

MISERY LOVES COMPANY: THE SPREAD OF NEGATIVE IMPACTS RESULTING FROM AN ORGANIZATIONAL CRISIS

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We describe how negative impacts emanating from an organizational crisis that initially strikes only one organization can overflow the boundaries of that organization and affect others in the industry. We argue that this spillover process is contingent on the characteristics of the organizational form to which the stricken organization belongs, the characteristics of other organizations in the same industry, and the characteristics of the industry itself. Finally, we speculate that the spillover process, coupled with differential mortality, might move crisis-prone industries toward more robust structures over time.

Organizational crises are low-probability, high-impact events that threaten the reliability and accountability of organizations and are characterized by ambiguity of cause, effect, and means of resolution (Pearson & Clair, 1998). Because of their public nature (Hoffman & Ocasio, 2001) and important implications for organizational survival (Dutton & Jackson, 1987; Shrivastava, Mitroff, Miller, & Miglani, 1988), crises have long attracted scholarly attention. Focusing predominantly on crises that impact individual organizations, previous research has examined a number of antecedents and consequences (e.g., Coombs, 1998; D'Aveni & MacMillan, 1990; Mitroff, Pearson, & Harrigan, 1996; Nystrom & Starbuck, 1984; Pauchant & Mitroff, 1992; Pearson & Clair, 1998; Perrow, 1984; Turner, 1976; Weick, 1993). Despite the insights provided by this earlier research, the impacts of organizational crises on other organizations operating in the

same industry have largely been ignored, and theory surrounding extraneous effects has received scant attention.

Our study is based on the observation that, under certain conditions, negative impacts resulting from a crisis that strikes one organization can spread to other organizations in the same industry. We term this phenomenon the *spillover* of negative impacts. Certainly, a crisis may directly impact the stricken organization's trading partners and other stakeholders as well. Yet these effects are fairly easy to analyze and understand, once the implications of the crisis for the initially stricken organization are understood. Thus, our study focuses more on how negative impacts of the initial crisis can spread to other organizations, even when they do not have direct exchange relationships with the stricken organization. As a result of the crisis spillover, the performance and/or legitimacy of these other organizations is negatively affected.

To understand how, why, and to whom spillover occurs and which factors affect the spillover process, we draw on theories of social categorization and organizational forms. We argue that organizational crises trigger a sensemaking process for stakeholders—those constituents who have legitimate claims on an organization deriving from exchange relationships (Clarkson,

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1995; Freeman, 1984; Hill & Jones, 1992). When stakeholders conclude that other organizations may face similar crises, they will take action to minimize their downside risk. For example, they may stop purchasing products from these firms, leave their jobs at these firms, or withdraw their investments in these firms. Therefore, other organizations may come to be "tarred by the same brush" as the organization that endured the initial crisis.

To disentangle the mechanisms behind the spillover process, we suggest that stakeholders, in assessing the likelihood that one organization's crisis will spill over, simplify their analyses by using mental classifications of organizational forms. An organizational form is a type of socially coded identity representing recognizable patterns that take on rulelike standing and that are enforced by social agents (Polos, Hannan, & Carroll, 2002). As a special kind of collective organizational identity, an organizational form defines a population with common social and cultural typifications in a bounded system (Hsu & Hannan, 2005). When a crisis of highly ambiguous causes and consequences strikes a single organization, stakeholders are likely to conclude that other organizations of the same form may suffer similar crises. In response, stakeholders undertake actions to minimize their downside risk, spreading the negative impact of the crisis to other organizations of the same form as the initially stricken organization.

In addition, the spillover process is both mediated and moderated by several factors. Introducing the role of external institutional intermediaries, we suggest that the spillover process is mediated by the perceptions and reactions of key intermediaries in the stricken organization's social, legal, and economic environment. These external institutional intermediaries do not directly participate in transactions with the organizations but are at least partially responsible for conferring legitimacy on organizations in the industry and shaping stakeholder perceptions of them (Podolny, 2001; Zuckerman, 1999, 2000, 2004). Examples of external institutional intermediaries include the popular press, governance watchdog groups, academics, financial analysts, and regulatory bodies. We argue that external institutional intermediaries are potentially important conduits of crisis spillover, and their interpretations of the initial crisis and subsequent reactions in terms of product recom-

mendations, credit ratings, or media coverage will significantly shape the opinions and actions of stakeholders. In terms of moderators, we consider characteristics of the organizational form to which the initially stricken organization belongs, the status of other organizations of the same form, and the structure of the industry in which the original crisis struck. We argue that crisis spillover is more likely when the initially stricken organization belongs to a relatively simple organizational form with high sharpness, when other organizations of the same form have low status, and when the resource distribution in the industry is homogeneous.

Finally, with respect to the consequences of the spillover process, we argue that when other organizations are threatened by spillover, they will actively engage in a preferential detachment process—that is, they will take actions to reduce linkages and/or perceived similarities with the stricken organization. Moreover, in industries that experience severe and frequent crises, preferential detachment, coupled with differential mortality, may drive industry evolution toward more robust structures—structures more resilient to crises and their spillover effects.

Before we proceed, we want to make one important clarification. We acknowledge that the negative impacts of a crisis on one organization may jump industry boundaries to affect other organizations in the same value chain. For instance, when Aisin Seiki's auto parts plant, the main brake valve supplier of Toyota, was destroyed by fire in 1997, Toyota was directly affected. Toyota, in line with its well-known just-in-time production, kept only a four-hour supply of the \$5 valve, and as a result of the fire, it had to shut down its twenty auto plants in Japan for five days (Reitman, 1997). However, we limit our analysis to spillovers of a crisis to organizations within the same industry as the stricken organization, mainly for two reasons. First, in general, most cross-industry relationships are based on vertical resources linkages through which actual goods, services, and payments are transferred—aligned with what Podolny (2001) calls "pipes." Yet these effects are relatively easy to analyze and understand, once the implications of the crisis for the initially stricken organization are understood. Our analysis, as we mentioned earlier, focuses more on default social codes evaluators use to make inferences about the forms of organizations—aligned with what

Podolny (2001) calls "prisms." Second, the within-industry approach allows us to more clearly define the social system boundary (Carroll & Hannan, 2000) and more clearly articulate our propositions. In fact, our treatment is largely consistent with the prior population ecology literature, in which organizational forms have been empirically studied in a within-industry context.

ORGANIZATIONAL CRISES

The cost and availability of resources that sustain a given organization are in part determined by its *stakeholders*,¹ who evaluate organizations and decide whether and how to allocate resources at their disposal to organizations. Since such valuations are intricately tied to notions of organizational worth, stakeholders have the power to shape and constrain organizations (Hsu & Hannan, 2005). Employees, for example, "decide how much loyalty to give to an organization," and potential exchange partners "decide whether to engage in transactions with the organization and whether to support disputes, and so forth" (Carroll & Hannan, 2000: 70). The more highly stakeholders value an organization, the more resources will be available to the organization.

