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

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ABSTRACT

We provide a comprehensive review of the strategic change literature from 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 methodologies employed. The first school, the “content” school, focuses 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, the second school, the “process” school, focuses 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).

While 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 our understanding of strategic change. After two decades of research, perhaps the most telling effects of the divide are a set of contradictory findings, highlighted below, 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) while others do not (e.g., Goodstein & Boeker, 1991). This apparent contradiction begs the 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 while 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 our understanding of strategic change. Instead, we need an overarching theoretical framework which integrates the process and content schools of thought in order to take stock of the current body of knowledge and 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 lenses: the rational, learning, and cognitive lenses. We identify key theoretical linkages, empirical conclusions, and overall strengths and weaknesses of each lens. We provide guidance on the key methodological issues pertinent to the study of strategic change. Integrating the contributions of the three lenses, we then develop a framework that represents a promising beginning towards building a theory of strategic change. Finally, we discuss the theoretical contributions of the integrative framework, and offer two questions which 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 which 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 three distinct theoretical lenses: the rational, learning, and cognitive lenses. In general, the rational lens captures the theoretical models implicit in the “content” school while the learning and cognitive lens are found primarily in the “process” school of strategic change. Furthermore, while these three lenses 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 lenses include changes in the content of strategy within the scope of strategic change; furthermore, the learning and cognitive lenses broaden their definition to 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 the three lenses and reflect upon key theoretical and methodological differences across the lenses. The Appendix provides a brief description of our classification process and the list of empirical studies classified within each of the theoretical lenses reviewed in the next section.

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

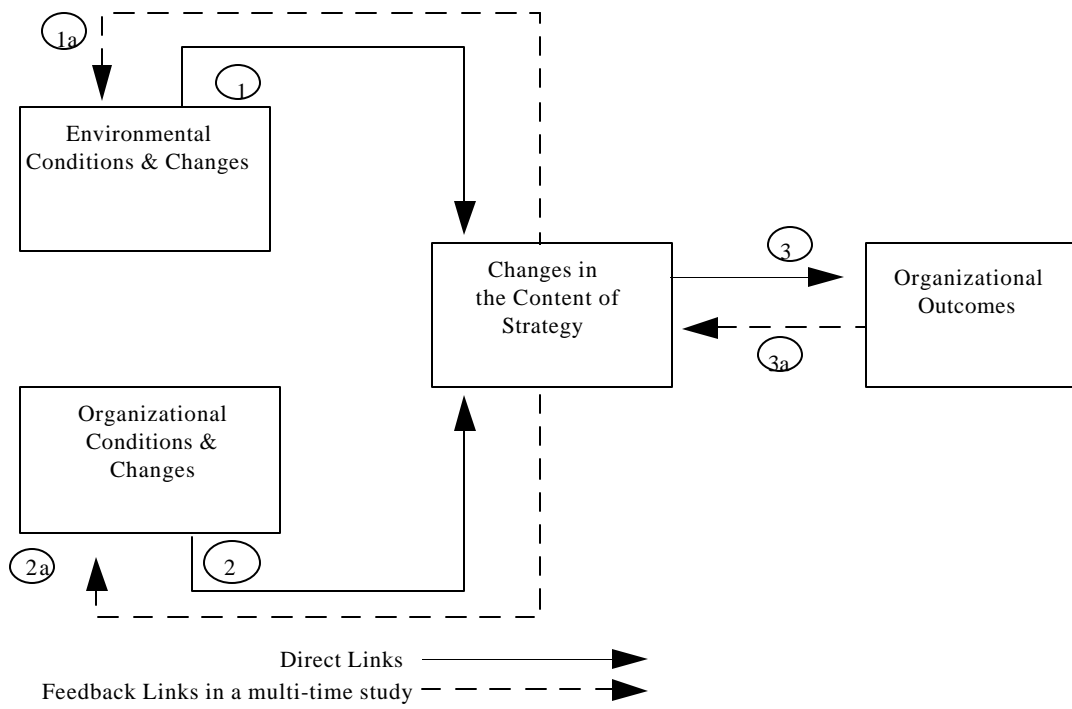
Strategic change as modeled in the rational lens is shown in Figure 1. It is a sequential, planned search for optimal solutions for well-defined problems (Ansoff, 1965; Mintzberg, 1990a) based on *previously* defined firm objectives. Rational managers optimize performance by establishing a fit between 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 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" which inhibit change, and factors contributing to flexibility are considered "strengths" which support the need for change (link 2). The rational perspective suggests that firms change strategies mainly to improve their economic performance (link 3). Finally, Links 1a, 2a and 3a reflect feedback links which are examined in longitudinal studies. The twenty-eight studies classified within the rational lens (see Appendix) are reviewed below.

