COGNITIVE UNDERPINNINGS OF INSTITUTIONAL PERSISTENCE AND CHANGE: A FRAMING PERSPECTIVE

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We integrate the predictions of prospect theory, the threat-rigidity hypothesis, and institutional theory to suggest how patterns of institutional persistence and change depend on whether decision makers view environmental shifts as potential opportunities for or threats to gaining legitimacy. We argue that in the event that decision makers face ambiguity in their reading of the environment, they initiate decoupled substantive and symbolic actions that simultaneously accommodate the predictions of prospect theory and the threat-rigidity hypothesis.

Institutional theorists attempt to explain the adoption and persistence of practices, beliefs, and structures that conform to normative expectations for legitimacy (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Selznick, 1957). Recently, researchers have attempted to extend the domain of institutional theory to understanding when and why actors or "agents" do not conform to social convention and, instead, challenge the institutional fabric by initiating nonisomorphic action (Christensen, Karnoe, Pedersen, & Dobbin, 1997; Dacin, Goodstein, & Scott, 2002; DiMaggio, 1988, 1991; Powell, 1991). Their work has examined *external* triggers for institutional change (cf. Edelman, 1992; Oliver, 1992), organizational responses to these environmental triggers (Lawrence, Hardy, & Phillips, 2002; Oliver, 1991), or organizational features that support change (Casile & Davis-Blake, 2002; Kostova & Roth, 2002). These theorists have paid less attention to factors *within* the organization that shape organizational responses to pressures in the institutional domain. In this article we attempt to fill this gap by examining how key decision makers' interpretations of environmental pressures are translated into organizational actions that can potentially change institutions or help to maintain them.

Institutional theorists have repeatedly called for a revitalization that examines the cognitive microfoundations of institutional theory (DiMaggio & Powell, 1991; Scott, 1995; Selznick, 1996; Zucker, 1987). DiMaggio (1997) argues that scholars can never fully understand the formation, operation, influence, and dissolution of institutions as carriers of culture without a coherent explanation of their cognitive underpinnings. Scott (2001) highlights the importance of individuals' internal representations of the environment and identifies "cultural cognition" as one of the pillars of institutionalism.[1] In fact, Scott (2001) suggests that attention to the cognitive features of the institutional environment is the major distinguishing feature of neoinstitutionalism. However, as DiMaggio (1997) points out, the

[1] Scott renamed the "cognitive pillar" from his 1995 book to "cultural-cognitive pillar" to highlight that "internal interpretative processes are shaped by external cultural frameworks" (2001: 57).

vastly different traditions, modalities, and methodologies of humanistic, interpretive sociology and experimentally oriented positivistic psychology have left a significant gap in the literature.

The work within institutional theory considering the roles of human agency and the cognitive features of the institutional environment has focused primarily on the organization, rather than the organizational decision maker, as the key actor in initiating and sustaining institutional change (e.g., Casile & Davis-Blake, 2002; Commons, 1950; Galaskiewicz & Wasserman, 1989; Hoffman, 1999; Newman, 2000; North, 1990; Spicer, McDermott, & Kogut, 2000). Although these researchers identify a space for individual cognition within institutional theory, they do not elaborate on how human cognition shapes the institutional environment.

In a small but growing body of research, scholars have been arguing that individuals have roles as agents and entrepreneurs in the perpetuation of institutions (Zilber, 2002; Zucker, 1977) or in their creation and change (DiMaggio, 1988; Elsbach & Sutton, 1992; Holm, 1995; Johnson, Smith, & Codling, 2000; Martinez & Dacin, 1999; Peng & Heath, 1996; Selznick, 1957). While their studies have recognized the importance of understanding individuals as key actors in institutional processes, they leave room for the inclusion of established models from cognitive psychology that potentially facilitate the development of systematic tools for predicting how individual cognition is translated into actions in the institutional environment (Zucker, 1977). As researchers such as Zucker (1977), Robson, Wholey, and Barefield (1996), and others (Hoffman, 1999; Holm, 1995; Selznick, 1996) make clear, understanding more precisely how institutional forces influence and are shaped by individual cognition and behavior may be key to the further development of institutional theory.

In this article we contribute to this growing body of neoinstitutional literature on human agency by drawing on behavioral theories of decision making that explain how individuals process information under conditions of risk and uncertainty. Specifically, we tap these theories to help us understand and predict how key decision makers in organizations deal with environmental pressures that influence the legiti-macy of their organizations.[2] Our work follows in the footsteps of Oliver (1991), who used a resource dependence perspective to build a comprehensive model of strategic responses to institutional pressures. We extend her work in articulating the cognitive processes of decision makers that underpin such strategic responses, integrating established psychological theories with institutional theory.

Specifically, we combine the predictions of prospect theory (Kahneman & Tversky, 1979) and of the threat-rigidity hypothesis (Staw, Sandelands, & Dutton, 1981) to understand how organizational responses to legitimacy-related threats and opportunities are formed by individual decision makers' framing of environmental pressure as a threat or an opportunity. In doing so, we explain why organizations facing seemingly similar events sometimes respond with isomorphic actions (actions that are consistent with those of other legitimate actors in the institutional environment) and other times respond with nonisomorphic actions (actions that depart from what is considered legitimate in the institutional environment). For instance, DiMaggio and Powell's (1983) description of the political and normative pressures that drive institutionalization is very similar to Oliver's (1992) description of the same factors that result in deinstitutionalization. Further, we examine what happens when decision makers are unsure whether they have accurately framed the environmental event. We argue that, in these cases, decision makers will initiate a configuration of responses that are decoupled from each other in order to respond simultaneously to both interpretations of the environment.

INTERPRETING AND RESPONDING TO ENVIRONMENTAL THREATS AND OPPORTUNITIES

Threats and opportunities are two constructs used to categorize environmental events that have been found to be salient in executive decision making (Dutton & Jackson, 1987; Jackson &

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[2] While we refer to a wide range of studies that draw on and contribute to institutional theory (cf. Newman, 2000; Spicer et al., 2000; Westphal & Zajac, 2001; Zajac & Westphal, 1995) in developing our model, we recognize that our main focus and contribution is to institutional theory within the organizational theory domain.

Dutton, 1988). Both threats and opportunities imply a sense of urgency and difficulty and, thus, are likely to evoke some form of organizational action.

In the following sections we develop a model examining how organizational actions in response to legitimacy-related environmental pressures relate to key decision makers' perceptions of threats and opportunities. We examine two key dimensions of threats and opportunities—specifically, the loss or gain of control and the loss or gain of resources. We first examine conditions in which decision makers can clearly categorize a threat or opportunity as being related to either the control dimension or the resource dimension. Figure 1 contains a representation of the two basic propositions of this paper, relating to conditions where such clear categorizations can be made. We then examine conditions in which decision makers are confronted with ambiguity about whether threats and opportunities are related to control or resources.

