

Categorizing Strategic Issues: Links to Organizational Action

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A general conceptual model and specific hypotheses about how the meanings attached to strategic issues by decision makers are translated into organizational responses are presented. The model integrates an interpretive view of organizational decision making with cognitive categorization theory. The hypotheses focus on how labeling an issue as either a threat or an opportunity affects both subsequent information processing and the motivations of key decision makers. It is argued that decision makers' cognitions and motivations systematically affect the processing of issues and the types of organizational actions taken in response to them. Both theoretical and managerial implications are discussed.

Two assumptions underlying most organizational theory, research, and practice are (a) that the short-term effectiveness and long-term survival of organizations are determined partly by the actions they take in response to their external environments (Argyris & Schon, 1978; Chandler, 1962; Lawrence & Dyer, 1983), and (b) that organizational actions are determined partly by the intentional behaviors of individuals in the organizations, especially top-level decision makers (Child, 1972, Thompson, 1967). Attempts to understand the processes through which organizational decision makers learn about the external environment and implement their responses have led many organization researchers to study the link between individuals' cognitive representations of the environment and organizational actions (e.g., Daft & Weick, 1984; Hambrick & Mason, 1984; Kiesler & Sproull, 1982, Miller, Kets de Vries, & Toulouse, 1982, Ranson, Hinings, & Greenwood, 1980; Smart & Vertinsky, 1984, Sturdivant, Ginter, & Sawyer, 1985).

An interpretive view of meaning and action predominates attempts to link individual cognitions to organizational actions (e.g., Chaffee, 1985, Schwenk, 1984, 1985). According to this perspective, top-level decision makers are bombarded by a continuous stream of ill-defined events and trends. Some of these events and trends represent possible strategic issues for an organization because they are perceived as having the potential to have an effect on achieving organizational objectives (Ansoff, 1980; King, 1982). For example, decision makers in the banking industry contend with a wide array of issues emerging from fundamental changes taking place in the competitive and regulatory structure of the industry ("The New Shape," 1984). Issues as diverse as providing lifelines for low and middle income level customers, removing restrictions on interstate banking, and entering into the securities businesses have been recognized and responded to differently by industry members

Identifying strategic issues helps decision makers impose order on the environment. Strategic issues do not appear in prepackaged form (Dutton, Fahey, & Narayanan, 1983); rather, decision makers selectively attend to some emerging developments while ignoring others. Those selected are subsequently interpreted and infused with meanings (Daft & Weick, 1984, Hambrick & Mason, 1984, Kiesler & Sproull, 1982; Newell & Simon, 1972; Simon, 1957). The meaning of a strategic issue is not inherent in the environmental events or developments. Instead, the organization's internal environment (ideology or structure) has a major effect on the meanings that evolve (Lawrence & Dyer, 1983; Meyer, 1982). Thus, the meanings attached to a particular environmental event differ among organizations. Because organizational actions taken vis à vis strategic issues follow from the meanings attached to these issues, organizations may respond differently to similar environmental events (Dutton & Duncan, in press; Meyer, 1982).

Meanings attached to strategic issues are imposed by categories that decision makers employ to describe an issue. Categories are engaged by using linguistic labels. Two labels most frequently applied to strategic issues are focused on, threat and opportunity. Once applied, labels initiate a categorization process that affects the subsequent cognitions and motivations of key decision makers, these, in turn, systematically affect the process and content of organizational actions.

Linking individual cognitions to organizational actions assumes that the perceptual and interpretive processes of decision makers are consequential for determining organizational level action. Certain conditions enhance the validity of this assumption. First, if an organization is centralized and decisions are made by one (or few) decision makers, then the cognitions of decision makers will have a greater effect on organizational action (Fredrickson, 1986, Schwenk, 1984, 1985). Second, if labeling a strategic issue is communicated by individuals who are highly trusted, consensus about the labeling is more

likely (O'Reilly, 1983). Third, when there is a greater degree of consensus among decision makers, the link between individual cognitions and organizational actions is strengthened (Schwenk, 1984).

Categorization, an empirically based theory, is used to understand cognitive representations of objects and events. Its value for understanding organizational responses to strategic issues derives from how and why linguistic labels, such as those used by decision makers to describe their environments, affect information processing and subsequent behaviors.