The valuation of an organization fundamentally hinges on its *organizational identity*—a collection of social codes (i.e., signals and rules of conduct). These codes "specify the features that an organization legitimately possesses" (Carroll & Hannan, 2000: 68) and, hence, define what will and should be expected of the organization (Polos et al., 2002). In general, organizations possessing a favorable identity are per-

ceived as valid organizations deserving support and receiving social approval from stakeholders. Given the uncertainty present in most organizational fields, stakeholders particularly favor organizations that are reliable—that is, organizations that produce collective products of a given quality repeatedly—and accountable—that is, organizations that document how resources have been used and can reconstruct the sequences of organizational decisions, rules, and actions that produced particular outcomes (Carroll & Hannan, 2000; Hannan & Freeman, 1984). It follows that the more an organization conforms to its identity, the more favorable the stakeholders' valuation of it will be and, therefore, the more resources that will be available to it (Polos et al., 2002).

Organizational identities "have a code-like status in the sense that they consist of sets of rules whose violations have observable consequences" (Carroll & Hannan, 2000: 71). An organizational crisis is one such situation where stakeholders believe that the default social codes of the stricken organization are violated. Organizational crises evoke a sensemaking process whereby stakeholders of the stricken organization attribute meaning to the crisis and search for interpretations on which actions can be taken and justified (Weick, 1988, 1995). Once a violation of default social codes is detected, the organization loses the benefits of conformity, because stakeholders are rendered uncertain about what to expect of it. As a result, an organizational crisis may precipitously lower stakeholders' valuation of the stricken organization.

Negative impacts following the devaluation include higher costs (e.g., higher costs of borrowing due to reduced credit ratings) and/or reduced revenues (e.g., lower prices of goods due to reduced accountability). Such consequences, playing out in product, labor, and capital markets, can seriously damage an organization's prospects (Hannan, 2005). Customers may stop purchasing its products (McLane, Bratic, & Bersin, 1999), employees may defect from it (Baron, Hannan, & Burton, 2001), and investors may stop investing in it (Zuckerman, 1999). In short, organizational crises can force the stricken organization to diverge from established practices and strategies (Meyer, 1982; Miles, 1982), make its future more uncertain (Shrivastava et al., 1988), and threaten its survival (Dutton & Jackson, 1987).

¹ According to Carroll and Hannan (2000: 72, footnote 7), relevant "evaluators" of a focal organization can be classified into two categories based on their influence: (1) those who directly control valuable resources and make judgments about the organization, including potential investors, employees, and customers, and (2) those who do not directly control resources but are at last partially responsible for conferring legitimacy on the organization, including academics, regulators, watchdog groups, and the popular press. The processes that translate the judgments of these two categories of evaluators into organizational consequences are different. To clearly distinguish between these two categories of evaluators, we call the first category "stakeholders" and the second category "external institutional intermediaries."

Organizational crises have attracted substantial scholarly attention, mostly focused on the antecedents and consequences of crises that occur in particular organizations. Research investigating the antecedents of organizational crises has suggested that they are triggered not only by exogenous events that are random (e.g., earthquakes, terrorist attacks) but also by endogenous factors that are conducive to the crises. Some industries are "crisis prone" by their very nature (Pauchant & Mitroff, 1992). For instance, in industries using risky technologies, factors can sometimes interact in nonlinear and tightly coupled ways, making catastrophic failure eventually inevitable (Perrow, 1984). Crises can also be driven by entirely preventable factors, such as false assumptions, poor communication, and misplaced optimism among boundedly rational top managers (Nystrom & Starbuck, 1984; Turner, 1976). In general, however, crises are characterized by indicators best observed in hindsight, thus making crisis prevention difficult (Gephart, 1984; Rudolph & Reppening, 2002; Wicks, 2001).

As for the consequences, prior research has mainly focused on crisis management practices (see Pearson & Clair, 1998, for an overview). To minimize the damage caused by organizational crises, stricken organizations often respond actively (Shrivastava & Mitroff, 1987). These responses span a large continuum, ranging from defensive (e.g., denial or attacking accusers) to accommodative (e.g., offering a full apology; Coombs, 1998), and from tactical (e.g., press releases, newsletters to shareholders, interviews with business publications, press conferences, charitable giving, and advertising) to strategic (e.g., long-term attempts to gain prestige, status, credibility, and trustworthiness; Carter & Dukerich, 1998).

As we noted earlier, previous crisis research has focused almost exclusively on single organizations directly stricken by crises. Consequently, the impact of (what is initially) one organization's crisis on other organizations has been largely ignored, and theoretical treatment of any extraneous effects has received little attention. This is unfortunate, because it is likely that the negative impacts arising from a crisis striking one organization can spill over to other organizations as well. If and when this occurs, it is important to understand how, why, and to whom these negative impacts might spread, as

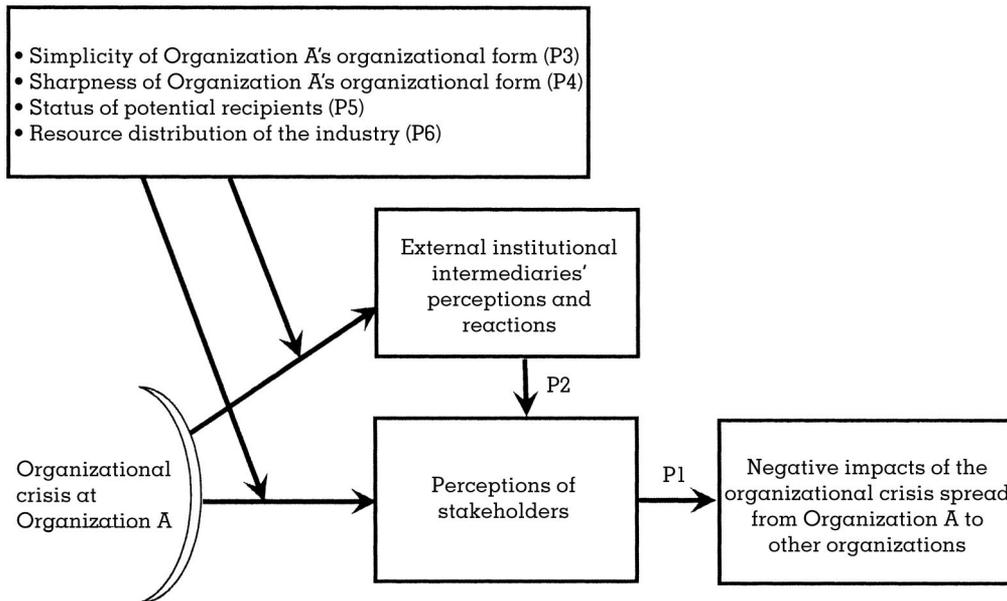
well as what factors affect the spillover process. This understanding is vital because a crisis may force other organizations to alter strategies and, in extreme cases, may threaten their chance of success. In the following sections we define the spillover of an organizational crisis and consider the mechanisms that govern the spillover process. Figure 1 illustrates our model of the spillover process.

THE SPILLOVER OF ORGANIZATIONAL CRISES

Consider the following event as an example. In the spring of 2003, a whistle blower leaked information about improper market-timing practices at Putnam Investments, a leading U.S. mutual fund company (O'Donnell, 2003). Market timing is an investment strategy that trades into and out of market sectors as they heat up and cool off. While market timing was not illegal, allowing some clients to market time while denying it to others was considered unethical, because it allowed market timers to gain at the expense of long-term investors. For that reason, almost all mutual fund companies (including Putnam) had claimed in their prospectuses that they prohibited market timing. Putnam publicly admitted wrongdoing, and within a week institutional clients had pulled \$4 billion from its funds (Pozen & Argenti, 2006). The crisis eventually led to the resignation of Putnam's CEO and the withdrawal of more than \$20 billion from its funds.