Two theoretical positions have dominated organizational scholarship concerning managerial responses to threats and opportunities: prospect theory and the threat-rigidity hypothesis.

Prospect theory (Kahneman & Tversky, 1979) postulates that risk attitudes and behavior are not just influenced by nominal expected returns of a decision or course of action but also by where a potential decision outcome stands relative to some predetermined reference point in the mind of the decision maker. It predicts that individuals are risk seeking in the face of potential loss, since they underweight the risk of additional potential loss and overweight potential gains that could get them out of a loss position they have hitherto been unable to adapt to. Kahneman (1973) suggests that the prospect of loss accelerates individual information processing and problemistic search (March & Simon, 1958), increasing the likelihood that the decision maker will consider alternatives that are not as well learned or socially accepted (March, 1989). Thus, potential loss shifts attention toward novel solutions that also tend to be more risky than well-established solutions or problem-solving routines.

Prospect theory also predicts that individuals tend to be risk averse in the domain of gains, since they underweight potential additional gains and overweight the risk of potential loss

FIGURE 1
The Hypothesized Effect of Individual's Perceptions of the Environment on Responses to Those Events

Perception of environmental situation

	Potential loss	Potential gain
Resources	Nonisomorphic response (P1) Example: Potential loss of funding to a university results in the adoption of new budgetary practices (Covalski & Dirsmith, 1988)	Isomorphic response (P1) Example: Potential for gaining legitimacy (and related resources) causes cities to mimic other cities by adopting civil service practices used by those more established cities (Tolbert & Zucker, 1983)
Control	Isomorphic response (P2) Example: Decision makers in activist organizations adopt structures and procedures that conform to the expectations of their many constituents so as to retain control (Elsbach & Sutton, 1992)	Nonisomorphic response (P2) Example: The rise of market logic in the field of finance provides an opportunity for the creation of professional finance associations that stake claims for the control and governance of their field (Lounsbury, 2002)

Attribute of organization affected by loss or gain

from their current reference point (Kahneman & Tversky, 1979). Thus, individuals would rather take conservative action and not gain additional resources than take risks and face the prospect of losing what they already own.

The threat-rigidity hypothesis, however, posits that, in the face of threat, organizations and individuals tend to "rigidly" pursue routine activities. Threats result in restricted information processing and a simultaneous constriction of control (Staw et al., 1981). Consequently, familiar or well-established patterns of behavior are strictly followed. By adhering to these well-established routines, decision makers attempt to regain control over that which seems to be uncontrollable. The threat-rigidity hypothesis does not explicitly address the issue of how decision makers respond to opportunity. However, the implication of Staw et al.'s (1981) arguments is that the pursuit of opportunities allows organizations to go beyond their usual routines (Chattopadhyay, Glick, & Huber, 2001; Fox-Wolfgramm, Boal, & Hunt, 1998), since opportunities are associated with a sense of mastery over the situation, thus promoting greater risk taking.

Reconciling the Predictions of Prospect Theory and the Threat-Rigidity Hypothesis

Prospect theory seems to directly contradict the threat-rigidity hypothesis (Sitkin & Pablo, 1992) in predicting the riskiness of responses to threats and opportunities.[3] One way in which this difference can be resolved is to examine the nature of the threat or opportunity faced by the organization. Dutton and Jackson (1987), in their pioneering work on strategic interpretation, proposed that threats and opportunities are characterized by three dimensions. Threats involve a "*negative* situation in which *loss* is likely and

over which one has relatively *little control*," whereas opportunities imply a "*positive* situation in which *gain* is likely and over which one has a fair amount of *control*" (1987: 80). However, empirical work indicates two distinct yet related dimensions of threat and opportunity—one that relates to the loss (or gain) of resources and the other that relates to having loss (or gain) of control—and does not provide support for a distinct third dimension of positive and negative situations (Chattopadhyay et al., 2001; Thomas, Clark, & Gioia, 1993; Thomas & McDaniel, 1990).

Consistent with their findings and the theoretical arguments of Ocasio (1995), we argue that threats and opportunities lie along two dimensions: (1) the prospect of loss or gain of a resource and (2) a reduced or increased sense of control. Following a review of empirical work examining prospect theory in organizational settings (cf. Figenbaum & Thomas, 1988; Greve, 1998; Wiseman & Gomez-Mejia, 1998) and in its original formulation (Kahneman & Tversky, 1979), Chattopadhyay et al. (2001) concluded that prospect theory relates to the loss or gain of *tangible resources*. The original prospect theory studies consisted of scenarios in which subjects made decisions involving the potential loss or gain of money or lives (Kahneman & Tversky, 1979). Subsequent organizational work involved issues of managerial pay (Wiseman & Gomez-Mejia, 1998), a firm's return on equity (Figenbaum & Thomas, 1988), and performance (Greve, 1998).

The predictions of the threat-rigidity hypothesis, in contrast, have conceptualized threat as a loss of control rather than a loss of tangible resources (Chattopadhyay et al., 2001; Ocasio, 1995). Whereas prospect theory deals with "objectively risky but well-specified alternatives" (Ocasio, 1995: 297), the threat-rigidity hypothesis deals with alternatives "for which a probability distribution of outcomes is not known" (Ocasio, 1995: 297). Since the outcomes of any attempt by organizations to deal with these threats are largely unpredictable, the environment appears to be uncertain, in the sense that it is uncontrollable. As Jackson and Dutton (1988) show, this form of threat has to do with being constrained by the environment with regard to choices an individual can make. Further, the studies reviewed by Staw et al. (1981) in building the threat-rigidity model for organizational processes (cf. Holsti, 1971; Paige, 1972; Rubin, 1977)

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[3] For ease of presentation, we use the simplest form of prospect theory here, without distinguishing between the levels of certainty associated with the threat or the magnitude of loss associated with the threat. We note that, under extremely high levels of uncertainty and loss, the predictions of prospect theory will more closely resemble those of the threat-rigidity hypothesis (Shapira, 1995). We also note that although we examine threats and opportunities tied to the loss or gain of legitimacy, our model is equally applicable to situations where organizations act in the institutional domain, with either isomorphic or nonisomorphic responses to threats or opportunities in a purely technical domain.

focus on the chaotic nature of the environment that precludes any actions by an organization to effectively control the environment (Chattopadhyay et al., 2001). Such an organization lacks adequate understanding about cause-and-effect relationships between its actions and the environment and is, therefore, constrained and controlled by the environment.