Figure 1

Strategic Change: A Rational Lens



Environmental Context and Changes in the Content of Strategies. Our review of link 1 studies focuses on those environmental variables (munificence, uncertainty, and specific shifts such as deregulation) which have been examined in more than one study so that comparisons can be made. The relationship between munificence and changes in the content of strategies is ambiguous. While some studies found that munificence led to higher magnitude changes in strategies (Wiersema & Bantel, 1993; Ginsberg & Buchholtz, 1990), other studies 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 has 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 changes in magnitude (Goodstein & Boeker, 1991; Ginsberg & Buchholtz, 1990).

The effects of uncertainty or instability are also mixed. While Wiersema & Bantel (1993) found that instability led to a higher magnitude of changes in corporate level strategies, Fombrun & Ginsberg

(1990) found a curvilinear relationship between volatility and changes in corporate aggressiveness. Using a multi-dimensional 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. Several studies found that deregulation or specific regulatory changes were positively related to changes in firm strategies (Corsi, Grimm, Smith & Smith, 1991; Ginsberg & Buchholtz, 1990; Ginn, 1990; Goodstein & Boeker, 1991; Haveman, 1992; Smith & Grimm, 1987; Zajac & Shortell, 1989). In response to deregulation, these studies 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 which 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. Like the findings on link 1, the numerous studies that examine link 2 also have equivocal findings. We focus our review on variables which 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. Some studies found that size had positive effects on the changes in business level strategies (Birnbaum, 1984; Zajac & Kraatz, 1993), while others found more 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 others found no effects at either the corporate or business levels (Kelly & Amburgey, 1991; Ginn, 1990; McCutchen, 1993).

Similar ambiguous effects are also evident for firm age. Age increased the magnitude of change (Boeker, 1989) and likelihood of change (Singh, et al., 1986) in some studies, but decreased the likelihood of change (Kelly & Amburgey, 1991), and increased the time taken to change strategies in others (Ginsberg & Buchholtz, 1990). Zajac and Kraatz (1993) found mixed effects for age depending upon 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, timing), different research designs, and different control variables (e.g., prior performance, age, and ownership structures).

Similar contradictions are also evident in the findings on past performance. Some studies found no effects of past performance: Grimm, et al., (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 studies found that poor past performance was related to larger magnitude of changes in business level strategies (Boeker, 1989; Graham & Richards, 1979; Zajac & Kraatz, 1993). Another found a curvilinear relationship between past performance and changes in corporate aggressiveness (Fombrun &

Ginsberg, 1990). In addition to the methodological reasons noted above 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 are 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 towards more innovative and more focused strategies if their prior strategies were less innovative and less focused. However, where the prior strategy was embedded in the firm since its founding (Boeker, 1989) or was associated with major resource commitments (Fombrun & Ginsberg, 1990), it significantly reduced the magnitude of subsequent changes.

Studies on top management characteristics also have more consistent findings. While 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 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 on 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 Liebeskind (1993) found that increases in outsider ownership increased the likelihood of strategic change, but 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, et al. (1993) found no relationship between ownership structures and changes in strategy.

Strategic Change and Organizational Outcomes. Except for one study which examined a non-economic outcome (Wiersema & Bantel (1993) examined TMT turnover), rational lens studies have focused almost exclusively on financial performance (measures included operating ratio, ROA, ROI, 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, link 3 findings are 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 another set of studies found either no relationship (Zajac & Shortell, 1989; Kelly & Amburgey, 1991) or mixed relationships (Smith & Grimm, 1987) 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 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 studies 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 only be captured 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 due to the narrow definition of strategic change (i.e., changes in the content of strategy alone).

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

In spite of these strengths, the rational lens has provided little cumulative knowledge on strategic change due to both theoretical and methodological problems. From a theoretical perspective, the contradictions identified in our review may stem from under-specified models. First, the rational lens 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, most studies within this lens conceptualized strategic change as a unitary concept (i.e., operationalizing change solely in terms of the magnitude, likelihood, or direction of changes in the content of strategy) and then attempted to link those changes 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, 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 lens 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 lens offers little guidance to managers seeking to intervene in the change process to enhance effectiveness.