More to our interest, the Putnam crisis drew attention to and raised questions about the reliability and accountability of other mutual fund companies. Investors started questioning whether their own fund companies were also involved in improper market timing practices at the expense of their own benefits. What followed was a "mushrooming [of] market-timing scandals" (Elkind & Burke, 2004: 31). Many other prominent fund companies like Alliance Capital, Janus Capital, Massachusetts Financial Services, and Prudential were also alleged to have participated in some variations of market timing. Some agreed to large fines to settle state and federal regulators' allegations (*St. Petersburg Times*, 2004), others (even some who never used market-timing practices) pursued internal investigations, and some voluntarily pledged to pay millions to their customers (Elkind & Burke,

FIGURE 1
How Negative Impacts from an Organizational Crisis Spread to Other Organizations



2004). The crisis eventually resulted in a new regulation by the Securities and Exchange Commission (SEC) to combat short-term trading and market timing. Therefore, although the crisis initially struck only one organization, stakeholders evaluated its impact at the level at which a collective reputation or identity is formed (Tirole, 1996).

Our study focuses solely on situations where there is *uncertainty* as to the causes and consequences of the crisis.² When uncertainty is low and stakeholders are able to easily ascertain the causes and consequences of the crisis, the chance and direction of spillover are obvious. When a crisis is known to be firm specific in nature, spillover is unlikely to occur. For example, in January of 2001, the CEO of Atlas Air, the third largest air cargo carrier at the time, died suddenly while piloting a private plane. By the next day, Atlas Air's value dropped 5 percent,

² Using Podolny's (2001) terminology, *altercentric* uncertainty is required in our analysis. Altercentric uncertainty is the uncertainty confronted by an organization's actual and potential exchange partners regarding its ability to deliver desired outcomes. It is possible that the altercentric uncertainty of evaluators will be coupled with the *egocentric* uncertainty of other organizations following an organizational crisis. Egocentric uncertainty is the uncertainty that an organization has regarding its own ability to deliver desired outcomes (see also Podolny & Castellucci, 1999).

and investors were trading the organization's shares at eight times its precrisis volume (*Denver Business Journal*, 2001). However, as tragic as this was for Atlas Air, there was no spillover of the crisis to other air cargo rivals. In contrast, when a crisis is known to have implications beyond the stricken organization, spillover is likely. For example, when an Air France Concorde crashed in Paris in July 2000, British Airways was immediately affected because it was the only other company that flew the Concorde (Rose, 2001).

From these two examples we can see that when the uncertainty surrounding a crisis is low, conclusions about spillover are obvious. However, when uncertainty is high, the impact of the crisis on other organizations becomes more difficult to ascertain, rendering the spillover process more theoretically intriguing. Therefore, our analysis is limited to organizational crises surrounded by uncertainty, in accord with our earlier definition of crisis.

It is well established in the psychology literature that when uncertainty is high, individuals have limited ability to apply universalistic criteria to make sense of their environments (Festinger, 1954). As a result, they use mental representations of categories to provide default assumptions about target objects (Bruner, 1957; Dubin, 1982; Fiske, 1989). Similarly, at the orga-

nization level, research has shown that stakeholders stratify organizations into different *organizational categories*, referring to sets of organizations that are perceived to be equivalent in certain respects yet different from organizations outside the category (Mervis & Rosch, 1981; Rosch, 1978). Stratifying organizations into categories provides a cognitively economical means for stakeholders to reduce the complexity of interorganizational comparison (Dutton & Jackson, 1987; Walton, 1986). Rather than comparing all the characteristics of individual organizations, stakeholders can simplify the process by focusing only on the typical characteristics of the organizational categories. How, then, do stakeholders assign organizations to different categories? Following previous research, we argue that stakeholders categorize organizations using mental classifications of organizational forms. The construct of organizational forms defines a population with common social and cultural typifications in a bounded system (Hsu & Hannan, 2005; Polos et al., 2002).

Organizational forms are described in the literature using three complementary approaches (Polos et al., 2002). First, organizational forms can be described by a set of core features. Hannan and Freeman (1984) suggested that organizational mission, form of authority, core technology, and general marketing strategy are core features of organizations, since efforts to change any of these would raise fundamental questions about the nature of the organization. Taking a more institutional perspective, Greenwood and Hinings (1993) suggested that the structure of an organization's roles and responsibilities, the nature of its decision systems, the character of its human resource practices, and its interpretive schemes are core features of its organizational form (cf. Cliff, 2000). Second, reflecting social processes in boundary creation, organizational forms can also be described by the clarity and strength of social boundaries, such as social network ties and flows of personnel among a set of organizations (Hannan & Freeman, 1986). Finally, structural equivalence partitions a set of entities into equivalence classes that can also represent organizational forms (Burt, 1992; DiMaggio, 1986). Structurally equivalent organizations are those that have the same pattern of ties to and from other actors (Burt, 1980). Our approach combines feature-based, boundary-

based, and network-based approaches, in line with Polos and his colleagues (2002).

Organizational forms emerge mainly in response to technological, functional, and institutional factors (Ruef, 2000) and through a variety of processes (Hsu & Hannan, 2005). Individual organizations may come to resemble one another, and stakeholders may come to recognize and code this resemblance into a form. For example, "bulge bracket" investment banks arose from the banking consolidation of the 1990s; these banks offer (in contrast to earlier investment banks) a full range of investment banking services to global customers (Podolny, 1993). Also, the collective actions of enthusiasts and early entrants into a category sometimes ignite a social movement leading to the development of a form. An example of this would be the emergence of modern microbrewers (Swaminathan, 1995). Further, government authorities might specify a form and create incentives for organizations to adopt it. An example would be the emergence of health maintenance organizations (Strang, 1995). Finally, stakeholders might form focused perceptions of organizations in response to de novo entries or to geographic concentration of organizations with related identities. An example of this would be the emergence of disk array producers (McKendrick, Jaffe, Carroll, & Khessina, 2003).

Regardless of how a form emerges, once it is solidified, it has a taken-for-granted status. Carroll and Hannan argue that

knowing a form implies knowing the constraints on features that are enforced for the organizations belonging to the form. Crossings of the form boundaries appear as violations of identities, and they are sanctioned accordingly. An organization that crosses such a boundary loses the benefits that result from conformity with the rules (2000: 68).

We also note that forms do change over time (Carroll & Swaminathan, 2000; Hannan & Freeman, 1986), but departing from an existing organizational form is costly, and, therefore, forms exhibit considerable persistence. This is important for our analysis, because the crises we consider may cause the demise of some organizational forms and the rebirth of others (Ruef, 2000, 2004). However, our analysis leans toward the short term, so we focus on the organizational form of the stricken organization and the stakeholders who drive the spillover process.

