlying theoretical models embedded in empirical strategic change research, they are also consistent with well-established theoretical models in the broader strategy literature (Allison, 1971; Chaffee, 1985; Mintzberg, 1990b). All three perspectives include changes in the *content* of strategy within the scope of strategic change; furthermore, the learning lens and cognitive lens perspectives include the *organizational* and *environmental* changes brought about to initiate and implement changes in the content of strategy.

In the next section, we review the strategic change literature through these three perspectives and reflect upon key theoretical and methodological differences across them. The Appendix provides a brief description of our classification process and the list of empirical studies classified within each of the theoretical perspectives reviewed in the next section.

A Rational Lens Perspective on Strategic Change: Theoretical Linkages and Empirical Evidence

Strategic change modeled according to the rational lens perspective is shown in Figure 1. It is a sequential, planned search for optimal solutions for well-defined problems (Ansoff, 1965; Mintzberg, 1990a) based on *previously* defined firm objectives. Rational managers optimize performance by establishing a fit between the firm and its environment through the creation and implementation of a strategic vision.

Strategic change is defined as a *unitary* concept measured through *discrete* changes in a firm's business, corporate, or collective strategies. "Business-level changes are meant to improve the competitiveness of a firm's individual business units, corporate-level changes address the diversity of businesses under the corporate umbrella, and collective-level changes explore the relative merits of forming relationships with rivals, suppliers, distributors, and other firms" (Fombrun, 1993: 159–160). Operational measures reflect the likelihood (i.e., whether the strategy changed), direction (i.e, change from one strategic type to another [e.g., prospector to defender]), and/or magnitude or degree of change (e.g., amount of diversity in the portfolio) in these strategies.

The *environment* is assumed to be objectively determined and manifested as a source of threats and opportunities (Chaffee, 1985). Immutable

FIGURE 1
Strategic Change: A Rational Lens Perspective

Direct Links ——————▶

Feedback Links in a multitime study - - - - - - - - - -▶
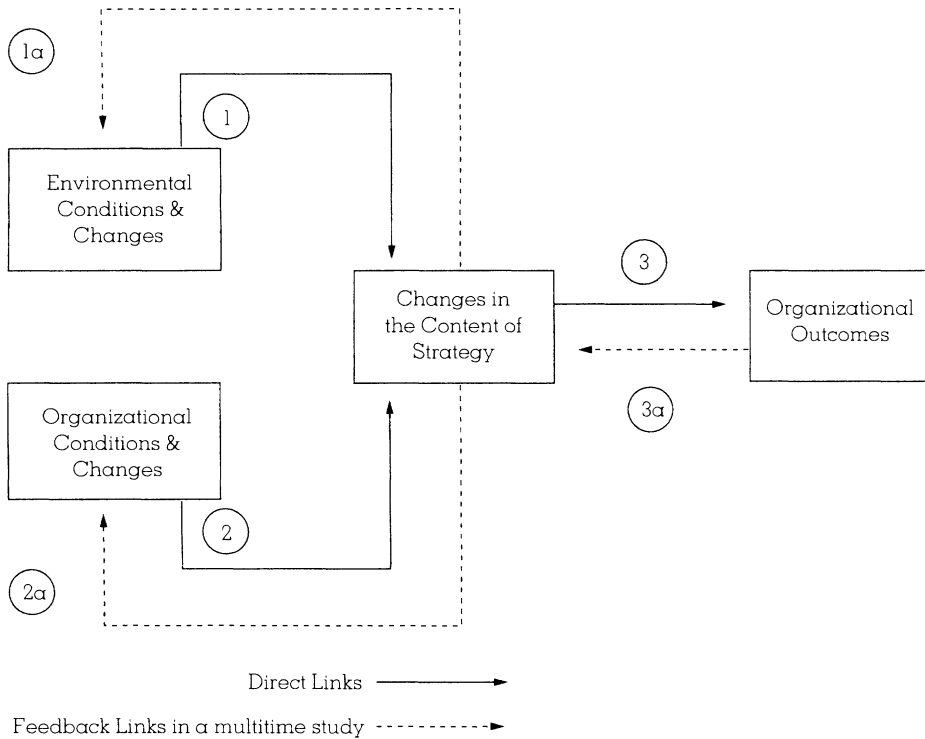
by managerial actions, environmental conditions are assumed to directly influence changes in the content of strategy (Link 1) through a deliberate analysis of strategic alternatives (Ansoff, 1965). Also assumed to be objectively determined, *organizational factors* associated with inertia are considered "weaknesses" that inhibit change, and factors contributing to flexibility are considered "strengths" that support the need for change (Link 2). According to the rational lens perspective, firms change strategies mainly to improve their economic performance (Link 3). Finally, Links 1a, 2a, and 3a reflect feedback links that are examined in longitudinal studies. The 28 studies classified within the rational lens perspective (see Appendix) are reviewed next.

   Environmental context and changes in the content of strategies. In our review of Link 1 studies, we focused on those environmental variables (munificence, uncertainty, and specific shifts such as deregulation) that were examined in more than one study so that comparisons could be made. The relationship between *munificence* and changes in the content of strategies is ambiguous. Although some researchers found that munificence led to *higher* magnitude changes in strategies (Ginsberg &

Buchholtz, 1990; Wiersema & Bantel, 1993), other researchers found that munificence led to *lower* magnitude changes in strategies (Harrigan, 1981; Zajac & Kraatz, 1993), and still others found *no relationship* (Goodstein & Boeker, 1991). What might explain these conflicting findings? First, different operationalizations of the munificence construct were used across the studies: market saturation (Ginsberg & Buchholtz, 1990), industry growth rates (Zajac & Kraatz, 1993), future demand (Harrigan, 1981), and degree of competition (Goodstein & Boeker, 1991). In a broader review of munificence, Castrogiovanni (1991) found that munificence had been used to refer to at least three distinct sets of concepts: capacity, growth/decline, and opportunity/threat. Because there is little theoretical reason to expect these different measures to be correlated, cumulative theory building based on one set of munificence measures may be inappropriate (Boyd, Dess, & Rasheed, 1993). Second, the specific operationalizations of changes in the content of strategies differed across these studies: likelihood and direction of change (Zajac & Kraatz, 1993) and magnitude of change (Ginsberg & Buchholtz, 1990; Goodstein & Boeker, 1991).

The effects of *uncertainty* or *instability* are also mixed. Even though Wiersema and Bantel (1993) found that instability led to a *higher* magnitude of changes in corporate level strategies, Fombrun and Ginsberg (1990) found a *curvilinear* relationship between volatility and changes in corporate aggressiveness. Using a multidimensional operationalization of uncertainty, Birnbaum (1984) found that competitive uncertainty increased the adoption of less risky strategies at both the corporate and business levels but that regulatory and customer uncertainty influenced changes in strategies indirectly through their effects on competitive uncertainty. These results indicate that uncertainty has multiple dimensions and that utilizing a single measure to capture this construct may yield incomplete results (Boyd et al., 1993).

More consistent findings are found in cross-sectional studies examining the impact of specific environmental events, especially *deregulation,* on changes in the direction of firm strategies. According to several studies, deregulation or specific regulatory changes were *positively* related to changes in firm strategies (Corsi, Grimm, Smith, & Smith, 1991; Ginn, 1990; Ginsberg & Buchholtz, 1990; Goodstein & Boeker, 1991; Haveman, 1992; Smith & Grimm, 1987; Zajac & Shortell, 1989). In response to deregulation, these researchers found that firms pursuing defender-like, efficiency-oriented, or less focused strategies tended to change to more prospector-like, more innovative, or more focused strategies. In contrast, in a longitudinal study, Kelly and Amburgey (1991) found that deregulation was associated with *reduced* likelihood of changes in both business and corporate-level strategies. Kelly and Amburgey (1991), however, controlled for prior experience with strategic change that constrained the direction of subsequent changes in strategies. These results suggest that the effects of deregulation may be sensitive to the research design and the control variables included in testing the models.