Studies in the behavioral decision theory paradigm also provide evidence consistent with our reasoning regarding the control dimension of threat. Thaler (2000) argues that individuals who are uncertain of their ability to control their impulses regarding drinking, eating, or saving money often engage in risk-averse practices aimed at reducing their ability to indulge themselves. For example, people often put money into a Christmas club account, gaining little or no interest, because they are unsure of their ability to control their tendency to indulge themselves. Other studies have shown that individuals are more likely to place bets on predictions in areas where they perceive themselves to be knowledgeable (Heath & Tversky, 1991) or where there is an illusion of control, even when, objectively, there is no greater control over the environment (Langer, 1975).

This effect has been replicated in organizations where positively biased forecasts result from an illusion of control, created by such actions as spending large sums of money on resources assumed to be capability enhancing in the absence of any supporting data (Durand, 2003). Risky behavior is therefore more likely when decision makers perceive a sense of mastery and control over the domain in question than when there is an absence of such perceptions.

Relationship Between Resources and Control

A threat or opportunity linked to one dimension could arguably influence the other dimension as well. For example, an organization with greater levels of resources may have greater control over its environment (Dutton & Duncan, 1987). Similarly, a threat to an organization's control over the environment may also influence its resources, either immediately or in the long term. However, evidence reviewed below suggests that threats (and opportunities) to resources and control are not always linked in managerial perceptions.

Previous research on managerial interpretations of events, as pertaining to resource and control dimensions of threats and opportunities (Chattopadhyay et al, 2001; Thomas et al., 1993; Thomas & McDaniel, 1990), shows that these dimensions are only moderately correlated (ranging from .50 to .56), which suggests that, in some situations, managers interpret an event as pertaining to only one dimension of a threat or opportunity without attending to the other (e.g., Durand, 2003), whereas in other situations they focus on both dimensions simultaneously. Evidence also exists that the same individuals may show opposing risk preferences, depending on whether they perceive a threat or opportunity as related to control or resources (March & Shapira, 1987). Managers interviewed by March and Shapira agreed with prospect theory arguments that risk taking is better justified in the face of failure to meet targets and that a strong position leads to less risky behavior. But these managers also saw risk taking as more warranted when greater assets gave them the confidence that they were not losing control over the organization's future and when they viewed the situation as informed risk taking than when lack of control made them liken the situation to gambling.

The above arguments are consistent with those of researchers studying category-based inferences (cf. Malt, Ross, & Murphy, 1995; Murphy & Ross, 1994; Ross & Murphy, 1996), who suggest that, under some conditions, individuals are likely to make inferences about an event using a single category to identify it, whereas in other conditions individuals may base inferences on associating the event with multiple categories. Individuals are likely to use a single category to identify an event if that particular category dominates other categories in the process, with features of the event clearly mapping onto the dominant category and not onto other subordinate categories. Once a target category has been chosen as most likely to represent the event, other categories are not very likely to be considered in making inferences about it. However, when a particular category does not clearly dominate all others, individuals may draw inferences from multiple categories to decide on an appropriate response to an event (Murphy & Ross, 1994; Ross & Murphy, 1996).

Our model needs to be flexible in encompassing both situations outlined above: the first where decision makers clearly identify whether

a threat or an opportunity is related to resources or control, and the second where ambiguity exists as to which of the dimensions is involved, leading decision makers to make inferences simultaneously from both categories. We first consider situations where decision makers are faced with events that may be unambiguously categorized as threats and opportunities pertaining to either resources or control and examine the impact of such categorization on gaining or losing legitimacy. We do this in the following way. We begin by presenting a case to show that institutional theorists have discussed the links between legitimacy and the loss or gain of resources and control. We then examine isomorphic and nonisomorphic actions in terms of their associated levels of risk in order to link them to the predictions of prospect theory and the threat-rigidity hypothesis. Finally, we develop propositions regarding whether organizational decision makers will initiate isomorphic or nonisomorphic actions in response to control-related versus resource-related legitimacy changes.

Legitimacy related to resources and control. Oliver (1991) describes two types of institutional pressures faced by organizations. The first relates to their dependence for resources on the institutional entity, and the second relates to their discretion or autonomy from the institutional entity. Other institutional theorists have not categorized the types of environmental events that affect legitimacy in terms of their effect on resources and on control, but a close reading of the literature suggests that the types of legitimacy-related pressures faced by organizations are frequently related either to resources or to control.

A number of institutional theorists have discussed legitimacy-related pressures that could affect or be affected by the organization's access to resources (Arthur, 2003; Covaleski & Dirsmith, 1988; Galaskiewicz, 1991; Haunschild & Miner, 1997; Tolbert & Zucker, 1983). For example, in their work on the spread of civil service reform, Tolbert and Zucker (1983) argued that the adoption of these reforms gave legitimacy to civic governments, and thus ensured the continued flow of resources to those civic bodies. In a related vein, Galaskiewicz (1991) argued that the business community in Minneapolis–St. Paul tried to institutionalize and legitimize philanthropic practices in order to ensure continued corporate donations to charity. More recently,

Arthur (2003) showed how the adoption of work-family human resource initiatives increased the expected value of the firm. She suggested that, after 1981, when work family initiatives had gained legitimacy, firms gained financial value through the adoption of these legitimized practices. These studies indicate that legitimacy can be conceptualized as being related to the potential loss or gain of resources for the firm.

Similarly, legitimacy can be related to the extent to which the organization is constrained by the environment with regard to choices it can make. Organizations that lose legitimacy could lose the ability to control processes that could lead to important outcomes. By gaining legitimacy, organizations could possibly exert more control over their environment, rather than being forced to accept the pressures of the environment. These losses and gains of legitimacy-related control are often presented in terms of managing the conflicting demands of varying constituents of the environment. The greater the degree to which the organization (and not the constituents) controls the agenda, the more likely it is that the organization will be able to achieve the outcomes it desires.

Several empirical studies illustrate this point (Holm, 1995; Newman, 2000; Zilber, 2002). For example, Holm (1995) points out that the demise of the Mandated Sales Organizations in the Norwegian fishing industry could be linked to the "delegitimation of the MSA myth" (1995: 416) that arose from changes in ideology and in the power relations among fishermen, processors, the government, and scientific organizations. Zilber (2002), in her study of an Israeli rape crisis center, argues that legitimacy was, in part, related to the relative power of the different key actors in the center and to their ability to control the agenda of the center. The emergence of new economies in Central and Eastern Europe created institutional upheaval, where organizations had to contend with uncertain environments and had no institutional templates to deal with these changing environments (Newman, 2000). In such a case, organizations that are able to gain legitimacy could arguably gain some level of control over their environment.