Overview of Categorization Theory

Categorization theory was proposed by Rosch and her colleagues (Mervis & Rosch, 1981; Rosch, 1975, 1978, Rosch & Mervis, 1975) as an explanation of the cognitive processes underlying concept formation for natural objects. However, this general theory can be applied to categorizing strategic issues by decision makers. A critical assertion of this theory is that people (decision makers) form cognitive categories based on their observations of the features or attributes of objects (issues). Cognitive categories are comprised of objects with similar perceived attributes and reflect the structure of the objects in the environment. An important characteristic of either features or attributes is that they have a correlational structure. So, for example, decision makers observe that diversified firms have divisional structures while single product firms have functional structures. Diversified firms with functional structures and single product firms with divisional structures are seldom encountered. Decision makers' cognitive structures reflect these perceived correlations (Malt & Smith, 1984) and are efficient for storing information (Rosch, 1978). Furthermore, categories are useful for communicating during everyday interactions because the information summarized by a category name or label is shared by community members (Cantor & Mischel, 1979). In organizations, cognitive categories are used by strategic decision makers

because they help to store information more efficiently and aid communication with others about ambiguous strategic issues.

Individuals rely on categorization because it reduces the complexity of the stimulus world by organizing objects into meaningful groups. Category systems are assumed to be structured along a vertical and a horizontal dimension (Rosch, 1978). The vertical dimension has three levels, with each higher level being inclusive of the levels below it. The highest, most inclusive level of a category system is the *superordinate* level. Superordinate categories subsume *basic* level categories, which in turn subsume *subordinate* categories. For example, if "organizations" is the superordinate category, "profit" and "not-for-profit" would be basic level categories, banks and airlines, and hospitals and churches would be subordinate categories, respectively. Categories at the same vertical level form a horizontal level. For example, "profit" and "not-for-profit" are among the different horizontal categories at the basic level of inclusiveness.

Categories are comprised of similar, nonidentical members. Category members at a given level (subordinate or basic) share some common attributes, but are differentiated by dissimilarities among many other attributes. Taken together, the shared features or attributes describe a prototypical category member (Rosch, 1975). For example, "system" and "has members" are attributes shared by all organizations. Attributes that serve to differentiate categories are said to have high cue validity (Rosch, 1978). For example, "no economic objectives" is an attribute with relatively high cue validity because it differentiates not-for-profit from other types of organizations.

Most research on categorization theory has focused on categories of objects that occur in the "natural" world (Medin & Smith, 1984), such as animals, household objects, and other classes of objects that can be easily observed. However, there has been some focus on the categorization of social objects, situations, and events (Cantor, Mischel, & Schwartz, 1982; Tversky & Hemenway, 1983). Such categories are "fuzzy" because

of the difficulty of observing prototypical cases in real life (Cantor et al., 1982). The ambiguity surrounding social objects and situations makes the linguistic labeling of these phenomena powerful categorizing devices. As linguists have argued, language has the greatest effect when it is applied to an ambiguous stimulus (Rommetveit, 1968).

Categorization theory falls under the umbrella of cognitive theories that assume that individuals employ schema to understand their world. Schema, as first defined by Bartlett (1932) and Piaget (1952), describe data structures in memory that represent knowledge about concepts. Categorization theory describes the formation and use of natural and social concepts of objects by individuals to organize their worlds. In contrast, script theory describes schema that specify the sequencing of events (Abelson, 1981). Cognitive and social psychologists have shown that both the script and the object categories can have profound effects upon inferences and behaviors. Specifically, the categorical structure of knowledge helps explain three cognitive phenomena: (a) that memory for category-consistent information is generally better than memory for inconsistent information, (b) that constructive errors of memory (gap-filling) occur; and (c) that information distortion follows predictable patterns.

Numerous studies support the conclusion that category-consistent information is recalled better than category-inconsistent information, especially over extended periods of time. Whether this effect occurs because inconsistent information goes unnoticed (selective attention) or because it is more easily forgotten (selective forgetting) is unclear, but the net result is predictable: Once an object is categorized, the cognitive representation built over time is an inaccurate, simplified picture that matches the category prototype more closely than did the original stimulus (see Alba & Hasher, 1983, for a review).