Organizational context and changes in the content of strategies. Similar to the findings for Link 1, the numerous studies that were used to examine Link 2 also showed equivocal findings. We focus our review on variables that have been examined in at least two studies (firm size, age, prior performance, prior strategy, top management characteristics, and governance structures) to enable us to identify patterns and contradictions. First, the findings on firm *size* are ambiguous. In some studies, size and *positive* effects on the changes in business level strategies (Birnbaum, 1984; Zajac & Kraatz, 1993), whereas in other studies, it had *negative* effects: Fombrun and Ginsberg (1990) found that size reduced the likelihood of strategic change at the corporate level, Ginsberg and Buchholtz (1990) found that size increased the time taken to change business-level strategies, and Grimm, Corsi, and Smith (1993) found that size decreased the likelihood of changes in business-level strategies. Still other researchers found *no effects* at either the corporate or business levels (Kelly & Amburgey, 1991; Ginn, 1990; McCutchen, 1993).

Similar ambiguous effects were also evident for firm *age*. Age *increased* the magnitude of change (Boeker, 1989) and the likelihood of change (Singh et al., 1986) in some studies, but it *decreased* the likelihood of change (Kelly & Amburgey, 1991) and *increased the time* taken to change strategies in other studies (Ginsberg & Buchholtz, 1990). Zajac and Kraatz (1993) found mixed effects for age, depending on the specific types of changes in strategies. The equivocal effects for size and age can be attributed to different operationalizations of changes in strategies (e.g., likelihood, magnitude, direction, and timing), different research designs, and different control variables (e.g., prior performance, age, and ownership structures).

Similar contradictions were also evident in the findings on *past performance*. Some studies found *no effects* of past performance: Grimm and colleagues (1993) found that past performance had no influence on the likelihood and direction of changes in business-level strategies, and Oster (1982) found that prior performance was not related to the direction and magnitude of changes in strategic group membership. Other researchers found that poor past performance was related to *larger* magnitude of changes in business-level strategies (Boeker, 1989; Graham & Richard, 1979; Zajac & Kraatz, 1993). In another study, a *curvilinear* relationship was found between past performance and changes in corporate aggressiveness (Fombrun & Ginsberg, 1990). In addition to the methodological reasons noted previously for size and age, these findings could also be confounded by the different measurement range for the prior performance variable used across these studies (Hunter & Schmidt, 1990).

More consistent findings were found for *prior strategy*. In deregulating industries, prior strategy was found to be related to the likelihood and direction of changes in business-level strategies (Haveman, 1992; Ginn, 1990; Grimm et al., 1993; Kelly & Amburgey, 1991; Zajac & Shortell, 1989). Firms moved toward more innovative and more focused strategies if their

prior strategies were less innovative and less focused. However, if the prior strategy was embedded in the firm since its founding (Boeker, 1989), or if the strategy was associated with major resource commitments (Fombrun & Ginsberg, 1990), it significantly reduced the magnitude of subsequent changes.

Studies on *top management characteristics* also indicated more consistent findings. Although top managers' age and tenure reduced the likelihood of change (Grimm & Smith, 1991; Wiersema & Bantel, 1992), changes in the composition of the top management team (TMT) were associated with more likelihood of changes in strategies (Graham & Richards, 1979) and changes of greater magnitude (Goodstein & Boeker, 1991; Wiersema, 1992).

The final set of findings for Link 2 relate to various measures of *corporate governance* (e.g., board diversity and ownership structures). These patterns are more tentative because this stream of research is just beginning to emerge. Goodstein and Boeker (1991) and Goodstein, Gautam, and Boeker (1994) found a positive relationship between *board diversity* and likelihood of changes in business strategies; Gibbs (1993) also found that increased *outsider power* was associated with increased magnitude of changes in corporate strategies. However, results are mixed on *stock ownership*. Bethel and Lieberskind (1993) found that increases in *outsider* ownership increased the likelihood of strategic change; however, Gibbs (1993) found that increases in *insider* equity ownership led to increased strategic change, and Boeker (1989) found that managerial ownership *at founding* was a strong predictor of subsequent changes in strategy. Grimm and colleagues (1993) found no relationship between ownership structures and changes in strategy.

Strategic change and organizational outcomes. Except for one study, which was used to examine a noneconomic outcome (Wiersema & Bantel, 1993, examined TMT turnover), rational lens studies have been focused almost exclusively on financial performance (measures included operating ratio, return on assets, return on investment, growth, productivity, production time, etc.) or organizational survival in examining Link 3. In spite of the large samples and statistical methods used in these studies, findings for Link 3 were also equivocal. In some studies, strategic change *enhanced* financial performance (Hambrick & Schecter, 1983; Haveman, 1992; Zajac & Kraatz, 1993) and the likelihood of firm survival (Haveman, 1992). In other studies, similar strategic changes *reduced* financial performance (Graham & Richards, 1979; Jauch, Osborne, & Glueck, 1980) and the likelihood of firm survival (Singh et al., 1986). Yet in another set of studies, either *no relationship* was found (Kelly & Amburgey, 1991; Zajac & Shortell, 1989) or *mixed* relationships (Smith & Grimm, 1987) were found between the direction of strategic change and firm profitability. Finally, Hambrick and Schecter (1983) found that the relationship between changes in strategy and improved financial performance was contingent on the type of change and the type of industry environment.

Several methodological reasons may account for these contradictions. First, changes in strategy were operationalized differently across these studies; the direction and magnitude of changes may both need to be examined to assess performance effects (e.g., if the change is of a large magnitude but in the wrong direction, it may result in poorer economic performance). Second, most researchers examined economic outcomes utilizing cross-sectional data; as noted by Ginsberg (1988), performance changes stemming from current changes in strategy may exhibit lagged effects, which can be captured only if data are collected over longer time periods. Third, complex interactions between environmental/organizational variables and changes in strategy may not be completely captured in these studies because of the narrow definition of strategic change (i.e., changes in the content of strategy alone).

General conclusions from the rational lens perspective. The large number of studies grounded in the rational lens perspective brings particular strengths to researchers' understanding of strategic change. First, these studies include large samples and *explicit* operationalizations of environmental/organizational antecedents and changes in the content of strategy, facilitating comparability across studies. Second, more recent studies (e.g., Ginsberg & Buchholtz, 1990; Kelly & Amburgey, 1991) include more dynamic time series and event history analyses, which explain not only the likelihood and direction of change but also the timing. Third, these researchers have been concerned not only with understanding the antecedents to strategic change but also its performance effects.

In spite of these strengths, the rational lens perspective has provided little cumulative knowledge on strategic change because of both theoretical and methodological problems. From a theoretical perspective, the contradictions identified in our review may stem from underspecified models. First, the rational perspective treats the role of managerial actions and cognitions as a "black box." Such managerial processes, "namely the socio-cultural and symbolic processes which preserve current ways of doing things, the cognitive bounds of those who take and influence decisions, and the importance of political processes," are central to the strategic change process (Johnson, 1992: 34). The equivocal findings on context make us wonder about the role that managers play in shaping the *need* for change and reducing *resistance* to it.

Second, in most studies within this perspective, strategic change was conceptualized as a unitary concept (i.e., change was operationalized solely in terms of the magnitude, likelihood, or direction of changes in the content of strategy) and then linked to variations in performance. However, performance is affected not only by changes in the content of strategies but also by the organizational/environmental changes brought about to implement the new strategy. Because such changes are not captured by the rational lens perspective, studies relating changes in the content of strategies directly to firm performance may reflect an underspecified model. Finally, in spite of its focus on performance outcomes,

the rational perspective has limited normative usefulness because the context is assumed to be deterministic and immutable, and managers have little scope for experimentation and learning. Consequently, this perspective offers little guidance to managers seeking to intervene in the change process to enhance effectiveness.

Three methodological problems also plague rational lens studies. First, although in rational lens studies definitions of research constructs are explicit, there is little agreement on the specific operationalizations of environmental/organizational antecedents or changes in the content of strategies. For example, although some researchers measured only the likelihood of change, others measured the direction and the magnitude of change. As noted by Boyd and colleagues (1993), theoretically valid relationships may not be supported by empirical data because of a lack of *correspondence* between a theoretical construct and its operational measure; this problem is particularly evident in the diverse measures used to capture the same environmental antecedents. Second, research from this perspective suffers from *aggregation* problems (Boyd et al., 1993). In most studies, environmental conditions were measured at an industry level, whereas changes in strategy were measured at a firm level. Because environmental effects are not likely to have an impact on firms in a homogenous manner, these differences in the levels of construct operationalization may also confound empirical findings.