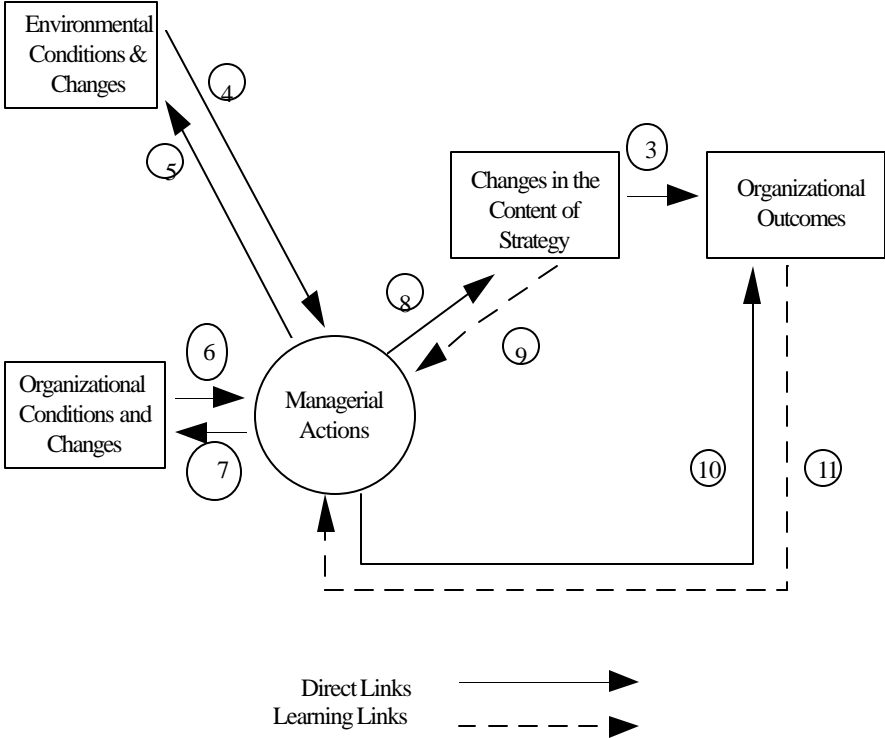
Three methodological problems also plague rational lens studies. First, while rational lens studies make explicit their definitions of research constructs, there is little agreement on the specific operationalizations of environmental/organizational antecedents or changes in the content of strategies. For example, while some studies measured only the likelihood of change, others measured the direction and the magnitude of change. As noted by Boyd, et al., (1993), theoretically valid relationships may not be supported by empirical data due to 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 in this lens suffers from aggregation problems (Boyd, et al., 1993). Most studies measured environmental conditions at an industry level while changes in strategy were measured at a firm level. Because environmental effects are not likely to impact 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 in understanding the performance outcomes of strategic change because firm performance can be affected by various extraneous forces which are not always controlled for across studies. The learning lens, discussed next, begins to address some of the theoretical limitations of the rational lens, but also brings new methodological problems.

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

In contrast to the rational lens, the learning lens views strategic change 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, the learning lens accords a central role to managerial actions in the strategic change process as modeled in Figure 2.

Figure 2
Strategic Change: A Learning Lens



Other features of the learning lens are also different from the rational lens. First, strategic change is defined as the combination of changes in the content of strategy (like the rational lens) 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, the learning lens adopts a more holistic definition of strategic change than the rational lens.

Second, the environmental/organizational context, rather than being objectively determined as in the rational lens, 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 such things as 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 which 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 not viewed 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, outcomes (both economic and non-economic) follow not only from changes to the content of strategy (link 3) but also directly from managerial actions (link 10).

The fifteen studies grounded in the learning lens are identified in the Appendix and reviewed below. In addition, of the eight multi-lens studies classified in the Appendix, seven studies employed a learning lens in conjunction with other lenses; findings on links relevant to the learning lens are discussed here as well. In the learning lens, 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 (Tushman, Virany, & Romanelli, 1985; Lant, Milliken & Batra, 1992). However, very few studies 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 (Huff, Huff, & Thomas, 1992; Grinyer & McKiernan, 1990) and declining demand (Schendel, Patton, & Riggs, 1976) as well as changes in overall environmental conditions such as environmental volatility/dynamism (Lant, et al., 1992; Miller & Friesen, 1980a; 1980b) 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), information gathering (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 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 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, namely, when faced with the same environmental change, some organizations respond by changing their strategies and others do not. However, these conclusions are tentative because most studies employed idiosyncratic definitions of environmental variables and managerial actions. In addition, many of the studies which examined link 4 were case studies, hindering 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 used 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 remain largely unexplored.