Thus far, we have shown that the loss or gain of legitimacy is linked either to the loss or gain of resources, or to the loss or gain of control. Organizational responses to the potential loss or gain of legitimacy are, as noted earlier, cate-

gorized in institutional theory as being isomorphic or nonisomorphic. In the next section we argue that such actions represent different levels of risk to the organization. Building on this idea, we then integrate isomorphism with the risk-related predictions of prospect theory and the threat-rigidity hypothesis.

Risk and isomorphism. Prospect theory and the threat-rigidity hypothesis both focus on the riskiness of actions. In order to study institutional processes in terms of these two theories, it is important that we examine the relationship between risk and isomorphism. Here we first distinguish clearly between isomorphism and nonisomorphism, and we then determine the level of risk associated with isomorphic versus nonisomorphic actions taken by organizations responding to legitimacy-related threats or opportunities.

Isomorphic responses are those actions taken by an organization in response to an environmental stimulus that are consistent with the responses of other actors in the environment. These could include the adoption of similar structures (Fligstein, 1985), practices (Mezias, 1990; Sitkin & Sutcliffe, 1991; Zilber, 2002), or rhetoric (Elsbach & Sutton, 1992; Sitkin, Sutcliffe, & Reed, 1993). Isomorphic responses stem from and strengthen the institutionalized nature of organizational structures, practices, and rhetoric. Nonisomorphic responses, however, involve departure from established structures, practices, and utterances of other actors in the environment. As organizations depart from established ways of doing things, they set up the ground for challenging the legitimacy of those established ways, and they create the framework for new legitimate forms (Cardinal, Sitkin, & Long, 2004; Covaleski & Dirsmith, 1988; Garud, Jain, & Kumaraswamy, 2002).

It is safest for an organization to engage in actions that are approved of by powerful political actors in the environment, that are used by successful organizations in the field, or that have the backing of a profession (Aldrich, 1999; Baum & Oliver, 1991; Meyer & Scott, 1983; Ruef & Scott, 1998; Sitkin & Sutcliffe, 1991). For example, Deephouse (1996) found that strategic isomorphism was a consistent predictor of legitimacy conferred by both government regulators and the general public. Similarly, an organization that is challenged about its employment practices in a developing country may respond in a

relatively safe manner by imitating the actions or rhetoric of other successful multinational organizations that operate in that country (Kostova & Zaheer, 1999). Finally, Boje (1998) argues that Nike, when questioned about its employment practices in Asia, attempted to gain legitimacy by indicating compliance with a code of conduct that would be audited by an independent body.

However, organizations that depart from established ways of doing things may have their legitimacy questioned by important external actors (Browning & Folger, 1994; Elsbach & Sutton, 1992). As Goodstein notes, the failure to "incorporate practices widely adopted by other organizations may be perceived as a risk to an organization's legitimacy" (1994: 359). The lack of legitimacy associated with nonisomorphic activities may deprive the organization of essential operating resources. For instance, D'Aunno, Sutton, and Price (1991) and Singh, House, and Tucker (1986) found that organizations that do not adapt to institutional pressures and that engage in isomorphic practices are less likely to get scarce resources and to survive.[4] Thus, isomorphic actions represent relatively low levels of risk in the context where organizations face legitimacy-related changes in their environment, compared to nonisomorphic actions that are associated with relatively high levels of risk.

Responding to resource-related threats and opportunities. Since prospect theory predicts riskier actions in the face of resource-related threats and more conservative actions in the face of resource-related opportunities, it follows that the actions taken by organizations facing threats to resource-related legitimacy will be nonisomorphic, whereas those of organizations facing opportunities to gain resource-related legitimacy will be isomorphic. We provide support for these arguments below.

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[4] We note that taking no action in response to an environmental event is a possible response (Oliver, 1991). However, we do not explore this type of response in this article for three reasons. First, taking no action could be considered a risk-seeking action in the face of threat, but not in the face of opportunity. Dealing with this would add complexity to the paper and distract from its main focus. Second, the lack of change could be attributed to factors such as inertia, thus muddying our arguments. Finally, an empirical test of inertia, or taking no action, would involve the testing of a null hypothesis, which is a problematic endeavor.

Threats to immediate stocks of resources enhance the likelihood of nonisomorphic change in at least two ways. First, as we have noted, prospect theory suggests that decision makers who are faced with potential loss are more likely to engage in risky actions (Kahneman & Tversky, 1979), making nonisomorphic change a more appealing alternative. Specifically, decision makers facing a situation where their organization is threatened with the loss of resources (tied to a loss of legitimacy for their organization) may underweight the risk of additional potential loss of legitimacy (and thus resources) and overweight potential gains from actions that could get them out of their current loss position.

Second, threats to resources motivate organizational leaders to conduct broader searches for alternatives that may extend beyond the bounds of social acceptability and that may promote risk-seeking behavior (March & Simon, 1958; Ocasio, 1995). Since they stand to lose resources if they adhere to current practices, these leaders may underweight the risks associated with departing from established ways of doing things and with challenging the legitimacy of established ways and, as a result, attempt to create the framework for new legitimate forms through nonisomorphic change.

The institutional theory literature contains several studies that support our predictions regarding organizational responses to potential loss of resources. For example, Covaleski and Dirsmith (1988) describe how the decreasing financial contribution of the State of Wisconsin to the University of Wisconsin System was associated with system members and the press questioning the legitimacy of the budgeting system on which funding was based. Consequently, the university initiated the use of "qualitative narratives" to regain funding—a nonisomorphic action that departed significantly from previous budgetary practices. Similarly, Kraatz and Moore (2002) found that colleges more peripheral to the institutional field and facing resource loss were more likely to adopt controversial programs than colleges that were more recognized and assured of their resources. Finally, Peng and Heath (1996) describe how Eastern European firms operating in planned economies in transition, which faced huge losses due to the loss of their traditional Soviet markets and associated institutions and to the underdevelopment of

strategic factor markets such as financial markets, turned to a strategy of growth through forming higher-risk, loosely structured networks with other firms (a nonisomorphic action resulting in a new organizational form).

Conversely, in the domain of gains, prospect theory predicts that individuals tend to be risk averse because they underweight potential additional gains in legitimacy associated with resources and overweight the risk of potential loss from their current reference point. Since isomorphic actions are risk-averse actions aimed at gaining or maintaining legitimacy, we predict greater levels of isomorphism when decision makers interpret an environmental event as providing their organization an opportunity to gain resource-related legitimacy. For example, when confronted with resource opportunities tied to the legitimacy of organizational practices, organizations used isomorphic actions aimed at seizing the opportunity to gain resources, as reported in studies examining the spread of such organizational practices as adopting civil service reform (Tolbert & Zucker, 1983), making charitable contributions (Galaskiewicz & Wasserman, 1989), changing human resource practices (Sherer & Lee, 2002), or using investment bankers in making acquisition decisions (Haunschild & Miner, 1997). Based on these arguments, we propose the following.