Third, there is little agreement on the *domain* of environmental/organizational antecedents of strategic change as reflected in the different control variables found across studies. This inconsistent use of control variables is particularly problematic when researchers try to understand the performance outcomes of strategic change, because firm performance can be affected by various extraneous forces that are not always controlled for across studies. The learning lens perspective, discussed next, is used to begin to address some of the theoretical limitations of the rational lens perspective, but it also results in new methodological problems.

A Learning Lens Perspective on Strategic Change: Theoretical Linkages and Empirical Evidence

In contrast to the rational lens perspective, according to the learning lens perspective, strategic change is viewed as an iterative process; managers effect changes through a series of relatively small steps designed to probe the environment and the organization. These "learning" steps can result in major and minor changes to the content of a firm's strategy. More completely specified than the rational lens perspective, the learning lens perspective accords a central role to managerial actions in the strategic change process, as modeled in Figure 2.

Other features of the learning lens perspective are also different from those of the rational lens perspective. First, strategic change is defined as the combination of changes in the *content* of strategy (similar to

FIGURE 2
Strategic Change: A Learning Lens Perspective
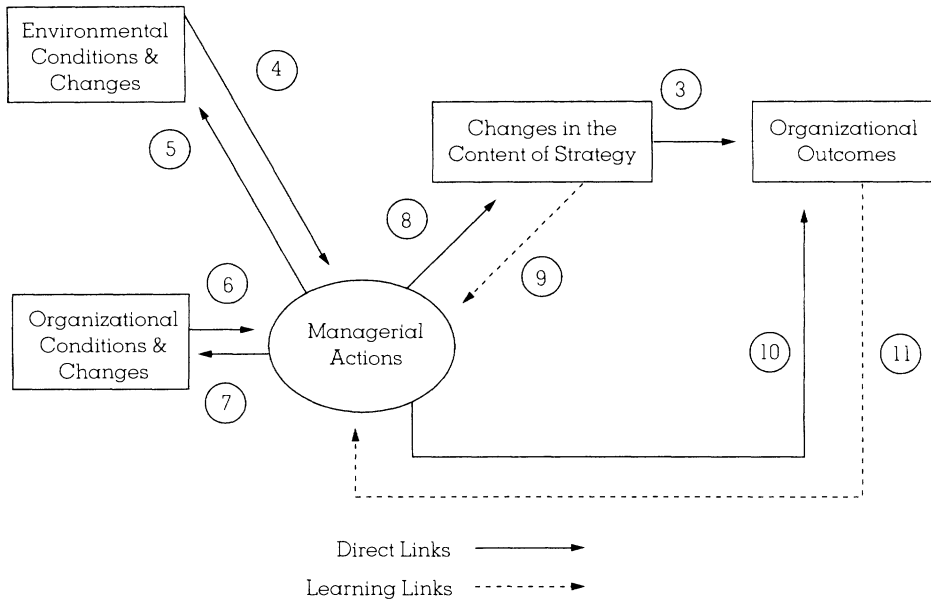
the rational lens perspective) as well as changes in environmental/ organizational conditions brought about by managerial actions in the process of change. Consistent with past literature (Hart & Banbury, 1994), managerial actions capture who is involved and in what manner. Specifically, managerial actions reflect behaviors that shape and are shaped by the environment (Links 4 and 5), the organization (Links 6 and 7), and the content of strategy (Links 8 and 9). Thus, in the learning lens perspective, a more holistic definition of strategic change is adopted.

Second, the *environmental/organizational* context, rather than being objectively determined as in the rational lens perspective, is assumed to be uncertain and dynamic (Quinn, 1980). The environment is a source of information uncertainty and cause-effect ambiguity. Managers attempt to understand an ambiguous environment through a series of iterative actions (e.g., information gathering) that are aimed not only at understanding the external context (Link 4) but also at influencing it proactively (Link 5) (Koberg, 1987; Lant & Mezias, 1992). Similarly, the organization is viewed as a political context (Quinn, 1980), which influences the need for, and resistance to, strategic change. Changes in organizational conditions (e.g., declining performance) trigger managerial actions (e.g., information gathering) aimed at understanding the extent of threat/opportunity (Link 6). However, the opportunities and constraints posed by organizational conditions can also be shaped by managers (Link 7) through tactics aimed

at managing coalitions and minimizing political exposure (Mintzberg & Waters, 1982; Simons, 1994). In this way, managerial actions can shape resistance to, or create the need for, change (Staw, Sandelands, & Dutton, 1981). Thus, the context, rather than directly influencing strategic change, is assumed to influence a set of intervening managerial actions that contribute to changes in the content of strategy (Link 8) along with changes in the organization (Link 7) and the environment (Link 5).

Third, strategic change is viewed not as linear but as evolutionary and iterative, as managers learn from their experiences (Yetton, Johnston, & Craig, 1994). Links 9 and 11 indicate that managerial learning occurs as changes in the content of strategy are implemented, one step at a time, and change outcomes are assessed. Finally, in contrast to the rational lens perspective, outcomes (both economic and noneconomic) follow not only from changes to the content of strategy (Link 3) but also directly from managerial actions (Link 10).

The 15 studies grounded in the learning lens perspective are identified in the Appendix and reviewed next. In addition, of the eight multilens studies classified in the Appendix, seven studies included a learning lens perspective in conjunction with other perspectives; findings on links relevant to the learning lens perspective are discussed here as well. According to the learning lens perspective, strategic change is generally described as continuous (evolutionary/incremental) or discontinuous (revolutionary/transformational) (e.g., Meyer, Brooks, & Goes, 1990; Yetton et al., 1994). Evolutionary changes reinforce the firm's existing strategy and internal organizational conditions, whereas revolutionary changes involve significant breaks from past strategy and include major organizational changes as well (Lant, Milliken, & Batra, 1992; Tushman, Virany, & Romanelli, 1985). However, very few researchers explicitly distinguished changes in the content of strategy from the overall pattern of managerial actions.

Environmental context and managerial actions. Two tentative conclusions can be drawn about Link 4. First, changes in specific environmental conditions, such as the availability of a new technology (Yetton et al., 1994), the emergence of new competitors (Grinyer & McKiernan, 1990; Huff, Huff, & Thomas, 1992) and declining demand for products (Schendel, Patton, & Riggs, 1976), as well as changes in overall environmental conditions, such as environmental volatility/dynamism (Lant et al., 1992; Miller & Friesen, 1980a,b) often lead to managerial actions aimed at developing a better understanding of the environment and its impact on the organization. Such actions include a more active monitoring of the environment (Gersick, 1994), gathering of information (Calori & Atamer, 1990; Simons, 1994; Yetton et al., 1994), and employment of comprehensive search mechanisms (Lant & Mezias, 1992). These actions are aimed at reducing the uncertainty stemming from the environment, and they contribute to a more focused agenda for strategic change.

Second, the *timing* of environmental changes may explain whether

change-oriented managerial actions take place. Environmental changes that occur close to internal evaluation deadlines or a recent performance decline are more likely to result in managerial actions than are environmental changes that occur at other times (Gersick, 1994; Huff et al., 1992). These findings may help explain one contradiction identified in the rational lens perspective, namely, when faced with the same environmental change, some organizations respond by changing their strategies, and other organizations do not. However, these conclusions are tentative because most researchers employed idiosyncratic definitions of environmental variables and managerial actions. In addition, many of the studies that were used to examine Link 4 were case studies, and this hindered comparability across studies.

Third, Link 5 (proactive managerial actions aimed at shaping the environment) was examined in only three case studies (Calori & Atamer, 1990; Gersick, 1994; Meyer et al., 1990), each of which included different operationalizations of environmental variables and managerial actions. Overall, the role of proactive managerial actions, such as lobbying, building interorganizational networks, and negotiating with external stakeholders for resources, remains largely unexplored.

Organizational context and managerial actions. The findings for Link 6 (the effect of organizational conditions on managerial actions) parallel the findings on the environment. Changes in organizational conditions (e.g., declining performance, leadership changes) affect managerial actions such as information gathering (Simons, 1994), information monitoring (Gersick, 1994; Huff et al., 1992), and the use of internal task forces (Miller & Friesen, 1980a,b). However, each study included different operationalizations of managerial actions, most studies included limited samples, and few studies included the same organizational antecedents, hampering our ability to compare across studies and build cumulative knowledge.