Cognitive representations also are associated with constructive errors, such as gap-filling. When the information about a stimulus is incomplete, it is likely that the gaps will be filled with

category-consistent information. In memory research, gap-filling is evidenced by false recognition of information not previously presented to the perceiver. Thus, upon hearing a passage describing a person pounding a nail, people infer the presence of a hammer (Johnson, Bransford, & Solomon, 1973). Evidence of gap-filling has been particularly important to research on event scripts (Abelson, 1981), but it also has occurred in person perception tasks (Cantor & Mischel, 1977) and in eyewitness testimonies (Loftus, 1979). In each case, gap-filling suggests that people use general information about category membership to infer the presence of specific attributes typically associated with category members.

While gap-filling occurs in the absence of information, distortion occurs when available information is ambiguous. Some of the most vivid examples of the ability of labels to lead to distortion of ambiguous information come from studies of visual perception. For example, in their classic study, Carmichael, Hogan, and Walter (1932) showed ambiguous forms to people, along with unambiguous labels, such as "eyeglasses" or "dumbbells." When people were asked to reconstruct the ambiguous forms, their reconstructions were distorted toward conformity with the unambiguous label that had been attached to the form.

Modern-day researchers acknowledge the power categorization has to induce distortion of ambiguous information, but studies of this phenomenon are uncommon when the objects of interest are real rather than contrived. One explanation for this lack of research is that ambiguous, real objects are difficult to locate. However, when categorization theory is applied to strategic issues, ambiguous stimuli are the norm.

Although categorization theory cannot explain all that is known about concept formation (Medin & Smith, 1984), it has improved social psychologists' understanding of stereotyping and person perception (Cantor & Mischel, 1979; Taylor, Fiske, Etcoff, & Ruderman, 1978) and organizational scientists' understanding of leadership (Lord, Foti, & Phillips, 1982; Phillips & Lord, 1982) and performance appraisal (Feldman, 1981; Nathan & Lord,

1983). These developments illustrate the applicability of categorization theory to social objects in organizations. A natural extension is applying it to the study of how decision makers label, interpret, and respond to strategic issues.

Linking Issue Categorization to Organizational Actions

General Process Model

The model for conceptualizing the relationship between labeling and categorizing strategic issues and eventual organizational action integrates the interpretive view of organizations with psychologists' view of how cognitive processes affect behavior. When integrated, these suggest a simple process model linking the labeling of an issue to organizational action. Within the model, the organizational environment is depicted as a set of events, trends, and developments. Due to information capacity limits and individual and organizational filters, not all environmental events are perceived by decision makers. Individual filters may reflect past experiences, such as functional training (Dearborn & Simon, 1958), while organizational filters may reflect an organization's strategy (Huff, 1982; Jonsson & Lundin, 1977; Meyer, 1982). For example, some researchers have argued that an organization's strategy imposes a type of strategic requirement (Hambrick, 1981), defining some issues as critical and others as inconsequential. Thus for an organization that is a prospector, using the terms of Miles and Snow (1978), issues arising from competitors' new product developments easily penetrate the strategic filter. However, for organizations that are defenders, issues surrounding competitors' new cost-cutting actions may penetrate the strategic filter more quickly.

Once an issue penetrates such filters, it is labeled and categorized. The label serves as an address to a cognitive category. Accessing the cognitive category affects both the "cool" cognitive processing and the "hot" affective reactions of decision makers. Interpretations and information processing follow issue categorization and translate into decisions about how to resolve the

issue. Issue resolution includes both intraorganizational processing of the issue and the eventual actions taken vis à vis the issue.

As presented above, this model is very general. Testing it requires identifying the salient and meaningful categories used by decision makers while they process information about strategic issues. Also needed for specifying and testing hypotheses is knowledge of attributes associated with these categories, because attributes suggest the content of information likely to be (mis)associated with an environmental event, trend, or development, that is, with a strategic issue.

The extant literature on strategic management suggests that "threat" and "opportunity" are two salient strategic issue categories. The extent of use of threat and opportunity as issue categories is an empirical question. However, justification for the prominence of the categories in the minds of decision makers is derived from studies of strategic decision processes. For example, in two studies researchers contrasted the process of strategic decision making stimulated by problems, opportunities, and crises (Mintzberg, Raisinghini, & Theoret, 1976; Nutt, 1984). Their results revealed that different stimuli evoked very different decision processes. Their research suggests that the categories of threat and opportunity are relevant and consequential for decision processes.