When a crisis hits, we expect that the precrisis organizational form to which the stricken organization belongs will continue to serve as a benchmark for stakeholders as they evaluate the impact of the crisis on other organizations (Porac & Thomas, 1990; Reger & Palmer, 1996). This expectation is in line with prior research. For instance, Polos and his colleagues note that after

nonconforming changes in feature values are revealed and devaluation takes place, the entity might learn how to cope with that particular drop of valuation. But, the social and cultural enforcement mechanisms still operate on the old defaults. In the absence of new observation, the default social and cultural mechanisms reset the default feature values to the conforming values (or ranges). That is, identity-conforming and form-conforming feature values are still expected from the entity, even after a perceived violation (2002: 111).

Taken together, we argue that because of the uncertainty created by a crisis, the stakeholders of other organizations cannot fully ascertain the causes of the crisis, and they are not sure which properties are relevant to, or affected by, the crisis. As a result, we expect them to compare the organizational form of their organizations with that of the initially stricken organization. When they perceive that their organizations share the same organizational form as the stricken organization, they are likely to devalue the organizations they are connected to in order to minimize downside risks. In this regard, perceptions of stakeholders not only affect how the initially stricken organization reacts to the crisis (Dutton & Dukerich, 1990) but also how other organizations will be influenced by the crisis. Hence, we propose the following.

Proposition 1: An organizational crisis is likely to spill over to other organizations with the same organizational form as the initially stricken organization.

Among organizations sharing the same form as the stricken organization, not all are equally likely to experience spillover. First, not all organizations are equally representative of the form (Porac & Thomas, 1990), and not all equally resemble the stricken organization. More specifically, social identities are often nested. For instance, if an organization has the identity "craft labor union," it also has the identity "labor

union" (Polos et al., 2002). Since forms are special kinds of identities, form distinctions are partially nested as well. That is, forms usually contain subforms, which are more constrained than the forms that they specialize (Carroll & Hannan, 2000; Polos et al., 2002). Hence, it is likely that among a population of organizations that share the same organizational form as the stricken organization, some may be closer to the stricken organization (e.g., share more features or more equivalent positions) than others and therefore will be more affected by the crisis.

THE MEDIATING ROLE OF EXTERNAL INSTITUTIONAL INTERMEDIARIES

As we have stated, the negative impacts of an organizational crisis may spill over to other organizations through the perceptions and actions of stakeholders. In this section we develop the notion that the assumptions, beliefs, and interpretations of external institutional intermediaries mediate this process. By "external institutional intermediaries," we mean key intermediaries in the social, legal, and economic environment who do not directly control resources that are required by the organizations but are at least partially responsible for conferring legitimacy on these organizations (Podolny, 2001; Zuckerman, 1999, 2000, 2004). Examples of external institutional intermediaries include but are not limited to the popular press, watchdog groups, academics, financial analysts, and regulatory bodies.

The expectations, assumptions, and beliefs held by external institutional intermediaries affect the direction and strength of stakeholders' social approval of an organization. In general, external institutional intermediaries shape the opinions and actions of stakeholders in two major ways. First, as opinion leaders, they specialize in disseminating information about organizations and evaluating organizational outputs (Fombrun, 1996; Rao, 1998). Through screening, they distinguish some organizations as valid or worthy of attention and play a significant role in converting these organizations into authentic members of an organizational form in the eyes of stakeholders. By virtue of their specialization in collecting and disseminating information, external institutional intermediaries are likely to be viewed by stakeholders as having superior access to information and/or expertise in evalu-

ating organizations (Rao, 1998; Rindova, Williamson, Petkova, & Sever, 2005). As a result, stakeholders closely watch the words, actions, and opinions of external institutional intermediaries and rely on them to render and disseminate judgments (Benjamin & Podolny, 1999; Hirsch, 1972; Rao, 1998; Stuart, 2000; Zuckerman, 1999, 2000; Zuckerman, Kim, Ukanwa, & von Rittman, 2003).

Second, external institutional intermediaries not only provide specialized information about organizations and their outputs but also, through framing and exposure, heighten the strength and availability of certain schemas, increasing their influence on the cognitive processes of stakeholders (Hsu & Hannan, 2005; Suchman, 1995). By focusing stakeholders' attention on specific information and making that information more salient, external institutional intermediaries can set expectations that constrain stakeholders' rationalizations and justifications of ambiguous situations (Elsbach, 1994; Pollock & Rindova, 2003; Zuckerman, 1999). For example, Pollock and Rindova (2003) found that media could facilitate or inhibit the formation of impressions about firms conducting initial public offerings by increasing investors' exposure to information about these firms and by framing this information positively or negatively. Through framing and exposure, the media render some firms more comprehensible and desirable and, therefore, more legitimate. Similarly, Zuckerman's (1999) research on capital markets documents a devaluation for firms whose profiles of industry participation do not conform to the schemas held by financial analysts. Nonconforming firms are less likely to receive coverage from the analysts that specialize in the industries included in a firm's profile. Lack of coverage by analysts reduces the attractiveness of firms to investors and impairs their stock market returns accordingly.

In an ambiguous context that contains an overabundance of organizing guidelines—none of which is clearly more appropriate or legitimate than others—the needs of stakeholders for direction, validation, and help in interpreting the available information are increased. Thus, external institutional intermediaries are especially influential whenever there are "valuation problems" (Zuckerman, 1999: 1406). For instance, when investors are hampered in predicting expected returns, the value of a security depends

crucially on the perspectives of financial analysts (Zuckerman, 1999, 2000). Similarly, when an audience is uncertain about the quality of artwork, the positive reviews of critics are directly associated with greater audience participation (Shrum, 1991). We believe that the very same reasoning applies to the spillover of negative impacts from an organizational crisis. In other words, the more uncertain and the more complex the crisis, the stronger the effect external institutional intermediaries will have.

According to the above logic, external institutional intermediaries are potentially important conduits of crisis spillover. Their interpretations of the crisis and subsequent reactions in terms of product recommendations, credit ratings, or media coverage may significantly shape the opinions and actions of stakeholders with respect to the crisis and its impact on other organizations.

Proposition 2: External institutional intermediaries will partially mediate the crisis spillover process through their interpretations and reactions to the initial stricken organization's crisis. Further, higher degrees of uncertainty will strengthen the mediation.

The role of external institutional intermediaries in the spillover of an organizational crisis is reflected in the Putnam case discussed earlier. Soon after Putnam admitted its wrongdoing and fired two of its senior executives, the SEC fined Putnam \$110 million. This event cast further doubt on the accountability of other fund companies (Pozen & Argenti, 2006) and accentuated market reactions against them. More important, the SEC's decision made it clear to stakeholders that market-timing practices were not legitimate actions any longer, despite the fact that these practices were not technically illegal at the time.

It is important to note that the cognitive processes that external institutional intermediaries engage in may differ from one another (DiMaggio, 1997). Indeed, sometimes different groups of intermediaries may impose different and possibly inconsistent constraints on an identity such that a given action is viewed positively by one group and negatively by another. Although this situation deserves research attention, we do not discuss it here. Our analysis assumes that a dominant opinion embodying widely under-

stood and normatively sanctioned logic about the crisis and a unified enforcement of social codes will emerge (Cliff, Jennings, & Greenwood, 2006).