Research into the more proactive Link 7 (how managers shape the organization) also has been dominated by inductive theory building through case studies. Given this caveat, one general conclusion can be drawn. Managers frequently change organizational structures and systems in the course of strategic change (Meyer et al., 1990; Miller & Friesen, 1980a,b; Mintzberg & McHugh, 1985; Mintzberg & Waters, 1982; Nutt, 1987; Tushman et al., 1985; Yetton et al., 1994). Furthermore, organizational changes are more widespread in "transformational" strategic change than they are in "evolutionary" strategic change. However, given the methods employed in most of these studies, it is not clear whether the types of organizational changes vary depending upon the changes in the content of strategy.

Managerial actions and changes in the content of strategy. Most researchers who examined Links 8 and 9 (the relationship between managerial actions and changes in the content of strategy) inferred changes in the content of strategy from managerial actions. Of the 15 learning lens

studies identified in our review, only 5 included explicit definitions of changes in the content of strategy as distinct from managerial actions (Miller & Friesen, 1980a,b; Nutt, 1987; Schendel et al., 1976; Tushman et al., 1985). Furthermore, although Link 8 was examined (implicitly or explicitly) in all learning lens studies, many (e.g., Calori & Atamer, 1990; Gersick, 1994; Meyer et al., 1990; Mintzberg & McHugh, 1985; Mintzberg & Waters, 1982; Simons, 1994; Yetton et al., 1994) of these were case studies with varying definitions of research constructs. Even the researchers who distinguished managerial actions from specific changes to strategies used different operational definitions that were not readily comparable. Similar problems of unique samples and varying operational definitions were also evident in the multilens studies, which were used to examine Link 8 (Barr, Stimpert, & Huff, 1992; Greiner & Bhambri, 1989; Grinyer & McKiernan, 1990; Koberg, 1987; Lant et al., 1992). Hence, it is nearly impossible to assess cause-effect relationships between managerial actions and the actual changes in the direction and/or magnitude of strategy.

Because of the limitations noted in this section, only two *tentative* conclusions can be drawn from Link 8 studies. Managers appear to shape the content of strategies through a variety of actions such as articulating a mission and specific goals (e.g., Greiner & Bhambri, 1989), changing resource allocations and various functional strategies (e.g., Grinyer & McKiernan, 1990; Koberg, 1987; Meyer, 1982; Mintzberg & McHugh, 1985; Mintzberg & Waters, 1982), and making acquisitions and divestitures (Meyer et al., 1990; Schendel et al., 1976). Furthermore, the more comprehensive the change in strategies, the more comprehensive the scope of managerial actions.

The conclusions for Link 9 (how managerial actions are influenced by changes in strategy in an ongoing process) are even more tenuous. Most of the studies used to examine this link were case studies (Gersick, 1994; Meyer et al., 1990; Mintzberg & McHugh, 1985; Mintzberg & Waters, 1982; Simons, 1994; Yetton et al., 1994) that included varying definitions of managerial actions. The main contribution of these studies is the finding that the relationship between managerial actions and changes in the content of strategies is not unidirectional (i.e., managers appear to learn from ongoing changes and use this knowledge to modify or reinforce their subsequent actions). Understanding that strategic change seldom emerges in a linear fashion is a key insight provided by learning lens studies which were used to examine Link 9.

Strategic change, organizational outcomes, and learning links. In contrast to the rational lens studies, learning lens studies yielded more consistent, though very general, findings on the economic outcomes of strategic change (Links 3 and 10). It appears that changes in strategy are associated with improved economic performance if they are accompanied by executive successions and personnel changes (Meyer, 1982; Tushman et al., 1985) and changes in organizational structures and processes (Barr et al., 1992; Greiner & Bhambri, 1989; Miller & Friesen, 1980a,b; Nutt, 1987;

Schendel et al., 1976; Simons, 1994). Furthermore, authors of four studies within the learning lens perspective also attempted to relate strategic change to noneconomic outcomes such as perceived managerial effectiveness (Simons, 1994), commitment and morale (Greiner & Bhambri, 1989), perceived quality of change (Nutt, 1987), and enduring changes in ideology (Meyer, 1982). However, because a different noneconomic outcome variable was examined in each study, we are unable to draw any generalizable conclusions on how strategic change affects noneconomic outcomes. Finally, almost no researchers have studied the reciprocal learning link between outcomes and managerial actions (Link 11); the two exceptions are Meyer (1982) and Barr and colleagues (1992).

General conclusions from the learning lens perspective. The theoretical strengths of the learning lens perspective are complementary to those of the rational lens perspective. First, researchers who use the learning lens perspective provide a richer theoretical description of strategic change by opening the black box of managerial processes (i.e., by focusing on how managerial actions shape readiness and resistance to strategic change and overall outcomes of the change process). Second, because learning lens studies include a more holistic definition of strategic change, they can be used to identify the interdependencies among environmental, organizational, and strategic factors in the strategic change process. Thus, researchers can begin to understand why a similar change in the content of strategy can be effective in some cases and ineffective in other cases. Third, these authors begin to theoretically, and to a lesser extent empirically, address the issue of how managers learn during ongoing strategic change. It may be that successful strategic changes are characterized by different learning processes than the ones that characterize the less successful strategic changes.

However, learning lens studies have their own set of theoretical and methodological problems. The major theoretical limitation of the learning lens perspective is the lack of conceptual distinction between managerial actions and changes in the *content* of strategies. In effect, according to this lens, managerial actions are treated as both the *means* and the *end* in the strategic change process. Although consistent with the descriptive nature of the learning lens perspective, an inability to separate actions from changes in content of strategy constrains the normative usefulness of this perspective, because cause-effect relationships cannot be identified and appropriate actions cannot be distinguished from inappropriate actions.

Several methodological problems also can be identified. First, it is difficult to generalize across studies, because they do not include well-defined constructs, particularly with regard to managerial actions. It is often difficult to distinguish managerial actions that influence the environment (Link 5) and the organization (Link 7) from those aimed at the content of strategies (Link 8). Furthermore, in most of these studies, changes in the content of strategy are inferred from managerial actions,

and these two constructs are not distinguished empirically. Second, most learning lens studies are descriptive case studies and do not relate variations in managerial actions to variations in the environmental/organizational context or organizational outcomes, hampering researchers' ability to accumulate knowledge across studies. And third, although several studies do include the noneconomic outcomes neglected in the rational lens perspective, the findings are again limited because of the varying types of outcomes examined in each study. The cognitive lens perspective, described next, adds yet another theoretical component (i.e., managerial cognitions) to the rational lens and learning lens perspective, but it includes several of the methodological limitations of the learning lens.

A Cognitive Lens Perspective on Strategic Change: Theoretical Linkages and Empirical Evidence

The only perspective in which the role of managerial cognitions in the strategic change process is explicit, the cognitive lens perspective, is modeled in Figure 3. Managerial cognitions are variously defined as knowledge structures, core beliefs, cause maps, and schemas (Walsh, 1995). In the cognitive model, the interpretive processes through which managers enact the environmental/organizational context are emphasized.

In the cognitive lens perspective, the same definition of strategic change used in the learning lens perspective (i.e., a combination of changes in the content of strategy as well as accompanying organizational and environmental conditions) is generally employed. In most studies, however, cognitions are linked to managerial actions (Link 14) and strategic change is inferred from managerial actions. Again, cognitive lens studies distinguish evolutionary from transformational changes (e.g., Webb & Dawson, 1991). When strategic change does not involve a shift in underlying knowledge structures, it is viewed as evolutionary; when strategic change is accompanied by major shifts in organizational ideologies and cause maps (Johnson, 1987), it is viewed as transformational. However, in cognitive lens studies, operationalizations of changes in the content of strategy are rarely explicit; instead, such changes are inferred from managerial actions and cognitions.