> *Proposition 1: Organizational decision makers who perceive that their organization faces legitimacy-related* loss *of resources are likely to initiate nonisomorphic actions, whereas those who perceive that their organization faces legitimacy-related* gain *of resources are more likely to initiate isomorphic actions.*

Responding to control-related threats and opportunities. The threat-rigidity hypothesis posits that, in the face of control-related threats, organizations and individuals tend to fall back on well-recognized or routine activities (Staw et al., 1981). This response is aimed at reestablishing a sense of control over the situation. In the context of institutional theory, isomorphism is defined as a response that is well learned within the institutional field (DiMaggio & Powell, 1983). One way of reestablishing perceived control over a situation is to engage in isomorphic actions that enable the organization to achieve

legitimacy in the eyes of key stakeholders by copying successful actors within the institutional field. Legitimacy is required to help the organization survive through convincing stakeholders that actions taken by the organization are the correct or appropriate actions in that context (Deephouse, 1996). The "rigidity" proposed by the threat-rigidity hypothesis in this case would entail engaging in isomorphic actions, since these are the most easily available solutions to the problem posed by the threat. These actions are not necessarily the correct actions for the organization in terms of efficiency, but they are correct in terms of protecting its legitimacy.

The institutional theory literature contains examples of studies dealing with potential loss of control. For instance, Elsbach and Sutton (1992) found that key decision makers in activist organizations managed control-related threats to organizational legitimacy by adopting structures, procedures, and personnel that kept their key constituencies at bay through conforming to normative expectations just sufficiently to satisfy a fractionated and potentially controlling environment. Similarly, Sitkin and Sutcliffe (1991) found that pharmacists whose legitimacy-based professional autonomy was being challenged exhibited behaviors approved by their profession in order to ward off this threat and bolster their legitimacy. Newman (2000) argues that firms in the transition economies of Eastern and Central Europe sometimes mimic the organizing templates used by successful firms in other cultures that are viewed as legitimate. Because institutional upheavals have made the old "rules of the game" less relevant, and thus less predictable as indicators of legitimacy, firms struggling for a sense of control draw on patterns of behavior that have been established in Western economic environments that are viewed increasingly as legitimate in their own economies.

The arguments associated with the threat-rigidity hypothesis suggest that opportunities for gaining control allow organizations to go beyond their usual routines (Fox-Wolfgramm et al., 1998), since the recognition of and focus on opportunities are associated with a sense of mastery over the situation and, thus, promote greater risk taking. An opportunity to gain control-related legitimacy is one where the situation allows the organization to gain legitimacy for new or existing practices in the eyes of key

stakeholders, and to leverage that legitimacy to gain greater control over the environment. This perception of gaining control over the environment promotes organizational flexibility (as opposed to rigidity) so that the organization can customize its response to the opportunity and not copy existing practices in the institutional field. That is, organizations make nonisomorphic responses to such opportunities.

Within the institutional domain, Lounsbury (2002) argues that the decline in regulatory logic and the rise of market logic operating in the field of finance gave rise to opportunities for new sets of actors to work toward the professionalization and legitimation of financial occupations (a nonisomorphic change) and, thus, to stake claims for the control and governance of a field. Spicer et al. (2000) compare two processes through which Eastern European countries embraced privatization of their economies. For example, they describe how the gradual process of negotiated property rights reform allowed for the emergence of institutional rules and control in Poland, while the faster process of mass privatization in the Czech Republic did not do so. Consequently, Polish business leaders felt more in control of their business environment and engaged in long-term, collaborative, and risky (nonisomorphic) actions aimed at transforming their institutional context. Czech business leaders, who were confronted with a more fragmented institutional environment, were more self-focused and less likely to engage in collaborative and transformational actions, with the result that the state remained an important part of the Czech economy.

> *Proposition 2: Organizational decision makers who perceive that their organization faces legitimacy-related* loss of control *are likely to initiate isomorphic actions, whereas those who perceive that their organization faces legitimacy-related* gain of control *are likely to initiate nonisomorphic actions.*[5]

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[5] These propositions are based completely on the individual's interpretation of events, highlighting the possibility that the same event can evoke differing interpretations and, thus, different actions. However, organizations and decision makers can also face legitimacy-related pressures that are far less open to multiple interpretations, such as those

Dealing with Ambiguous Interpretations of the Environment

The two propositions above apply when decision makers interpret the environment as clearly affecting either legitimacy-related organizational resources or legitimacy-related organizational control. It may not, however, always be as easy for decision makers who are interpreting the environment to discern whether the loss or gain of legitimacy will change their organization's access to resources or its control over the environment. Under conditions of ambiguity, we suggest below that decision makers might simultaneously use different types and combinations of actions in parallel that reflect their mixed reading of the environment.

Researchers studying category-based inferences (cf. Malt et al., 1995; Murphy & Ross, 1994; Ross & Murphy, 1996) suggest that decision makers face uncertainty of two types in the inference process. The first type of uncertainty relates to ambiguity about whether an event may be classified into a particular category, and the second type of uncertainty relates to assessing risks associated with the given category. These two sorts of uncertainty may combine to influence an individual's risk evaluations and response to a specific event (Einhorn & Hogarth, 1986; Ross & Murphy, 1996; Smithson, 1999). For example, a study of horse race betting behavior showed that the ease of identifying the favorite interacted with the "odds" of winning to predict risk taking (Johnson & Bruce, 1998).

We have so far dealt with the second type of uncertainty, where a decision maker responds once an event is categorized as a control- or resource-related threat or opportunity. We now shift our focus to those situations where uncertainty exists as to the type of threat or opportunity the decision maker faces. We follow Smith-

son (1999) and label this type of uncertainty *ambiguity* to differentiate it from the sorts of uncertainty associated with responding to events that have been categorized with certainty as being related either to resources or control. This sort of ambiguity occurs when one category does not obviously dominate others, in terms of identifying an event, and leads to the simultaneous use of multiple categories in decision making (Murphy & Ross, 1994). Two categories are more likely to be simultaneously invoked if they are both relevant to the decision at hand (Ross & Murphy, 1996), and if the two categories are distinct yet related to each other so that invoking one makes the other salient to the decision maker (Malt et al., 1995). Since resources and control are both important considerations for organizations, and since previous research (Chattopadhyay et al., 2001; Thomas et al., 1993) has shown the resource and control dimensions of threat and opportunity to be distinct yet related, we argue below that, at times, an event may be simultaneously linked to both categories.