CONTINGENCIES SURROUNDING CRISIS SPILLOVER

Our earlier arguments imply that the spillover of an organizational crisis is not necessarily symmetric. Depending on whether other organizations belong to the same organizational form as the initially stricken organization, some organizations may be affected while others may not. In this section we argue that the spillover process is also contingent on a number of factors. Specifically, the negative impacts from an organizational crisis are more likely to spill over when (1) the stricken organization belongs to a simple organizational form, (2) the stricken organization belongs to an organizational form with high sharpness, (3) other organizations of the same form have low status, and (4) the industry is characterized by a homogeneous resource distribution.

The Simplicity of the Stricken Organization's Organizational Form

Organizational forms differ in their dimensionality. Metaphorically, a form can be defined in N-dimensional space, with dimensions representing features specified by evaluators as relevant. Simple forms involve evaluations on a few dimensions (McKendrick et al., 2003), whereas complex forms reflect more dimensions (Zuckerman et al., 2003). For example, the organizational form of credit unions is arguably simpler than that of banks (Barnett & Hansen, 1996; Barron, 1999; Lomi, 2000). Credit unions provide some of the same services as banks but traditionally serve very narrow customer groups and offer relatively narrow banking services.

Complexity versus simplicity in organizational forms has been shown to have important consequences for the perceptions and reactions of evaluators. Simplicity, on the one hand, eases the problem of gaining attention from evaluators because it simplifies the mental job of building a category, naming it, and identifying codes to indicate what ought to be expected of members of the category. As a result, simple forms are likely to have more salient and dis-

tinctive boundaries than complex forms. Complexity, on the other hand, makes it harder for evaluators to perceive enough similarity among organizations to sustain the process of category formation. The lack of an established category membership lowers an organization's chances of gaining the attention of evaluators in the first place (Zuckerman et al., 2003).

For crisis spillovers, the dimensionality of organizational forms implies that the negative impacts from an organizational crisis are more likely to spread when the initially stricken organization belongs to a simple organizational form. First, with simple organizational forms, it is easier for evaluators to categorize organizations and identify others of the same form. Violations of default codes are also more likely to be detected. Consequently, in a postcrisis context, the ease of categorization will facilitate crisis spillover to other organizations. Second, simplicity restricts the range of opportunities available to organizations. Evaluators perceive members of simple organizational forms as suitable only for a narrow range of legitimate activities. As a result, for these organizations, what is legitimate and not legitimate is more clearly defined. This lowers the chance that organizations will escape the constraints imposed by default social codes and assists the understanding of evaluators about the crisis and its potential impacts on other organizations.

Proposition 3: Crisis spillover is more likely when the initially stricken organization belongs to a simple organizational form than when it belongs to a complex organizational form.

The Sharpness of the Stricken Organization's Organizational Form

In addition to simplicity, Baron (2004) and other scholars (Hsu & Hannan, 2005) have proposed that the strength of constraints imposed by a form on its member organizations also depends on sharpness. The sharpness of an organizational form refers to the extent to which "its members are highly similar to one another, but very different from members of other forms" (Hsu & Hannan, 2005: 481). Disk array producers, for example, do not have a sharp organizational form (Hsu & Hannan, 2005; McKendrick et al., 2003). Since most disk array producers originally

came from different industries and retained their original identities, the group lacks internal homogeneity, as well as distance from other forms in identity space. Consequently, evaluators have not developed a clear set of social codes for members of this organizational form.

We expect that the negative impacts from an organizational crisis are more likely to spread when the initially stricken organization belongs to a sharp organizational form. Here, great similarity across organizations on key identity dimensions eases evaluators' job of assigning the organizations to categories. Moreover, a high distance between clusters in identity space favors the appearance of clear identities and increases the distinctiveness of the forms in evaluators' minds (Hsu & Hannan, 2005). Thus, the sharper the organizational form, the stronger the identity-based constraints imposed on member organizations and the easier it becomes for evaluators to tell what should be expected of these organizations (Baron, 2004). As a result, when an organizational crisis occurs, the social codes of a sharp organizational form facilitate the spillover process.

Proposition 4: Crisis spillover is more likely when the initially stricken organization belongs to an organizational form with high sharpness than when it belongs to an organizational form with low sharpness.

The Status of Potential Recipients

Proposition 1 suggests that an organizational crisis is likely to spill over to other organizations with the same organizational form as the initially stricken organization. However, organizations within the same organizational form may have different status, and we expect that organizations of different status within the same form will differ in their vulnerability to the crisis spillover. The status of an organization refers to the collective understanding in a field regarding the organization's social prominence with respect to valued outcomes like quality (Gould, 2002; Podolny, 1993). Evaluators draw on status signals to make decisions and take actions (Podolny & Scott Morton, 1999; Podolny & Stuart, 1995; Washington & Zajac, 2005). They sort organizations into different status positions, to which unequal rewards (i.e., differential access to re-

sources and opportunities) are attached (Gould, 2002). In general, high-status organizations have better access to resources and opportunities. For example, high-status wineries can charge high prices for their table wines because their products are perceived as being of high quality (Benjamin & Podolny, 1999).

There are two main reasons to expect the spillover of a crisis to be blunted when the potential recipient has high status. First, perceptions of status are likely entangled with perceptions of the organization's distinctiveness—the characteristics that distinguish it from its lower-status counterparts. Consequently, high-status organizations are more likely to have a more conspicuous and favorable organization-specific identity in the eyes of relevant evaluators. Second, high status allows an organization to preserve its market position when challenged (Clark & Montgomery, 1998). As a result, high-status organizations are more immune to punishments for deviation from broad form-level identities (Hsu & Hannan, 2005). For example, Phillips and Zuckerman (2001) found that high-status law firms were less likely than low-status law firms to be punished for nonconforming behaviors. This is something known as "the reservoir of goodwill hypothesis" (Bostdorff & Vibbert, 1994; Jones, Jones, & Little, 2000). Put in the spillover context, organizations with a high status are more likely to receive the benefit of the doubt from evaluators when a crisis befalls a nearby organization.

Taken together, the arguments above suggest that an organizational crisis is less likely to spill over to a potential recipient when that recipient has a high status. This is illustrated by the fatal ValuJet crash in May of 1996. Some reports implied that the accident might have been caused by a number of factors (e.g., mismarked crates, botched paperwork, poorly stored cargo, pressure for profits, loose operating systems), which all arguably came to be attributed to the business model ValuJet pioneered: the low-cost air carrier (Beckham, 1999). Consequently, the period following the crash was extremely difficult for almost all low-cost carriers (including Frontier, Western Pacific, Reno Air, Tower Air, and Kiwi), and their stocks remained depressed months after the accident (*The Economist*, 1996; Wald, 1996). However, a notable exception was another flagship low-cost carrier, Southwest Airlines. During the same time period, the operat-

ing revenues of Southwest increased by over 18 percent. The exceptional performance of Southwest in the wake of the ValuJet tragedy was partially due to its high status at the time, demonstrated by its fifth consecutive Triple Crown Award (Southwest Airlines 1996 Annual Report).³

Proposition 5: Crisis spillover is less likely when the potential recipient has a high status than when it has a low status.