A key assumption in the cognitive lens perspective is that the environment cannot be objectively determined; instead, it is enacted by managers and represented through cognitions (Link 12) (Johnson, 1992). Likewise, the organizational context is assumed to be a source of information that affects the content and structure of individual cognitions. Organizational structures, incentive mechanisms, and control systems form part of a broader organizational ideology (Meyer, 1982), in which managerial cognitions of the need for, and resistance to, change are embedded (Link 13). Cognitions have little effect on strategic change unless they

FIGURE 3
Strategic Change: A Cognitive Lens Perspective

Direct Links ⟶

Learning Links ⟶ (dashed)
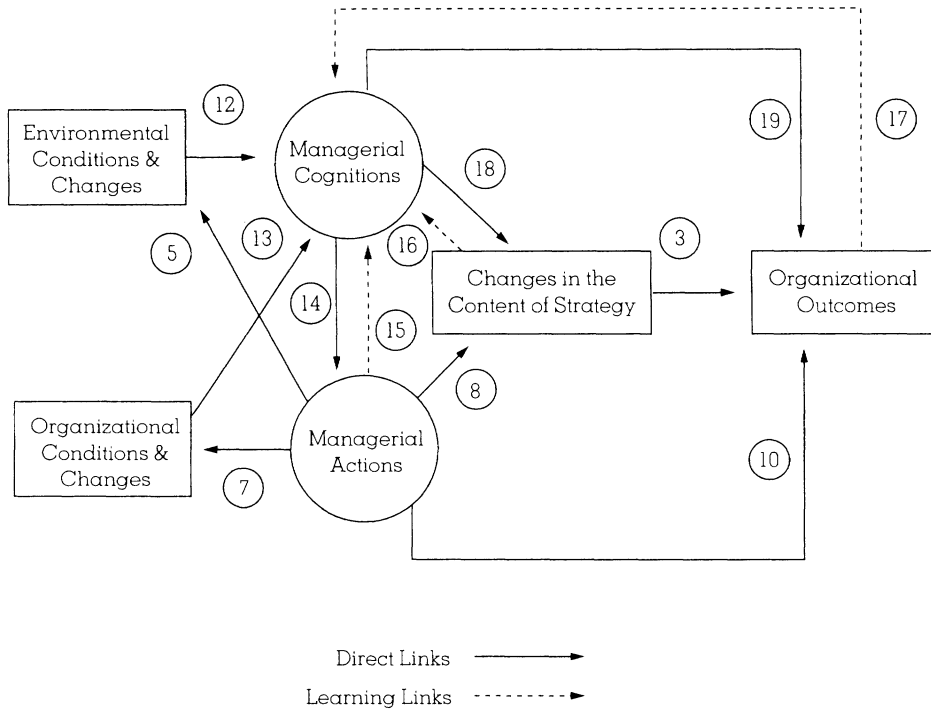
are manifested in actions (Link 14). In turn, knowledge structures can be altered through managerial actions that seek to create shared perceptions of the need for change (Link 15) (Child & Smith, 1987; Webb & Dawson, 1991). Similar to actions in the learning lens perspective, managerial actions also influence environmental stakeholders (Link 5), organizational structures and systems (Link 7), and changes in the content of strategy (Link 8).

In cognitive lens studies, key outcomes of strategic change include both economic and noneconomic variables. Of particular interest to cognitive researchers are enduring changes in organizational belief structures (Johnson, 1987; Meyer et al., 1990). Such outcomes emerge both from managerial actions (Link 10) and more directly through changes in the content of strategy (Link 3). Finally, the two learning links (16 and 17) indicate that emerging changes in strategy and organizational outcomes can ultimately reshape managerial knowledge structures in an ongoing change process. We have included Links 18 (the direct relationship between cognitions and changes in the content of strategy) and 19 (the direct effect of cognitions on organizational outcomes) in Figure 3 to incorporate some studies (Cook, 1975; Gaertner, 1989; Thomas, Clark, & Gioia, 1993) that have been used to examine these links; however, these

links are difficult to defend theoretically, because cognitions translate into outcomes only through intervening actions.

Eight studies in which a cognitive lens perspective was primarily used are identified in the Appendix and are reviewed next. In eight other studies, the cognitive lens perspective was used in conjunction with the other two perspectives (see the Appendix). Empirical work regarding this perspective is more recent and less extensive than work on the other two perspectives; the empirical challenges posed by this perspective's theoretical complexity may explain the paucity of empirical research.

Environmental context and managerial cognitions. Although several researchers examined Link 12 (the influence of the environment on managerial cognitions), most of them used case studies that did not explicitly link variations in environmental conditions to variations in managerial cognitions (e.g., Barr et al., 1992; Child & Smith, 1987; Pettigrew, 1987; Webb & Dawson, 1991; Whipp et al., 1989). However, all of these researchers indicated that strategic change occurs when changes in environment conditions are accompanied by major changes in top managers' cognitions. Researchers who examined Link 12 in larger samples (e.g., Ginsberg & Abrahamson, 1991; Grinyer & McKiernan, 1990; Meyer, 1982) also indicated that there can be significant variations in managerial cognitions of similar environmental events. Overall, these findings may shed some light on a contradiction found in our review of the rational lens studies; if changes in strategies are related directly to environmental conditions, the crucial intervening effects of managerial cognitions are ignored.

Organizational context and managerial cognitions. Even though a variety of organizational antecedents to managerial cognitions have been examined in prior research (Link 13), most researchers focused on two variables: past performance and top management characteristics (including prior mental models, changes in team composition, and information-seeking behaviors). Several researchers (Barr et al., 1992; Child & Smith, 1987; Grinyer & McKiernan, 1990; Lant et al., 1992; Meyer, 1982; Pettigrew, 1987; Webb & Dawson, 1991; Whipp et al., 1989) found that in firms that changed their strategies declining organizational performance was accompanied by an increase in top managers' awareness of the need for change. However, many of them used case studies of firms that faced severe performance declines, making it difficult to generalize these findings to firms with less severe declines. Other researchers found that changes in the composition of the TMT were associated with changes in managerial cognitions of the need for strategic change (e.g., Child & Smith, 1987; Grinyer & McKiernan, 1990; Lant et al., 1992; Pettigrew, 1987). Thomas and colleagues (1993) also found that when organizations put mechanisms into place to increase information use, managers were more likely to interpret strategic issues in positive terms and hence initiate strategic change. Overall, these results indicate that managerial cognitions may play a crucial intervening role between organizational conditions and changes in strategies.

Managerial cognitions, managerial actions and changes in the content of strategy. Several researchers found that managerial interpretations of organizational factors played a critical role in explaining subsequent managerial actions (Link 14). Barr and colleagues (1992) and Lant and colleagues (1992) found that when managers attributed performance declines to internal factors (such as poor strategy), they were more likely to initiate strategic change. In other case studies (Child & Smith, 1987; Pettigrew, 1987; Webb & Dawson, 1991), researchers also found that transformational strategic changes were more likely than were evolutionary strategic changes to be accompanied by shifts in top managers' belief structures. Overall, these findings may indicate that managerial interpretations of organizational conditions influence the need for strategic change more directly than the objective measures more commonly used in rational lens research. Top managers' actions in influencing such interpretations in the early stages of the change process could play a crucial role in reducing an organization's resistance to change.

Several researchers also highlighted how top managers reshape organizational belief structures and ideologies by engaging in open dialogues with other levels of managers in the organization (Child & Smith, 1987; Gioia & Chittipeddi, 1991; Greiner & Bhambri, 1989; Smart & Vertinsky, 1984; Webb & Dawson, 1991) to build consensus and commitment through partial implementation of action plans (Links 7 and 8). Such actions appear to be particularly crucial for radical changes associated with firm transformations, turnarounds, and revolutions. Nevertheless, because virtually all of these findings stem from case studies, the results are difficult to generalize. Only two studies within the cognitive lens perspective (Gioia & Chittipeddi, 1991; Whipp et al., 1989) were used to examine Link 5 (i.e., how managers attempt to influence environmental conditions during strategic change through actions such as negotiations with external stakeholders). Clearly, management researchers' understanding of proactive managerial actions vis-à-vis the environment is very limited.

Strategic change, organizational outcomes, and learning links. Little empirical research grounded in the cognitive lens perspective has been focused on the relationship between strategic change and organizational outcomes. First, few researchers (e.g., Barr et al., 1992; Child & Smith, 1987; Meyer, 1982; Thomas et al., 1993; Whipp et al., 1989) examined the effect of strategic change on subsequent outcomes (Links 3 and 10). Because most researchers used case studies and utilized varying definitions of cognitions, actions, and outcomes, our ability to identify generalizable patterns regarding economic and noneconomic outcomes is limited. Each study included a different definition of cognitions, and each one also included a different definition of outcomes, such as profitability (Thomas et al., 1993; Whipp et al., 1989), employee productivity (Child & Smith, 1987), and firm survival (Barr et al., 1992).