Organizational Context and Managerial Actions. The findings on link 6 (the effect of organizational conditions on managerial actions) parallel the findings on environment. Changes in organizational conditions (e.g., declining performance, leadership changes) affect managerial actions such as information gathering (Simons, 1994), monitoring (Gersick, 1994; Huff, et al., 1992), and using internal task forces (Miller & Friesen, 1980a; 1980b). However, each study used different operationalizations of managerial actions, most used limited samples, and few studies examined 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) has also been dominated by inductive theory building using 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; 1980b; Mintzberg & McHugh, 1985; Mintzberg & Waters, 1982; Nutt, 1987; Tushman, et al., 1985; Yetton, et al., 1994). Furthermore, organizational changes are more widespread in "transformational" than 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 studies which examined links 8 and 9 (the relationships between managerial actions and changes in the content of strategy) inferred changes in the content of strategy from managerial actions. Of the fifteen learning lens studies identified in our review, only five provided explicit definitions of changes in the content of strategy as distinct from managerial actions (Miller & Friesen, 1980a; 1980b; Nutt, 1987; Schendel, et al., 1976; Tushman, et al., 1985). Furthermore, while link 8 was examined (implicitly or explicitly) in all learning lens studies, many (e.g., Gersick, 1994; Simons, 1994; Yetton, et al., 1994; Calori & Atamer, 1990; Meyer, et al., 1990; Mintzberg & McHugh, 1985; Mintzberg & Waters, 1982) were case studies with varying definitions of research constructs. Even the studies which 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 multi-lens studies which examined 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 above, two tentative conclusions are all that 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 on [link 9](#) (how managerial actions are influenced by changes in strategy in an on-going process) are even more tenuous. Most of the studies which examined this link were case studies (Gersick, 1994; Simons, 1994; Yetton, et al., 1994; Meyer, et al., 1990, Mintzberg & McHugh, 1985; Mintzberg & Waters, 1982) and employed 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 have examined [link 9](#).

Strategic Change, Organizational Outcomes, and Learning Links. In contrast to the rational lens, 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 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; 1980b; Nutt, 1987; Schendel, et al., 1976; Simons, 1994). Furthermore, four studies within the learning lens also attempted to relate strategic change to non-economic 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 each study examined a different non-economic outcome variable, we are unable to draw any generalizable conclusions on how strategic change affects non-economic outcomes. Finally, the reciprocal learning link between outcomes and managerial actions ([link 11](#)) has received virtually no research attention (the two exceptions are Meyer, 1982 and Barr, et al., 1992).

General Conclusions from the Learning Lens. The theoretical strengths of the learning lens are complementary to the rational lens. First, the learning lens provides 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 adopt a more holistic definition of strategic change, they are able to identify the interdependencies between environmental, organizational, and strategic factors in the strategic change process. Thus, we 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 studies begin to theoretically, and to a lesser extent empirically, address the issue of how managers learn during on-going strategic change. It may be that successful strategic changes are characterized by different learning processes than the less successful strategic changes.