The threat and opportunity categories are used frequently in the everyday language of strategic decision makers and these have become crystallized in formal routines and programs in organizations (for example, in formal planning systems and environmental scanning activities that rely on issue classification systems and are based on normative models of strategy formulation). In these types of systems, environmental analysis procedures typically classify issues as threats and opportunities (Christensen, Andrews, Bower, Hamermesh, & Porter, 1982).

The role of formalized systems in labeling and categorizing strategic issues should not be underestimated. Formal planning and environmental scanning systems act to codify the interpretation of issues and to perpetuate their initial categori-

zation. Thus, although the categorization of issues by individual decision makers may be modified over time, the crystallization of issue categorizations in bureaucratic processes makes issue reclassification less likely. It is assumed that the initial categorization of a strategic issue as a threat or an opportunity persists over time, leaving the question of how frequently issues are reclassified for future research.

In the terms of categorization theory, "strategic issue" represents a superordinate level category that signifies an important environmental event, trend, or development for which future resolution will be sought. According to Edelman (1977), it is exactly these types of issues for which linguistic categorization should have its biggest effects. Threat and opportunity, then, are basic level categories. Both categories contain "importance" and "future-oriented" as attributes, yet they are distinguished by distinctly different attributes. These differentiating attributes must be understood in order to predict the differential effects of the two labels on decision makers' processing of, and eventual response to, strategic issues.

The Meaning of "Threat" and "Opportunity"

The research literatures on managerial decision making, organizational crises, and individual stress identify three attribute dimensions that differentiate threats and opportunities. Specifically, the "opportunity" category implies a *positive* situation in which *gain* is likely and over which one has a fair amount of *control*; in contrast, the "threat" category implies a *negative* situation in which *loss* is likely and over which one has relatively *little control*.

Obtaining rigorous empirical confirmation that these attribute clusters accurately reflect the prototypical attributes of the threat and opportunity categories is an important research project for the future. Already there is evidence that this assertion is valid. For example, Milburn, Schuler, and Watman (1983a, 1983b) used both the positive-negative dimension and the control dimension to generate a typology of crisis situations. Furthermore, Milburn et al (1983a) equated

opportunities with situations of potential gain and they equated threats with situations of potential loss. Similarly, in their treatise about the effects of threat on individuals, groups, and organizations Staw, Sandelands, and Dutton (1981) defined threat as a negative situation and arguments supporting the conclusion that uncontrollability is a key element of threatening stimuli have been presented by researchers of stress (e.g., Averill, 1973, Thompson, 1981)

Researchers who study decision making (e.g., Minzberg et al., 1976, Nutt, 1984) assume that opportunities represent positive situations in which gain is possible and perhaps likely. For example, when Fredrickson (1985) manipulated the labeling of an issue as a problem or an opportunity, he chose to operationalize opportunity as a situation in which gains could be made, whereas a problem was operationalized as an expected loss.

Support for the assumption that opportunities are typified as controllable, positive situations comes from research on how individuals cope with stressful life events. Researchers in this area have classified events into categories such as loss, threat, and challenge and have examined the coping behaviors induced by the perception of different event types (e.g., McCrae, 1984). In these studies, the classification of events as challenges approximates the category we are calling opportunity. Challenges are distinguished by their positive tone and their greater degree of controllability (Lazarus & Launier, 1978; McCrae, 1984).

This brief overview of the meanings researchers imply by the concepts of threat and opportunity reveals some consistency of concerns about the three attribute dimensions of gain-loss, positive-negative, and controllable-uncontrollable. Thus, these three attribute dimensions appear to have high cue validity for the categories of threat and opportunity. It also suggests that researchers do not assume that these three attribute dimensions are orthogonal. As expected by the categorization theory, attributes are correlated, though not perfectly. Positivity, gain, and con-

trollability go together, as do negativity, loss, and uncontrollability. Thus, the following hypotheses are proposed:

Hypothesis 1. Three attributes with high cue validity for issues categorized as threats are "negative," "loss," and "uncontrollable."