Second, few researchers using the cognitive lens perspective examined the learning processes in strategic change. Most of the researchers

who examined how actions reshape cognitions (Link 15) used primarily case studies (e.g., Child & Smith, 1987; Gaertner, 1989; Gioia & Chittipeddi, 1991; Greiner & Bhambri, 1989; Pettigrew, 1987; Webb & Dawson, 1991; Whipp et al., 1989). Link 16 (how cognitions are shaped by emerging strategic change) was examined only by Gaertner (1989), and Link 17 (how cognitions are shaped by unfolding organizational outcomes) was examined only by Barr and colleagues (1992).

General conclusions from the cognitive lens perspective. Overall, we find that the cognitive lens perspective is more theoretically developed than the rational lens or learning lens perspectives. It is explicitly focused on managerial cognitions as distinct from actions; this distinction is important because cognitions provide the underlying logic for managerial actions (Walsh, 1995). The cognitive lens perspective also shares some of the strengths of the learning lens perspective: Researchers who use it recognize the role of managerial actions (as they shape and are shaped by the context, cognitions, and content of changes in strategy); assume that strategic change is an iterative process, making explicit dynamic learning linkages; and, recognize the noneconomic outcomes of the strategic change process.

However, the cognitive lens perspective also has theoretical and methodological limitations similar to the learning lens perspective. First, researchers who exclusively used the cognitive perspective rarely distinguish *cognitions* and *actions* from the *changes* in the content of strategies, conceptually or empirically. Out of eight cognitive lens studies, only one researcher (Cook, 1975) measured changes in the content of strategy distinctly from managerial cognitions. However, this researcher did not measure managerial actions. Consequently, it is difficult to assess cause-effect relationships and distinguish appropriate from inappropriate cognitions and actions. Similar to those using the learning lens perspective, researchers using a cognitive perspective often draw conclusions from case studies without relying on well-defined constructs. Hence, it is difficult to make valid comparisons across studies and to build cumulative knowledge. Second, these researchers rely heavily on *retrospective* sense making of complex past processes, done either by themselves or by *single* informants within the organization. Thus, results may include attributional biases, memory lapses, and other problems stemming from the use of subjective, retrospective data. And third, researchers who use the cognitive perspective tend to not address economic outcomes of strategic change. As such, we are not able to assess the role of different cognitive processes and actions in economically successful strategic change processes. For these reasons, past studies grounded in the cognitive lens perspective provide little useful guidance for managers.

The preceding review highlights that the three perspectives have been divided by methodological as well as theoretical differences. Both of these gaps need to be bridged before we can exploit the underlying synergies of these perspectives. These gaps are addressed next.

INTEGRATING THE THREE PERSPECTIVES: METHODOLOGICAL ISSUES

In this section, we organize the methodological issues along a few key themes and provide guidance on how they might be addressed in future research.

Level of Analysis

Studies using the rational lens perspective typically measure environmental antecedents at an industry level and changes in strategy at the firm level, resulting in aggregation problems. In contrast, studies using the learning and cognitive perspectives typically measure variables at the level of the individual manager, and these are aggregated to the firm level. In order to bridge the gap between the different perspectives, it is necessary to measure both antecedent and change variables at the same level. Using the *individual firm* (rather than an industry or an individual manager) as the level of analysis could be a common ground across these perspectives. However, often archival data on environmental antecedents are often available only at an aggregate (e.g., industry) level and may not correspond to the environmental conditions that operate at the level of the individual firm. In order to address this aggregation problem (Boyd et al., 1993), researchers can operationalize environmental antecedents in terms of industry analysts' opinions (e.g., Tushman & Anderson, 1986) or use the judgments of researchers on the basis of their industry knowledge (e.g., Eisenhardt & Bourgeois, 1988).

Construct Definitions: Correspondence, Comparability, and Validity

Studies using the rational lens perspective often operationalize the same research construct (e.g., munificence) differently, including measures that may not correspond to the theoretical domain of the construct. In order to address this problem, researchers should use *multiple indicators* to gain a more holistic operationalization that is closer to the underlying research construct. For example, researchers examining the effects of munificence could use the multi-item measure created by Dess and Beard (1984). With respect to organizational antecedents, most of the organizational variables examined in strategic change research (e.g., firm size, age, prior performance, prior strategy, top management characteristics, and structure) are already well established in conceptual and empirical research. However, rarely do strategic change researchers draw upon these wider bodies of literature in order to justify their operational measures. We recommend that researchers employ well-validated (and commonly accepted) measures of organizational constructs in order to permit cumulative knowledge building.

In contrast to constructs in the rational lens studies, the constructs used in the learning and cognitive lens studies often result in comparability and validity problems stemming from idiosyncratic definitions in single-firm case studies. In defining organizational and environmental

antecedents as well as changes in the content of strategy, researchers can learn from the rational lens studies that generally provide more comparable operationalizations and checks for construct validity. In addition, when researchers measure cognitions and actions, it is vital that they use multiple respondents (and assess interrespondent reliabilities) before aggregating individual responses to the firm level.

Operational Measures of Managerial Cognitions and Actions

Our review indicates that in order to assess cause-effect relationships and provide normatively useful findings, researchers need to measure managerial cognitions and actions distinctly from changes in the content of strategy. Walsh (1995) took critical steps in developing a common language to represent managerial *cognitions* that can be readily accessed by strategic change researchers. In line with his approach, it appears that managerial cognitions in the strategic change process manifest themselves primarily along two dimensions: (a) perceptions of the environmental/organizational conditions and changes therein as opportunities and threats (Dutton & Jackson, 1987; Thomas et al., 1993) and (b) perceptions of the need for change and ability to change (Dutton & Duncan, 1987). These dimensions need to be further developed in order for researchers to operationalize managerial cognitions in the future.

Operationalizing managerial *actions* poses added challenges for strategic change researchers, because the theoretical domain of managerial actions is not well understood. We begin to address this issue by examining the managerial actions identified in our review and relating those actions to the relevant links in our framework. First, actions aimed at the *external environment* (Link 5) include (a) actions *that create a more focused agenda for change*, such as monitoring and scanning of the external environment, gathering and analyzing of information, forming of task forces, and hiring of consultants and (b) actions that *build environmental support* for the changes in strategy, such as negotiating with, providing feedback to, and lobbying external stakeholders.

Second, actions aimed at the *organization* (Link 7) include (a) actions that are focused on *creating an agenda for change*, including monitoring and scanning of the internal environment, gathering of information, and forming of task forces, and (b) actions that are focused on *reducing resistance to change* through coalition building, communicating, replacing key personnel, changing hiring criteria, and so forth. Third, actions that aim to shape the *content of the new strategy* (Link 8) include articulating a new vision (including objectives), analyzing and evaluating strategic alternatives, launching new strategic initiatives, changing resource allocations, and monitoring results. Although these descriptions provide a starting point for more specific operational measures, researchers can also draw upon the broader literature on strategy processes (e.g., Hart & Banbury, 1994; Nutt, 1986) in order to define the domain of managerial actions in strategic change.

Combining Managerial and External Frames of Reference

In order to bridge the gap between the content and process bodies of literature, both managerial and external frames of reference need to be reflected in researchers' choice of data sources and data collection methodologies. The work of Thomas and colleagues (1993) is exemplary in demonstrating how different data sources can be combined to obtain data from both managerial and external frames of reference. In this study, the authors used decision scenarios to capture interpretative processes of top managers and archival data sources to measure actual changes in the content of strategy and firm performance. As an alternative to decision scenarios, survey questionnaires and interviews can be used to provide "perceptual" measures of managerial cognitions and actions and noneconomic change outcomes (e.g., satisfaction and perceived quality of the change). Archival data sources (e.g., annual reports) can be used to provide "objective" measures of environmental and organizational conditions as well as the economic outcomes of change (Boyd et al., 1993). Furthermore, perceptual data can be obtained not only from managers within the firm but also from industry experts (e.g., Tushman & Anderson, 1986) and academics who are knowledgeable about the industry (e.g., Eisenhardt & Bourgeois, 1988). Research methods that appear to be particularly promising for combining managerial and external frames of reference include decision scenarios (Thomas et al., 1993), retrospective case histories (Glick, Huber, Miller, Doty, & Sutcliffe, 1990), and developmental event sequence methods (Van de Ven & Poole, 1990).