The Industry Characteristics

Different industry characteristics present different opportunities and threats for organizations. If viewed as a constellation of strategically interdependent organizations, an industry may have multiple organizational forms. The information cues used by evaluators to categorize organizations based on organizational forms are, at least in part, a function of industry structure. Thus, understanding industry characteristics is important for understanding and predicting crisis spillover.

Industries differ in terms of distribution of resources (van Witteloostuijn & Boone, 2006).⁴ When resources are distributed homogeneously, the organizations that constitute the industry are in direct competition with one another for the same resources. When resources are distributed heterogeneously, however, competition takes place within distinct niches, with little competition between them. A niche here is defined as the N-dimensional resource space within which a population can exist (Hutchinson, 1957). Therefore, in industries that have undergone resource partitioning, different organizational forms will rely on different resources and, thus, will operate in distinct resource spaces (Carroll, 1985).⁵ Since in such industries

it is relatively easy for specialist organizations (populations of organizations that survive within a narrow range of environmental resources) to prosper, these industries are typically characterized by high firm heterogeneity. Put differently, in industries characterized by specialist organizations, there will be few organizations of the same form, and it will become difficult for evaluators to categorize them into forms.

The distribution of resources within an industry is potentially influential in the context of spillovers. Industries with heterogeneous resource distribution make the information about one organization less relevant when drawing inferences about others (Gaspar & Massa, 2006). As a result, it is very challenging in such industries for evaluators not only to collect and process information about the crisis and other organizations but also to sanction or punish other organizations based on their organizational form.

Proposition 6: Crisis spillover is less likely in an industry with a heterogeneous distribution of resources than in an industry with a homogeneous distribution of resources.

CONSEQUENCES OF CRISIS SPILLOVER

Up to this point, we have treated other organizations in the same industry as the initial stricken organization as passive agents, exogenous to the spillover process, and not playing a role in the spread of the negative impact. This approach might seem to ignore the well-established organizational crisis and crisis management literature, both of which have underlined the importance of active agency (managerial actions such as attacking the accuser, denial, justification, ingratiation, corrective action, or apology) in minimizing the potential damage caused by a crisis (Ansoff, 1980; Coombs, 1998).

We believe, however, that our "no active agency" approach is what would be observed in

³ The Triple Crown Award is a highly prestigious industry-wide recognition awarded only when a single airline has the best on-time record, the best baggage handling, and the fewest customer complaints received during the year.

⁴ Industries differ in many ways, but our study focuses on the distribution of resources. Other industry characteristics, such as different stages in an industry life cycle, may moderate the spillover of crisis as well. We thank an anonymous reviewer for bringing this issue to our attention.

⁵ According to Carroll (1985), an example of an industry that has undergone resource partitioning is the U.S. newspaper industry, where, across its entire history, millions of

specialized newspapers that cater to diverse audiences, such as ethnic groups, religious bodies, neighborhood communities, professional communities, and political constituencies, have prospered, in addition to daily newspapers, which can operate in almost any environment.

the short term. First, because of the inherent uncertainty and ambiguity surrounding a crisis, it is almost impossible for other organizations to disentangle the cause of the crisis and react quickly. This is especially true when there is imperfect information flow and extensive data collection costs to acquire accurate information. Second, mechanisms governing the process of spillover, at least in part, are conditional on the characteristics of the industry, which cannot be changed in the short term by individual actions from a single firm. Finally, ownership of an organization's identity resides within an organization's evaluators, rather than within the organization itself. In the absence of new information, evaluators tend to use cognitive categories developed in the past to interpret the post-crisis environment (Reger & Palmer, 1996). For this reason, any attempt to change what has become institutionalized in evaluators' minds with respect to their previous thinking of a given organization will take time. In the following sections we focus on the actions of other organizations subsequent to a crisis and discuss how these actions can alter the nature and extent of crisis spillover in the long term.

Actions by Other Organizations in Response to the Initial Crisis

Following an organizational crisis, it is natural for other organizations to take actions to distance themselves from the stricken organization.⁶ For instance, they may mount a vigilant campaign through press releases, newsletters to shareholders, interviews in business publications, and advertising (D'Aveni & MacMillan, 1990). They may use excuses, justifications, or apologies to prevent sanctions from evaluators (Chatman, Bell, & Staw, 1986), or they may bond together to create new industry standards or labels to differentiate themselves from the stricken organization (Pozner & Rao, 2006). The purpose of these activities is to build "mental

fences" in the minds of evaluators and to reduce the threat of devaluation (King, Lenox, & Barnett, 2002). However, claims and promises are often easily repudiated and are therefore apt to be discounted (Spence, 1973). For this reason, these actions are seldom sufficient to safeguard the organization against spillover.

Given the difficulty of minimizing the risk of crisis spillover and its harmful effects, we argue that other organizations, especially those most likely to be affected by spillover, may engage in a *preferential detachment process*—one in which organizations make changes to reduce their linkages to or perceived similarities with the stricken organization. These changes can be functional (changes in organizational features), structural (changes in the internal structure of roles, relationships, and responsibilities), or relational (changes in the connectedness to other organizations, both within the industry and across the value chain). The relative advantage of different types of changes presumably depends on organizational factors, such as tenure, status, or prestige in a given market (Hsu & Hannan, 2005). It might also depend on the nature of the crisis and the characteristics of the external environment, especially the level of ambiguity in prevailing institutional logics (Stark, 1996). Although the question of how different types of changes affect the preferential detachment process needs attention, we do not attend to these complications here. We simply assert that, in the long term, these changes may help an organization reduce the negative impacts of the spillover, regain evaluators' trust, and prevent future crises and their spillovers.

To a degree, preferential detachment is the mirror image of preferential attachment, which refers to the way in which small and new organizations gain legitimacy and status by associating themselves with or adopting certain characteristics of other more prestigious (i.e., high-status) organizations (Barabasi & Albert, 1999; DiMaggio & Powell, 1983). Although such connections are difficult to establish and come at a cost to the new organization, a connection with a prestigious organization signals that the new organization is of high quality and reliability (Podolny, 1994). In the case of preferential detachment, other organizations strive to avoid being linked with, or being perceived as similar to, the stricken organization. For example, to prevent being linked with a company in deep finan-

⁶ There are certainly instances where organizations do band together and form an industry group or set up a new set of standards to protect the crisis-beset organization. We do not disregard this possibility. However, coordinating actions with other organizations is difficult and costly. We suspect organizations will do so only when some shared core attributes have been brought into question by the crisis, which may directly threaten their survival.

cial distress, Ford walked away from a possible acquisition of Daewoo (*Automotive News*, 2000). Following the 1984 Bhopal tragedy that hit Union Carbide, another large U.S. chemical organization withdrew its proposal for the acquisition of a promising target firm because of its physically risky product line. The company executives did not want their organization to be perceived as being similar to Union Carbide by acquiring this risky plant (Bowman & Kunreuther, 1988).

Proposition 7: When a crisis strikes one organization, others in the industry may undertake a preferential detachment process whereby they reduce their linkages to or perceived similarities with the initially stricken organization to reduce spillover likelihood and impact.