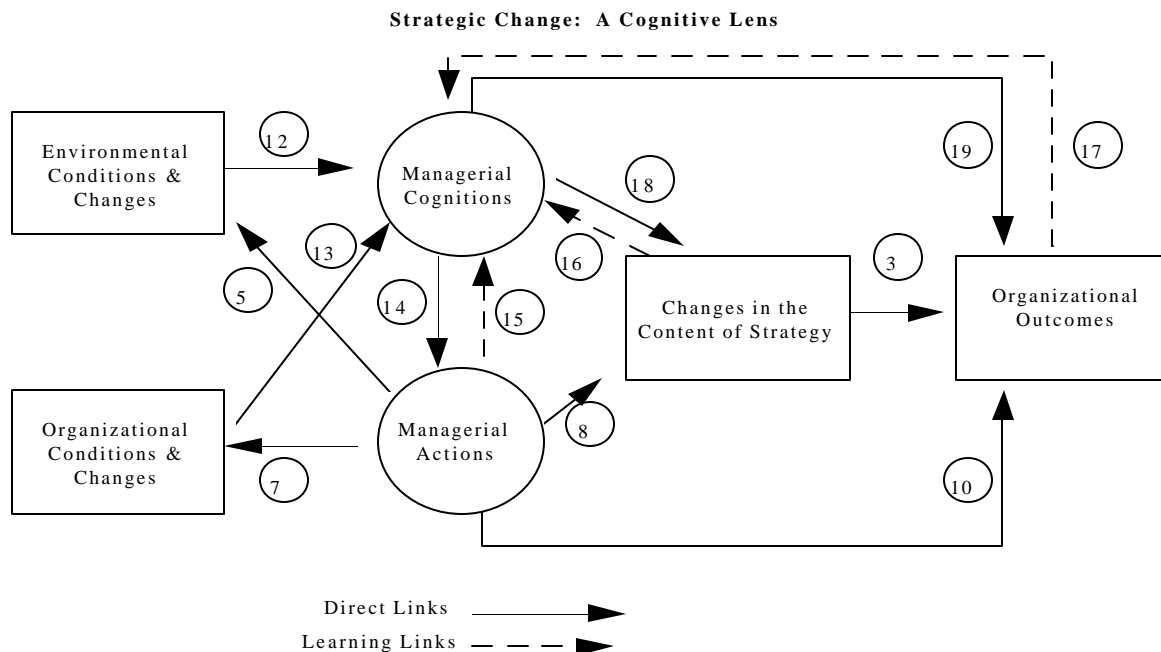
Yet, studies evoking the learning lens have their own set of theoretical and methodological problems. The major theoretical limitation of the learning lens is the lack of conceptual distinction between managerial actions and changes in the content of strategies. In effect, this lens treats managerial actions as both the means and the end in the strategic change process. While consistent with the descriptive nature of the learning lens, an inability to separate actions from changes in content of strategy constrains the normative usefulness of the lens because neither can cause-effect relationships be identified nor can appropriate actions be distinguished from inappropriate actions.

Several methodological problems can also be identified. First, it is difficult to generalize across studies because they do not employ well-defined constructs, particularly with regard to managerial actions. It is often difficult to distinguish managerial actions which influence the environment (link 5) and the organization (link 7) from those aimed at the content of strategies (link 8). Furthermore, most of these studies infer changes in the content of strategy from managerial actions and do not empirically distinguish between these two constructs. 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 our ability to accumulate knowledge across studies. And third, while several studies do include the non-economic outcomes neglected by the rational lens, the findings are again limited due to the varying types of outcomes examined in each study. The cognitive lens, described next, adds yet another theoretical component (i.e., managerial cognitions) to the rational and learning lenses but shares several of the methodological limitations of the learning lens.

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

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

Figure 3



Within the cognitive lens, the learning lens' definition of strategic change (i.e., a combination of changes in the content of strategy as well as accompanying organizational and environmental conditions) is generally employed. Most studies, however, link cognitions to managerial actions (link 14) and infer strategic change 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, cognitive lens studies rarely make explicit their operationalizations of changes in the content of strategy, instead inferring such changes from managerial actions and cognitions

A key assumption of the cognitive lens is that the environment cannot be objectively determined but instead is enacted by managers and represented through cognitions (link 12) (Johnson, 1992). Likewise, the organizational context is assumed to be a source of information which 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 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 the learning lens, 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 non-economic 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. Figure 3 also includes 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 order to incorporate some studies (Cook, 1975; Gaertner, 1989; Thomas, Clark, & Gioia, 1993) which have examined these links; however, these links are difficult to defend theoretically because cognitions translate into outcomes only through intervening actions.

The eight studies employing primarily a cognitive lens are identified in the Appendix and are reviewed below. Eight other studies examined the cognitive lens in conjunction with the other two lenses (see Appendix). Empirical work within this lens is more recent and less extensive than the other two lenses; the empirical challenges posed by this lens' theoretical complexity may explain the paucity of empirical research.

Environmental Context and Managerial Cognitions. While several studies examined [link 12](#) (the influence of the environment on managerial cognitions), most were case studies which 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 these studies indicated that strategic change occurs when changes in environment conditions are accompanied by major changes in top managers' cognitions. Studies which 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; relating changes in strategies directly to environmental conditions ignores the crucial intervening effects of managerial cognitions.