In summary, we believe that the key methodological problems dividing the content and process literatures can be readily addressed. At the risk of sounding rather bold, we think it is time for strategic change researchers to stop using methodology as an excuse for testing narrowly specified theoretical models. Rather, we argue that the key problem is the overspecialization of researchers that leads to the development and empirical testing of underspecified models of strategic change. As noted in our review, underspecified models manifest themselves in unmeasured variables, which in turn contribute to contradictions and unanswered questions. The field needs a more completely specified theoretical framework that builds on the synergy of the three perspectives and addresses the limitations identified in our review. Such a framework is discussed in the concluding part of the article, and a specific research agenda is presented.

INTEGRATING THE THREE PERSPECTIVES: A THEORETICAL FRAMEWORK

A key premise of the framework presented in Figure 4 is that the different theoretical assumptions and linkages underlying each perspective are not only reconcilable but that together they provide a more

comprehensive understanding of strategic change than any perspective by itself.

   Theoretical contributions. In the rational lens perspective, changes in strategy must match the requirements of a firm's external and internal context (Links 1 and 2) in order to be successful (Link 3). Thus, the rational lens perspective reflects a crucial aspect of the reality facing managers, namely, that changes in strategies must match the requirements of a firm's environmental and organizational contexts in order to be successful. However, when changes in strategy do not match the requirements of the context or do not lead to positive organizational outcomes (economic and/or noneconomic) the rational lens perspective is of little help. This perspective does not help researchers diagnose *why* maladaptive responses result and *how* firms can improve their adaptive responses. The learning and cognitive lens perspectives provide value to the rational lens perspective, because they help researchers to understand (a) *why* different firms respond differently to a similar context (because of different cognitions and actions) and (b) *how* firms can maximize the effectiveness of their adaptive responses (through different managerial actions aimed at the environment and/or the organization).

FIGURE 4
Strategic Change: A Multi-Lens Framework

Direct Links   ———▶

Learning Links   - - - - - - - - ▶
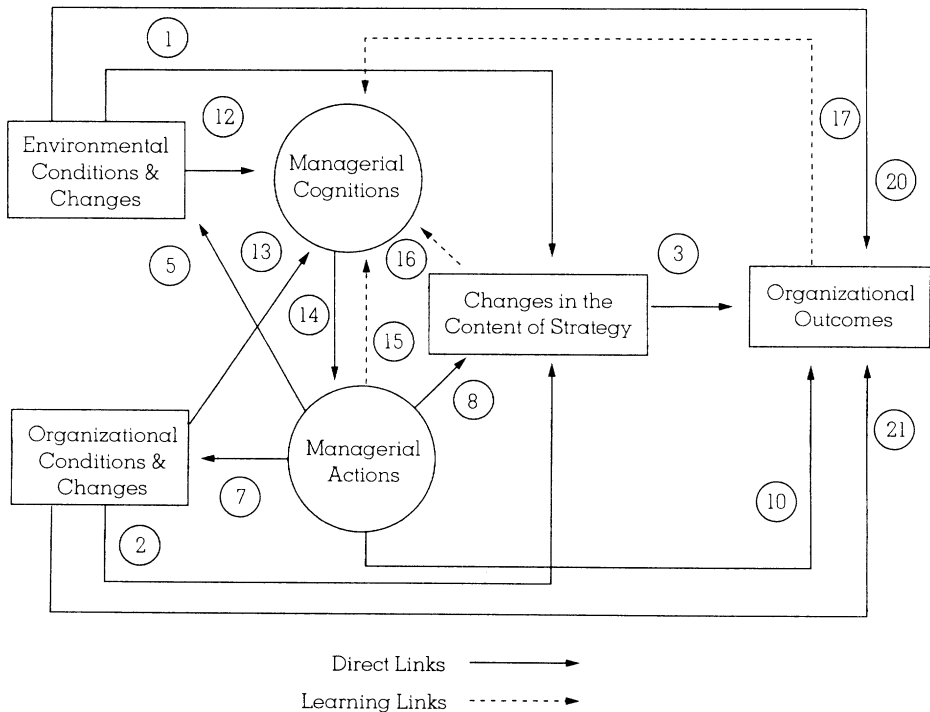
The cognitive lens perspective indicates that gaps between "objective reality" and managerial cognitions (Links 12 and 13) can result in firms choosing not to change their strategies and/or making inappropriate choices that may ultimately lead to organizational decline. These managerial cognitions form the theoretical basis for the managerial actions (Link 14) emphasized in the learning lens perspective. Furthermore, the learning lens perspective is used to identify the crucial role played by managerial actions in creating an organizational (Link 7) and environmental (Link 5) context, which is more conducive to the context of the firm's new strategies (Link 8) and thus maximizes the likelihood that implementation of the strategic change is effective (Link 10). Although the rational lens perspective is used to link changes in the content of strategy alone to organizational outcomes (Link 3), we draw upon the learning and cognitive lens perspective to highlight that the effectiveness of such changes in the content of strategy may also depend on the environmental (Link 20) and organizational (Link 21) changes that precede or accompany changes in strategy.[1] Finally, in our integrative framework, we draw on the learning and cognitive lens perspective to identify how managers learn during the strategic change process. Managerial learning occurs in a continuous reshaping of cognitions as changes in strategy are implemented (Link 16), as organizational outcomes begin to emerge (Link 17), and as managers make sense of the effects of their actions (e.g., bargaining, negotiating, and coalition building) (Link 15). These learning links are crucial because they not only affect outcomes during a discrete change process, but they also affect the future adaptive capability of the organization.[2]

We exploit the theoretical synergy of the three perspectives through the integrative framework, and we also address the key theoretical limitations of each perspective. First, in the rational lens perspective, the role of managerial cognitions and actions is not recognized, limiting our understanding of the *antecedents* of strategic change. Second, according to the rational lens perspective, organizational outcomes are attributed mainly to changes in the content of strategy, and how the outcomes may

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[1]Links 20 and 21 were not identified previously in our review of the learning and cognitive lens perspectives, because studies using these perspectives did not separate the organizational and environmental changes that occurred during the process of strategic change from the broad pattern of managerial actions.

[2]Several less theoretically defensible links from the three perspectives are excluded from the integrative framework. The direct effects of the environment and organization on managerial actions (Links 4 and 6) are now subsumed within Links 12, 13, and 14 (the underlying assumption is that actions are primarily shaped through perceptions of the context). Similarly, Links 9 and 11 are assumed to operate via Links 16 and 17 (the underlying assumption is that cognitive learning is more fundamental than learning at an action level). Links 18 and 19 (the direct links between cognitions and changes in the content of strategy and outcomes) are captured more appropriately through intervening managerial actions (Links 14, 8, 10).

be affected by the accompanying organizational/environmental changes is ignored. This second limitation hampers our understanding of the *consequences* of strategic change. We draw on the contributions of the learning and cognitive lens perspectives for recognizing the role of managerial cognitions and actions, and thus our theoretical framework provides a more accurate theoretical description of the antecedents and consequences of changes in the content of strategies.

Third, in spite of acknowledging the theoretical importance of managerial processes, researchers who use the learning and cognitive lens perspective do not *conceptually* distinguish among managerial cognitions, actions, and the actual changes in the *content* of strategy. This hampers both the descriptive validity and the normative usefulness of these two perspectives. By explicitly separating these concepts and identifying their theoretical relationships in the integrative framework, we provide greater conceptual clarity. This conceptual clarity is a prerequisite for empirically identifying cause-effect relationships and providing guidance for research designs that are rigorous and replicable. Fourth, in the learning and cognitive perspectives, changes in strategy are related primarily to managerial cognitions/actions with little focus on the *appropriateness* of these managerial processes given the organizational and environmental contexts. However, if we assume that changes are totally controlled by purposive individual actions and unconstrained by structural forces in the environment, only utopian theory can result. In our integrative framework, we overcome this limitation of the learning and cognitive lens perspective by including the direct effects of the environment and the organization on changes in strategy. In summary, in our framework, we emphasize the need to employ more completely specified theoretical models for studying both the antecedents and consequences of strategic change. Based on this framework, we present two research questions that meld the content and process schools of thought.