As we noted earlier, a decision maker categorizing an event as a resource-related threat may be influenced to act in a manner opposite that when categorizing an event as a control-related threat. Such opposing tendencies are likely to engender cognitive dissonance in the decision maker and to result in such psychological states as conflict and ambivalence (Cacioppo & Berntson, 1994). Moreover, decision makers who are perceived to base their decisions on an ambiguous understanding of a situation may suffer from lower credibility (Smithson, 1999). For instance, when Sun Microsystems saw in Java the opportunity to control the internet-related market, its leaders took the risk of collaborating with other software producers to establish Java as an architectural standard (Garud et al., 2002). At the same time, they were pushed in the more conservative direction of rejecting such coalitions and offering competing products in order to profit from Java. This led Sun to lose its legitimacy among its coalition partners and standards organizations.

How can a decision maker resolve such an ambiguous situation and retain credibility? We suggest that decision makers might simultaneously utilize different combinations of actions in parallel that reflect their mixed reading of the environment, while minimizing cognitive disso-

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linked to coercive or normative isomorphism (DiMaggio & Powell, 1983). While our arguments are most clearly applicable in the case of mimetic isomorphism, we believe that organizational actors nevertheless have a role in interpreting coercive and normative pressures and deciding whether they are threats or opportunities (Mizruchi & Fein, 1999). For example, Edelman (1990) found that even under conditions that were directed by legal mandate, and thus ostensibly less ambiguous, there was variation in managerial and organizational responses to these pressures. Thus, we would expect our predictions, which are based on individual interpretations of environmental pressures, to hold across all forms of pressures for isomorphism.

nance and retaining credibility by decoupling responses that oppose one another in terms of their associated direction and risk. Thus, Garud et al. (2002) suggest that Sun might have maintained its legitimacy had it decoupled its actions such that cooperation among coalition partners was encouraged in order to build the community sharing the Java standards, but simultaneously tied up the contracts with legal mechanisms to prevent members from violating the standards that could affect future sales of Sun's Java-related products. We elaborate on these ideas below.

Institutional theorists have suggested that managers cope with multiple pressures by taking substantive and symbolic actions simultaneously (Meyer & Rowan, 1977; Westphal & Zajac, 2001). Meyer and Rowan (1977) propose that "decoupling" characterizes how organizations adopt distinct structures and/or practices for dealing with the potentially conflicting technical demands of the environment while maintaining institutionalized myths that enhance the legitimacy of the organization. One of the examples they give illustrates the decoupling process:

> Human relations are made very important. The organization cannot formally coordinate activities because its formal rules, if applied, would generate inconsistencies. Therefore, individuals are left to work out technical interdependencies informally. The ability to coordinate things in violation of the rule—that is, to get along with other people—is highly valued (Meyer & Rowan, 1977: 357).

Decoupling serves to protect internal routines from external uncertainties, while simultaneously retaining legitimacy from important external bodies.[6]

There are a number of explanations for how and why organizations decouple their actions. Meyer and Rowan's (1977) explanations suggest that attempts to control activities in institutionalized organizations would lead to conflict ow-

ing to the inconsistencies between technical requirements and nontechnical or symbolic ones. Thus, in order to appear to be responsive to external pressures, yet at the same time maintain the coherence of internal functioning, organizations decouple their formal structures from their activities and practices.

There are numerous illustrations of this phenomenon in the institutional literature. For example, Westphal and Zajac (1994, 2001) have portrayed decoupling as a means of resolving potential conflicts between the CEO and the board of directors. They found that stock buyback programs desired by the board were formally adopted by the organization but not implemented by CEOs who were against the programs. Another example of this phenomenon is provided by Basu, Dirsmith, and Gupta (1999), who show that the U.S. General Accounting Office avoided confrontation with external parties such as Congress and the press while maintaining effective auditing practices by presenting images to these external groups that differed from the work the organization actually did backstage.

Each of these examples focuses on a situation where overt conflict among various stakeholders is avoided through decoupling substantive and symbolic actions in a manner that enables organizations to seemingly proceed simultaneously in opposing directions. We extend this work by suggesting that decoupling may help to resolve conflicts perceived by decision makers, arising from their mixed interpretations of the environment. Responses consistent with the idea of decoupling have been identified and discussed in a wide range of research dealing with managerial decisions under conditions of ambiguity (cf. Enserink, 2000; Hatfield, Tegarden, & Echols, 2001; Johnson, 2001). Decision makers hedge their bets by taking multiple actions that protect themselves and their organizations from the possibility their understanding of the environment is flawed.

For instance, Hatfield et al. (2001) show that firms in the personal computer industry successfully used a hedging strategy in the face of uncertainty prior to the emergence of a dominant design. These organizations invested in multiple technologies to counter the ambiguity that existed regarding which of the existing technologies would emerge as dominant. Similarly, Enserink (2000) argues that hedging strategies

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[6] While we use Meyer and Rowan's (1977) term *decoupling* in the rest of this paper, we recognize that organizational responses to threats to legitimacy may be described more accurately as *loosely coupled* (Orton & Weick, 1990), rather than *decoupled*. We use the more extreme term (*decoupled* rather than *loosely coupled*) merely to highlight the point that organizations can use different patterns of substantive and symbolic responses to deal with legitimacy-related challenges.

improved the chances of successfully marketing innovative yet controversial technologies. Johnson (2001) shows that toy manufacturers engaged in both financial and operational hedging as a result of the 1997 Asian financial crisis. They set up operations in a number of countries and made sure their transactions were done in several stable currencies, when volatile economies gave rise to ambiguity regarding which country would be able to deliver products most efficiently.

In each of the above examples, the ambiguity arising from the inability of decision makers to discern which of the multiple candidates could potentially be categorized as a threat or opportunity gave rise to a strategy of acting simultaneously on all of them. We are specifically concerned with those situations where decision makers cannot discern whether a particular threat or opportunity relates to resources or to control and simultaneously attend to both. The predictions of prospect theory and the threat-rigidity hypothesis suggest contrasting actions when resources are at risk, compared to when control is at risk. Acting simultaneously on either threats or opportunities related to resources and to control will result in taking actions that are opposed to one another in terms of risk and direction and therefore lead to a loss of credibility for the decision maker. We concur with Garud et al. (2002) that decision makers may decouple the opposing responses in order to maintain legitimacy of their actions.