Organizational Context and Managerial Cognitions. While a variety of organizational antecedents to managerial cognitions have been examined in prior research ([link 13](#)), most studies focused on two variables: past performance and top management characteristics (including prior mental models, changes in team composition and information seeking behaviors). Several studies (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 were case studies of firms which faced severe performance declines, making it difficult to generalize these findings to firms with less severe declines. Other studies found that changes in the composition of the top management team 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, et al., (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 studies found that managerial interpretations of organizational factors played a critical role in explaining subsequent managerial actions ([link 14](#)). Barr, et al., (1992) and Lant, et al., (1992) found that when managers attributed performance declines to internal factors (such as poor strategy), they were more likely to initiate strategic change. Other case studies (Child & Smith, 1987; Pettigrew, 1987; Webb

& Dawson, 1991) also found that transformational strategic changes were more likely than 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 studies also highlight 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 in 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 (Gioia & Chittipeddi, 1991; Whipp, et al., 1989) examined [link 5](#) (i.e., how managers attempt to influence environmental conditions during strategic change through actions such as negotiations with external stakeholders). Clearly, our 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 focused on the relationship between strategic change and organizational outcomes. First, few studies (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 were case studies and utilized varying definitions of cognitions, actions, and outcomes, our ability to identify generalizable patterns regarding economic and non-economic outcomes is limited. While each study used a different definition of cognitions, they also each used a different definition of outcomes: profitability (Thomas, et al., 1993; Whipp, et al., 1989), employee productivity (Child & Smith, 1987), and firm survival (Barr, et al., 1992).

Second, few cognitive lens studies examined the learning processes in strategic change. Most of the studies which examined how actions re-shape cognitions ([link 15](#)) were 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, et al., (1992).

General Conclusions on the Cognitive Lens. Overall, our review finds that the cognitive lens is more theoretically developed than the previous lenses. It explicitly focuses 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 also shares some of the strengths of the learning lens: it recognizes the role of managerial actions (as they shape and are shaped by the context, cognitions, and content of changes in strategy); it assumes that strategic change is an iterative process, making explicit dynamic learning linkages; and, it recognizes the non-economic outcomes of the strategic change process.

However, the cognitive lens also has theoretical and methodological limitations similar to the learning lens. First, studies which exclusively use the cognitive lens rarely distinguish cognitions and actions from the changes in the content of strategies, conceptually or empirically. Out of eight cognitive lens

studies, only one (Cook, 1975) measured changes in the content of strategy distinctly from managerial cognitions. However, this study did not measure managerial actions. Consequently, it is difficult to assess cause-effect relationships and distinguish appropriate from inappropriate cognitions and actions. Similar to the learning lens studies, research from a cognitive perspective often draws conclusions from case studies without relying on well-defined constructs. Hence, it is difficult to make valid comparisons across studies and build cumulative knowledge. Second, studies rely heavily on retrospective sensemaking of complex past processes, either by the researchers or single informants within the organization. Thus, results may suffer from attributional biases, memory lapses, and other problems stemming from the use of subjective, retrospective data. And third, the studies classified within the cognitive lens do not tend to 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 provide little useful guidance to managers.

The preceding review highlights that the three lenses 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 lenses. These gaps are addressed next.

INTEGRATING THE THREE LENSES: 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

Rational lens studies typically measure environmental antecedents at an industry level and changes in strategy at the firm level resulting in aggregation problems. In contrast, learning and cognitive lenses typically measure variables at the level of the individual manager and aggregate these to the firm level. In order to bridge the gap between the different lenses, 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 lenses. However, often archival data on environmental antecedents are 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

Rational lens studies often operationalize the same research construct (e.g., munificence) differently, using measures which may not correspond to the theoretical domain of the construct. In order to address this problem future research should use multiple indicators to get a more holistic operationalization which 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) have a well-established conceptual and empirical research tradition.

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 rational lens studies, the constructs used in the learning and cognitive lens studies often suffer from problems of comparability and validity 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 which generally provide more comparable operationalizations and checks for construct validity. In addition, in measuring cognitions and actions, it is vital that multiple respondents are used (and inter-respondent reliabilities assessed) before individual responses are aggregated 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) has taken critical steps in developing a common language to represent managerial cognitions which can be readily accessed by strategic change researchers. Building on 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 to operationalize managerial cognitions in future research.