Hypothesis 2. Three attributes with high cue validity for issues categorized as opportunities are "positive," "gain," and "controllable."

Linking Threat and Opportunity Categories to Cognitions and Motivations

The previous discussion provides the foundation for specifying several hypotheses about the effects of these labels on the cognitions and motivations of individual decision makers. Hypotheses 3 through 6 follow directly from categorization theory and research, they describe critical cognitive processes that help explain how the issue labels used by decision makers eventually affect organizational responses.

As described above, cognitive categories influence memory for information encountered such that, over time, information congruent with established percepts is more likely to be remembered. Thus, once a phenomenon is categorized, a confirmatory bias reinforces the original labeling and categorizing of the phenomenon. This bias affects processing of new information and recall of old information, suggesting Hypotheses 3 and 4, respectively.

Hypothesis 3. Once an issue has been categorized, new information congruent with the category is more likely to be attended to and subsequently recalled in comparison to new, incongruent information.

Hypothesis 4. Once an issue has been categorized, old information congruent with the category will be better remembered than old, incongruent information.

In addition to biasing the way available information is processed, categorization can influence the assumptions made about unavailable information and ambiguous information. Again, the bias is toward confirmation of percepts already established, suggesting Hypotheses 5 and 6.

Hypothesis 5: When information relevant to an issue is unavailable, decision makers will have a tendency to assume the missing information is consistent with the way the issue has been categorized.

Hypothesis 6 When available information about an issue is ambiguous, decision makers will tend to distort the information to conform to prototypical attributes.

For Hypotheses 3 through 6, category-consistent information for an issue labeled a threat would be information indicating the potential for loss, information that is affectively negative, and information indicating one is unable to control outcomes. Category-consistent information for an issue labeled an opportunity would be information indicating the potential for gain, information that is affectively positive, and information indicating that one is able to control outcomes.

Linking Threat and Opportunity Labels to Intraorganizational Processes

Cognitive biases such as those described by Hypotheses 3 through 6 affect information processing by reinforcing and confirming initial impressions formed about an issue induced by an issue label. Once solidified, these impressions are unlikely to change because new incoming information continues to be perceived selectively and interpreted to conform to existing positions and attitudes (Nisbett & Ross, 1980).

As briefly noted above, solidifying impressions occurs partly as a result of cognitive functioning. Because capacities to deal with large amounts of information have been limited (Simon, 1971), reducing masses of information into organized chunks is a necessity. However, as O'Reilly (1983) described, the selective use and interpretation of incoming information is not a phenomenon limited to individual cognitions. Powerful social forces within an organization also play a role. Just as people selectively attend to and interpret information to match their own attitudes and preferences, they also selectively transmit or communicate information to others in the organization. Thus, information becomes a politically useful resource. For example, knowing her boss

views an issue as a serious threat, a subordinate may withhold information incongruent with that view and/or she may present ambiguous information in a way that fits the boss's conception of the issue. O'Reilly (1983) argued that such filtering and distorting information as it is transmitted through an organization are most likely to occur under two types of conditions: "Such filtering and distorting appears to come, most often, from individuals or groups who are attempting to either gain desired outcomes, such as increased resources or power, or to avoid losses" (p. 122). Taking this logic one step further, the following hypothesis is formulated:

Hypothesis 7. Once an issue has been publicly labeled and categorized in an organization, accurate communication of issue-relevant information will be more likely for information that confirms the category than for information that disconfirms the category

The attributes of positive and negative, associated with opportunity and threat, respectively, reflect evaluative appraisals. Evaluative appraisals are the affective components of cognitions; they make cognitions "hot" (Abelson, 1963). Fiske and her colleagues (Fiske & Taylor, 1984) referred to these evaluative attributes as "affective tags."

When the objects of study are people, affective tags may attract us toward interacting with a person or repel us to withdraw from interactions (Fiske, Neuberg, Beattie, & Milberg, 1984). Similarly, affective tags may attract people to become associated with an opportunity and repel people from becoming involved with an issue labeled a threat because threats are aversive stimuli from which people withdraw, while opportunities bestow status and prestige to those who deal with them.

The affective charges associated with issue categories have implications for the internal political processes that determine eventual organizational actions (MacMillan, 1978; Pettigrew, 1977). Confronted with a threat issue, decision makers constrict control, manifested in reduced participation and more centralized decision making (Staw et al., 1981). This constriction in control is fueled by decision makers' desire to elicit a quick

response and subordinates' desire to give up responsibility for a response.