> *Proposition 3: Organizational decision makers who are unsure of their reading of the environment relating to whether their organization faces legitimacy-related loss (or gain) of control or loss (or gain) of resources are likely to initiate decoupled actions.*

Following the work of such researchers as Pfeffer (1981) and March and Olsen (1989), Oliver (1991) and Westphal and Zajac (1994, 2001; Zajac & Westphal, 1995) have argued that the exact nature of the decoupling can be explained in part by the relative power of competing organizational and institutional interests. These scholars provide a sociopolitical explanation for the likelihood of the occurrence of decoupling, arguing that since substantial responses cannot be made to appease two actors who diametrically oppose one another, actions that are more sym-

bolic in nature may be undertaken to appease those actors on whom the organization is less dependent for survival. In one study, Westphal and Zajac (2001) found that the CEO's power over the board was positively related to the firm's decoupling of its stock buyback program from actual practice. The symbolic action (instituting a stock buyback program) was taken in a realm that the key decision makers deemed less critical, whereas the substantive action (not implementing that program) was taken with regard to the issue that the decision makers took to be of greater importance. This is similar to Basu et al.'s (1999) argument that the relationship between the work done by the General Accounting Office of the U.S. government and the image that the organization presents to external parties is a function of the power those parties have over the organization. Thus, decision makers systematically decouple their responses such that the more powerful actors' interests are attended to while the requirements of the relatively less critical are given symbolic attention (Westphal & Zajac, 2001; see Westphal & Zajac, 1998, for a similar example).

In another study, Elsbach and Sutton show that activist organizations "decoupled illegitimate actions from formal organizational structures by performing these actions as anonymous individuals or as a part of . . . temporary groups of individuals that operated under names other than ACT UP or Earth First!" (1992: 716). Here the illegitimate activities of members comprised the substantive actions since they most directly helped to achieve key aspects of the organizational mission, including raising awareness of the espoused cause of the activists. Institutional conformity in structures and procedures was maintained in areas more peripheral to the organizational mission in order to provide these organizations with legitimacy from a broad segment of society (Elsbach & Sutton, 1992). Here, too, substantive actions were shaped by the influence of powerful decision makers who had a strong influence on defining the core values of the organization (Lyles & Schwenk, 1992), while symbolic actions were taken in those areas deemed less critical.

In summary, when a decision maker is unsure whether a threat to legitimacy is related to resources or to control, the decision maker will simultaneously attend to both. Further, the decision maker can do this by decoupling re-

sponses such that the substantive response relates to the threat or opportunity associated with the more powerful actor and the symbolic response relates to the threat or opportunity associated with the less powerful actor.

Proposition 4a: When decoupled organizational actions stem from a mixed reading of the environment, decision makers who perceive that more powerful actors threaten legitimacy-related resources and less powerful actors threaten legitimacy-related control are likely to initiate substantive nonisomorphic actions and symbolic isomorphic actions.

Proposition 4b: When decoupled organizational actions stem from a mixed reading of the environment, decision makers who perceive that more powerful actors threaten legitimacy-related control and less powerful actors threaten legitimacy-related resources are likely to initiate substantive isomorphic actions and symbolic nonisomorphic actions.

Proposition 4c: When decoupled organizational actions stem from a mixed reading of the environment, decision makers who perceive that more powerful actors can affect legitimacy-related gain of resources and less powerful actors can affect legitimacy-related gain of control are likely to initiate substantive isomorphic actions and symbolic nonisomorphic actions.

Proposition 4d: When decoupled organizational actions stem from a mixed reading of the environment, decision makers who perceive that more powerful actors can affect legitimacy-related gain of control and less powerful actors can affect legitimacy-related gain of resources are likely to initiate substantive nonisomorphic actions and symbolic isomorphic actions.

DISCUSSION

We have developed a model to predict whether decision makers in organizations that are faced with legitimacy-related environmental events are likely to initiate isomorphic or nonisomorphic change. We have integrated the predictions of prospect theory and the threat-rigidity hypothesis with the arguments of institutional theory to suggest that possible patterns of action will depend on whether organizational decision makers view these environmental events as providing the potential for gaining or losing resource-related or control-related legitimacy. Finally, we have predicted that decision makers who believe the situation to be ambiguous will initiate decoupled responses so as to protect themselves and their organizations. This article provides several interesting avenues for empirical and theoretical consideration.

Role of Individual Agency

In our introduction we noted that we join institutional researchers in emphasizing the importance of increasing our understanding of the cognitive underpinnings of institutional persistence and change. We believe that by focusing on individual cognition we can benefit from established theories of individual behavior that can be used to enhance the explanatory power of institutional theory. Elsbach and Sutton (1992) have provided us with a good example of this type of productive theory building, bringing together institutional theory and impression management to explain how impression management tactics are used by organizations to deal with illegitimate actions of members that bring much needed publicity to the organization.

In this paper we have been able to draw on a rich body of literature in the area of decision making under uncertainty in order to explain institutional persistence and change. In doing so, we have been able to contribute to both areas. We have elaborated on Chattopadhyay et al's (2001) theoretical framework to bring together studies of framing effects in the threat-rigidity and behavior decision theory traditions so as to provide a richer understanding of how they complement one another. We have extended this framework to understand organizational situations where categorization is more complex than is assumed in much of this work, and we have examined the influence of multiple categorizations on framing effects in ambiguous institutional environments.

Our work both complements and contrasts Oliver's (1991) work on strategic responses to institutional pressures. Paralleling Oliver's integration of resource dependence with institutional theory to emphasize unbiased actions that stem from strategic intent, we have integrated prospect theory and the threat-rigidity hypothesis with institutional theory to emphasize the cognitive biases that shape organizational responses to environmental events. Not surprisingly, Oliver suggests that the degree of dependence on another entity predicts an organization's degree of resistance to institutional pressures on both dimensions. Thus, her arguments suggest that uncertainty that is related to resources and control will have similar effects.

In contrast, our theory leads to a distinctly different prediction from hers, in that we suggest that the framing of institutional pressures as involving threats or opportunities related to resources or control will lead to opposite effects in terms of the resistance or acquiescence of organizations to institutional pressures. It may be that the two predictor variables—framing and dependence—are parallel or opposing in their influence, or they may interact with one another. Resource dependence may influence the framing of events, or effects related to framing may overwhelm resource dependence responses to a particular event. In future research scholars can aim to build a model integrating or contrasting these two approaches.

These attempts represent a small part of the potential questions that could be examined regarding the role of cognition and agency in institutional theory. For example, our focus with respect to multiple categorizations has been on a threat or an opportunity being labeled *resource related* and *control related* simultaneously. However, evidence suggests that events may also be categorized simultaneously as a threat and an opportunity. Simultaneous positive and negative evaluations of an event can and do occur (Cacioppo & Berntson, 1994; Priester & Petty, 1996), and the use of multiple categories to evaluate an event is more likely in situations where the categories are related and overlapping (Ross & Murphy, 1996), as they are in the case of threats and opportunities (Jackson & Dutton, 1988).