Operationalizing managerial actions poses added challenges to 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/scanning, information gathering and analyzing, 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 which focus on *creating an agenda for change* including monitoring/scanning of the internal environment, information gathering, and forming of task forces and (b) actions which are focused on *reducing resistance to change* through coalition building, communicating, replacing key personnel and changing hiring criteria, etc. Third, actions that aim to shape the content of the new strategy (link 8) include the articulation of a new vision (including objectives), strategic analysis and evaluation of alternatives, launching new strategic initiatives, changing resource allocations, and monitoring results. While 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. Thomas, et al., (1993) is exemplary in demonstrating how different data sources can be combined to obtain data from both managerial and external frames of reference. This study 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 non-economic 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 industry experts (e.g., Tushman & Anderson, 1986) and academics knowledgeable about the industry (e.g., Eisenhardt & Bourgeois, 1988). Research methods that appear to be particularly promising in 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, our discussion indicates 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 which builds on the synergy of the three lenses and addresses the limitations identified in our review. Such a framework is discussed in the concluding part of the paper, and a specific research agenda is presented.

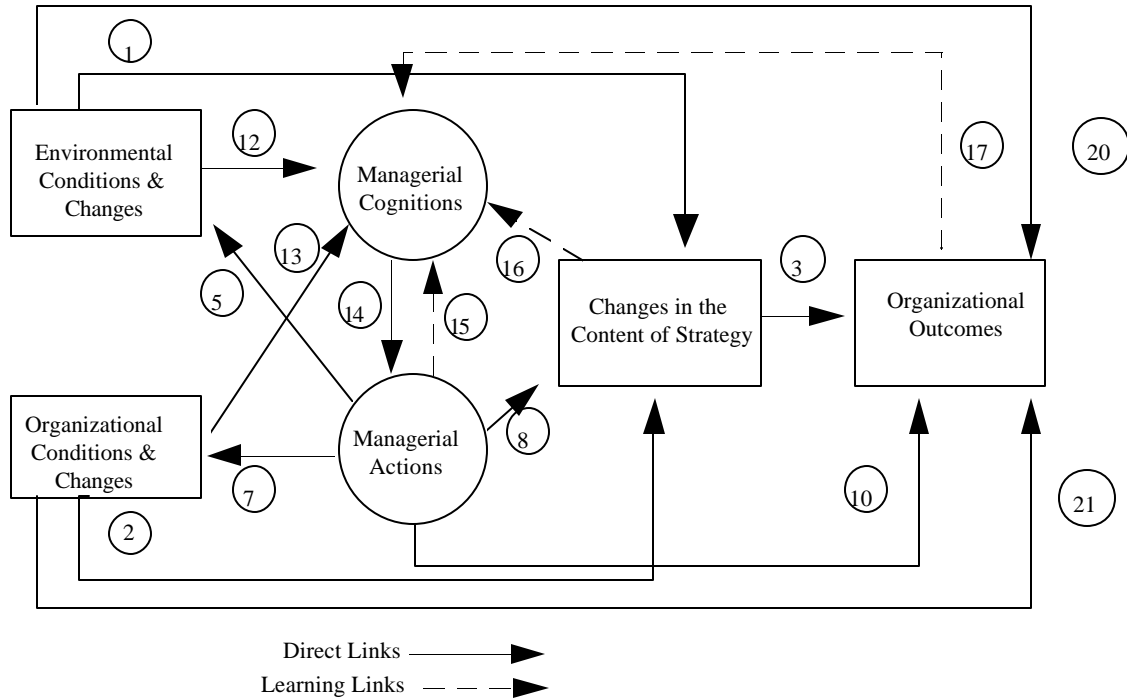
INTEGRATING THE THREE LENSES: THEORETICAL FRAMEWORK

A key premise of the framework presented in Figure 1 is that the different theoretical assumptions and linkages underlying each lens are not only reconcilable, but that together they provide a more comprehensive understanding of strategic change than any lens by itself.