> *Research Question 1: To what extent are variations in changes in the* content *of strategy explained by variations in* organizational *and* environmental *antecedents and variations in managerial cognitions and managerial actions?*

A key unresolved issue in strategic change is: When do the pressures that stimulate the need for change outweigh the inertial forces that dampen the need for change? Research Question 1 is focused on Links 1 and 2 (how environmental/organizational antecedents shape changes in strategy), Links 12 and 13 (how environmental/organizational antecedents shape cognitions), Link 14 (how cognitions shape actions) and Link 8 (how actions shape changes in strategy) in the integrative framework. We believe that a deeper understanding of the role of managerial cognitions and actions in filtering the context of change (through simultaneously examining these links) will help address this unresolved issue in the

literature on strategic change. Variations in changes in the content of strategy reflect not only variations in contextual conditions (a rational lens assumption) but also variations in managerial cognitions and actions (assumptions of the cognitive and learning lenses). When managers do not sense environmental changes, they neglect to monitor the organization/environment context and analyze contextual information. Such actions are critical in reducing the uncertainty of the context in order to shape a specific agenda for change. These actions (or their absence) can affect the likelihood, the direction, and the magnitude of the actual changes in the content of strategies.

> Research Question 2: To what extent are variations in organizational outcomes (economic and noneconomic) explained by variations in changes in the content of strategies, managerial actions, and changes in organizational and environmental conditions that occur during the strategic change process?

A second contradiction from our review of rational lens studies was that changes in the content of strategies enhanced performance in some firms but impaired performance in others. In our integrative framework, we highlight three critical sets of managerial processes that influence the performance effects of changes in strategies. First, managerial actions aimed at organizational inertia during the change process (Link 7) can mitigate an organization's resistance to change and ensure that changes in strategy are implemented effectively. Second, managerial actions aimed at building environmental support (Link 5) can serve to effectively enhance the range of options available to the organization, provide critical resources, and increase the likelihood that the change will be accepted by environmental stakeholders. And third, managers who learn from initial problems as strategic change is being implemented and then use this learning to modify subsequent actions and cognitions (Links 15, 16, and 17) are more likely to make choices that result in positive economic and noneconomic organizational outcomes. These managerial processes are likely to be reflected in specific changes in organizational and environmental conditions during the strategic change process. These changes, in turn, are likely to influence the effectiveness of the change process (Links 20 and 21).

These two research questions provide an agenda for future strategic change research that will be both descriptively valid and normatively useful (Van de Ven & Huber, 1990). Testing the integrative framework will undoubtedly pose several methodological challenges for researchers, but our earlier discussion highlights that these challenges can be overcome through creative research designs. In sum, researchers need to recognize that research questions should drive their choice of research methods; research methods should not dictate their choice of questions.

CONCLUSION

For several decades, theoretical and empirical research in strategic change has reflected a clear divide along the content and process schools with very little effort at a productive synthesis. This divide has been sustained by assumptions that the theoretical and methodological differences across these two schools are insurmountable. Our approach has been to question the veridicality of these assumptions by adopting a multi-lens approach to past work. This multi-lens approach is used to conduct a rigorous review of both schools of thought and to identify underlying theoretical synergies and limitations. In our review we make sense of a widely scattered empirical literature, and we also question the accumulated knowledge and push toward building an even more rigorous and relevant research program in strategic change. This research program is grounded in a multi-lens framework, which enables us to identify the specific theoretical and methodological challenges ahead for strategic change researchers. We also offer researchers several specific directions and avenues for attaining these challenges.

In conclusion, we make several contributions to the strategic change literature. First, we make a widely scattered empirical literature much more available and tractable to scholars, because in our review we clearly identify the domain of the phenomenon of strategic change and the major theoretical links contained within it. As a result, we can identify areas and issues that have either been ignored or only partially addressed in prior research. Second, we address the key methodological issues contributing to the divide between these schools. Third, we provide researchers with an integrative theoretical framework and specific research questions that directly identify a research agenda for the future. The researchers who take the next steps in understanding strategic change should now have a better understanding of the ways in which they can advance the knowledge on strategic change. We hope that these contributions will be reflected in future research, in which theoretical richness and methodological rigor are combined.

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APPENDIX

Our review includes all empirical studies on strategic change from more than 20 leading academic management journals covering the period 1980 through 1994. Our classification scheme captures the similarities (theoretical and methodological) across studies that are included within one perspective. We first classified the studies according to the three theoretical perspectives, using the following criteria. If strategic change was conceptualized as a unitary concept (i.e., a change in the content of strategy), the study was classified under the rational lens perspective; if a change in strategy was conceptualized in a nonunitary way, as a combination of changes in the content of strategy and organizational/environmental conditions, then the study was classified under the learning lens perspective. Finally, those studies in which the managerial cognitions or knowledge structures in the strategic change process were explicitly operationalized were classified under the cognitive lens perspective. Although most studies could be cleanly classified under one perspective, several studies included multiple perspectives for understanding strategic change and were classified separately as multi-lens studies (in all multi-lens studies, the learning and cognitive lens perspectives were combined, with two exceptions; Ginsberg and Abrahamson (1991) combined rational and cognitive perspectives and Thomas and colleagues (1993) used all three perspectives). Once classified according to a theoretical lens, the studies were further codified as follows: (a) the specific linkages from the framework that were examined empirically in the study; (b) the definitions of any environmental and/or organizational contextual variables reported in the study; (c) operationalization of changes in the content of strategy (where explicit); (d) definitions of managerial action(s) examined, if explicit; (e) definitions of managerial cognition(s) examined, if explicit; (f) the definitions of outcome variables(s) (i.e., economic and/or noneconomic); (g) details of the sample, including sample size and time period; and (h) the data analysis methods employed. Although the detailed classification of the 59 studies along these 8 dimensions can be obtained from the authors, below we provide the list of studies included within each of the 4 perspectives to facilitate our discussion in the text.

1. Rational Lens Studies: Goodstein, Gautam, & Boeker (1994); Bethel & Liebeskind (1993); Gibbs (1993); Grimm, Corsi, & Smith (1993); McCutchen (1993); Wiersema & Bantel (1993); Zajac & Kraatz (1993); Haveman (1992); Hoskisson & Johnson (1992); Wiersema & Bantel (1992); Wiersema (1992); Corsi, Grimm, Smith, & Smith (1991); Goodstein & Boeker (1991); Grimm & Smith (1991); Kelly & Amburgey (1991); Fombrun & Ginsberg (1990); Ginn (1990); Ginsberg & Buccholtz (1990); Boeker (1989); Zajac & Shortell (1989); Smith & Grimm (1987); Singh, House, & Tucker (1986); Birnbaum (1984); Hambrick & Schechter (1983); Oster (1982); Harrigan (1981); Jauch, Osborne, & Glueck (1980); Graham & Richards (1979).

2. Learning Lens Studies: Gersick (1994); Simons (1994); Yetton, Johnston, & Craig (1994); Johnson, Hoskisson, & Hitt (1993); Huff, Huff, & Thomas (1992); Lant & Mezias (1992); Calori & Atamer (1990); Meyer, Brooks, & Goes (1990); Nutt (1987); Mintzberg & McHugh (1985); Tushman, Virany & Romanelli (1985); Mintzberg & Waters (1982); Miller & Friesen (1980a); Miller & Friesen (1980b); Schendel, Patton, & Ribbs (1976).

3. Cognitive Lens Studies: Gioia & Chittipeddi (1991); Webb & Dawson (1991); Gaertner (1989); Whipp, Rosenfeld, & Pettigrew (1989); Child & Smith (1987); Pettigrew (1987); Smart & Vertinsky (1984); Cook (1975).

4. Multi-lens Studies: Thomas, Clark, & Gioia (1993); Barr, Stimpert, & Huff (1992); Lant, Milliken, & Batra (1992); Ginsberg & Abrahamson (1991); Grinyer & McKiernan (1990); Greiner & Bhambri (1989); Koberg (1987); Meyer (1982).