In contrast, organizational members may be more eager to accept partial responsibility for resolving issues labeled opportunities. For top decision makers, this implies that tasks related to opportunities can be delegated more easily and that involvement in deciding organizational responses may be more broad-based. Thus, Nutt's (1984) study of 78 decision processes found that open search processes (i.e., where subordinates were included in the search process) occurred for opportunity-evoked decisions but not for threat- or crisis-evoked decisions. This reasoning is reflected in the following hypothesis:

Hypothesis 8 When decision makers label issues as opportunities, involvement in the process of resolving the issues will be greater and participation will take place at lower levels of the organization, compared to when issues are labeled as threats

Linking Threat and Opportunity Labels to the Target and Magnitude of Organizational Responses

So far, it has been argued that the labels of threat and opportunity are associated with two distinct constellations of cognitions and affect. These two constellations of cognitions and affect should predispose decision makers to behave in systematic ways, generating predictable, dissimilar organizational responses to strategic issues labeled threats versus opportunities. More specifically, the labeling of issues as threats or opportunities by decision makers should be associated with organizational responses that are directed toward different targets and that are of different magnitudes.

Researchers of organizational adaptation (e.g., Cook, Shortell, Conrad, & Morrissey, 1983; Lawrence & Dyer, 1983; Miller & Friesen, 1982), organizational change (Normann, 1977; Tushman & Romanelli, 1985), and organizational responses to decline (Levine, 1978; Zammuto & Cameron, 1985) wrestled with the problem of identifying and describing the dimensions along which organizational actions or responses can vary.

The two predominant dimensions that emerged were response target and response magnitude.

Targets of organizational responses The targets of an organization's responses to strategic issues can be either internal or external (Miles, 1980). Internal responses use intraorganizational strategies for dealing with the issue (Cook et al., 1983) such as modifying the organization's structure. External responses employ interorganizational tactics, such as supporting political action committees or merging with another organization. Compared to external responses, internal responses are easier to implement because top management has better access to levers needed to "pull off" the strategy. External responses imply less control and greater dependence upon other organizations—conditions that may lead decision makers to view externally directed responses as less desirable than internally directed responses (Cook et al., 1983; Pfeffer & Salancik, 1978). The control-related attributes associated with the threat and opportunity categories have direct implications for the targets of organizational responses to strategic issues.

Similar logic has been applied in research about how individuals respond to threat. Research on psychological reactions to life-threatening illnesses reveals the tenacity with which people seek to maintain feelings of personal control or mastery in the face of crisis (Taylor, 1983). When the external environment seems uncontrollable, adaptation may be the best response. Adaptation requires changing oneself, for example, by changing one's internal processes. When the unit of analysis is the individual, the internal processes affected by adaptation are cognitive and emotional. In contrast, externally directed, proactive responses are more common when people are confident in their ability to control outcomes (e.g., Anderson, 1977).

When the organization is the unit of analysis, a similar effect should occur. The low control implied by the threat label should lead decision makers to focus attention on changing internal organizational processes in order to adapt, because internal activities are easier to access and manipulate. In contrast, the high control associ-

ated with the opportunity label implies a belief in one's ability to effect change in the external environment; therefore, externally directed actions are more likely. This argument is summarized by the following hypothesis:

Hypothesis 9. When an organization's decision makers label a strategic issue a threat, they are likely to construct or generate an organizational response that includes taking actions directed at the internal environment (i.e., intraorganizational changes). In contrast, when an organization's decision makers label a strategic issue an opportunity, they are more likely to construct or generate an organizational response that includes taking actions directed at changing the external environment (i.e., interorganizational changes).

Response magnitude. The magnitude of an organization's response to a strategic issue can be large or small. Response magnitude captures the extent to which actions are radical (Normann, 1977) in that they involve major reorientations. Examples of changes of large magnitude are those that require changing many organizational elements (Tushman & Romanelli, 1985), changes in interpretation systems (Bartunek, 1984; Watzlawick, Weakland, & Fisch, 1974), and changes that take place over extended time periods (Miller & Friesen, 1982). Such changes of large magnitude are more costly and more difficult to effect than changes of smaller magnitude.