For example, Spicer et al. (2000) found that opportunistic behaviors by Czech businesses were related to the breakdown of their tradi-

tional institutional framework. The opportunity to make a quick profit and the threat of losing control over long-term developmental projects reinforced each other and led to short-term, self-focused, and relatively low-risk actions on the part of key decision makers. While we did not extensively pursue this line of reasoning for the sake of simplicity in this initial model, it may be an area to examine in the future when constructing more complete and complex models of decision making.

Another area of exploration could include research on selective perception (Beyer, Chattopadhyay, George, Glick, ogilvie, & Pugliese, 1997; Chattopadhyay, Glick, Miller, & Huber, 1999; Sutcliffe, 1994; Walsh, 1988), which could be used to look at whether prior exposure to legitimacy-related challenges would cause decision makers within organizations to view an issue as having a legitimacy-related component (Sitkin & Sutcliffe, 1991). Perceptions could be examined at the level of the individual decision maker or at the level of top management teams (Chattopadhyay et al., 1999; Sutcliffe, 1994). Dutton, Ashford, O'Neill, and Lawrence's (2001) work on issue selling could be used to study when and how individuals in organizations persuade top management teams and other key decision makers to act on their interpretations of legitimacy-related threats or opportunities. These ideas could be incorporated with the entrepreneurship literature to examine, for instance, how issues are sold in order to gain legitimacy for entrepreneurial activity. This is similar to the work done by Lounsbury and Glynn (2001) on the use of storytelling to enhance the legitimacy of entrepreneurial ventures, and thus to gain access to resources.

How Environmental Framing Affects Institutional Outcomes

The role of individual cognition as a mediator of the relationship between environmental events and organizational actions is well established in the work of those researchers following in the footsteps of Daft and Weick (1984) and Hambrick and Mason (1984). However, this is a connection that has not been explored extensively within institutional theory. There are several reasons why it might be helpful to examine individuals' interpretations of environmental pressures. By examining the role of individual

framing of environmental events, we might be able to shed light on some of the contradictions that exist in institutional theorists' writing. For instance, Oliver (1992) hypothesizes that deinstitutionalization (i.e., a departure from established isomorphic patterns of action) occurs as a result of political, functional, and social pressures. Her description of these forces closely resembles DiMaggio and Powell's (1983) description of the forces that push organizations toward isomorphism (i.e., homogeneity of organizational form)—coercive political pressures, mimetic pressures to imitate successful actors within an institutional field as a way of dealing with uncertainty, and normative pressures that result from professionalization. These writers appear to suggest that central institutional pressures have diametrically opposite effects on institutional responses by organizations.

Empirical work also supports this idea of similar pressures resulting in different outcomes. Covaleski and Dirsmith (1988) found that threats to a university's interests caused it to reject institutionally prescribed budgetary practices, while Edelman (1990) found that organizations adopted readily acceptable formal structures and procedures to enhance their perceived legitimacy in response to external threats. We interpret this difference as relating to a focus on resources versus a focus on control—in the case described by Covaleski and Dirsmith (1988), key decision makers had framed the threat as being related to the loss of resources, while in the Edelman case (1990), the key decision makers framed the changes in EEO rules as a potential loss of control. Consequently, we have suggested, the organizations reacted in different ways because the type of threat involved had a different focus.

The understanding of individual interpretations of the environment is also very relevant in studying organizations operating in fairly complex institutional environments. For instance, Kostova and Zaheer (1999) provide a model to help understand the challenges in gaining and maintaining legitimacy faced by multinational enterprises operating in complex institutional environments. While Kostava and Zaheer's focus is primarily on characteristics of the environment, of the organization, and of the legitimation process, the examples they provide of organizations dealing with legitimacy-related challenges suggest that responses depend in part on whether those challenges are seen by organizational decision makers as threats or opportunities. Similarly, environmental framing can be relevant in studying whether decision makers conform to or challenge the institutionalized environments of emerging and planned economies (Lee & Pennings, 2002; Newman, 2000; Peng & Heath, 1996; Spicer et al., 2000). This can help explain further why there is a diversity of organizational responses within these economies to similar environmental events.

These and other questions could be examined empirically following the precedents set by Thomas et al. (1993), Chattopadhyay et al. (2001), and Garud et al. (2002). The propositions presented in this paper could be tested with data collected from decision makers (Chattopadhyay et al., 2001) in a single industry (Thomas et al., 1993) or economy (Newman, 2000; Spicer et al., 2000) that has recently undergone a major institutional change, such as the establishment of new rules or codes of conduct (Garud et al., 2002). For instance, the auditing and accounting professions or the software industry might be worthwhile targets of study. Data could also be collected from organizations operating in economies that are facing the simultaneous pressures of persistence and change (Newman, 2000; Spicer et al., 2000). We could use a combination of interviews and questionnaires to get key decision makers within organizations to describe environmental changes and how they reacted to those changes. Environmental events could then be coded to determine whether individuals saw them as threats or opportunities, and whether they believed the events affected resources or control. Alternatively, these propositions could be tested with an in-basket methodology similar to that used by Thomas et al. (1993). Key organizational decision makers could be provided with scenarios in which an organization faces a legitimacy-related environmental event. Questionnaires could then be used to assess their interpretations and recommendations for subsequent action.

Haunschild and Miner's (1997) work provides us with a way to measure whether the actions initiated by decision makers are isomorphic or nonisomorphic. They focus on determining whether organizational actions are similar to those taken by a large number of firms, similar to those of firms that share a specific set of traits, or similar to those that have been adopted

by other firms and that have apparently resulted in positive outcomes. We could assess symbolic and substantive isomorphism using Westphal and Zajac's (2001) method of differentiating the adoption of a plan from its implementation. Thus, for instance, we could examine the extent to which the decisions made are associated with real action.

CONCLUSION

When confronting legitimacy-related environmental shifts, organizational decision makers initiate responses that can be isomorphic or nonisomorphic. We have integrated the predictions of prospect theory, the threat-rigidity hypothesis, and institutional theory to suggest how institutional persistence and change depend on whether decision makers view environmental events as potential opportunities for, or threats to, gaining legitimacy. Finally, we have argued that, in the event decision makers are uncertain of their reading of the environment, they initiate decoupled actions that simultaneously accommodate the predictions of prospect theory and the threat-rigidity hypothesis. These arguments highlight the important role of individual decision makers in initiating and sustaining institutional persistence and change.

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