Theoretical contributions. The rational lens emphasizes that 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 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 non-economic) the rational lens is of little help in diagnosing why maladaptive responses result and how firms can improve their adaptive responses. The learning and cognitive lenses provide value to the rational lens because they help us understand (1) why different firms respond differently to a similar context (because of different cognitions and actions) and (2) 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



The cognitive lens 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 which may ultimately lead to organizational decline. These managerial cognitions form the theoretical basis for the managerial actions (link 14) emphasized in the learning lens. Furthermore, the learning lens identifies the crucial role played by managerial actions in creating an organizational (link 7) and environmental (link 5) context which is more conducive to the content of the firm's new strategies (link 8) and thus maximizes the likelihood that implementation of the strategic change is effective (link 10). While the rational lens links changes in the content of strategy alone to organizational outcomes (link 3), we draw upon the learning and cognitive lenses to highlight that the effectiveness of such changes in the content of strategy may also depend upon the environmental (link 20) and organizational (link 21) changes that precede or accompany changes in strategy.ⁱ Finally, the integrative framework draws upon the learning and cognitive lenses to identify how managers learn during the strategic change process. Managerial learning occurs in a continuous re-shaping 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 not only do they affect outcomes during a discrete change process, but they also affect the future adaptive capability of the organization.ⁱⁱ

In exploiting the theoretical synergy of the three lenses, the integrative framework also addresses the key theoretical limitations of each of the three lenses. First, the rational lens does not recognize the

role of managerial cognitions and actions, limiting our understanding of the antecedents of strategic change. Second, the rational lens attributes organizational outcomes mainly to changes in the content of strategy and ignores how the outcomes may be affected by the accompanying organizational/ environmental changes. This second limitation hampers our understanding of the consequences of strategic change. By drawing on the contributions of the learning and cognitive lenses in recognizing the role of managerial cognitions and actions, 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, the learning and cognitive lenses do not conceptually distinguish between 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 lenses. By explicitly separating these concepts and identifying their theoretical relationships, the integrative framework provides greater conceptual clarity. This conceptual clarity is a pre-requisite for empirically identifying cause-effect relationships and providing guidance for research designs that are rigorous and replicable. Fourth, the learning and cognitive lenses relate changes in strategy primarily to managerial cognitions/actions and are not as concerned with 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. Our integrative framework overcomes this limitation of the learning and cognitive lenses by including the direct effects of the environment and the organization on changes in strategy. In summary, our framework emphasizes the need to employ more completely specified theoretical models in studying both the antecedents and consequences of strategic change. Based on this framework we present two research questions which 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 focuses 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 non-economic) 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. Our integrative framework highlights 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 non-economic 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 which is both descriptive valid and normatively useful (Van de Ven & Huber, 1990). Testing the integrative framework will undoubtedly pose several methodological challenges, 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 our choice of research methods rather than letting the research methods dictate our 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 identify underlying theoretical synergies and limitations. Our review serves not only to make sense of a widely scattered empirical literature, but also to question our 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 our review clearly identifies the domain of the phenomenon of strategic change and the major theoretical links contained within. 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 which directly point to a research agenda for the future. The researchers who take the next steps in understanding strategic change should now have a better understanding of where we have been and where we need to go in advancing our knowledge on strategic change. We hope that these contributions will be reflected in future research that combines theoretical richness and methodological rigor .

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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 which are included within one lens. We first classified the studies according to the three theoretical lenses 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; if a change in strategy was conceptualized in a non-unitary way, as a combination of changes in the content of strategy and organizational/environmental conditions, then the study was classified as using the learning lens. Finally, those studies explicitly operationalizing the managerial cognitions or knowledge structures in the strategic change process were classified under the cognitive lens. While most studies could be cleanly classified into one lens, several studies drew on multiple lenses for understanding strategic change and were classified separately as multi-lens studies (all multi-lens studies combined the learning and cognitive lenses with two exceptions; Ginsberg & Abrahamson (1991) combined rational and cognitive lenses and Thomas et al. (1993) used all three lenses). Once classified according to a theoretical lens, the studies were further codified as follows: (1) the specific linkages from the framework that were examined empirically in the study, (2) the definitions of any environmental and/or organizational contextual variables reported in the study, (3) operationalization of changes in the content of strategy (where explicit), (4) definitions of managerial action(s) examined, if explicit, (5) definitions of managerial cognition(s) examined, if explicit, (6) the definitions of outcome variable(s) (i.e., economic and/or non-economic), (7) details of the sample including sample size and time period, and (8) the data analysis methods employed. While the detailed classification of the 59 studies along these eight dimensions can be obtained from the authors, below we provide the list of studies included within each of the four categories 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 & Riggs (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).

Endnotes

ⁱ Links 20 and 21 were not identified earlier in our review of the learning and cognitive lenses because these lenses did not separate the organizational and environmental changes that occurred during the process of strategic change from the broad pattern of managerial actions.

ⁱⁱ Several less theoretically defensible links from the three lenses 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, the learning 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).