Individuals subjectively value the avoidance of loss and the actualization of gain differently (Tversky & Kahneman, 1981). People risk more to avoid the loss of a particular amount than they risk to gain the same amount. Investigations of this effect, referred to as prospect theory, have shown that decisions about how to respond in a given situation differ greatly as a function of how the decision question is framed. When the decision is framed as avoiding loss, larger amounts of money are likely to be risked when compared to the same decision question that is framed to focus on the potential for gain.

If the labels of threat and opportunity are associated with the attributes of loss and gain, respectively, then responses to issues labeled as threats should be comparable to responses to problems framed as potential loss situations;

responses to issues labeled as opportunities should be comparable to responses to problems framed as potential gain situations. Thus, prospect theory leads to the hypothesis that decision makers will take greater risks in response to threats as opposed to opportunities. A diverse set of studies indeed suggests that in certain situations decision makers and firms are risk-taking in response to losses (e.g., Bowman, 1982; Staw & Ross, 1978). Assuming threat categories engage a sense of loss and decision makers' responses are translated into organizational actions, prospect theory suggests the following hypothesis:

Hypothesis 10: When an organization's decision makers label a strategic issue a threat, they are likely to construct an organizational response that includes taking actions of large magnitude. In contrast, when an organization's decision makers label a strategic issue an opportunity, they are more likely to construct an organizational response that includes actions of smaller magnitude.

Hypotheses 7 through 10 are most relevant when decision makers agree about using the threat or opportunity category to classify a particular strategic issue, yet disagreement is both possible and likely at times. Disagreements about issue labels may be critical determinants of the political processes through which organizational actions are decided. As Edelman (1977) argued: How the problem is named involves alternative scenarios, each with its own facts, value judgments and emotions. The self conceptions that are part of these contradictory cognitive structures explain the tenacity and passion with which people who are intimately involved cling to them and interpret the developments so as to make them consonant with a particular structure; for the choice of a configuration of beliefs has profound consequences for the individual, for his role and status, his power and responsibilities, his ideology and what counts as success . . . (p. 29)

Because of the potential effects of an issue's label, meaning, and interpretation, organizational members who have early exposure to an issue and have the power to make their label "stick" will be important initiators of organizational action. Thus, people involved in environmental scanning units or other boundary span-

ning departments whose roles are to identify strategic issues can extend their power base by selling issues in prepackaged form to powerful organizational members. Further, individuals in these units who implicitly sort issues into threat and opportunity categories can create momentum for change in particular directions by engaging behavioral routines or repertoires (Cyert & March, 1963) that deal differently with these issue types. For example, policy makers may direct all threats to top policy groups for their immediate consideration, while directing opportunities to entrepreneurial or development groups. Thus, the categories of threat and opportunity issues may become embedded in the organizational routines that generate predictable action (Starbuck, 1983) in directions consistent with the hypotheses presented here.

Managerial Implications

The hypotheses presented have direct implications for managers who must deal daily with recognizing, diagnosing, and responding to strategic issues. These implications are summarized in Table 1.

The most important implication is that managers can actively manipulate the meaning of strategic issues and subsequent organizational responses by making certain issue attributes salient. This suggests that the management of language, and in particular issue labels, has symbolic as well as instrumental value (Pfeffer, 1981). The simple labeling of issues not only determines decision makers' affective responses to issues, but also it sets into place predictable, cognitive, and motivational processes that move decisions and organizations in predictable directions.

Conclusions

Categorization theory provides a framework for understanding why organizations in the same industry may respond differently to the "same" environmental events and trends. Consider a recent episode cited in the *Wall Street Journal*:

Where some people see threats, others see opportunities. For example, the advent of suburban and

highway shopping centers was considered by some mass merchandisers as an opportunity to gain prime retailing space. But other retailers who had prospered by occupying choice downtown locations viewed the new malls as a threat that had to be overcome. By the time they realized that profound changes were taking place in retailing, many of their competitors already were established in the best shopping centers (Jacobs, 1985, p. 37).

In this case, categorizing and labeling an issue as a threat vs. an opportunity had significant effects on the responses and performances of firms.