The preferential detachment process is neither automatic nor always a viable option. As the structural inertia hypothesis suggests, stable organizations typically are seen as reliable and accountable (Hannan & Freeman, 1984). Changes that disconfirm established norms confuse constituents (Baron, 2004) and may cause devaluation or delegitimization (Hannan, Baron, Hsu, & Kocak, 2006; Zuckerman, 1999). In addition, actions involved in the preferential detachment process generally require fundamental changes in internal organization and, hence, are very costly to execute. As a result, the drawbacks of engaging in preferential detachment might outweigh the benefits. Still, there are several reasons why other organizations might pursue such activities.

First, following an organizational crisis, the organizational form of the stricken organization may become less legitimate. When this occurs, it is risky for other organizations to be too closely attached to the delegitimized organizational form or its key properties. For example, it should not be a surprise that following the auditing crisis that rocked Arthur Andersen in 2001, all the large accounting organizations undertook substantial internal adjustments, well before any formal regulatory changes were made (Gwynne, 2002; Hamilton & Francis, 2003).

Second, the dimensionality of organizational forms implies that an organization need not completely change its form to minimize the negative impact of crisis spillover. Recall that an

organizational form is composed of multiple dimensions (Hsu & Hannan, 2005) and that organizations belonging to a given form are similar but not necessarily identical; they vary in terms of how typically they represent a given form (Porac & Thomas, 1990; Rosch & Mervis, 1975). As a result, to distance themselves from the initially stricken organization, other organizations may be able to make changes that fall within the range of legitimated features of their organizational form without being penalized or devalued for fully dissociating themselves from that original form (Polos et al., 2002).

Finally, the preferential detachment process might prove beneficial to an organization in the long term. Especially when the new properties improve organizational fitness relative to those replaced, the change may improve organization performance in the long term (Barnett & Carroll, 1995; Hannan, 2005; Ruef, 1997), despite the initial destabilization caused by structural inertia.⁷ Therefore, the content of change can be as important as the process of change in determining the effects of undertaking preferential detachment.

Organizational Crises and Industry Evolution

Earlier we mentioned that the spillover of negative impacts from an organizational crisis is contingent on industry characteristics. Linking industry characteristics to actions of organizations, we further argue that in industries with frequent organizational crises (e.g., industries that rely on high-risk technologies [Perrow, 1984]), the industry may evolve toward a more robust structure. By "robust" structures, we refer to those that are resilient to crises and the spillover of crises. Robust structures are characterized by the lack of central players connecting all organizations together, which makes the impacts of negative events less likely to cascade through the system (Albert, Jeong, & Barabasi,

⁷ At first glance, this might seem unlikely. However, if the fear of a crisis spillover can break the force of structural inertia, healthy change might well result. At least some in the company may have been trying for some time to initiate change and had their efforts thwarted by inertia. If this is the case, the crisis might provide a good opportunity to build a broad consensus on the need for change and the direction of change (Shrivastava, 1987).

2000; Carlson & Doyle, 1999).⁸ In this sense, a distributed structure (infrastructures with no disproportionately connected organizations) is more robust than a centralized structure and a scale-free structure (infrastructures with highly connected organizations; Barabasi, 2002; Watts, 2003). Indeed, our analysis reflects the thoughts of Paul Baran four decades ago when he predicted that a distributed communication system would be the least likely to be affected by a nuclear attack (cf. Barabasi, 2002).

Robust structures are also characterized by social codes that enforce less risky features and by sharp organizational forms that limit spillovers across the industry. First, industries with robust structures favor organizational identities that consist of social codes enforcing non-crisis-prone features. These codes impose significant constraints on organizations pursuing risky activities. For example, since Arthur Andersen's collapse, the SEC has significantly restricted the nonauditing services an auditing firm may provide to an auditing client. Second, robustly structured industries are largely composed of multiple organizational forms with high sharpness. The sharpness of organizational forms ensures that the negative impacts of an organizational crisis will be bounded within form rather than across forms. In other words, the sharpness of forms limits the effect of a crisis within a given form's boundary and makes it less likely to cascade throughout the entire industry.

The emergence of a robust structure is driven by two parallel mechanisms. First, both evaluators and organizations learn from and adjust to crises over time. Organizations, as we mentioned earlier, will seek to reduce the risk of being harmed by turning to social processes (such as preferential detachment), involving changes in crisis-prone features. Evaluators, after observing various crises and the damage caused by them, will also favor non-crisis-prone features, enforce them, and create incentives that benefit those organizations who adopt them.

⁸ An infrastructure is said to be robust when it tends to be resistant to cascading accidental failures (e.g., the August 2003 blackout in the North American power grid) or deliberate attacks (e.g., hacker attacks to Yahoo!; Callaway, Newman, Strogatz, & Watts, 2000; Watts, 2003: 190). In more robust infrastructures, negative impacts of the original event are less likely to cascade throughout.

Second, a robust structure may arise because of differential mortality (Aldrich, 1999; Haveman & Rao, 1997). On the one hand, repeated violations of default social codes will directly lead to repeated devaluation by evaluators (Polos et al., 2002) and will severely damage chances of survival. Even when organizations learn how to cope with devaluation, "the social enforcement mechanisms will still operate on the old defaults" and "identity-conforming and form-conforming feature values are still expected from the entity" (Polos et al., 2002: 111). On the other hand, although some crises can be random—all organizations are equally likely to experience a crisis—this is not always the case. Some organizations might be more liable to experience crises because they are younger (Pástor & Veronesi, 2003), more innovative (Chan, Lakonishok, & Sougannis, 2001), or located in certain geographic clusters (Porter, 1998). Further, the negative influence of a crisis on different organizations is also heterogeneous. As we outlined above, some organizations are more capable than others of dealing with the crisis spillover and prospering. As a result, in industries that frequently experience crises, some organizations will survive while others will fail.

Proposition 8: Industries with a high propensity for organizational crises will evolve toward more robust structures over time.

It is important to note that neither of the two mechanisms implies that organizations take conscious actions to optimize the industry structure as a whole. Rather, their individual actions and population-wide selection mechanisms move the industry toward a more robust structure. These mechanisms are neither the only nor the most important ways to shape industry structure, and, as we noted earlier, the effects will most likely be observed in crisis-prone industries. As a function of attributes (e.g., technology, supply chain) and a product of growth dynamics (Moody, 2004), industry structure may be shaped by a number of factors, such as connection to prestigious incumbents (Barabasi & Albert, 1999), preference for diversity (Powell, White, Koput, & Owen-Smith, 2005), and density-dependent processes (Hannan, 1997). However, it is important to emphasize that in industries that frequently experience organizational crises, reducing the likelihood of being affected by neg-

ative impacts of crises is an additional factor that scholars should take into account as they seek to explain industry evolution.