The intervening process between the labeling of an environmental event and the responses of an organization is long and complex. It encompasses cognitive and affective responses, individual behaviors, and social interactions. Interpretations of new information and diagnosis of old information follow from cognitive assumptions and motivations set when an issue is first diagnosed by decision makers. It has been argued that these effects can be studied systematically.

The model presented here is helpful for researchers to better understand the problem sensing and diagnosis process in decision making (Dutton et al., 1983; Kiesler & Sproull, 1982; Lyles & Mitroff, 1980; Mintzberg et al., 1976; Nutt, 1979). This diagnosis process may be simplified and routinized by using issue labels that significantly determine interpretation, information processing, and subsequent organizational responses, extending the work that has been done on cognitive simplification processes (Schwenk, 1984). At a more general level, the model represents an extension of emerging conceptual and empirical work that links cognitions and strategy (e.g., Gioia & Poole, 1984; Ramaprasad & Mitroff, 1984; Schwenk, 1984, 1985).

Using categorization theory to understand how decision makers interpret strategic issues raises several new research questions for organization and strategic management theorists. At a very basic level, it encourages researchers to determine the dominant categories decision makers employ for classifying issues. How stable or

Table 1
Hypotheses and Implications for Managers

Hypotheses	Implications
H ₁ -H ₂ Attributes with high cue validity for threat and opportunity can be identified	Managers can affect whether an issue will be categorized as a threat or opportunity by making certain issue attributes salient Managers can affect what attributes an issue will be assumed to have based on the simple labeling of an issue as a threat or opportunity
H ₃ -H ₆ Categorizing an issue affects memory about old information and the interpretation of new incoming information, making old or new information consistent with the content of the category	Managers can systematically affect the interpretation of old or new information by labeling an issue and calling up a particular issue category in memory
H ₇ The public labeling and categorizing of an issue generates communication of information that is consistent with the category	Managers can set into motion predictable issue-relevant communication by labeling an issue a particular way
H ₈ Labeling a strategic issue as a threat as opposed to an opportunity decreases the amount of involvement and participation of lower level members in the resolution of the issue	Managers may wish to intentionally increase the incentives for participation and involvement in "threat" issues, while reducing incentives for the amount of participation and involvement in the resolution of "opportunity" issues
H ₉ -H ₁₀ Labeling a strategic issue as a threat as opposed to an opportunity increases the probability that organizational responses will be internal and of large magnitude	Managers must be cognizant that preferred alternatives for resolving an issue will be limited by an issue's label. If managers are trying to encourage small-scale, external organizational responses, an "opportunity" label is potentially more appropriate. If managers are trying to encourage large-scale internal responses, a "threat" label is potentially more appropriate

enduring are these classifications, once employed? How does the decision maker's context affect the labeling and categorizing of issues? How can decision makers influence the labeling and categorizing of strategic issues to improve organizational adaptation? These answers will not only improve our understanding of organizations as interpretive systems (Daft & Weick, 1984), they also should add to the emerging knowledge base about the models individuals employ to understand social objects (Lingle, Altom, & Medin, 1984)

The characteristics of individuals and organizations that predispose them to categorize a particular issue as either a threat or opportunity should be studied. At the individual level, personality characteristics such as locus of control

may be implicated (Anderson, 1977). At the organizational level, organizational ideology and strategy may be relevant. For example, in Meyer's (1982) analysis of how three hospitals adapted to a doctor's strike, organizational ideology was a major determinant of how the issue was interpreted and how each hospital subsequently responded.

Also, the characteristics of issues that capture the attention of decision makers and lead them to infer that an issue is a threat or opportunity should be studied. Past research suggests that a variety of issue attributes (e.g., pervasiveness) and issue source characteristics (e.g., its influence) affect how a strategic issue is labeled (Mintzberg et al., 1976; Moliter, 1980; Wiseman, 1978)

The most critical task will be to wed all of these possible influences together to explain organizational responses. As others have argued convincingly, it is the dynamic and reciprocal interaction of individuals over time (e.g., powerful leaders); environmental forces (e.g., issues), in

particular organizational contexts (e.g., ideology and structure) that explains organizational action (Bartunek, 1984; Ranson et al., 1980; Tushman & Romanelli, 1985). This is a step toward articulating how labels for strategic issues translate into predictable organizational responses.

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