DISCUSSION AND CONCLUSION

In this paper we have addressed the questions of when, why, and how the negative impacts emanating from an organizational crisis may overflow the boundaries of the initially stricken organization and affect other organizations in the same industry. In doing so, we have made two contributions. First, we contribute to the organizational crisis literature. While extensive research has examined the antecedents and consequences of organizational crises, it has largely ignored their impacts on organizations beyond the initially stricken organization. Drawing from the social categorization and the organizational forms literature, we have argued that an organizational crisis that initially befalls one organization might negatively affect other organizations (of the same organizational form) through the perceptions and reactions of evaluators. Given the difficulty of minimizing the risk of crisis spillover and the harmful effects of a spillover, we also have proposed a process for other organizations to avoid or prevent spillovers, even though they share the same form as the initially stricken organization. We call this process "preferential detachment"—a process through which organizations make changes to reduce linkages or perceived similarities with the initially stricken organization. Through preferential detachment, organizational crises might even affect the industry structure over time, moving crisis-prone industries toward more robust structures. The elimination of risky attributes and organizations not only makes the industry stronger but also gives the public the evidence that the stakeholder intervention has worked and is an effective remedy.⁹

Second, our study contributes to the literature on organizational forms in population ecology. As a promising construct, a number of scholars have examined the emergence and demise of organizational forms. In this paper we have examined the role of organizational forms in a unique strategic context—the spillover of an or-

ganizational crisis. We have argued that although a crisis may abruptly end what had become institutionalized in evaluators' minds, organizational forms, as a set of taken-for-granted social codes, will still guide evaluators in categorizing organizations as they analyze the impact of the crisis on other organizations. Moreover, we have provided one additional reason for delegitimization. Studies on organizational forms imply that when an organization violates the key expectations of evaluators (often through changing its core features), it may be penalized by devaluation or delegitimization (Hannan, 2005). In this study we suggest that the occurrence of an organizational crisis partially delegitimizes default social codes embedded in the initially stricken organization's form. Because of the spillover effect, although the crisis may not directly strike an organization, this organization might be devalued or delegitimized by evaluators as well, simply because it belongs to the same organizational form as the stricken organization.

Our research has important implications for key stakeholders of organizations, such as investors. It is important for investors to understand how the negative impacts of an organizational crisis at one organization can spread to others and how to take this into consideration when they make investment decisions. The finance literature and accounting literature have already considered the so-called information transfer effect—the possibility that investors will use information released by one organization (e.g., annual sales forecast) to make inferences about other organizations in the same industry (Eckbo, 1983; Firth, 1976; Foster, 1981; Joh & Lee, 1992; Lang & Stulz, 1992). However, this literature does not address the issue of how investors make these inferences and why this process is asymmetric by nature. Also unaddressed is the potential impact that crises may have on industry structure over time. In this regard, our paper increases understanding of these underexplored questions. As a next step, it would be interesting to empirically study the extent to which stock prices reflect the spillover of the negative impacts of a crisis and what factors may affect the magnitude and the duration of the spillover.

Our analysis also offers strategic options for "crisis creators." Consider the following example as an illustration. As nongovernmental or-

⁹ We thank an anonymous reviewer for providing this additional interpretation.

organizations have worked to change the environmental practices of multinationals or have campaigned against animal testing by pharmaceutical firms, one effective strategy they have selected involves going after the very large organizations (e.g., attacking Nike for child labor in third-world countries). In doing so, their actions not only have attracted significant media attention and generated more public debate and interest but also have triggered a positive response from their direct targets, since large organizations generally have stronger incentives to avoid public scrutiny. Yet our analysis also offers a less conventional strategy for crisis creators: finding a prototypical organization (i.e., one that shares many core attributes with other organizations) and attacking that organization. There are two advantages to this strategy. First, in this context, actions taken against a prototypical organization may have very high spillover effects and therefore may attract at least as much attention as actions taken against very large organizations. Second, smaller organizations are easier to "attack" than large ones, since they have fewer resources and less well-designed institutional procedures for fighting back.

Before concluding, we suggest several potentially fruitful avenues for future research. First, we limited our analysis to spillovers of a crisis to organizations within the same industry as the stricken organization. We applied this limitation so that we could more clearly and persuasively make our key points. However, future studies need not adopt the same boundary conditions. Indeed, organizational forms may cross industry boundaries, and, therefore, the negative effects of a crisis on one organization may also cross industry boundaries. An obvious example would be the Enron crisis, which extended well beyond energy trading to affect virtually all publicly traded companies (Hamilton & Francis, 2003). Similarly, the Three Mile Island nuclear power plant incident damaged prospects not only for regular power generation plants but also for chemical plants (Perrow, 1984). The Union Carbide accident at Bhopal affected organizations well beyond the chemical industry and the Indian market (Bowman & Kunreuther, 1988; Shrivastava, 1987).¹⁰

¹⁰ We thank an anonymous reviewer for bringing this issue to our attention.

Furthermore, we limited our analysis to spillovers of negative impacts of a crisis. However, the effects of a crisis on other organizations can be positive, and this is especially the case in a competitive situation. It may create new business opportunities for organizations in the same industry to take advantage of the stricken organization's misfortune and capture a portion of its market share (Porter, 1980).

Second, we believe it would be interesting to sort out the distribution of evaluators' valuations and to consider how this distribution affects market outcomes. In this paper we assumed that a dominant opinion about the crisis and the salient aspects of organizational forms would emerge (Cliff, 2000). In certain contexts (e.g., institutional consolidation), we believe this assumption is reasonable. However, heterogeneity among evaluators is prominent in many settings. For instance, it has been shown that while most financial market participants are exposed to the same information sources, how they make decisions based on this shared information depends on their own prior experience (Shiller, 1995). Furthermore, different evaluators may have different degrees of separation from industry interests as well (i.e., some evaluators are truly impartial, whereas others may be biased by industry concerns), which might affect how they play out their roles. Moreover, there is also a potential link between the distribution of evaluators' valuations and organizational strategy in response to crises. Arguably, heterogeneity among evaluators may create more opportunities for stricken organizations to shape evaluators' perceptions and subsequent actions. The less unified the prevailing evaluations, the better the chance stricken organizations will have to influence evaluators' opinions in their favor. Thus, for future research, it is important to analyze to what extent perceptions of evaluators vary and how a diversity of perceptions affects the spread of negative impacts from crises.

Third, another promising extension would be to disentangle the differential effects of diverse sets of organizational crises across industries. Crises can certainly hit distinct domains, causing damage to product and financial markets, regional and national economies, and physical environments (Shrivastava et al., 1988). In this paper we were agnostic about the domain the crisis is related to, and our analysis only empha-

sized the uncertainty that stakeholders have to deal with in sorting out the causes and consequences of the crisis. Yet the domain of the crisis might also affect the spillover process.

More important, crisis domains may vary across industries. Earlier, we mentioned that industries differ in their propensity to experience organizational crises. Indeed, industries also differ in their degree of susceptibility to different types of crises. For instance, Ruef (2000) has argued that regulatory events are more influential in organizational fields that are subject to strong institutional forces (e.g., health care, schools, banks); innovations, patents, and technical papers are more influential in organizational fields that are subject to strong technical pressures (e.g., high-tech industries); and initial identification and naming of new organizational forms are more influential in organizational fields that are subject to neither strong technical nor strong institutional pressures (e.g., restaurants, churches). When we put this in the context of crisis spillover, we expect that legal crises, for example, may have stronger impacts and result in more significant spillovers in organizational fields that are subject to strong institutional forces, since stakeholders and external institutional intermediaries will be relatively more attentive and reactive to legal crises in these fields. Thus, there is a clear need for future research to examine the effects of different types of organizational crises and their differential impacts on crisis spillover in different contexts.

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